Final
Remedial Investigation Report

Appendices
Stepan Company Property
Administrative Order
(Index No. II - CERCLA - 10105)
Volume I
Sears and Adjacent Properties
Administrative Order On Consent
(Index No. II - CERCLA - 70104)

Prepared For:
United States Environmental Protection Agency
Region II

Prepared By:
CH2M HILL
Parsippany, New Jersey

On Behalf Of:
Stepan Company
Northfield, Illinois
November 1994

STEPAN COMPANY

Appendix A
Ebasco Analytical Data

SOIL SAMPLE INVENTORY SUMMARY

DATE/ LOCATION	EPA SAMPLE #	EBASCO SAMPLE #	TIME	SAMPLE TYPE	DEPTH (FT)
08/21/87	BL615	TB-1	0607	Trip Blank	—
B38W3B	BN002, MBL222	MWB38-0	0841	Chemical	0-2
Originally	BL076, MBL224	MWB38-5	0902	Chemical	5-7
W6B	BN001, MBL221	FB-1	1140	Field Blank	—
08/24/87	BL621	TB-2	0630	Trip Blank	—
New Location	BL079, MBL226	MWB38-0	1056	Chemical-Colocate	0-2
B38W3B	BL080, MBL227	MWB38-5	1110	Chemical-Colocate	5-7
	BL078, MBL225	FB-2	1227	Field Blank	—
09/03/87	BL620	TB-3	0800	Trip Blank	—
B38W6B	BL616, MBL529	MW6B1	0800	Chemical	0-2
	BL622, MBL223	MW6B2	0830	Chemical	5-7
	BL617, MBL524	FB-3	0830	Field Blank	—
09/11/87	BL621	TB-4	0700	Trip Blank	—
B38W4B	BL618, MBL525	MW4B-1	0800	Chemical	0-2
	BL619, MBL526	MW4B-2	0830	Chemical	5-7
	BL620, MBL527	FB-4	0700	Field Blank	—
09/16/87	BL622	TB-5	0730	Trip Blank	—
B38W5B	BL824, MBL711	MW5B-1	0912	Chemical	0-2
	BL825, MBL712	MW5B-2	0921	Chemical	5-7
	BL865, MBL713	MW5B-3	0941	Chemical	10-12
	BL823, MBL710	FB-5	1030	Field Blank	—
09/22/87	BL867	TB-6	0940	Trip Blank	—
B38W7B	BL866	MW7B-1	1024	Chemical	0-2
	BL869, MBL528	MW7B-2	1031	Chemical	5-7
	BL868, MBL715	FB-6	1045	Field Blank	—
10/02/87	BL844	TB-7	0700	Trip Blank	—
B38W17B	BL841, MBL787	MW17B-1	0920	Chemical	0-2
	BL842, MBL788	MW17B-2	0938	Chemical	5-7
	BL826, MBL786	MW17B-3	0951	Chemical	10-12
	BL843, MBL789	FB-7	0752	Field Blank	—
10/14/87	BL846	TB-8	0955	Trip Blank	—
B28W12B	BL847, MBL791	FB-8	1015	Field Blank	—
	BL805, MBL531	DB-8	1000	Distilled Blank	—
	BL839, MBL534	MW12B-1	1310	Chemical	0-2
	BL065, MBL536	MW12B-1D	1310	Duplicate	0-2
	BN456, MBL535	MW12B-2	1325	Chemical	5-7
	BN760, MBL537	MW12B-3	1340	Chemical	10-12
	BN762, MBL530	MW12B-3D	1340	Duplicate	10-12

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TABLE 3-5

MAYWOOD CHEMICAL COMPANY SITE
SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics: Compound	Conc. (ppb)	QL (ppb)	Semi-Volatile Organics: Compound	Conc. (ppb)	QL (ppb)	Pesticides/PCBs: Compound	Conc. (ppb)	QL (ppb)	Metals/CN/Phenols: Compound	Conc. (ppm)	QL (ppm)	Field Blank ID	Trip Blank ID
MW838-5 838W38 (Originally W68)	ND			Diethylphthalate	85J	380	Beta-BHC	120	9	Aluminum	7950	40	FB-1	TB-1
				Phenanthrene	110J	380				Antimony	7.37J	12		
				Fluoranthene	220J	380				Barium	37.3	40		
				Pyrene	330J	380				Cadmium	2.21	1		
				Benzo(a)Anthracene	170J	380				Calcium	11600	1000		
				Chrysene	190J	380				Chromium	107N /00	2		
				Benzo(b)Fluoranthene	140J	380				Cobalt	4.84	10		
				Benzo(k)Fluoranthene	140J	380				Copper	18.4	5		
				Benzo(a)Pyrene	110J	380				Iron	21800	20		
										Lead	39.4	1		
										Magnesium	2680	1000		
										Manganese	193	3		
										Potassium	712	1000		
										Sodium	282	1000		
										Vanadium	22.4	10		
MW838-0 838W38 (Originally W68)	Benzene	1.0J	5	Phenanthrene	180J	370	ND			Aluminum	7940	40	FB-1	TB-1
				Fluoranthene	430J	370				Antimony	7.02J	12		
				Pyrene	340J	370				Barium	56.8	40		
				Benzo(a)Anthracene	280J	370				Cadmium	2.21	1		
				Chrysene	330J	370				Calcium	17100	1000		
				Benzo(b)Fluoranthene	540J	370				Chromium	93.6 N	2		
				Benzo(a)Pyrene	240J	370				Cobalt	4.85	10		
				Indeno(1,2,3-cd) Pyrene	210J	370				Iron	13500	20		
										Lead	181	1		
										Magnesium	5420	1000		
										Manganese	202	3		
										Potassium	1180	1000		
										Sodium	488	1000		
										Vanadium	21.4	30		
MW838-5 838W38 (New Location)	No Reliable Data			No Reliable Data			No Reliable Data			Aluminum	13400	40	FB-2	TB-2
										Antimony	628	12		
										Arsenic	9.2	2		
										Barium	38	40		
										Beryllium	0.4	1		
										Calcium	1060	1000		
										Chromium	4240 /00	10		
										Copper	32J	10		
										Iron	15000	20		
										Magnesium	2240	1000		
										Manganese	107	3		
										Mercury	0.15	0.4		
										Nickel	16	8		
										Potassium	1420	1000		
										Selenium	2.2	1		
										Vanadium	20	10		
										Zinc	70J	4		
MW838-0 838W038 (New Location)	ND			Phenanthrene	55J	340	ND			Aluminum	6800	40	FB-2	TB-2
				Fluoranthene	95J	340				Arsenic	37 /0	2		
				Pyrene	120J	340				Barium	85	40		
				Benzo(a)Anthracene	55J	340				Beryllium	1.0	1		
				Chrysene	88J	340				Cadmium	1.6	1		
				Benzo(b)Fluoranthene	150J	340				Calcium	3710	1000		
				Benzo(k)Fluoranthene	150J	340				Chromium	78	2		
				Benzo(a)Pyrene	58J	340				Copper	69J	5		
										Iron	14700	20		
										Magnesium	2990	1000		
										Manganese	316	3		
										Mercury	0.32	0.04		
										Nickel	17	8		
										Potassium	1310	1000		
										Selenium	6.1 4	1		
										Sodium	135	1000		
										Thallium	1.4	2		
										Zinc	232J	4		

B = Present in Laboratory blank.
J = Estimated value.
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X = GC/MS Library Search.
D = Diluted Sample
N = Spike sample recovering is not within control limits.
S = Method of Standard addition
P = Non-distinguishable isomer

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TABLE 3-5(Cont'd)

MAYWOOD CHEMICAL COMPANY SITE
SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs Compound	Conc. (ppb)	DL (ppb)	Metals/CN/Phenols Compound	Conc. (ppm)	DL (ppm)	Field Blank ID	Trip Blank ID
MW6B-1	Data Not Received									Aluminum	7530	40	FB-3	TB-3
										Arsenic	7.7	2		
										Barium		40		
											1	1		
												1000		
												2		
											0.7	10		
										Copper	34E	5		
										Iron	13800	20		
										Lead	60	1		
										Magnesium	3290N			
										Manganese	233J	3		
										Mercury	0.25J	0.04		
										Nickel	14	8		
										Potassium	460	1000		
										Sodium	444E	1000		
										Vanadium	15	10		
										Zinc	127N			
MW6B-2	Data Not Received									Aluminum	11500	40	FB-3	TB-3
										Arsenic	3.0	2		
										Barium	59	40		
										Beryllium	1.0	1		
										Calcium	2650	1000		
										Chromium	116	2		
										Cobalt	10	10		
										Copper	21E	5		
										Iron	13800	20		
										Lead	36	1		
										Magnesium	1660N			
										Manganese	99J	3		
										Mercury	1.74J	0.04		
										Nickel	17	8		
										Potassium	554	1000		
										Selenium	0.15	1		
										Sodium	132E	1000		
										Vanadium	27	10		
										Zinc	114N			

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TABLE 3-5(Cont'd)

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SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs Compound	Conc. (ppb)	DL (ppb)	Metals/CN⁻/Phenols Compound	Conc. (ppm)	DL (ppm)	Field Blank ID	Trip Blank ID
MW48-1	C9 Alkanes/Alkenes	29JX		Acenaphthylene	120J	450	Heptachlor epoxide	51J	100	Aluminum	13100	40	FB-4	TB-4
				Phenanthrene	620	450	alpha-Chlordane	350J	1000	Antimony	28R	12		
				Anthracene	130 J	450	gamma-Chlordane	240J	1000	Arsenic	6.6	2		
				Fluoranthene	1000	450				Barium	103	40		
				Pyrene	1000	450				Beryllium	0.5	1		
				Benzo(a)Anthracene	490	450				Calcium	10400	1000		
				Chrysene	640	450				Chromium	27	2		
				Benzo(k)Fluoranthene	470	450				Copper	40	5		
				Benzo(a)Pyrenanthene	640	450				Iron	19100	20		
				Indeno(1,2,3-cd) Pyrene	400J	450				Lead	228 /DO	1		
				Alkyl Phenanthrene	690JX					Magnesium	3370	1000		
										Manganese	321	3		
										Mercury	0.24	0.04		
										Nickel	19	8		
										Potassium	1100	1000		
										Sodium	341	1000		
										Vanadium	27	10		
										Zinc	264	4		
MW48-2	Toluene	690	49	Naphthalene	1100	410	ND			Aluminum	5520	40	FB-4	TB-4
	Ethylbenzene	62000	49	2-Methylnaphthalene	570	410				Antimony	26R	12		
	Total Xylenes	390000	49	Di-n-Butylphthalate	140J	410				Barium	43	40		
	C7-Cycloalkanes	660JX		Pyrene	50J	410				Beryllium	0.5	1		
	C7-Cycloalkanes	1800JX		bis(2-Ethylhexyl) Phthalate	230J	410				Calcium	2190	1000		
	C7,8-Alkanes	2800JX								Chromium	21	2		
	C9,10-Alkanes	4300JX								Copper	10	5		
	C8,Cycloolefins/ dienes	470JX								Iron	14600	20		
										Lead	20	1		
	C8-10 Alkanes	1200JX								Magnesium	1380	1000		
	C9-Alkybenzenes	6800JX								Manganese	531	3		
	C9-Alkybenzenes	14000JX								Potassium	851	1000		
	C10-Alkylbenzenes	1100JX								Vanadium	14	10		
	C9-Alkanes	800JX								Zinc	39	4		
	C9-Alkylbenzenes	48000JX												

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SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics: Compound	Conc. (ppb)	QL (ppb)	Semi-Volatile Organics: Compound	Conc. (ppb)	QL (ppb)	Pesticides/PCBs: Compound	Conc. (ppb)	QL (ppb)	Metals/CN⁻/Phenols: Compound	Conc. (ppm)	QL (ppm)	Field Blank ID	Trip Blank ID
MWSB-1	Tetrachloroethene	60J	25	Acenaphthylene	600J	1650	ND			Aluminum	7430E	200	FB-5	TB-5
				Phenanthrene	2600	1650				Antimony	11J	12		
				Anthracene	310J	1650				Arsenic	12J	2		
				Fluoranthene	2700	1650				Barium	7	40		
				Pyrene	3000	1650				Cadmium	2.6	1		
				Benzo(a)Anthracene	800J	1650				Calcium	3240	1000		
				bis(2-Ethylhexyl) Phthalate	190J	1650				Chromium	51N	2		
				Chrysene	1600J	1650				Cobalt	5.4	10		
				Benzo(b)Fluoranthene	1600@J	1650				Copper	38	5		
				Benzo(k)Fluoranthene	1600@J	1650				Iron	12300	20		
				Indeno(1,2,3-cd) Pyrene	1100J	1650				Lead	231S *KO*	1		
				Benzo(g,h,i)Perylene	1200J	1650				Magnesium	2400	1000		
				Methyl Anthracene Isomer	1100JX					Manganese	232EN	3		
				Methyl Phenanthrene Isomer	1200JX					Mercury	0.18	0.04		
				Methyl Phenanthrene Isomer	1700JX					Nickel	16	8		
				Methyl Phenanthrene Isomer	890JX					Potassium	278	1000		
				2-Phenylnaphthalene + 9,10-Anthracene-dione	1400JX					Selenium	0.9J	1		
				Dimethyl Phenanthrene Isomer	1600JX					Sodium	278	1000		
				11 H-Benzo(b) Fluorene	2200JX					Vanadium	27	10		
										Zinc	98	4		
MWSB-2	Tetrachloroethene	44J	25	Phenanthrene	66J	330	ND			Aluminum	6830E	40	FB-5	TB-5
	Toluene	10J	25	Fluoranthene	76J	330				Antimony	9.7J	12		
				Pyrene	59J	330				Arsenic	1.6J	2		
				Chrysene	41J	330				Barium	32	40		
				Benzo(b)Fluoranthene	84@J	330				Cadmium	1.4	1		
				Benzo(k)Fluoranthene	84@J					Calcium	783	1000		
				1-Propene, 2-Bromo	330JX					Chromium	7.2N	2		
				Benzene, 1-bromo-4-chloro	690JX					Cobalt	4.7	10		
				1,3-Cyclopentane-dione, 2-bromo	550JX					Copper	5.6	5		
										Iron	9100	20		
										Lead	7.8	1		
										Magnesium	1760	1000		
										Manganese	299	3		
										Nickel	10	8		
										Potassium	648	1000		
										Selenium	0.8	1		
										Sodium	72	1000		
										Vanadium	7.9	10		
										Zinc	22	4		

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SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics			Semi-Volatile Organics			Pesticides/PCBs			Metals/CN/Phenols			Field Blank ID	Trip Blank ID
	Compound	Conc. (ppb)	DL (ppb)	Compound	Conc. (ppb)	DL (ppb)	Compound	Conc. (ppb)	DL (ppb)	Compound	Conc. (ppm)	DL (ppm)		
MW58-3	Trichloroethene	18J	25	Phenanthrene	86J	330	ND			Aluminum	5940E	40	FB-5	TB-5
	Benzene	12J	25	Fluoranthene	94J	330				Antimony	10J	12		
	Tetrachloroethene	11J	25	Pyrene	84J	330				Arsenic	1.8J	2		
	Toluene	13J	25	bis(2-Ethylhexyl) Phthalate	45J	330				Barium	39	40		
	Chlorobenzene	15J	25	Chrysene	51J	330				Cadmium	1.5	1		
				Benzo(b)Fluoranthene	100					Calcium	1210	1000		
				Benzo(k)Fluoranthene	100					Chromium	9.1N	2		
				1-Propene, 2-Bromo	630JX					Cobalt	5.1	10		
				Propanoic Acid, 2-methyl-1-(1,1	320JX					Copper	5.7	5		
										Iron	9300	20		
										Lead	13	1		
										Magnesium	1670	1000		
										Manganese	302EN	3		
										Nickel	9.1	8		
										Potassium	835	1000		
										Selenium	0.9J	1		
										Sodium	152	1000		
										Vanadium	8.9	10		
										Zinc	20	4		
MW78-1	Toluene	2J	7	Benzyl Alcohol	230J	1000	4,4'-DDT	27	180	NA			FB-6	TB-6
				Benzoic Acid	13000	4900								
				Phenanthrene	510J	1000								
				Fluoranthene	670J	1000								
				Pyrene	500J	1000								
				Benzo(a)Anthracene	380J	1000								
				Chrysene	440J	1000								
				Benzo(b)Fluoranthene	620J	1000								
				Benzo(k)Fluoranthene	620J	1000								
				Benzo(a)Pyrene	280J	1000								
				Benzaldehyde	860J	1000								
				Piperidine, 1-(1-oxo-3-Pheny	360JX										
				Azulene, 1,2,3,3A-Tetrahydro	4400JX										
				1-Docosanol	700JX									
				Benzeneacetic Acid, .alpha.-	600JX										
				3-Octadecene, (e)-	1400JX									
				3-Oxatricycle [4.1.1.-2,4] Oct	4700JX									
				Furan, Tetrahydro-2, 5-Diprop	630JX									
				d:a-Friedoeleanan-2-One	3800JX									
				Docosane	3600JX									
				2,6,10-Dodecatrienoic Acid	430JX									
				Iron, Tricarbonyl [n-(Phenyl-	3600JX									
				Heptadecane, 8-Methyl-	710JX									

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TABLE 3-5 (Cont'd)

MAYWOOD CHEMICAL COMPANY SITE
SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs Compound	Conc. (ppb)	DL (ppb)	Metals/CN⁻/Phenols Compound	Conc. (ppm)	DL (ppm)	Field Blank ID	Trip Blank ID
HW78-2	Toluene	1J	5	3-Hexen-2-one, 5-methyl-	260JX		ND			Aluminum	6950	40	FB-6	TB-6
										Antimony	9.0J	12		
										Arsenic	4.5M	2		
										Barium	41	40		
										Beryllium	0.5	1		
										Cobalt	5.6J	10		
										Copper	6.5	5		
										Iron	11100	20		
										Lead	7.4S	1		
										Magnesium	1332	1000		
										Manganese	105	3		
										Potassium	683	1000		
										Selenium	0.4J	1		
										Vanadium	14J	10		
HW178-1	ND			Acenaphthylene	90J	740	ND			Aluminum	9250	40	FB-7	TB-7
				Phenanthrene	1300	740				Arsenic	18	2		
				Anthracene	210J	740				Barium	151	40		
				Fluoranthene	1800	740				Beryllium	6.0	1		
				Pyrene	1900	740				Calcium	5370	1000		
				Benzo(a)Anthracene	820	740				Cobalt	55	10		
				bis(2-Ethylhexyl) Phthalate	290J	740				Copper	1280J	5		
				Chrysene	950	740				Iron	35900	20		
				Benzo(b)Fluoranthene	880	740				Magnesium	3760	1000		
				Benzo(k)Fluoranthene	620J	740				Manganese	448	3		
										Mercury	0.3	0.04		
				Benzo(a)Pyrene	770	740				Nickel	21J	8		
				Indeno(1,2,3-cd) Pyrene	480J	740				Potassium	996	1000		
				Benzo(g,h,i) Pyrene	560J	740				Sodium	1330	1000		
				5-(2-propenyl)-1,3-benzodioxole	450JX					Tin	491J	25		
										Zinc	7910J	4		

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TABLE 3-5(Cont'd)

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Sample ID	Volatile Organics: Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics: Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs: Compound	Conc. (ppb)	DL (ppb)	Metals/CN/Phenols: Compound	Conc. (ppm)	DL (ppm)	Field Blank ID	Trip Blank ID
MW17B-2	No Reliable Data			No Reliable Data			No Reliable Data			Aluminum	6930	40	FB-7	TB-7
										Arsenic	6.2	2		
										Beryllium	2.7	1		
										Calcium	1380	1000		
										Copper	172J 178	5		
										Iron	17000	20		
										Lead	264 100	1		
										Magnesium	1633	1000		
										Manganese	343	3		
										Nickel	38	8		
										Potassium	838	1000		
										Zinc	952J 360	4		
MW17B-3	ND			Phenanthrene	180J	730	ND			Aluminum	3440	40	FB-7	TB-7
				Fluoranthene	200J	730				Barium	52	40		
				Pyrene	190J	730				Calcium	19400	1000		
				bis(2-Ethylhexyl) Phthalate	280J	730				Iron	10900	20		
				Chrysene	120J	730				Lead	5.7	1		
										Magnesium	1700	1000		
										Manganese	363	3		
										Potassium	1030	1000		
										Zinc	143	4		
MW12B-1	Acetone	16J	12	1,2 Propanediol	1200JX		4,4'-DDT	4.3J	16	Aluminum	4460	40	FB-6	TB-6
										Arsenic	6.6	2		
										Barium	159J	40		
										Calcium	4450	1000		
										Copper	29	5		
										Iron	6630	20		
										Magnesium	1870	1000		
										Manganese	141	3		
										Nickel	11	8		
										Potassium	564	1000		
										Vanadium	25	10		
										Zinc	38	4		

B = Present in Laboratory blank.
J = Estimated value.
ND = Not detected.
NA = Not available.
R = Rejected value due to exceedance of one or more data validation criteria.
X = GC/MS Library Search.
D = Diluted Sample
N = Spike sample recovering is not within control limits.
S = Method of Standard Addition

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TABLE 3-5(Cont'd)
MAYWOOD CHEMICAL COMPANY SITE
SOIL BORINGS ANALYTICAL RESULTS

Sample ID	Volatile Organics			Semi-Volatile Organics			Pesticides/PCBs			Metals/CN/Phenols			Field Blank ID	Trip Blank ID
	Compound	Conc. (ppb)	DL (ppb)	Compound	Conc. (ppb)	DL (ppb)	Compound	Conc. (ppb)	DL (ppb)	Compound	Conc. (ppm)	DL (ppm)		
MW12B-10	ND			Di-n-butylphthalate	1000	390	ND			Aluminum	8440	40	FB-8	TB-8
				Fluoranthene	420	390				Arsenic	8.9	2		
				Pyrene	400	390				Barium	241J	40		
				1,2-Propanediol	5100JX					Calcium	4450	1000		
										Cobalt	7.4	10		
										Copper	38	5		
										Iron	12700	20		
										Magnesium	3500	1000		
										Manganese	154	3		
										Nickel	17	8		
										Potassium	2340	1000		
										Vanadium	32	10		
										Zinc	60	4		
MW12B-2	Acetone	13	12	1,2-Propandiol	2000JX		ND			Aluminum	3440	40	FB-8	TB-8
										Barium	127J	40		
										Calcium	2660	1000		
										Copper	10	5		
										Iron	4400	20		
										Lead	5.5S	1		
										Magnesium	1140	1000		
										Manganese	38	3		
										Nickel	7.9	8		
										Potassium	331	1000		
										Vanadium	8	10		
MW12B-3	ND			ND			ND			Aluminum	1770	40	FB-8	TB-8
										Barium	56J	40		
										Calcium	9750	1000		
										Copper	15	5		
										Iron	4620	20		
										Magnesium	1750	1000		
										Manganese	170	3		
										Potassium	347	1000		
MW12B-10	Acetone	378	18	bis(2-Ethylhexyl) phthalate	630	410	ND			Aluminum	1840	40	FB-8	TB-8
										Barium	70J	40		
										Calcium	6930	1000		
										Copper	11	5		
										Iron	4600	20		
										Lead	4S	1		
										Magnesium	1520	1000		
										Manganese	139	3		
										Nickel	5.3	8		
										Potassium	316	1000		
										Vanadium	5.6	10		

B = Present in Laboratory blank.
J = Estimated value.
ND = Not detected.
NA = Not available.
R = Rejected value due to exceedance of one or more data validation criteria.
X = GC/MS Library Search.
D = Diluted Sample
N = Spike sample recovering is not within control limits.
S = Method of Standard addition

Table 3-6
EBASCO 1988 SURVEY
GROUNDWATER SAMPLE INVENTORY SUMMARY

DATE/ LOCATION	EPA SAMPLE #	EBASCO SAMPLE #	TIME	SAMPLE TYPE
03/31/88 B38W3B	BQ-346, MBP-092	MW3B-W1	1720	Low Level H_2O
	BP-399, MBP-093	FB-9	1850	Low Level H_2O
	BQ-347	TB-9	1600	Low Level H_2O
	BQ-611, MBP-095	FI-9	1640	Low Level H_2O
04/01/88 B38W4B	BQ-745, MBP-096	MW4B-W1	1010	Low Level H_2O
	BP-400, MBP-094	FB-10	0830	Low Level H_2O
	BQ-348	TB-10	0840	Low Level H_2O
04/01/88 B38W5B	BQ-746, MBP-097	MW5B-W1	1044	Low Level H_2O
03/31/88 B38W6B	BQ-345, MBM-697	MW6B-W1	1600	Low Level H_2O
03/31/88 B38W7B	BQ-343, MBM-695	MW7B-W1	1440	Low Level H_2O
	BQ-344, MBM-696	MW7B-W1D	1440	Low Level H_2O
04/01/88 B38W12A	BQ-747, MBP-098	MW12A-W1	1110	Low Level H_2O
04/01/88 B38W12B	BQ-748, MBP-099	MW12B-W1	1125	Low Level H_2O
03/31/88 B38W17A	BQ-341, MBM-693	MW17A-W1	1220	Low Level H_2O
03/31/88 B38W17B	BQ-342, MBM-694	MW17B-W1	1200	Low Level H_2O

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TABLE 3-7 (Cont'd)

MAYWOOD CHEMICAL COMPANY SITE
WATER SAMPLES ANALYTICAL RESULTS

Sample ID	Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs Compound	Conc. (ppb)	DL (ppb)	Metals/CN⁻/Phenols Compound	Conc. (ppb)		DL (ppb)		Field Blank ID	Trip Blank ID
MW7B-W10 (Cont'd)										Cobalt	13		8.1			
										Copper	58		6.6			
										Iron	28900	E	85			
										Magnesium	9910	E	78			
										Manganese	2440	E SD	0.04			
										Nickel	52		22			
										Potassium	15400		443			
										Silver	38		7.2			
										Sodium	41900	E	75			
										Vanadium	45		22			
										Zinc	210	E	2.1			
MW12A-W1	Unknown (1)			Unknowns (3)			alpha-BHC	0.080	0.05	Aluminum	37900		192		FB-10	TB-10
				Unknown Hydro-carbons (1)			gamma-BHC (Lindane)	0.05	0.05	Arsenic	18		1.3			
							Endosulfan I	0.056	0.05	Barium	1060	E SD	0.7			
							4,4'-DDT	0.15	.01	Cadmium	4.6		1.2			
										Calcium	565000	E	20			
										Chromium	162	E SD	4.5			
										Cobalt	29		8.1			
										Copper	73		6.6			
										Iron	58200	E	85			
										Lead	96	SD	5			
										Magnesium	20800	E	78			
										Manganese	1510	E SD	0.04			
										Nickel	118		22			
										Potassium	7500		443			
										Silver	80	SD	7.2			
										Sodium	52800	E SD	75			
										Thallium	2.1		2			
										Vanadium	93		22			
										Zinc	290	E	2.1			

B = Present in Laboratory blank.
E = Estimated Values for Metals/CN⁻/Phenols.
J = Estimated value.
ND = Not detected.
NA = Not available.
R = Rejected value due to exceedance of one or more data validation criteria.
X = GC/MS Library Search.
D = Diluted Sample
N = Spike sample recovering is not within control limits.
S = Method of Standard addition

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TABLE 3-4 (Cont'd)

MAYWOOD CHEMICAL COMPANY SITE
WATER SAMPLES ANALYTICAL RESULTS

Sample ID	Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs Compound	Conc. (ppb)	DL (ppb)	Metals/CN⁻/Phenols Compound	Conc. (ppb)		DL (ppb)	Field Blank ID	Trip Blank ID
MW5B-W1	1,2-Dichloroethene	13	5	Phenol	30	10	Aldrin	0.11	.1	Aluminum	347		192	FB-9	TB-9
	4-Methyl-2-Pentanone	4 J	5	Unknown (13)						Barium	295	E	0.7		
	Ethylbenzene	29	5	Unknown Hydrocarbons (4)						Calcium	226000	E	20		
	Benzene	10000 D	330							Chromium	30	E	4.5		
	Unknown Hydrocarbons (1)									Iron	17400	E	85		
	Unknowns (7)									Magnesium	19700	E	78		
										Manganese	4350	E S	0.04		
										Potassium	14600		443		
										Silver	23		7.2		
										Sodium	11300	E	75		
MW7B-W1	ND	10 R		Unknown (3)			ND			Aluminum	20300		192	FB-9	TB-9
										Arsenic	4.9		1.3		
										Barium	294	E	0.7		
										Cadmium	2.1		1.2		
										Calcium	80400	E	0.09		
										Cobalt	16		8.1		
										Copper	66		6.6		
										Iron	28900	E	85		
										Magnesium	9960	E	78		
										Manganese	2470	E S	0.04		
										Nickel	82		22		
										Potassium	15100		443		
										Silver	40		7.2		
										Sodium	41600	E	75		
										Vanadium	45		22		
										Zinc	322	E	2.1		
MW7B-W1D	ND			Unknown (3)			ND			Aluminum	21000		192	FB-9	TB-9
										Arsenic	3.2		1.3		
										Barium	278	E	0.7		
										Beryllium	1.4		0.09		
										Cadmium	2.3		1.2		
										Calcium	82200	E	20		

B = Present in Laboratory blank.
E = Estimated Values for Metals/CN⁻/Phenols.
J = Estimated value.
ND = Not detected.
NA = Not available.
R = Rejected value due to exceedance of one or more data validation criteria.
X = GC/MS Library Search.
D = Diluted Sample
N = Spike sample recovering is not within control limits.
S = Method of Standard addition

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TABLE 3-7

MAYWOOD CHEMICAL COMPANY SITE
WATER SAMPLES ANALYTICAL RESULTS

Sample ID	Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs Compound	Conc. (ppb)	DL (ppb)	Metals/CN⁻/Phenols Compound	Conc. (ppb)	DL (ppb)	Field Blank ID	Trip Blank ID
MW3B-W1	Ethylbenzene	4 BJ	5	1,3-Dichlorobenzene	5J	10	beta-BHC	0.36	.1	Aluminum	303	192	FB-9	TB-9
	Benzene	940 B	31	UNKNOWN (18)			4,4'-DDT	0.33 ppb	.1	Antimony	102	34		
										Arsenic	2	1.3		
										Barium	12 E	0.7		
										Beryllium	0.1	0.09		
										Calcium	424000 E	20		
										Chromium	6.3 E	4.5		
										Iron	27800 E	85		
										Magnesium	67500 E	78		
										Manganese	8640 E SD	0.04		
										Potassium	14300	443		
										Silver	43	7.2		
										Sodium	292000 E SD, as	75		
MW4B-W1	Benzene	15		2,4-Dimethylphenol	8 J	50	ND			Aluminum	208	192	FB-10	TB-10
	Toluene	110	5	2,4-Dichlorophenol	3 J	50				Barium	323 E	0.7		
			5	Naphthalene	53	10				Calcium	100000 E	20		
				2-Methylnaphthalene	6 J	10				Iron	3520 E	85		
										Magnesium	9360 E	78		
										Manganese	11400 E SD	0.04		
										Potassium	1670	443		
										Sodium	46100 E	75		
MW5B-W1				Diethylphthalate	7 J	10	Dieldrin	0.14	.1	Aluminum	726	192	FB-10	TB-10
							4,4'-DDD	0.31	.1	Arsenic	2.3	1.3		
							4,4'-DDT	0.13	.1	Barium	122 E	0.7		
										Cadmium	2.6	1.2		
										Calcium	81800 E	20		
										Chromium	78 E SD	4.5		
										Copper	13	6.6		
										Iron	1340 E	85		
										Lead	15	5		
										Magnesium	8460 E	78		
										Manganese	78 E SD	0.04		
										Nickel	57	22		
										Potassium	1470	443		
										Sodium	12300 E	75		
										Zinc	56 E	2.1		

B = Present in Laboratory blank.
E = Estimated Values for Metals/CN⁻/Phenols.
J = Estimated value.
ND = Not detected.
NA = Not available.
R = Rejected value due to exceedance of one or more data validation criteria.
X = GC/MS Library Search.
D = Diluted Sample
N = Spike sample recovering is not within control limits.
S = Method of Standard Addition

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TABLE 3-7 (Cont'd)

HAYWOOD CHEMICAL COMPANY SITE
WATER SAMPLES ANALYTICAL RESULTS

Sample ID	Volatile Organics: Compound	Conc. (ppb)	DL (ppb)	Semi-Volatile Organics: Compound	Conc. (ppb)	DL (ppb)	Pesticides/PCBs: Compound	Conc. (ppb)	DL (ppb)	Metals/CN⁻/Phenols: Compound	Conc. (ppb)		DL (ppb)	Field Blank ID	Trip Blank ID
MW12B-W1	Trichloroethene	8	5	Unknowns (4)			ND			Barium	91	E	0.7	FB-10	TB-10
	Unknown(1)									Calcium	84300	E	20		
										Iron	356	E	85		
										Lead	3.3		5		
										Magnesium	18500	E	78		
										Manganese	34	E	0.04		
										Potassium	2780		443		
										Sodium	19100	E	75		
MW17A-W1	ND			Unknowns (3)	8	J	ND			Aluminum	93900		192	FB-9	TB-9
										Antimony	51		34		
										Arsenic	11		1.3		
										Barium	1630	E,SM	0.7		
										Beryllium	9.8		0.09		
										Cadmium	4.3		1.2		
										Calcium	185000	E	20		
										Chromium	223	E,D	4.5		
										Cobalt	88		8.1		
										Copper	200		6.6		
										Iron	126000	E	85		
										Lead	155	SM	5		
										Magnesium	38000	E	78		
										Manganese	6430	E,SD	0.04		
										Nickel	234		22		
										Potassium	40900		442		
										Silver	178	SM	7.2		
										Sodium	58800	E,SM,MS			
										Vanadium	178		22		
										Zinc	504	E,MS	2.1		
MW17B-W1	Benzene	21	5	3-Octanone	72	JX	ND			Aluminum	4080		192	FB-9	TB-9
				Unknowns (16)						Antimony	37		34		
				Hydrocarbon (1)						Arsenic	16		1.3		
										Barium	174	E	0.7		
										Cadmium	158		1.2		
										Calcium	219000	E	20		
										Chromium	60	E	4.5		
										Cobalt	8.9		8.1		
										Copper	25		6.6		
										Iron	11300	E	85		
										Lead	38		5		
										Magnesium	21600	E	78		
										Manganese	3730	E	0.04		
										Nickel	60		22		
										Potassium	10300		443		
										Selenium	3.1		3.1		
										Silver	15		7.2		
										Sodium	209000	E	75		
										Zinc	184	E	2.1		

B = Present in Laboratory blank.
E = Estimated Values for Metals/CN⁻/Phenols.
J = Estimated value.
ND = Not detected.
NA = Not available.
R = Rejected value due to exceedance of one or more data validation criteria.
X = GC/MS Library Search.
D = Diluted Sample
M = Spike sample recovering is not within control limits.
S = Method of Standard addition.

Appendix B
Bechtel National, Inc. Analytical Data

TABLE 3-2 ...NG SOIL BORING DATA (VOA & BNAE) : HAYWOOD & VICINITY SITES

SOIL BORING	GUIDANCE LEVEL*	B-1	B-1	B-1	B-2	B-2	B-2	B-2	B-2	B-3	B-3	B-4	B-4	B-4	B-4	B-4	B-5	B-5	B-5	B-5	B-6	B-6	E
SAMPLE NUMBER		S-1	S-2	COMP	S-1	S-2	S-3	S-4	COMP	S-1	S-2	S-1	S-2	S-3	S-4	COMP	S-1	S-2	S-3	S-4	S-1	S-2	S
VOLATILE ORGANIC COMPOUNDS (ppb)**	1																						
Acetone		40 E	62 E		3200 E	3600 E	TR			33 E	37 E	5300 E	1200 E	3900 E	3900 E		69 E		160 E		92 E	190 E	110
Benzene					13000	81000	TR				6	940 E	260	2400 E									
Bromodichloroethane							TR																
Chlorobenzene							TR																
1,2-Dichloroethene							TR			6	5												
Ethylbenzene						55000	TR					290	1400	1800									
Methyl chloride							TR			8 E													
Methylene chloride		13 E	10 E		2100 E		TR				9 E	710 E		1800 E	2200 E		14 E	14 E	22 E		58 E	63 E	49
Methyl ethyl ketone		13 E	8 E		1900 E	15000 E	TR			21 E	19 E	6200		8400 E	7800 E		20 E	20 E	25 E		28 E	35 E	31
Tetrachloroethylene							TR			11	14												
Toluene						9400	TR			5	9	1300 E	1300	8800 E	280 E								
1,1-Trichloroethane							TR																
Trichloroethylene						2000	TR			8	9												
Xylene						120000	TR					580	4300	4900		210					9	6	
SEMI-VOLATILES (ppb) ***	10																						
Acenaphthene							TR							TR									
Acenaphthylene																							
Anthracene		330 R			660 R	TR	1900 R							TR									
Benzo(a)Anthracene		1600 R				TR								TR			380 R						
Benzo(a)Pyrene		1800 R				TR								TR									
Benzo(b)Fluoranthene		3100 R				TR			17000 R	18000 R				TR									
Benzo(ghi)perylene		1900 R				TR								TR									
Benzo(k)Fluoranthene						TR								TR									
Benzoic acid						TR		8 *(ppm)						TR									
Benzyl Alcohol																							
Bis(2-Ethylhexyl)Phthalate			340 E			TR	1100 R					3800		TR		1300		3100 R	460 R				1200
2-chlorophenol						TR								TR									
Chrysene		1700 R				TR								TR			380 R	240 R					
Dibenzo(a,h)Anthracene		160 R				TR								TR									
Dibenzofuran																							
1,4-Dichlorobenzene						TR								TR									
2,4-Dichlorophenol																							
Diethyl Phthalate						TR	470 R							TR									
Diethylbenzene						TR								TR									
2,4-Diethyl phenol						TR								TR	300								
Di-n-butyl Phthalate						TR	1400 R					470		TR									
Di-n-octyl Phthalate		490 R				TR								TR			6900 R	540 R					
2,6-Dinitrotoluene						TR								TR									
Fluoranthene						TR			20000 R	24000 R				TR			1500 R						
Fluorene																							
Indeno(1,2,3-cd)Pyrene		790 R				TR								TR									
2-Methyl naphthalene						TR								TR	1300								
2-Methyl phenol						TR								TR	310								
4-Methyl phenol						TR								TR	490								
Naphthalene						TR								TR	1900								
Nitrobenzene																							
N-Nitrosodiphenylamine						TR								TR									
N-Nitroso-di-n-propylamine						TR								TR									
4-nitrophenol						TR								TR									
4-nitrotoluene						TR								TR									
Pentachlorophenol						TR								TR									
Phenanthrene		2400 R				TR			18000 R	22000 R				TR			460 R						
Phenol		1900 R				TR						290		TR	670	150							
Pyrene		2500 R				TR			24000 R	26000 R				TR			650 R						
Tetrahydrofuran						TR								TR									
1,2,4-Trichlorobenzene						TR								TR									14

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
* BISE guideline levels.
** BISE level for Total Volatile Organics = 1 ppm.
*** BISE level for Total Base/Neutral Extractable Organics = 10 ppm.
COMP results are from the Bechtel Survey. Samples composited to a maximum depth of 16 feet.

TABLE 3-2 : EXISTING SOIL BORING DATA (VOA & BNAE) : MAYWOOD & VICINITY SITES (cont'd)

SOIL BORING	GUIDANCE LEVEL*	B-7	B-7	B-7	B-8	B-8	B-9	B-9	B-9	B-10	B-10	B-10	B-11	B-11	B-11	B-12	B-12	B-12	B-12	B-12	B-13	B-13
SAMPLE NUMBER		S-1	S-2	COMP	S-1	S-2	S-1	S-2	COMP	S-1	S-2	COMP	S-1	S-2	COMP	S-1	S-2	S-3	B-4	COMP	S-1	S-2
VOLATILE ORGANIC COMPOUNDS (ppb)**	1																					
Acetone		4100 E	200 E		35 E		65 E	120 E		TR	37 E		30 E	45 E		2500 E	TR	2400 E	2400 E		75 E	61 E
Benzene										TR		120					TR	200				
Bromodichloroethane										TR							TR				B	
Chlorobenzene										TR						400	TR					
1,2-Dichloroethene										TR							TR					
Ethylbenzene										TR						6900	TR	2600	3800			
Methyl chloride										TR							TR					
Methylene chloride		630 E	11 E		28 E	24 E	10 E	30 E		TR	7.2 E		4.0 E			560 E	TR	630 E	700 E		56 E	34 E
Methyl ethyl ketone		9500 E	200 E		20 E	24 E	15 E	24 E		TR	12 E		13 E	25 E		7400 E	TR	7700 E	6900 E		32 E	20 E
Tetrachloroethylene										TR							TR					
Toluene		880 E					18	15		TR		240				6000	TR	4300 E	5800			
1,1-Trichloroethane					5	11				TR							TR					
Trichloroethylene										TR							TR					
Xylene							11	10		TR		1200				32000	TR	1100	14000			
SEMI-VOLATILES (ppb) ***	10																					
Acenaphthene		TR								TR					97							
Acenaphthylene																						
Anthracene		TR								TR												
Benzo(a)Anthracene		TR								TR			250	90								
Benzo(a)Pyrene		TR								TR			280	79								
Benzo(b)Fluoranthene		TR								TR			230									
Benzo(ghi)perylene		TR								TR			310									
Benzo(k)Fluoranthene		TR								TR												
Benzoic acid		TR								TR								1600				
Benzyl Alcohol																						
Bis(2-Ethylhexyl)Phthalate		TR	1300			2200 R	440	4200		TR	2300 E		4800 E	2500 E	27		480	1400 E	5000 E		1500 R	350 R
2-chlorophenol		TR								TR					170							
Chrysene		TR								TR			350	100								
Dibenzo(a,h)Anthracene		TR								TR												
Dibenzofuran																						
1,4-Dichlorobenzene		TR								TR					74							
2,4-Dichlorophenol																						
Diethyl Phthalate		TR								TR												
Dimethylbenzene		TR								TR												
2,4-Diethyl phenol		TR								TR												
Di-n-butyl Phthalate		TR								TR												
Di-n-octyl Phthalate		TR	360							TR	180 E			190 E		1500	560	720 E				
2,4-Dinitrotoluene		TR								TR					89							
Fluoranthene		TR								TR			740	200								
Fluorene																						
Indeno(1,2,3-cd)Pyrene		TR								TR			140									
2-Methyl naphthalene		TR								TR						14000	8000	4100	2200	88		
2-Methyl phenol		TR								TR												
4-Methyl phenol		TR								TR												
Naphthalene		TR								TR						11000	6700	2800	1700	80		
Nitrobenzene																						
N-Nitrosodiphenylamine		TR								TR												
N-Nitroso-di-n-propylamine		TR								TR					92							
4-nitrophenol		TR								TR					420							
4-nitrotoluene		TR								TR												
Pentachlorophenol		TR								TR					260							
Phenanthrene		TR								TR			410	120								
Phenol		TR								TR			160		190							
Pyrene		TR								TR			510	150	90							
Tetrahydrofuran		TR								TR												
1,2,4-Trichlorobenzene		TR								TR					80							

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
* BISE guideline levels.
** BISE level for Total Volatile Organics =
*** BISE level for Total Base/Neutral Extrac ganics = 10 ppm.
COMP results are from the Bechtel Survey. Sa composited to a maximum depth of 16 feet.

TABLE 3-2 : ...d SOIL BORING DATA (VOA & BNAE) : MAYWOOD & VICINITY SITES (cont'd)

SOIL BORING		B-14	B-14	B-14	B-15	B-15	B-16	B-16	B-16	B-16	B-17	B-18	B-19	B-20	B-21	B-22	B-23	B-24	B-25	B-26	B-27	B-28	B-29
SAMPLE NUMBER	GUIDANCE LEVEL*	S-1	S-2	S-3	S-1	S-2	S-1	S-3	S-5	COMP	COMP	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1
VOLATILE ORGANIC COMPOUNDS (ppb)**	1																						
Acetone		TR	31 E	TR	23 E	88 E	320 E	3100 E	3300 E														
Benzene		TR		TR																			
Bromodichloroethane		TR		TR																			
Chlorobenzene		TR		TR																			
1,2-Dichloroethene		TR		TR					7.8														
Ethylbenzene		TR		TR				4.0															
Methyl chloride		TR		TR																			
Methylene chloride		TR	5 E	TR		26 E	65	110	42														
Methyl ethyl ketone		TR	24 E	TR	23 E	27 E	41 E	45 E	37 E														
Tetrachloroethylene		TR		TR																			
Toluene		TR		TR																			
1,1-Trichloroethane		TR		TR																			
Trichloroethylene		TR		TR																			
Xylene		TR		TR				16															
SEMI-VOLATILES (ppb) ***	10																						
Acenaphthene							TR	TR															
Acenaphthylene																							
Anthracene							TR	TR															
Benzo(a)Anthracene							TR	TR															
Benzo(a)Pyrene							TR	TR															
Benzo(b)Fluoranthene							TR	TR															
Benzo(ghi)perylene							TR	TR															
Benzo(k)Fluoranthene							TR	TR															
Benzoic acid							TR	TR										55					
Benzyl Alcohol																		39					
Bis(2-Ethylhexyl)Phthalate				1200 R	1300 R	370 R	TR	TR	460 E														
2-chlorophenol							TR	TR															
Chrysene							TR	TR															
Dibenzo(a,h)Anthracene							TR	TR															
Dibenzofuran																							
1,4-Dichlorobenzene							TR	TR															
2,4-Dichlorophenol																					5		
Diethyl Phthalate							TR	TR															
Diethylbenzene							TR	TR															
2,4-Diethyl phenol							TR	TR															
Di-n-butyl Phthalate							TR	TR															
Di-n-octyl Phthalate							TR	TR															
2,4-Dinitrotoluene							TR	TR															
Fluoranthene																							
Fluorene							TR	TR															
Indeno(1,2,3-cd)Pyrene							TR	TR															
2-Methyl naphthalene							TR	TR															
2-Methyl phenol							TR	TR															
4-Methyl phenol							TR	TR															
Naphthalene																					13		
Nitrobenzene							TR	TR															
N-Nitrosodiphenylamine							TR	TR															
N-Nitroso-di-n-propylamine							TR	TR															
4-nitrophenol							TR	TR															
4-nitrotoluene							TR	TR															
Pentachlorophenol							TR	TR															
Phenanthrene							TR	TR															
Phenol							TR	TR													120		
Pyrene							TR	TR															
Tetrahydrofuran							TR	TR															
1,2,4-Trichlorobenzene							TR	TR		OL								12					

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
* BISE guideline levels.
** BISE level for Total Volatile Organics = 1 ppm.
*** BISE level for Total Base/Neutral Extractable Organics = 10 ppm.
COMP results are from the Bechtel Survey. Samples composited to a maximum depth of 16 feet.

TABLE 3-2 : EXISTING SOIL BORING DATA (VOA & BNAE) : HAYWOOD & VICINITY SITES (cont'd)

SOIL BORING	GUIDANCE LEVEL*	B-30	B-31	B-32	B-33	B-34	B-35
SAMPLE NUMBER		S-1	S-1	S-1	S-1	S-1	S-1
VOLATILE ORGANIC COMPOUNDS (ppb)**	1						
Acetone							
Benzene							
Bromodichloromethane							< 5
Chlorobenzene							
1,2-Dichloroethene							
Ethylbenzene							
Methyl chloride							
Methylene chloride							
Methyl ethyl ketone							
Tetrachloroethylene							
Toluene							
1,1-Trichloroethane					< 13		
Trichloroethylene							
Xylene							
SEMI-VOLATILES (ppb) ***	10						
Acenaphthene					7	6	
Acenaphthylene						10	
Anthracene							
Benzo(a)Anthracene				18	87	150	
Benzo(a)Pyrene				16	70	110	
Benzo(b)Fluoranthene				27	110		
Benzo(ghi)perylene				10	41	85	
Benzo(k)Fluoranthene				20		150	
Benzoic acid							
Benzyl Alcohol							
Bis(2-Ethylhexyl)Phthalate					15	7	
2-chlorophenol							
Chrysene				18	76	120	
Dibenzo(a,h)Anthracene				5	18	34	
Dibenzofuran					7	5	
1,4-Dichlorobenzene							
2,4-Dichlorophenol							
Diethyl Phthalate							
Dimethylbenzene							
2,4-Dimethyl phenol							
Di-n-butyl Phthalate					25	6	
Di-n-octyl Phthalate							
2,4-Dinitrotoluene							
Fluoranthene				32	160	340	
Fluorene						8	
Indeno(1,2,3-cd)Pyrene				13	50	73	
2-Methyl naphthalene							
2-Methyl phenol							
4-Methyl phenol							
Naphthalene						7	
Nitrobenzene							
N-Nitrosodiphenylamine							
N-Nitroso-di-n-propylamine							
4-nitrophenol							
4-nitrotoluene							
Pentachlorophenol							
Phenanthrene				21	8	180	
Phenol							
Pyrene				37	200	230	
Tetrahydrofuran							
1,2,4-Trichlorobenzene							

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
* BISE guideline levels.
** BISE level for Total Volatile Organics = 1 ppm.
*** BISE level for Total Base/Neutral Extractable Organics = 10 ppm.
COMP results are from the Bechtel Survey. Samples composited to a maximum d(6 feet.

: EXISTING SOIL BORING DATA (PESTICIDES & METALS) : MAYWOOD & VICINITY SITES

G BER	GUIDANCE LEVEL*	B-1 S-1	B-1 S-2	B-1 COMP	B-2 S-1	B-2 S-2	B-2 S-3	B-2 S-4	B-2 COMP	B-3 S-1	B-3 S-2	B-4 S-1	B-4 S-2	B-4 S-3	B-4 S-4	B-4 COMP	B-5 S-1	B-5 S-2	B-5 S-3	B-5 S-4	B-6 S-1
(ppb)																					
		120								45 R		40	63	21				240			
I sulfate												17		3.9							
a)																					
	20	6.3	2		2.5	5.9	7.6			23	7.3	9.2 E	8.9 E	8.6 E	3.2 E		15	3.4	2.9		11
	3	1.2			3.8	3.4	2.8		<.08-2	4	4.3		3.7				1.7	1.3			2.5
Total	100	40	13		36	197	315		6 - 99	439	258	68 R	51 R	9.6 R	7.6 R		424	19	9.0		11
	170								6 - 140												
	100	773 R	11 R		530 R	8420 R	92 R		10-4200	174 R	68 R	73 R	51 R	8.6 R	3.7 R		129 R	12 R	2.0 R		55 R
	1	0.5	0.12		0.26	0.52	0.32			0.58	0.42	0.47	0.12		0.11		1.5	0.36			
	100	17	9.7		15	22	37			23	24	10 R	11 R				26	16	9.0		22
	4																				
	3																				
	350	135	22 R		460 R	663 R	188 R		22 - 430	284 R	171 R	39 R	45 R	19 R	11 R		126 R	83 R	14 R		132 R

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
* BISE guideline levels.
** BISE level for Total Volatile Organics = 1 ppm.
*** BISE level for Total Base/Neutral Extractable Organics = 10 ppm.
COMP results are from the Bechtel Survey. Samples composited to a maximum depth of 16 feet.

-3 : EXISTING SOIL BORING DATA (PESTICIDES & METALS) : MAYWOOD & VICINITY SITES (cont'd)

RING NUMBER	GUIDANCE LEVEL@	B-7 S-1	B-7 S-2	B-7 COMP	B-8 S-1	B-8 S-2	B-9 S-1	B-9 S-2	B-9 COMP	B-10 S-1	B-10 S-2	B-10 COMP	B-11 S-1	B-11 S-2	B-11 COMP	B-12 S-1	B-12 S-2	B-12 S-3	B-12 S-4	B-12 COMP	B-13 S-1
OES (ppb)																					
			3.0								3.1										
HC		6.9																			
HC																					
		170								190			31	10							
			3.9							50	5.4										
fan I										58											
fan sulfate		39								230											
													12								
(ppm)																					
Y	20	27	11				11			16 E	3.2 E		7.4 E	9.9 E	<2 - 14		8.5	3.6	3.7		2.8
ue																					
	3	1.4					1.4	1.7	<.08 - 2						<.08 - 2		1.4				3.0
e, Total	100	133	12		62	37	21	19		204 R	11 R		83 R	12 R			21	13	9.0		19
	170																				
	100	263 R	6.3 R		42 R	21 R	23 R	25 R		184 R	2.4 R		40 R	18 R			6.7 R	4.8 R	4.1 R		24 R
	1	6.0	0.16	<.1 - .8	0.11					0.93				0.15							0.28
	100	24	12		9.7	10	11	11		18 R			9.9 R	13 R	5.7 - 18	13 R	16	11	9.8		—
	4			<1 - <4																	
	3																			<0.2	
	350	129 R	19 R		29 R	22 R	392 R	181 R		134 R	12 R		36 R	58 R	<2 - 8	27 R	23 R	15 R	18 R		42 R

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
@ BISE guideline levels.
@@ BISE level for Total Volatile Organics = 1 ppm.
@@@ BISE level for Total Base/Neutral Extractable Organics = 10 ppm.
COMP results are from the Bechtel Survey. Samples composited to a maximum depth of 16 feet.

: EXISTING SOIL BORING DATA (PESTICIDES & METALS) : MAYWOOD & VICINITY SITES (cont'd)

NG MBER	GUIDANCE LEVEL*	B-14 S-1	B-14 S-2	B-14 S-3	B-15 S-1	B-15 S-2	B-16 S-1	B-16 S-3	B-16 S-5	B-16 COMP	B-17 COMP	B-18 S-1	B-19 S-1	B-20 S-1	B-21 S-1	B-22 S-1	B-23 S-1	B-24 S-1	B-25 S-1	B-26 S-1	B-27 S-1
S (ppb)																					
											47 45										
		20	16 94 17	8.3 61 13																	
n I n sulfate			12																		
pal																					
	20		5		3.1		11 E	65 E 1.3	4.6 E	<2 - 10					<1 - 44 <0.01		<1 - 44		<1 - 44	1.9 - 51	<1 - 44	<
	3	2.5	2.7	1.3	2.2	2.2					<.08-2	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<4 - 20	<
Total	100	10	18	16	15	13	19 R	32 R	9.0 R										5 - 3920			
	170																					
	100	14 R	18 R	5.4 R	6.4 R	4.8 R	15 R	123 R	4.4 R									<1 - 790				
	1	0.13	30				0.37	0.32														<
	100		3.0	9.2	21																	
	4																		<.14 - 3			
	3																					
	350	29 R	26 R	20 R	22 R	20 R	47 R	87 R	21 R			<5-744	<5-744	<5-744	<5-744 16 - 304	<5-744	<5-744	<5-744	<5-744	<5-744	<5-744	<

NOTE: E= Estimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
* BISE guideline levels.
** BISE level for Total Volatile Organics = 1 ppm.
*** BISE level for Total Base/Neutral Extractable Organics = 10 ppm.
COMP results are from the Bechtel Survey. Samples composited to a maximum depth of 16 feet.

EXISTING SOIL BORING DATA (PESTICIDES & METALS) : MAYWOOD & VICINITY SITES (cont'd)

R	GUIDANCE LEVEL*	B-30 S-1	B-31 S-1	B-32 S-1	B-33 S-1	B-34 S-1	B-35 S-1
ppb)							
ulfate							
	20		<1 - 44		<1 - 44		
tal	3	<4 - 20	<4 - 20		<4 - 20	<4 - 20	
	100						
	170	<1 - 167			<1 - 167		
	100	<1 - 790		<1 - 790	<1 - 790		
	1						
	100						
	4						
	3				<.2 -<18		
		<5-744	<5-744	<5-744	<5-744	<5-744	<5-744
	350						

stimated value R= Rejected value TR= Technically rejected value See text for qualifiers.
SE guideline levels.
ISE level for Total Volatile Organics = 1 ppm.
BNSE level for Total Base/Neutral Extractable Organics = 10 ppm.
results are from the Bechtel Survey. Samples composited to a maximum depth of 16 feet.

Appendix C
Former Underground Storage Tanks

Table 1
Soil Sampling Results Associated with the
Former Gasoline Underground Storage Tank
Stepan Company Property
(Date Sampled 10/7/91)

Volatile Organics (ppb)	1–SS	1–2SC	1–3NC	1–4NN	Field Blank	Trip Blank
Methylene Chloride	130	81	97	ND	16	18
Toluene	39	8J	ND	ND	ND	ND
M–Xylene	21J	15J	ND	ND	ND	ND
O&P–Xylene	29J	28J	ND	ND	ND	ND
Acetone	ND	130	ND	ND	ND	ND
Total Lead (ppm)	50	35	11	5	ND	ND

All data extracted from the Underground Storage Tank Removal Report prepared by Environmental Profile Laboratories, dated August 14, 1992.
Depths were not reported
J–Estimated Value
ND–Not detected

Table 2
Soil Sampling Results Associated with the
Former Fuel Oil Underground Storage Tank
Stepan Company Property

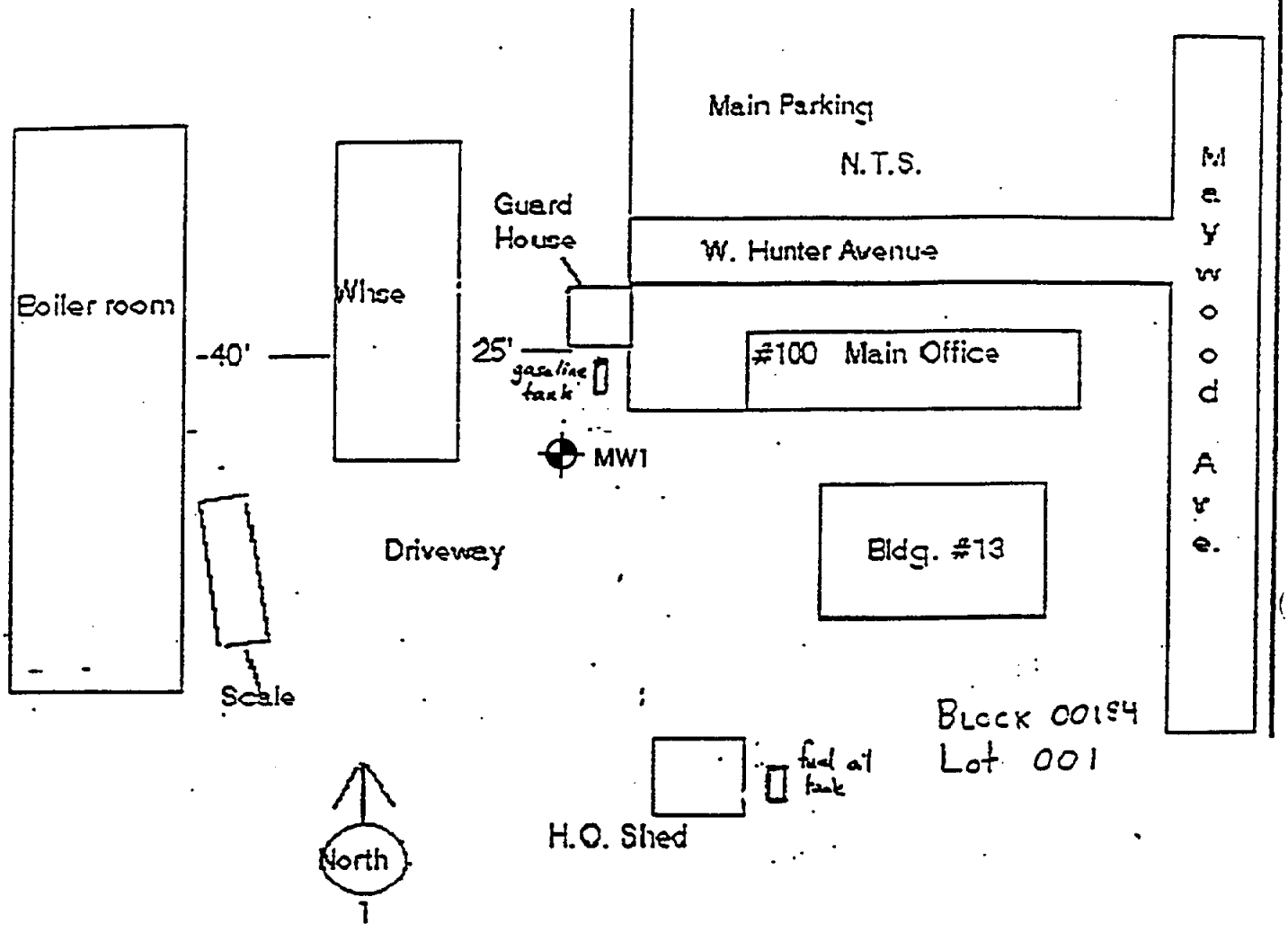
Volatile Organics	2-1 SE 10/7/91 (ppb)	2-2 SW 10/7/91 (ppb)	2-3 CE 10/7/91 (ppb)	2-4 CW 10/7/91 (ppb)	2-5 NE 10/7/91 (ppb)	2-6 NW 10/7/91 (ppb)	FB 10/7/91 (ppb)	TB 10/7/91 (ppb)	S-1 11/21/91 (ppb)	S-2 11/21/91 (ppb)	S-3 11/21/91 (ppb)	S-2-2 11/21/91 (ppb)	S-1-2 11/21/91 (ppb)	FB 11/21/91 (ppb)	TB 11/21/91 (ppb)
Methylene Chloride	96	NT	NT	NT	NT	NT	16	18	NT	NT	NT	NT	870 B	16 B	14 B
Ethylbenzene	ND	NT	NT	NT	NT	NT	ND	ND	NT	NT	NT	NT	200	ND	ND
O-Xylene	ND	NT	NT	NT	NT	NT	ND	ND	NT	NT	NT	NT	230	ND	ND
M&P-Xylene	ND	NT	NT	NT	NT	NT	ND	ND	NT	NT	NT	NT	220	ND	ND
Total Petroleum Hydrocarbons (ppm)	ND	3,300	ND	4,000	ND	8,000	ND	ND	15,500	15,500	120	10,300	2,100	ND	ND

All data extracted from the Underground Storage Tank Removal Report prepared by Environmental Profile Laboratories, dated August 14, 1992.
Depths were not reported
J-Estimated Value
B-Analyte found in blank
ND-Not detected
NT-Not tested

Table 3
Groundwater Sampling Results Associated with the
Former Gasoline Underground Storage Tank
Stepan Company Property

Volatile Organics (ppb)	MW-1 2/5/92	FB 2/5/92	TB 2/5/92	MW-1 3/12/92	FB 3/12/92	TB 3/12/92
Methylene Chloride	100 B	ND	6 B	450 B	38 B	15 B
Benzene	96	ND	ND	220	ND	ND
Toluene	1500	ND	ND	1400	ND	ND
Ethylbenzene	680	ND	ND	340	ND	ND
O-Xylene	1200	ND	ND	1300	ND	ND
M&P-Xylene	2400	ND	ND	2500	ND	ND
Total Targeted VOCs	5876	NA	6	5760	38	15
Total Non-Targeted VOCs	16,740	NA	NA	14,450	NA	NA

All data extracted from the Underground Storage Tank Removal Report prepared by Environmental Profile Laboratories, dated August 14, 1992.
Depths were not reported
B-Analyte found in blank
ND-Not detected
NA-Not applicable



Approximate Location of MW1

FIGURE 2.

STEPAN CO.
100 WEST HUNTER AVE.
MAYWOOD, BERGEN CTY, NJ 07607

BLOCK 00154 LOT 001

Scale: N.T.S.

SITE MAP

ENVIRONMENTAL PROFILE LABORATORIES
ROUTE 37 BUSINESS PARK UNIT NO. 13
TOMS RIVER, NEW JERSEY 08755

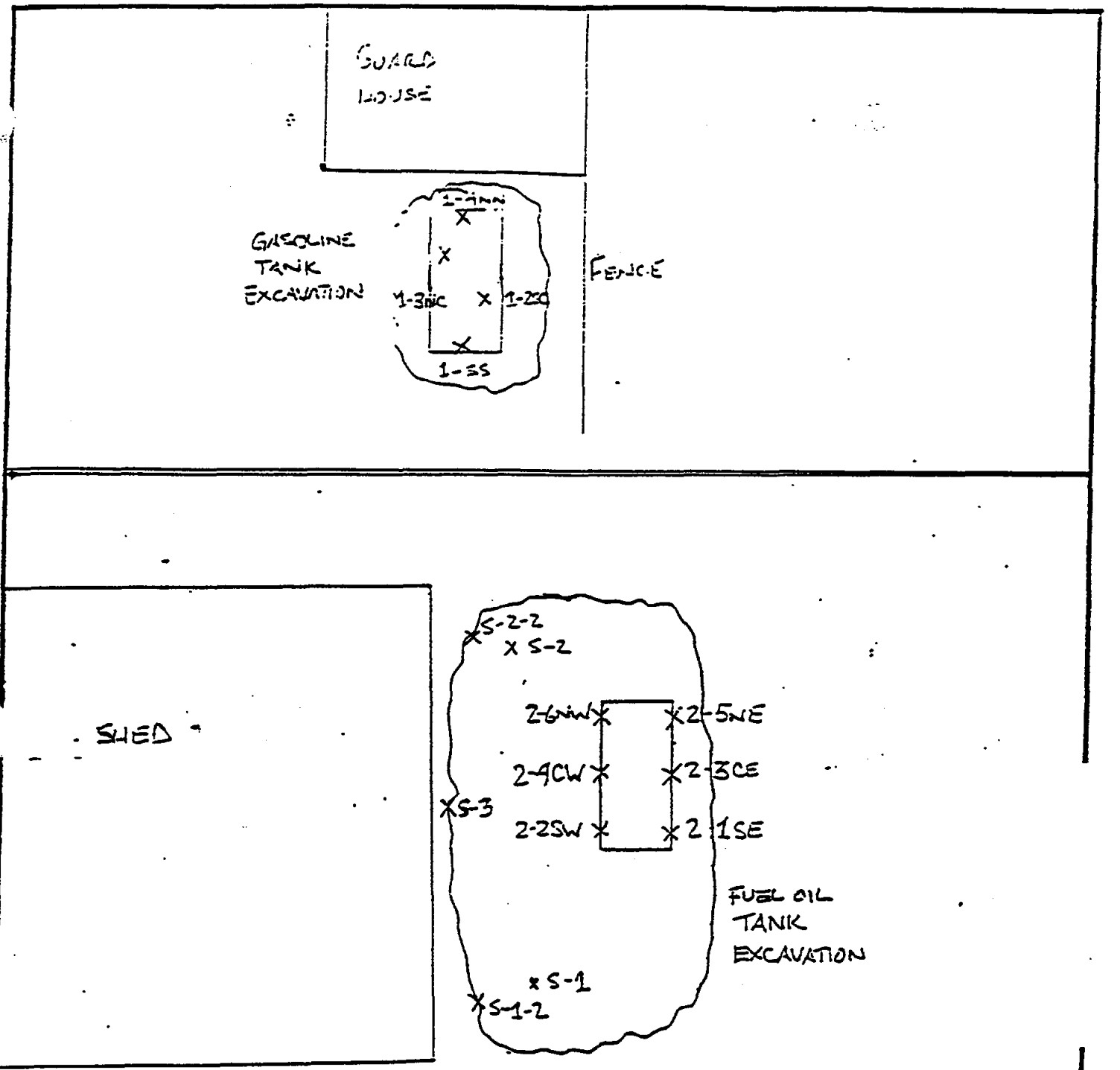


FIGURE 2A.

STEPAN CO.
100 WEST HUNTER AVE.
MAYWOOD, BERGEN CTY, NJ 07607
BLOCK 000184 LOT 001

Scale: N.T.S. EXCAVATION & SAMPLE LOCATION MAP

ENVIRONMENTAL PROFILE LABORATORIES
ROUTE 37 BUSINESS PARK UNIT NO. 13
TOMS RIVER, NEW JERSEY 08755

Appendix D
Soil Boring Logs

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.SP.SI	C-1	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 50.1 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 3/30/92 1000 FINISH 3/30/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		8110	300 lb hammer-3" splitspoon
	1		-	-			9769	
		S-1	2'	15-10-7-10 (17)	1-2' POORLY GRADED SAND SP, moderate brown, dry, medium sand, angular-subangular quartz, feldspar, opaque, poorly consolidated pieces of sandstone throughout, easily broken, 2-2.8' SILT ML, with trace sand, olive black to light brown, cobble encountered at 2' and 3'	0	10387	
	3						9625	
							15934	
		S-2	2'	21-13-12-10 (25)	3-5' POORLY GRADED SAND SP, dark reddish brown, dry, fine-medium sand, subangular, occasional interbedded semiconsolidated sandstone fragments	0	15552	
	5						14823	
							8887	
							6480	
5.0		S-3	2'	10-6-5-10 (11)	5-7' SILT WITH SAND ML, dark reddish brown, damp, very fine-fine quartz sand, occasional interbedded semiconsolidated sandstone fragments	0	6369	
	7						6323	slight diesel fuel like odor
							6594	
							6146	
		S-4	1.5'	6-5-5-9 (10)	7-8.5' SANDY LEAN CLAY WITH GRAVEL CL, dark reddish brown, saturated, very fine-fine sand, interbedded semiconsolidated sandstone fragments	290	6487	
	9						6679	difficult to advance to 9' scraping of augers
							6350	
							6284	slight odor
							6721	
					9-9.5' Reddish brown, fine-very fine SANDSTONE, weathered, with silty sand matrix	NT	6280 End	140 lb hammer-2" splitspoon
10.0		S-5	.5'	21-16-16-19 (32)				auger refusal 9' spoon refusal 12.3'
	11							
		S-6	1.2'	33-43-50/4" (93)	11-12.3' Same as 9-9.5'	NT		
	12.3							
					End of Boring			

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-2 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 48.8 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod w/ 140 lb hammer, 3" splitspoon

WATER LEVELS START 4/8/92 1005 FINISH 4/8/92 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
			2"	N/A	0-0.5' SILT ML, dark brown, moist firm, contains roots & vegetation, metal shavings	0	3599	
							4240	
					0.5-1.75' WELL GRADED SAND WITH SILT and GRAVEL SW-SM, tan-brown, moist, firm, rock pieces		5249	
					1.75-2' SANDSTONE, dark red-brown		3880	
	2.0				2-2.05' WELL GRADED SAND WITH SILT and GRAVEL SW-SM, brown saturated, firm	0	3662	
		S-1	1.5'	27-34-42-42 (76)			4292	
					2.05-3' LEAN CLAY CL, black with gray mottling, saturated, stiff, 3-3.5' POORLY GRADED SAND WITH SILT SP-SM, brown-black, saturated, firm, stained	NT	End	
	4.0				End of Boring			odor in sample
5.0								
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.SI	C-3	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 48.5 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 3/31/92 0900 FINISH 3/31/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
		S-1	1.2'	27-9-10-10 (19)	0-1.2' POORLY GRADED SAND with little SILT SP-SM, light brown, damp-wet, fine to medium sand, trace coarse sand, quartz, feldspar, opaques, subangular-subrounded, top 1 inch asphalt	1.6	19481	
							12286	300 lb hammer-3" splitspoon
							21000	*QC 21090
	2.0						19157	
		S-2	1.2'	10-14-16-14 (30)	2-2.2' Same as 0-1.2' except no asphalt	1.7	13749	
					2.2-3.2' SILTY SAND SM, trace clay, moderate reddish brown, slightly damp, very fine-fine sand, subrounded-subangular, pieces of sandstone (dark reddish brown) throughout		10636	
	4.0						10992	
							11321	
					4-4.3' Same as 2.2-3.2'	NT	11315	auger refusal 4'
5.0		S-3	0.3'	15-10-11-21 (21)			End	
	6.0				End of Boring			
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-4 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 70.0 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/14/92 0930 FINISH 2/14/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		8357	300 lb hammer-3" splitspoon
			1'				9274	
	1.0				1-2' CLAYEY SAND SC, moderate brown, dry, very fine-fine sand	8.0	10363	
							10085	
		S-1	1.8'	6-9-22-20 (31)	2-2.8' POORLY GRADED SAND WITH SILT SP-SM, light brown, dry, very fine-fine sand, bottom 0.2' semiconsolidated sand		10218	
	3.0						10056	
						9.4	10418	
		S-2	2'	20-22-23-23 (45)	3-5' SILTY SAND SM, light brown, dry, very fine-fine sand, silky, semiconsolidated pieces of sandstone throughout (dark reddish brown)		11065	
							11081	
	5.0						10866	
5.0					5-7' Same as 3-5' interval	10.0	10927	*QC 10782
							10972	
		S-3	2'	17-17-50/4" (67)			12011	5-7' scraping of augers
							12393	
	7.0				7-8.7' Same as 3-5' interval with root in spoon	11.7	12717	
							13164	
		S-4	1.7'	12-13-19-34 (32)			13684	
							13576	
	9.0				9-9.7' Same as 3-5' interval with layered pieces of semiconsolidated sandstone (dark reddish brown)	12.0	14165	spoon refusal 9.75' auger refusal 10'
							15453	
10.0		S-5	0.7'	19-50/3"	End of Boring		15002 End	
	11.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-5 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 58.9 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/12/92 0945 **FINISH** 2/12/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
		S-1	1.3'	13-16-12-7 (28)	0-1.3' SILTY SAND SM, dark yellowish brown, dry, with large angular cobbles of decomposing brick and concrete, fill material	0	12435 8357 9194 11582	300 lb hammer-3" splitspoon
2.0								
		S-2	0.8'	37-50/4"	2-2.8' SILTY SAND SM, dark reddish brown, dry, hard, semiconsolidated pieces of sandstone throughout, bottom of spoon	0	12251 11854 12261 End	spoon tip broke off in hole very tight material *QC 11982 spoon refusal at 2.83' auger refusal at 3.5'
4.0					End of Boring			last gamma reading taken at 2.83'
5.0								
10.0								

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-6 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.7 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod w/140 lb hammer, 3" splitspoon

WATER LEVELS START 4/8/92 1127 FINISH 4/8/92 1205 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
		S-1	1.5'	14-16-42-65 (58)	0-0.25' railroad ballast rock 0.25-1.5' POORLY GRADED SAND WITH SILT SP-SM, dark brown, moist, stiff contains rock fragments, (fill)	0	10340 * * *	
	2.0							
		S-2	2'	42-79-69-52 (148)	2-4' POORLY GRADED SAND WITH SILT SP-SM, brown, saturated, stiff, contains some tan-yellow mottling	NT	3987 3874 End	* Hole collapsed unable to gamma log
	4.0				End of Boring			
5.0								
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-7 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.8 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 3/31/92 1045 FINISH 3/31/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					1-2' SILTY SAND SM, reddish-orange, fine-medium sand, dry, subangular-subrounded, quartz, feldspar	0	11534	300 lb hammer-3" splitspoon
		S-1	.5'	22-13-7-4 (20)			7360	
	2.0						14775	
							31112	
					2-3.7' LEAN CLAY WITH SAND CL, dark gray with light gray mottling, damp-wet, very fine sand, soft roots	2.0	62239	290 cpm rad reading
		S-2	2'	3-2-1-2 (3)			101183	
					3.7-4' SILTY SAND SM, black, damp, very fine-fine sand, trace clay, organic matter, roots		143857	
	4.0						215948	
					4-4.5' Same as 3.7-4'	2.7	247236	190 cpm rad reading
					4.5-5' FAT CLAY CH, dark gray, slightly damp, high plasticity		194181	
5.0		S-3	1.5'	7-7-8-7 (15)	5-5.5' MEDIUM GRADED SAND & SILT SW-SP, olive gray, damp, very fine-medium sand, feldspar, quartz, subangular		95199	
	6.0						55484	fining downward sequence
					6-6.7' SILT WITH SAND ML, grayish orange, dry, very fine-fine sand, hard, dense	2.9	27538	*QC 27599
							13075	
		S-4	2'	7-19-31-50/6" (50)	6.7-8' POORLY GRADED SAND SP, black, wet-saturated at 8', fine-medium sand, quartz, feldspar, subangular-subrounded		10307	
	8.0						9483	
					8' Predominately SANDSTONE, dark reddish brown, fine-medium grained, hard, weathered		11928 End	140 lb hammer-2" splitspoon
					End of Boring			
		S-5	0	50/5"				auger refusal 8' spoon refusal 8.5"
10.0	10.0							

CRM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-8 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.4 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 3/31/92 1335 FINISH 3/31/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
							88218	300 lb hammer-3" splitspoon
							92470	
		S-1	0.5'	7-4-4-10 (8)	0-0.5' POORLY GRADED SAND SP, black, wet, medium-fine sand, trace coarse sand, quartz, feldspar	2.0	97381	
							142962	
	2.0							
							108550	
		S-2	1'	3-2-3-4 (5)	2-3' LEAN CLAY WITH SAND CL, medium gray, damp, medium-fine sand	1.6	75475	
							38518	
							32664	
	4.0							
					4-6' No recovery	NT	27699	
		S-3	0	6-8-10-7 (18)			19590	
5.0							14778	
							11683	
	6.0							
					6-6.5' CLAYEY SAND SC, moderate yellowish brown, wet-saturated, medium-fine sand, trace coarse sand, quartz, saturated	3.4	9358	
		S-4	0.5'	5-17-21-22 (38)			8232	*QC 8051
							7468	
							7323	
	8.0							
					8-8.7' POORLY GRADED SAND SP, pale red, saturated, quartz, feldspar, subrounded	NT	6137	140 lb hammer-2" splitspoon
		S-5	1.5'	4-21-24-39 (45)			6135	
					8.7-9.' SILT ML, yellowish brown, dry, pieces of sandstone in bottom of spoon, dark reddish brown, dry		7236 End	
	10.0							
10.0					End of Boring			auger refusal 10'

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-9 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 47.7 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 4/3/92 1100 **FINISH** 4/3/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.5' asphalt and trap rock	3.1	40170	300 lb hammer-3" splitspoon
							20040	
		S-1	1.5'	5-4-4-10 (8)	0.5-1.5' POORLY GRADED SAND SP, grayish black, slightly damp, very fine-fine sand, cobbles throughout, glass, metal, wire, white silty fill material at 1'		42000	100 cpm rad reading
	2.0						75500	
							87146	2-4' drill cuttings include pieces of wood, metal, brass, glass, wire, concrete block at 3'
		S-2	0	13-9-5-4 (14)	2-4' No recovery		71492	
	4.0						38270	
							23464	
					4-5' MEDIUM TO WELL GRADED SAND SP-SW, medium dark gray, wet, fine-coarse sand, quartz, subangular-subrounded	22	16550	
5.0							13628	
		S-3	1'	8-16-23-12 (39)			10682	
	6.0						7562	
					6-8' POORLY GRADED SAND SP, medium dark gray, saturated, fine sand, trace medium sand, quartz feldspar and trace opaques, subangular-subrounded, thin layer at 6.7' and 7.2' of CLAYEY SAND SC, pale yellowish brown, damp	NT	6966	140 lb hammer-2" splitspoon
							6996	
		S-4	2'	8-12-14-14 (26)			6824	
	8.0						6522	
					8-10' No recovery		8340	spoon refusal 8.33'
							End	
		S-5	0	50/4"	End of Boring			
	10.0							
10.0								

NT. Not Taken

PROJECT NUMBER	BORING NUMBER	
NJ022948.SP.SI	C-10	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.4 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 4/3/92 0910 FINISH 4/3/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.5' CLAYEY SAND SC, dark yellowish brown, slightly damp, very fine-fine sand (fill material), trace clay, 2" layer of asphalt and trap rock at surface	2.3	128130	300 lb hammer-3" splitspoon
		S-1	1.6'	6-3-2-2 (5)			74902	
					0.5-1.6' SILTY SAND SM, medium dark gray, damp, very fine-medium sand, white mottling throughout		156354	400 cpm rad reading
	2.0				2-2.9' POORLY GRADED SAND WITH SILT SP-SM, brownish black, slightly damp, fine-medium sand, orgainic matter, roots and vegetation		245936	
		S-2	2'	4-4-7-9 (11)		2.4	278620	100 cpm rad reading
	4.0				2.9-4' POORLY GRADED SAND SP, dark yellowish brown, damp, medium sand, trace coarse sand, feldspar, quartz, subangular		291304	
							212958	
					4-4.8' POORLY GRADED SAND SP, olive gray wet medium-coarse sand, quartz, feldspar, subangular		118416	
						2.3	72564	
6.0		S-3	1.5'	5-4-6-7 (10)	4.8-5' CLAYEY SAND SC, light olive gray, damp, very fine-fine sand		56996	
					5-5.5' SILT ML, dark yellowish orange, damp red sandstone fragments in bottom of spoon		24120	100 cpm rad reading
	6.0						11458	
					6-6.8' POORLY GRADED SAND WITH SILT SP-SM, moderate yellowish brown, wet, very fine-fine sand, subangular	1.6	10132	
		S-4	2'	9-12-11-21 (23)			9506	
					6.8-7.8' SILT ML, dark yellowish orange, saturated		8932	
					7.8-8' POORLY GRADED SAND SP, dark reddish brown, wet, trace gravel and sandstone		8902	
	8.0						10432	auger refusal 8'
					End of Boring		End	
10.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.GF.SL	C-11 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.8 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/27/92 1035 FINISH 2/27/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' Concrete		7654	300 lb hammer-3" splitspoon
			-				13246	
	1.0							
					1-1.4' WELL GRADED SAND WITH SILT SW-SM, brownish black, dry, very fine-coarse sand, trace clay, occasional cobbles	3.3	16043	
		S-1	1.3'	4-5-7-4 (12)			13334	
					1.4-2.3' POORLY GRADED SAND SP, yellowish brown, slightly damp, medium sand, trace coarse sand, subangular, occasional cobbles		12423	
	3.0						11953	
					3-4' Same as 1.4-2.3'	13.8	16519	
		S-2	1'	3-4-2-3 (6)			23768	
							26543	
	5.0						21053	
5.0					5-6' SANDY LEAN CLAY CL, medium gray, slightly damp, very fine-fine sand, root matter	5.4	15707	
		S-3	1.7'	5-4-10-9 (14)			12346	
					6-6.7' MEDIUM GRADED SAND SW-SP, brownish gray, wet, fine-medium sand, trace silt, trace coarse sand		10545	
	7.0				7-7.5' Same as 6-6.7', saturated		10734	
						4.8	10239	
		S-4	2.0'	6-6-8-8 (14)			9346	
					7.5-9' CLAYEY SILT ML, brownish gray, damp		8824	
	9.0						8572	
					9-11' No recovery	NT	8439	140 lb hammer-2" splitspoon
							7885	
10.0		S-5	0	16-22-15-14 (37)			7227	
							6660	
	11.0							
					10-10.5' SILT ML, moderate yellowish brown, wet, trace clay, stiff, occasional cobbles	NT	7212	
		S-6	0.5'	12-12-15-12 (27)			7256	
							7844	
	13.0						8671	
					13-13.5' POORLY GRADED SAND SP, reddish brown, wet, fine-medium sand, trace silt, angular-subangular grains, large cobbles jammed in spoon	NT	8439	
		S-7	0.5'	42-50/3"			9378	spoon refusal 13.75' auger refusal 14'
	14.0				End of Boring		9844 End	
								NT: Not Taken

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-12 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 48.1 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 4/2/92 1415 FINISH 4/2/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
	0.5				0-0.5' asphalt and trap rock		8621	300 lb hammer-3" splitspoon
					0.5-0.7' trap rock	.7	6868	
		S-1	1.5'	15-17-26-18 (43)	0.7-2' POORLY GRADED SAND SP, dark reddish brown, dry, fine sand, trace medium sand, trace gravel throughout, trace silt, quartz, feldspar, subrounded		9651	
							9440	
	2.5						9384	
		S-2	1.5'	13-13-5-5 (18)	2-4' Same as 0.7-2'	1.2	9864	
							9820	
							10023	
	4.5						10021	
		S-3	0	1-1-1-1 (2)	4.5-6.5' No recovery	NT	9872	
5.0							9761	
							9699	
	6.5						9764	140 lb hammer-2" splitspoon
		S-4	0.5'	1-2-4-3 (6)	6.5-7' POORLY GRADED SAND SP, dark reddish brown, very fine-fine sand, occasional sandstone fragments, dark reddish brown, friable	NT	9860	
							9859	
	8.5						10056	
		S-5	1.0'	4-3-5-6 (8)	8.5-9.5' Same as 0.7-2', saturated	NT	9947	
							10385	
10.0	10.5						10254 End	auger refusal 9.5'
		S-6	1.0'	7-17-29-40 (46)	10.5-11.5' POORLY GRADED SAND WITH CLAY SP-SC, dark reddish brown, very fine-fine sand	NT		
	12.5				11.5' Reddish brown, fine-very fine SANDSTONE, weathered, hard			
					End of Boring			

NT: Not Taken

CRM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-13 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 48.0 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 3/30/92 FINISH 3/30/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
			-	-	0-1' asphalt, trap rock, and sandstone fill		9536 3864	300 lb hammer-3" splitspoon
	1.0							
		S-1	2'	6-10-11-13 (21)	1-2.2' POORLY GRADED SAND SP with trace clay, silt, dark reddish brown, dry, very fine-fine sand, large cobbles throughout 2.2-3' SILTY SAND SM, moderate brown or grayish black mottling, wood chip, very fine-fine sand	0	5720 7632 10024 14708	sandstone removed w/jack hammer
	3.0							
		S-2	2'	9-13-8-14 (21)	3-4.8' POORLY GRADED SAND SP, dark reddish brown, dry, with semiconsolidated mudstone, fragments throughtout weathered 4.8-5' WELL GRADED SAND SW, dark gray, damp-wet, fine-coarse sand, quartz, opaques, subrounded,	0	18386 17112 11458 10154	
	5.0							
6.0		S-3	2'	12-28-28-16 (56)	5-6.3' POORLY GRADED SAND SP, with trace gravel, moderate brown, damp large cobbles (rounded) throughout, very fine sand 6.3-7' POORLY GRADED SAND WITH SILT SP-SM, pale reddish brown, dry, friable thin bedded, poorly cemented	0	9538 9426 9914 9964	
	7.0							
		S-4	1'	15-13-9-7 (22)	7-8' WELL GRADED SAND WITH SILT AND GRAVEL SW-SM, dark reddish brown, saturated zones, mainly wet, fine-coarse sand, large cobbles throughout	0	10088 9764 9602 9442	
	9.0							
10.0		S-5	0.3'	13-17-18-19 (35)	Same as 7-8' with thin layers of very fine-fine sandstone	NT	9342 9298 9532 9524	140 lb hammer-2" splitspoon
	11.0							
		S-6	1'	16-17-27-50/4	11-12' POORLY GRADED SAND SP, dark reddish brown, saturated, medium-fine sand, quartz, feldspar, subangular trace-coarse sand; top very fine-fine sandstone fragments	NT	9452 9286 9664 9880	
	13.0							
		S-7	.5'	50/6"	13-13.5' WELL GRADED SAND SW, dark reddish brown, saturated, very fine-coarse sand, quartz, trace opaques & feldspar End of Boring	NT	5440 End	auger refusal 13' spoon refusal 13.5'
	15.0							NT: Not Taken

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SI	C-14 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.1 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 3/31/92 1530 FINISH 3/31/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.7' top 2" asphalt, POORLY GRADED SAND WITH SILT SP-SM, black, damp, trace large gravel, trace clay	1.0	27692	300 lb hammer-3" splitspoon
							39820	
		S-1	1'	3-2-3-2 (5)	0.7-1' CLAYEY SILT ML, medium light gray with pale pink streaks (fill)		109608	230 cpm rad reading
	2.0						158850	
					2-3.5' CLAYEY SILT ML, light gray- with white streaks, damp, with patches of wet material (fill)	2.2	214944	200 cpm rad reading
							247650	
		S-2	2'	2-2-1-5 (3)	3.5-4' CLAYEY SAND SC, greenish gray, damp, fine sand with trace very fine sand, yellow mottling throughout (fill)		192718	
	4.0						135166	
					4-5' CLAYEY SAND SC, light olive gray, slightly damp, very fine-medium sand, yellow mottling, trace fine gravel, quartz, subangular (possible fill)	2.0	96652	
							41820	
5.0		S-3	2'	5-7-11-14 (18)			19896	
					5-6' POORLY GRADED SAND WITH SILT SP-SM, moderate yellowish brown, slightly damp, fining to SILT ML, moderate yellowish brown, slightly damp		9924	5-6' fining downward sequence
	6.0					1.9	7522	
							6064	
		S-4	1.5'	11-17-17-16 (34)	6-7.5' POORLY GRADED SAND SP, moderate yellowish brown, wet-saturated, fine sand, trace medium sand, subangular quartz, feldspar, thin 1" SILT layer at bottom		5042	saturated at 7'
	8.0						4494	
					8-9.8' POORLY GRADED SAND SP, pale reddish brown, saturated, medium-coarse quartz sand, angular-subangular, trace feldspar, trace opaques	NT	5630	140 lb hammer-2" splitspoon
		S-5	2'	16-28-36-41 (64)			4481	
							5335	
					9.8-10' SANDSTONE, dark reddish brown, dry, very fine-fine sand, quartz		7660	
	10.0							
10.0					End of Boring		6402 End	auger refusal 10'

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SC.SL	C-15 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.2 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/26/92 1420 **FINISH** 2/26/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.5' asphalt, trap rock	2.5	11402	0-3' Excavated with shovel to avoid underground gasoline lines
					0.5-3' WELL GRADED SAND SW, moderate yellowish brown, dry, large cobbles throughout		37297	
							45330	
			N/A	N/A			27109	
							18768	
							19643	
	3.0							
					3-4' POORLY GRADED SAND SP, brownish gray, dry, trace silt, trace cobbles of sandstone throughout (red)	34.8	27426	300 lb hammer-3" splitspoon
		S-1	2'	4-3-2-5 (5)	4-4.4' POORLY GRADED SAND WITH CLAY SP-SC, slightly damp		56875	
					4.4-5' CLAYEY SAND SC, medium gray, slightly damp, coarsening downward to POORLY GRADED SAND SP, medium sand, thin red layers		99468	
5.0	5.0						58022	
						6.5	26899	
		S-2	2'	3-4-7-10 (11)	5-7' CLAYEY SAND SC, medium gray, damp, very fine-medium sand		22241	
							20098	
	7.0						19740	
					7-7.5' POORLY GRADED SAND SP, brownish gray, saturated, medium-coarse sand, quartz, feldspar, opaques, subangular-subrounded	3.4	18530	
		S-3	1'	4-5-14-14 (19)	7.5-8' POORLY GRADED SAND WITH CLAY SP-SC, moderate reddish brown, saturated, sandstone cobbles		14519	
							12984	
	9.0						12357	
					9-9.4' SILT ML, some clay, dark reddish brown, wet, stiff, sandstone cobbles jammed in bottom of spoon	NT	12759	140 lb hammer-2" splitspoon
							12626 End	
10.0		S-4	0.4'	7-50/3"	End of Boring			auger refusal 10' spoon refusal 9.75'
	11.0							

NT: Not Taken

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-16 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.3 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 4/1/92 0920 FINISH 4/1/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1.5' POORLY GRADED SAND WITH SILT SP-SM, dusky yellow brown, damp, organic matter throughout, roots, trace clay	0	43059	300 lb hammer-3" splitspoon
							57994	
		S-1	2'	2-2-2-3 (4)	1.5-2' LEAN CLAY CL, very light gray, damp, organic matter, trace sand		72462	
	2.0						57676	200 cpm rad reading
					2-2.5' LEAN CLAY CL, very light gray, damp, trace sand	0	43977	
					2.5-3.7' SILTY SAND SM, black, damp, very fine sand, trace clay, organic matter consisting of branches and roots		48835	
		S-2	2'	2-2-3-2 (5)			41228	250 cpm rad reading
	4.0				3.7-4' LEAN CLAY CL, light olive gray, damp, medium plasticity		26957	
					4-5.5' Same as 3.7-4' coarsening downward to SILT ML, light olive gray, slightly damp	0	16863	
							14450	
5.0		S-3	2'	5-11-11-8 (22)	5.5-6' WELL GRADED SAND SW, pale yellowish brown, fine-coarse sand, trace gravel, subangular quartz, feldspar		14335	200 cpm rad reading
	6.0						13964	
					6-8' SILT ML, moderate yellowish brown, wet, trace clay, tight, thin layer 0.2' of WELL GRADED SAND SW, pale yellowish brown	0	14162	*QC 14620
		S-4	2'	6-8-13-13 (21)			11730	
							9685	200 cpm rad reading
	8.0						9016	
					8-9' coarsening from SILT ML (interval 8-9') to SANDY SILT ML, to	NT	8879	140 lb hammer-2" splitspoon
		S-5	2'	13-16-16-31 (32)	9-10' POORLY GRADED SAND WITH SILT SP-SM, pale yellowish brown, wet, very fine-fine sand, quartz. POORLY GRADED SAND SP, dark yellowish brown, saturated, very fine-fine sand, subangular quartz		8194	
	10.0						9657 End	
10.0					10-12' POORLY GRADED SAND WITH SILT SP-SM, yellowish brown, wet, very fine-fine sand, abundant reddish brown, fine-very fine grained sandstone pieces	NT		spoon refusal 11.8'
		S-6	2'	16-23-31-50/4 (54)				
	12.0							
					End of Boring			

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-17 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 44.5 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod and 140 lb hammer

WATER LEVELS START 4/7/92 0750 FINISH 4/7/92 0930 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
		S-1	2'	9-7-6-6 (13)	0-1.5' POORLY GRADED SAND WITH SILT SP-SM, dark brown, moist, fill material, contains bricks, wood, roots	0	22040 88939 65198	
	2.0				1.5-2' ORGANIC SOIL (clay and silt) OL/OH, dark black, moist, firm, veg.	0	39304 16564	
		S-2	2'	6-17-27-36 (44)	2.0-2.85' Same as 1.5-2' interval 2.85-4' POORLY GRADED SAND WITH SILT SP-SM, tan, moist, dense		10356 6235 4948	
	4.0				4.0-4.75' POORLY GRADED SAND WITH CLAY SP-SC, tan, saturated, dense	0	End	
5.0		S-3	1.5'	17-24-20-5 (44)	4.75-6' WELL GRADED SAND WITH SILT SW-SM, tan, saturated, firm			
	6.0				6-7' ELASTIC SILT MH, tan, saturated, very stiff	0		
		S-4	1.3'	10-10-13-9 (23)	7-8' POORLY GRADED SAND WITH SILT SP-SM, tan, saturated			
	8.0				End of Boring			
10.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-18 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.1 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod and 140 lb hammer

WATER LEVELS START 4/7/92 1405 FINISH 4/7/92 1453 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1.5' SILT ML, dark brown, moist, stiff, contains debris and vegetation	0	5494	
							10448	
		S-1	2'	4-4-7-23 (11)			6700	*QC 6512
					1.5-2' SILTY SAND SM, red-brown, moist, stiff, roots & vegetation		4685	
	2.0					0	4823	
					2-3.25' POORLY GRADED SAND WITH SILT SP-SM, red-brown, moist, very dense, pieces of rocks, vegetation roots		3887	
		S-2	1.25'	44-31-50/3" (81)			4242 End	Spoon refusal 3.25'
	4.0							
					End of Boring			
5.0								
10.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-19 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 44.4 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod and 140 lb hammer

WATER LEVELS START 4/8/92 FINISH 4/8/92 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
		S-1	1.25'	4-4-3-9 (7)	0-0.5' LEAN CLAY CL, dark brown, moist, firm, contains roots and vegetation (fill)	0	12213	
					0.5-1.25' POORLY GRADED SAND WITH SILT SP-SM, black, moist, firm, contains some rocks (fill)		13721	
							23367	
	2.0						16819	
		S-2	2'	12-14-37-32 (51)	2-3.5' POORLY GRADED SAND WITH SILT SP-SM, gray, moist, very dense, contains lenses of red coarser sand that appear to be weathered rock	0	10969	
							9379	
							9652	
					3.5-3.7' SILT ML, bluish gray, moist, hard		9672	
	4.0						End	
		S-3	2'	25-18-19-43 (37)	3.7-4' SANDSTONE, red brown, fine-medium grain, weathered	0		
5.0					4-4.75' POORLY GRADED SAND WITH SILT SP-SM, yellowish brown, moist, dense, contains some rock fragments			
	6.0				4.75-5' POORLY GRADED GRAVEL GP, yellow, rounded	NT		
		S-4	1.25'	47-45-28-46 (73)	5-6' POORLY GRADED SAND WITH SILT SP-SM, reddish brown, moist, dense, contains rock fragments			
	8.0				6-7.25' POORLY GRADED SAND WITH SILT SP-SM, reddish brown, dense, saturated, contains many large rock fragments			
					End of Boring			
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-20 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 65.2 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B-61 using HSA 6 1/4" ID

WATER LEVELS START 2/18/92 1530 FINISH 2/18/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-0.5' asphalt		15058	300 lb hammer-3" splitspoon
	0.5				0.5-0.7' top 0.2' asphalt, trap rock 0.7-1' SILT ML, moderate brown, damp, slightly plastic	0	16200	
		S-1	0.5'	8-5-5-4 (10)			15767	
							14523	
	2.5						15066	
		S-2	1'	18-22-29-27 (51)	2.5-3.5' SILT WITH SAND ML, moderate brown/red, dry, coarse-very fine sand, semiconsolidated pieces of silt	0	12113	*QC 12080
							11651	
	4.5						11497	
							11506	
5.0		S-3	2'	5-13-14-20 (27)	4.5-6.5' SILT ML, trace sand, moderate brown/red, slightly damp, top 1" black soil, slightly plastic, semiconsolidated silt throughout	1345	12034	
							12000	6.5-8' strong irritating odor
	6.5						12402	
							13788 End	
		S-4	1.5'	4-31-50/4" (81)	6.5-8' SILT ML, moderate brown/red, slightly damp, slightly plastic, semiconsolidated silt throughout	1543		spoon refusal 7.8' auger refusal 6.5'
	8.5							
					End of Boring			
10.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.SL	C-21	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.0 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod w/ 140 lb hammer

WATER LEVELS START 4/7/92 0945 FINISH 4/7/92 1022 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1' POORLY GRADED SAND WITH SILT SP-SM, dark brown, dry, contains grass and fill material	0	42158	
		S-1	2'	5-5-12-8 (17)	1-2' POORLY GRADED SAND WITH SILT SP-SM, white, dry (fill)		102768 208788 335944	
	2.0							
		S-2	2'	14-7-11-7 (18)	2-3' WELL GRADED SAND WITH SILT SW-SM, black material with white lenses throughout, dry (fill)	0	272819 129282	
					3-4' WELL GRADED SAND WITH SILT SW-SM, fill material, dark brown, dry, contains pieces of red rock (sandstone)		103502 28370 End	
	4.0					NT		
5.0		S-3	1.25'	14-29-28-20 (57)	4-5.25' POORLY GRADED SAND WITH SILT SP-SM, light gray, very dense, saturated, contains pieces of red rock (sandstone)			
	6.0				End of Boring			
10.0								

NT: Not Taken

CHM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FE.SL	C-22 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 45.9 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/27/92 1535 **FINISH** 2/27/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		5058	1545 abandon borehole because fill from tank excavation was encountered
	1.0						7008	
					1-2' SILTY SAND WITH GRAVEL SM, very fine-fine sand, trace, coarse sand, numerous limestone cobbles (fill)	5.6	7830	1600 begin at new location 24' west toward Route 17N
		S-1	1.7'	9-11-11-10 (22)	2-3.7' POORLY GRADED SAND SP, moderate yellowish brown, slightly damp, medium sand, trace coarse sand; sandstone pieces approx. 1" wide, pale yellow, subangular, quartz		9327	
	3.0						9819	300 lb hammer-3" splitspoon
							9998	
						2.0	11190	
		S-2	1'	9-9-11-13 (20)	Same as 2-3.7' interval with increase of sandstone pieces		11247	
							10648	
	5.0						10069	
5.0					5-5.3' SANDSTONE, pale yellow, breaks into thin angular pieces	3.0	10184	
					5.3-6' SILT ML, medium gray to reddish gray, dry, slightly plastic		10147	
		S-3	1.6'	10-11-16-20 (27)	6-6.6' POORLY GRADED SAND WITH SILT SP-SM, reddish brown, damp, very fine-fine sand, trace gravel with interbedded semiconsolidated sandstone that is dark reddish brown, very fine-fine grained, friable		10963	
	7.0						11251	
						NT	10217 End	140 lb hammer-2" splitspoon spoon refusal 8.5'
		S-4	1.5'	13-16-28-50/4 (44)	7-8.5' SANDSTONE, dark reddish brown, very fine-fine grained, saturated, weathered, laminated, sandstone within SILT matrix			
	9.0							
					End of Boring			spoon refusal 8.75' auger refusal 7'
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-23 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 48.6 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 4/2/92 1020 FINISH 4/2/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1.5' CLAYEY SAND SC, dusky yellowish brown, slightly damp, very fine-fine sand, organic matter throughout, roots, occasional cobbles	0	1804	300 lb hammer-3" splitspoon
							3148	
		S-1	1.5'	1-2-1-1 (3)			4116	*QC 4269
							4137	
	2.0							
					2-2.5' Same as interval 0-1.5' including sandstone pieces, dark reddish brown, very fine-fine grained	0	3796	
							3914	
		S-2	1.0'	2-3-2-4 (5)	2.5-3' CLAYEY SAND SC, moderate yellowish brown, damp, fine-medium sand, quartz, feldspar		3829	
							4124	
	4.0							
					4-5.5' fining SANDY SILT to SILT ML, dark yellowish orange, damp, wet, very fine-fine sand	0	4960	
							4132	
5.0		S-3	1.5'	24-28-20-20 (48)			3843	
							3660	
	6.0							
					6-7.5' POORLY GRADED SAND WITH CLAY SP-SC, dark reddish brown, saturated, fine-medium sand, trace gravel, trace silt, quartz, sandstone pieces throughout	NT	3597	140 lb hammer-2" splitspoon
		S-4	1.5'	20-21-24-16 (45)			3301	
							4056	
							4377	
	8.0				8-10' No recovery			
					End of Boring		4662 End	spoon refusal 8'
		S-5	0	50/0"				
10.0	10.0							

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-24 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adiacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.6 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod and 140 lb hammer

WATER LEVELS START 4/7/92 1040 FINISH 4/7/92 1145 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
		S-1	0.85'	4-6-6-5 (12)	0-0.85' SILT ML, dark brown, dry, stiff, contains rocks, wood and grass (fill)	0	30263 42081 70349 115893	
	2.0							
		S-2	1.25'	4-4-10-16 (14)	2-2.5' POORLY GRADED SAND WITH SILT SP-SM, reddish brown, dry, loose-medium dense 2.5-3.25' SILT ML, dark black, dry, firm	0	142599 141931 End	
	4.0							
5.0		S-3	1.5'	25-41-45-25 (86)	4-5.5' SANDY SILT ML, gray-tan, moist, hard, with vegetation/roots	0		
	6.0							
					End of Boring			
10.0								

CRM HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.FH.SL	C-25	SHEET 1 OF 2

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 45.0 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/26/92 0830 **FINISH** 2/26/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
	0.5				0-0.5' asphalt and taprock		5620	300 lb hammer-3" splitspoon
						600	5865	
		S-1	2'	4-4-6-6 (10)	0.5-2.5' SILTY SAND SM, brownish black, slightly damp, sandstone pieces throughout, very fine-fine grained (fill)		5983	strong gasoline odor
							6031	
	2.5						6850	
		S-2	1.5'	6-6-7-8 (13)	2.5-4' CLAYEY SAND SC, reddish brown, damp, with abundant layers of weathered sandstone, moderate reddish brown very fine-fine angular grains, saturated	1520	8942	
							10724	
							11429	
	4.5						11719	
		S-3	1.5'	14-22-23-12 (45)	4.5-5.5' POORLY GRADED SAND WITH SILT SP-SM, medium gray, damp, fine-medium sand, subangular, quartz, feldspar, opaques, thin bands of semiconsolidated sandstone, friable	1680	13606	slough in top of spoon
5.0							14826	
					5.5-6.0' SILT ML, with trace clay, moderate yellowish brown, slightly damp		7819	
	6.5						7532	
		S-4	1.6'	8-13-17-15 (30)	6.5-7.2' Same as 5.5-6'	1450	7178	
					7.2-8.1' Same as 4.5-5.5'		8033	
							8334	
	8.5						8131	
		S-5	2'	0-0-13-14 (13)	8.5-9' Same as 4.5-5.5'	3777	8001	
							7901	
					9-10.5' POORLY GRADED SAND SP, moderate reddish brown, saturated fine-medium sand with trace coarse sand; angular sandstone pieces throughout		8040	
10.0							8387	140 lb hammer-2" splitspoon
	10.5					NT	8522	
		S-6	2'	9-4-5-4 (9)	10.5-12.5' Same as 9-10.5'		8569	
							8226	
	12.5						8230	
		S-7	2'	3-6-10-23 (16)	12.5-14.5' Same as 9-10.5'	NT	8250	
							8391	
							8621	
	14.5						8404	
						NT	8412	NT: Not Taken

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.SL	C-25 SHEET 2 OF 2

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.0 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/26/92 0830 FINISH 2/26/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
							8373	
		S-8	2'	11-9-8-7 (17)	14.5-16.5' Same as 9-10.5'		8849	
	16.5						8282 End	
		S-9	1'	7-11-69/3"	16.5-17.5' Same as 9-10.5'	NT		spoon refusal at 17.75' auger refusal at 16'
	17.9				End of Boring			
20.0								
25.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.SL	C-26 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.8 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/24/92 0900 FINISH 2/24/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
		S-1	1.7'	4-5-6-7 (11)	0-1.7' SILTY SAND SM, top 0.8' yellowish brown, middle 0.7' brownish black, bottom 0.2' reddish brown; damp, trace clay and gravel, roots, bricks, (fill material)	7	6418 7673 8760 9147	300 lb hammer-3" splitspoon
	2.0							
		S-2	2'	10-14-16-15 (30)	0-2' WELL GRADED SAND WITH SILT AND GRAVEL SW-SM, top 0.7' reddish brown, middle 0.9' pale yellowish brown, bottom 0.4' reddish brown damp, very fine-medium sand, sandstone pieces within very fine-fine sand	9	9260 9217 9534 9501	
	4.0							
6.0		S-3	1.7'	5-6-19-17 (25)	4-5.7' SILTY SAND SM, reddish brown damp-wet, very fine-fine sand, with layers of semiconsolidated sandstone, dark reddish brown, angular-subangular, fine-coarse grained, friable	10	9288 9662 9312 8875	
	6.0							
		S-4	0.9'	36-50/3"	6-6.9' SANDSTONE, dark reddish brown, wet, very fine-coarse grained, angular-rounded, quartz grains, friable, layered beds of less than 1" thick	NT	8316 7872 End	spoon refusal 6.75" auger refusal 6'
	6.75				End of Boring			
10.0								NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.DS.SL	C-27 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.6 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/25/92 1005 FINISH 2/25/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.8' ORGANIC SOIL WITH SAND OL/OH, brownish black, damp, very fine-fine sand	0	5882	300 lb hammer-3" splitspoon
					0.8-1' SILT ML, yellowish gray and white mottling, trace clay		6073	
		S-1	1.2'	1-1-1-1 (2)	1-1.2' SILT, white and SILTY SAND ML-SM, brownish black, very fine-fine sand (fill)		5781	
	2.0						6277	
					2-3.1' LEAN CLAY CL, white-brownish black, saturated, soft (fill)	0	6712	
		S-2	2'	1-1-1-1 (2)	3.2-3.7' SANDY LEAN CLAY CL, light grey, wet, very fine-fine sand, soft, opaques		6199	
	4.0				3.7-4' SANDY SILT ML, black, damp, roots very fine-fine sand		6043	
					4-4.8' LEAN CLAY WITH SAND CL, light gray, little mottled		6149	
						0	8153	
5.0		S-3	2'	2-3-10-14 (13)	4.8-6' SILTY SAND SM, yellowish brown, damp, semiconsolidated		7854	
	6.0						8043	
							7634	
					6-7.2' SILT ML, dark yellowish orange, dry, very stiff, trace very fine sand	0	8747	
		S-4	2'	19-18-12-10 (30)	7.2-7.7' POORLY GRADED SAND SP, moderate yellowish brown, wet, fine to medium sand, trace gravel, trace silt		8850	
	8.0						8969	
							8929	
					7.7-8' Same as 6-7.2' interval except saturated	NT	8916	140 lb hammer-2" splitspoon
		S-5	0.2'	5-12-14-13 (26)	8-10' CLAYEY SAND SC, moderate reddish brown, wet, very fine-medium sand, dark reddish brown pieces of sandstone in bottom of spoon		9662	
							9119	
	10.0						9434	
10.0					End of Boring		10153 End	auger refusal 10'

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FA.SL	C-28 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.1 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/20/92 1015 FINISH 2/20/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1' asphalt and trap rock		9379	300 lb hammer-3" splitspoon
	1.0		N/A				12203	
					1-1.5' CLAYEY SAND SC, grayish brown, dry	3.1	13303	
		S-1	2'	13-20-12-12 (32)	1.5-2.5' WELL GRADED SAND WITH SILT SW-SM, moderate yellowish brown, dry, fine-medium sand, brick, cobbles (fill)		11313	
	3.0				2.5-3' SILTY SAND SM, pale yellowish brown, dry, very fine-fine sand		4994	
							8950	
		S-2	1.7'	8-19-23-29 (42)	3-4.7' WELL GRADED SAND WITH SILT to CLAYEY SAND SM-SC, moderate yellowish brown, damp, trace silt	3	8791	
	5.0						8918	*QC 8864
							9023	
							9150	
6.0					5-6' Same as interval 3-4.7'	3.6	9228	
		S-3	2'	7-14-15-16 (29)	6-7' SILT ML, light brown, slightly damp, trace very fine-fine sand, slightly plastic		9473	
	7.0						9339	
							9316	
		S-4	2'	24-31-16-16 (47)	7-9' SILTY SAND SM, moderate reddish brown, damp, trace clay, occasional semiconsolidated pieces of sandstone	3.4	8770	
	9.0						8264 End	auger refusal 8'
					End of Boring			
10.0								

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-29 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.7 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 4/1/92 1145 **FINISH** 4/1/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
			N/A		0-1' asphalt and trap rock		24983	1145 begin drilling
							96207	300 lb hammer-3" splitspoon
	1.0							
		S-1	2'	3-2-3-3 (5)	1-3' POORLY GRADED SAND WITH SILT SP-SM, trace clay and gravel, brownish gray, slightly damp, very fine sand, organic matter, twigs, wood chips (fill)	0	247454	
							277799	250 cpm rad reading
							195966	
	3.0						137003	*QC 139046
		S-2	1.5'	3-3-1-1 (4)	3-4.5' POORLY GRADED SAND SP, trace clay, dark gray, saturated, very fine sand, organic matter, twigs, roots (fill)	0	117092	
							106179	
							86161	
	5.0						64001	
6.0		S-3	1.5'	2-7-13-13 (20)	5-6.5' SANDY SILT ML, greenish gray-pale yellowish brown, slightly damp, very fine sand, some mottling	0	41808	200 cpm rad reading
							30397	
							27140	
	7.0						22155	
		S-4	1.5'	15-22-24-26 (46)	7-8' SANDY SILT ML, pale yellowish brown, slightly damp	0	17973	fuel odor present
							13958	
					8-8.5' WELL GRADED SAND SW, brownish grey, saturated, fine-coarse quartz and feldspar sand, trace fine opaques, angular-subangular grains		13898	
	9.0						11047	
		S-5	1'	19-21-24-30 (45)	9-10' SILTY SAND SM, reddish brown, wet, trace clay and gravel	NT	16912 End	140 lb hammer-2" splitspoon auger refusal 9'
10.0					10' SANDSTONE, reddish brown, very fine-fine grained, weathered			
	11.0							
					End of Boring			

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.FA.SI	C-30	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 52.7 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/21/92 1140 **FINISH** 2/21/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		5186	300 lb hammer-3" splitspoon
							7169	
	1.0							
		S-1	0.75'	9-35/3"	1-15' SILT ML, trace clay and very fine sand, reddish brown, dry 1.5' SANDSTONE, dark reddish brown, very fine-medium grained, slightly weathered	1.4	9217	*QC 8926 very hard drilling
	1.75						10792	auger refusal at 2' spoon refusal at 1.75'
					End of Boring		10171 End	
5.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.DS.SL	C-31	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.9 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/25/92 0820 **FINISH** 2/25/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.5' ORGANIC SOIL OL, brownish black, damp, roots, layer of granular silty sand with clay	3	5546	300 lb hammer-3" splitspoon
		S-1	1.7'	1-3-3-4 (6)	0.5-1.7' SILTY SAND SM, moderate yellowish brown, damp, very fine-fine sand, loose, trace gravel		6719	
	2.0						7813	
							8392	
					2-3' WELL GRADED SAND WITH SILT SW-SM, moderate yellowish brown, damp, very fine-fine sand	1	8109	
		S-2	1.8'	1-8-3-6 (11)			8511	
					3-3.8' WELL GRADED SAND WITH CLAY SW-SC, black-moderate yellowish brown, gravel, very fine-coarse sand		8621	
	4.0						8276	
					4-5.2' SILTY SAND SM, moderate yellowish brown, damp, very fine-fine sand, trace gravel, slightly consolidated	2	8427	*QC 8560
							8659	
5.0		S-3	2'	7-7-10-10 (17)	5.2-6' WELL GRADED SAND WITH CLAY SW-SC, dark reddish brown, wet, very fine-coarse sand, trace gravel		9189	
	6.0						8983	
					6-7.7' CLAYEY SAND SC, moderate reddish brown, wet, very fine-medium sand, trace gravel with semiconsolidated sandstone, dark reddish brown, fine-medium sand, friable	4.4	8929	
							9405	
		S-4	1.7'	9-9-9-9 (18)			9105	
							9918	
	8.0							
					8-9.9' SILTY SAND SM, moderate reddish brown, wet, very fine-fine sand, trace rounded gravel of 1" diameter throughout, and semiconsolidated sandstone, dark reddish brown, very fine-medium grained, angular, friable	1	9464	auger refusal 10' spoon refusal 9.9'
		S-5	1.9'	3-5-67-50/5" (72)			9064	
							9678 End	
	10.0							
10.0					End of Boring			

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FA.SL	C-32 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 49.9 MSL **DRILLING CONTRACTOR** Environmental Drillingm, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/21/92 0940 **FINISH** 2/21/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1' asphalt and trap rock		7312	300 lb hammer-3" splitspoon
	1.0						7309	
		S-1	1.8'	7-9-14-8 (23)	1-2.8' SILT ML, with trace clay and very fine sand, moderate reddish brown, dry, 2" x 2" sandstone pieces, dark reddish brown, very fine-medium sand, quartz	.5	10222	
							10205	
							9885	
	3.0						10469	*QC 10472
		S-2	1.7'	15-16-18-30 (34)	3-5' Same as 1-2.8' interval with increase in clay, sandstone jammed in spoon bottom	2.3	10274	
							10850	
							10658	
	5.0						10051	
5.0		S-3	2'	15-15-13-12 (28)	5-7' Same as 3-5' interval with trace gravel	1.2	10034	
							11091	
							10969	
	7.0						11238	
		S-4	0.75'	41-50/3"	7-7.7' SANDSTONE, reddish brown, very fine-fine grained, weathered, matrix of silty sand	NT	11021	
	7.75				End of Boring		10949 End	spoon refusal at 7'9" auger refusal at 7'6"
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SC.SL	C-33 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.4 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/26/92 1600 **FINISH** 2/26/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		4768	300 lb hammer-3" splitspoon
	1.0						5738	
					1-2' MEDIUM GRADED SAND SW-SP, dark yellowish brown, dry, medium-coarse sand trace gravel, quartz, feldspar, cobbles, angular-subangular	4.3	7615	
		S-1	1.8'	12-12-7-7 (19)			12073	
					2-2.8' LEAN CLAY CL, brownish black, damp, cobbles		14456	
	3.0						17826	
					3-4' SILTY SAND SM, medium dark gray, slightly damp, very fine-fine sand	3.6	23615	
		S-2	1.5'	4-4-3-5 (7)			32232	
					4-4.5' ELASTIC SILT MH, black, slightly damp, roots		45216	
	5.0						30357	
6.0					5-7' WELL GRADED SAND WITH CLAY SW-SC, medium gray to brownish gray, damp, very fine-coarse sand	4.2	18509	
		S-3	2'	4-4-6-7 (10)			14688	
							13446	
	7.0						10162	
					7-8' ELASTIC SILT MH, brownish gray, damp, very stiff, trace sand	7.9	8068	
		S-4	1.5'	5-9-9-10 (18)			8705	
					8-8.5' POORLY GRADED SAND SP, brownish gray, saturated, quartz, feldspar, opaques angular-subangular		9495	
	9.0						10395	
					9-10' CLAYEY SAND SC, moderate reddish brown, wet, very fine-fine sand, semiconsolidated sandstone throughout	3.3	10321	auger refusal at 10' spoon refusal at 10.25'
		S-5	1'	3-15-50/3"			9832	
10.0	10.25						9635 End	
					End of Boring			

CHM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.SL	C-34 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 45.8 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/24/92 1100 **FINISH** 2/24/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		8863	300 lb hammer-3" splitspoon
							6818	
	1.0							
		S-1	2'	3-2-1-2 (3)	1-3' CLAYEY SAND SC, brownish black, damp, very fine-fine sand, brick pieces (fill)	8	6080	
							6529	
							6601	
	3.0						6727	
		S-2	2'	8-7-7-7 (14)	3-5' WELL GRADED SAND SW, yellowish gray, damp, very fine-coarse sand, angular-subrounded quartz, feldspar. 1" thin gray silt layer at 3.5'	5.6	6630	
							6343	
							6180	
	5.0						6452	
5.0		S-3	1.7'	5-7-3-10 (10)	5-6.2' WELL GRADED SAND SW, moderate brown, damp, very fine-coarse sand, feldspar, quartz, angular-subrounded, fining downward	5.3	6897	
							7093	
					6.2-6.7' CLAYEY SAND SC, reddish brown, damp, very fine medium sand angular-subrounded, thin 1" layer of WELL GRADED SAND, trace gravel		8427	
	7.0						8969	
		S-4	1.2'	11-19-11-8 (30)	7-8.2' WELL GRADED SAND SW, reddish brown, saturated, very fine-coarse sand, trace silt, layered sandstone pieces in bottom of spoon, very fine-fine grained, hard	5.8	8785	
							8929	
							9119	
	9.0						9375	
		S-5	0.5'	5-38-50/2"	9-9.5' SANDSTONE, reddish brown, saturated, friable, thin layers, very fine-fine grained	NT	9399	140 lb hammer-2" splitspoon
							9718	spoon refusal 10'2"
10.0	10.2						9647 End	auger refusal 10'
					End of Boring			

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FA.SL	C-35 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 47.5 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/20/92 1200 **FINISH** 2/20/92 **LOGGER** S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-1' asphalt and trap rock		9288	300 lb hammer-3" splitspoon
	1.0						9678	
					1-2.5' WELL GRADED SAND WITH SILT SW-SM, pale yellowish brown, damp, trace clay, fine-medium sand with trace coarse sand	4	10292	
		S-1	1.5'	11-10-6-5 (16)			9064	
	3.0						9570	
							9260	
					3-3.2' SILTY SAND SM, pale yellowish brown, damp, very fine-fine sand, trace medium sand	3	8584	
		S-2	2.0'	4-8-13-14 (21)			9105	
					3.2-4.5' ELASTIC SILT WITH SAND MH, moderate reddish brown, damp, very fine-fine sand, trace coarse sand		9773	
	5.0						9826	
6.0					5-6.5' Same as 3-3.2'	4	9649	
							9746	
		S-3	1.5'	5-10-10-9 (20)			9918	
	7.0						9758	
					7-9' Same as 3-3.2' Becoming coarser grained, wet at 8.8'	1	9626	QC 10120
							9706	
		S-4	2.0'				9419	
	9.0						9309 End	
					9-9.5' SANDSTONE, reddish brown, wet, very fine-fine grained, hard	NT		140 lb hammer-2" splitspoon
10.0								
		S-5	0.5'	22-29-29-14 (58)				
	11.0							
	11.33	S-6		50/4"	11' No recovery	NT		auger refusal 9' spoon refusal 11.33'
					End of Boring			

NT. Not Taken

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	C-36 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.2 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod and 140 lb hammer

WATER LEVELS **START** 4/7/92 1509 **FINISH** 4/7/92 1600 **LOGGER** S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-0.9' SILT ML, dark brown, moist, stiff, contains vegetation and rock fragments		2314	
							3530	
		S-1	1.5'	3-4-10-17 (14)	0.9-1.5' SILTY SAND SM, reddish brown, moist	0	5385	
	2.0						4467	
					2-3.75' POORLY GRADED SAND WITH SILT SP-SM, reddish brown, moist, contains sandstone fragments	0	4303 End	
		S-2	2'	34-27-25-25 (52)				
	4.0				3.75-4' POORLY GRADED SAND WITH SILT AND GRAVEL SP-SM. 4-5.75' SILTY SAND SM, red-brown, moist, firm, pieces of red brown sandstone fragments	0		
5.0		S-3	1.75'	48-49-39-22 (88)				
	6.0							
					6-7.5' POORLY GRADED SAND WITH SILT AND GRAVEL SP-SM, red-brown, saturated	NT		
		S-4	1.5'	11-17-21-27 (38)				
	8.0							
					End of Boring			
10.0								

NT: Not Taken

CRM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.DS.SL	C-37 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.9 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Tripod and 140 lb hammer

WATER LEVELS START 4/8/92 0840 FINISH 4/8/92 0905 LOGGER S. Scanlon

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
		S-1	2'	5-5-10-18 (10)	0-1.5' SILT ML, dark brown, moist, stiff, contains pieces of red sandstone	.5	24979	
							36955	
							37201	
					1.5-2' WELL GRADED SAND WITH SILT AND GRAVEL SW-SM, tan-brown, moist		48943	*QC 50137
	2.0							
		S-2	1.5'	7-8-45-50 (53)	2-2.25' WELL GRADED SAND WITH SILT SW-SM, tan, moist, dense	2.2	48346	
							25267	
					2.25-3.25' SILT ML, black, moist, firm, vegetation and roots		15216	
	4.0							
					3.25-3.5' ORGANIC SOIL OH, black, with gray mottling, moist, stiff, plastic, some roots and vegetation		10933 End	
5.0		S-3	0	8-22-23-31 (45)	4-6' Spoon empty, only a few pieces of red sandstone in tip, spoon contained water	NT		
	6.0							
					End of Boring			
10.0								

NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-38 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 67.4 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4"ID

WATER LEVELS **START** 2/18/92 1045 **FINISH** 2/18/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-0.5' ORGANIC SOIL WITH SAND, grayish brown, damp grass, roots, brick at 0.5' (fill)	0	17970	300 lb hammer-3" splitspoon
							25778	
		S-1	1.8'	3-2-3-5 (5)	0.5-1.8' ELASTIC SILT MH, moderate brown, damp, interbedded with semiconsolidated fine sand, moderate brownish red		30555	Borehole installed within a radiological burial site
							36808	
	2.0					0	51564	
					2-3.5' Same as 0.5-1.8'			
							86938	
		S-2	2.0'	4-5-5-5 (10)	3.5-4' LEAN CLAY CL, black, slightly damp, white mottling (fill)		169429	
							319922	
	4.0					2	478061	
					4-5' LEAN CLAY CL, black and white mottling, damp (fill)		467389	
5.0		S-3	1.0'	1-1-1-1 (2)			455484	
							524127	
	6.0					17.8	591631	odor present
					6-6.7' LEAN CLAY CL, black, with white mottling, wet, roots (fill)		634343	
		S-4	1.7'	1-1-1-1 (2)			599712	
							600475	
	8.0					20	631803	
					8-9.9' LEAN CLAY CL, black with white mottling, wet, bottom 0.2' is olive gray (fill)		674782	
		S-5	1.9'	1-1-1-1 (2)			712899	
							740007	
10.0	10.0					10	784846	
					10-12' LEAN CLAY CL, black with white mottling wet at 10.1-10.3'; lense of white clay; semiconsolidated, red brown silt encountered in bottom of spoon		820900	
		S-6	2.0'	1-1-1-1 (2)			867544	*QC 867329
	12.0						815200	
					12-13.66' POORLY GRADED SAND WITH SILT SP-SM, moderate brown, slightly damp, trace clay, semiconsolidated	NT	607411	140 lb hammer-2" splitspoon
		S-7	1.7'	7-27-46-50/2" (73)			396356 End	
	13.7							auger refusal 13' spoon refusal 13'8"
					End of Boring			
								NT: Not Taken

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-39 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 62.2 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4"ID

WATER LEVELS START 2/18/92 0830 FINISH 2/18/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-0.5' gravel, trap rock	3.2	7428	300 lb hammer-3" splitspoon
		S-1	2.0'	8-14-13-13 (27)	0.5-2' SILT ML, brownish red to moderate brown, dry, trace clay, trace cobbles		11868	
							12230	
	2.0						12680	
					2-2.83' SILT ML, moderate brown to brownish red, dry, semiconsolidated	2.1	13415	3' very slow augering
		S-2	0.83'	24-50/4"			13235	
							13434	
	4.0						13696	*QC 13572
					4-6' SILT ML, brownish red to moderate brown, slightly damp, little clay, occasional cobbles of semiconsolidated silt	2.0	13552 End	
5.0		S-3	2.0'	24-28-30-25 (58)				
	6.0					3.6		
					6-8' Same as interval 4-6', damp			auger refusal 5'
		S-4	2.0'	25-25-16-18 (41)				
	8.0							
					End of Boring			
10.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-40 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 60.4 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/13/92 1335 **FINISH** 2/13/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
					0-0.6' asphalt and trap rock	4.9	9434	300 lb hammer-3" splitspoon
		S-1	1.8'	2-6-5-8 (11)	0.6-1.1' SANDY SILT ML, grayish brown, dry, trace clay 1.1-1.8' SANDY SILT ML, dark yellowish orange, dry, trace clay		11007 10715 10910	
	2.0							
		S-2	1.9'	7-9-14-14 (23)	2-3.9' CLAYEY SAND SC, moderate brown, dry, sandstone cobbles, medium-very fine grained	6.8	11563 11661 11386 10620	
	4.0							
5.0		S-3	2.0'	9-11-12-26 (23)	4-6' SILT ML, dark reddish brown, dry, trace gravel and coarse sand, semiconsolidated silt at 6', friable	10.8	10381 10292 10564 10470	*QC 10583
	6.0							
		S-4	2.0'	18-18-20-26 (38)	6-8' ELASTIC SILT MH, dark reddish brown, dry, trace gravel and medium sand, some shale fragments	10.1	11473 11030 10120 9918	Hard drilling
	8.0							
		S-5	1.0'	11-40-50/3" (90)	8-8.5' POORLY GRADED SAND SP, dark reddish brown, dry, medium-fine sand, layered, semiconsolidated	10.8	9853 9555 9539	spoon refusal 9.25' auger refusal 9.5'
	9.25				8.5-9' SILTY SAND SM, dark reddish brown, dry, angular, occasional sandstone cobbles		9501	
10.0					End of Boring		End	

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-41 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 54.2 MSL **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS **START** 2/12/92 1320 **FINISH** 2/12/92 **LOGGER** L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' ORGANIC SOIL WITH SAND OL, grayish brown, slightly damp, very fine-fine sand, roots, grass top 6" (fill)	0	15073	300 lb hammer-3" splitspoon
		S-1	1.5'	2-2-2-1 (4)			23066	
					1-1.5' SANDY ORGANIC SOIL WITH GRAVEL OH, grayish black, slightly damp, very fine-fine sand, roots, mossy material (fill)		29701	
	2.0						32753	
					2-3' POORLY GRADED SAND WITH GRAVEL SP grayish black, slightly damp, organic matter (fill)	0	27778	
		S-2	1.5'	3-3-7-5 (10)			21815	
					3-3.5' SILT WITH SAND ML, dark yellowish brown, dry, very fine-coarse sand, trace clay, dense		17046	*QC 17143
	4.0						11651	
					4-5' POORLY GRADED SAND WITH CLAY SP-SC, grayish brown, damp, very fine-fine sand, black streaks throughout; large cobbles (fill)	0	11050	
5.0		S-3	1.0'	2-3-3-8 (6)			10417	
							10239	
	6.0						10119	
					6-6.7' POORLY GRADED SAND SP, with trace gravel, dark gray, angular semiconsolidated shale and green rock chips and trace clay throughout, slightly damp (fill)	0	10257	
		S-4	2.0'	19-20-25-21 (45)			9788	
					7.7-8' SILT ML, dark reddish brown, dry, trace cobbles		8565	
	8.0						8750	
					8-9' SILTY SAND SM, dark reddish brown, dry, very fine-fine sand, trace cobbles, zone of semiconsolidated material 8-8.5'	0	9757	8' augers scraping
		S-5	1.5'	7-19-22-28 (41)			10855	*QC 10741
					9-9.5' POORLY GRADED SAND SP, dark reddish brown, dry, semiconsolidated, medium grained sand, subrounded		12141	
	10.0						11898	
10.0					10-12' SILTY SAND SM, dark reddish brown, damp-wet, medium grained sand, trace clay, semiconsolidated sandstone fragments throughout	0	12157	
		S-6	2.0'	4-8-6-15 (14)			12431	
							12524	
	12.0						12958	
					12-12.33' SILT ML, dark reddish brown, slightly damp, semiconsolidated	0	13405 End	spoon refusal 12.33' auger refusal 12.55'
	12.55	S-7	.33"	50/4"	End of Boring			

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.SI	C-42	SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 56.4 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/19/92 1430 FINISH 2/19/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1.8' SILTY SAND SM, gray black dry, gravel, bricks, concrete, fiberous material (fill)	111	6059	300 lb hammer-3" splitspoon
							18474	
		S-1	1.8'	13-19-6-8 (25)			39783	
	2.0						47483	
					2-3' Same as interval 0-1.8'	108	38092	
							24611	
		S-2	1.6'	9-9-4-9 (13)	3-3.6' POORLY GRADED SAND WITH SILT SP-SM, medium dark gray, dry, loose, layers of light and dark gray silt (fill)		17617	
	4.0						15603	
					4-4.8' POORLY GRADED SAND WITH SILT SP-SM, abundant asphalt throughout	112	14414	
							11963	
5.0		S-3	2.0'	1-1-1-1 (2)	4.8-6' LEAN CLAY CL, olive black, damp, very soft (fill)		11842	
	6.0						10523	
						100	10007	
		S-4	2.0'	2-4-12-13 (16)	6-8' POORLY GRADED SAND SP, moderate yellowish brown to dark yellowish brown, wet, medium-fine sand, trace coarse sand, gravel bricks, asphalt (fill)		11070	*QC 10920
							11823	
	8.0						10631	
					8-8.75' POORLY GRADED SAND SP, grayish brown, damp, fine-medium sand, trace coarse sand, trace silt	55	8993	
		S-5	2.0'	4-8-8-9 (16)			8615	
					8.7-10' ELASTIC SILT MH, dark yellowish orange and mottled light gray, slightly damp		8786	
	10.0						8072	
10.0					10-11.7' SILT ML, yellowish orange and light gray mottling, dry, trace sand, slightly plastic	8.8	7575	
		S-6	1.9'	4-6-7-8 (13)	11.7-11.9' SILTY SAND SM, dark yellowish brown, damp to wet, fine-medium sand, feldspar, opaques, quartz		7105	
							7068	
	12.0						7225	
					12-13.5' SILTY SAND SM, dark yellowish brown, wet, fine-coarse sand, opaques, feldspar and quartz, lenses of coarse sand	7.0	7320	
		S-7	1.5'	8-8-9-14 (17)			6427	
							6437	
	14.0						6229	
					14-15' WELL GRADED SAND SW, brownish gray, wet, fine-coarse sand of quartz feldspar, opaques, trace feldspar gravel, subangular-subrounded	18.8	6228 End	
		S-8	1.25'	3-15-50/3"				auger refusal 15' spoon refusal 15.25
15.0	15.33				15-15.25' SANDY SILT ML, dark reddish brown, damp, trace gravel, semiconsolidated			
					End of Boring			

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.SI	C-43	SHEET 1 OF 2

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 59.3 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/19/92 1015 FINISH 2/19/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock		5682	300 lb hammer-3" splitspoon
		N/A					7885	
	1.0							
						13.8	13606	
					1-3' SANDY SILT ML, brownish black, trace clay, bricks, cobbles, semiconsolidated (fill)		20067	
		S-1	2.0'	3-5-7-9 (12)			19355	
							20980	
	3.0							
						45	16349	
					3-3.7' Same as interval 1-3'		14320	
					3.7-4.7' WELL GRADED SAND WITH CLAY SW-SC, moderate brown, dry, very fine to medium sand, cobbles throughout		15425	
		S-2	1.7'	6-18-12-11 (30)			11606	
	5.0							
5.0						3.5	10435	
					5-5.5' Same as 3.7-4.7'		10435	
					5.5-6.5' ELASTIC SILT WITH SAND MH, moderate reddish brown, dry, very fine to medium sand, semiconsolidated pieces of silt and sand throughout		9678	
		S-3	1.5'	3-10-11-14 (21)			10564	
	7.0							
						30	10658	
					7-8.8' Same as 5.5-6.5'		10187	
							10508	
		S-4	1.8'	16-29-29-21 (58)			10085	
	9.0							
						31.3	11429	
					9-10.5' Same as 5.5-6.5', except damp		10949	*QC 11112
							11473	
10.0		S-5	1.5'	3-7-10-7 (17)			10861	
	11.0							
						111	10699	
					11-13' Same as 5.5-6.5' soils becoming more consolidated		10292	
		S-6	2.0'	3-20-20-8 (40)			10753	
	13.0						11015	

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-43 SHEET 2 OF 2

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 59.3 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/19/92 1015 FINISH 2/19/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
	13.0				Minimal sample recovery, reddish brown shale in bottom of spoon, wet		11343	
		S-7	0.2'	15-13-12-9 (25)			11279 End	auger refusal 13'
15.0	15.0				End of Boring			
20.0								
25.0								

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	C-44 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 54.8 MSL DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS START 2/13/92 940 FINISH 2/13/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1.2' SILTY SAND SM, gravel, bricks, wood chips, concrete, (fill)	21	10468	0940 begin drilling
							22292	slight odor present
		S-1	1.2'	18-24-24-20 (48)			27011	
	2.0						27063	
					2-3' POORLY GRADED SAND WITH SILT SP-SM, grayish black, dry, very fine-fine sand, angular shale chips, reddish brown (fill)	211	21608	strong odor present
		S-2	1.0'	11-8-6-6 (14)			16367	*QC 16524
							12201	slight shimmer to soil
	4.0						10916	
					0-1.6' POORLY GRADED SAND WITH SILT SP-SM, olive gray, wet, very fine-fine sand, trace medium sand, angular shale chips, grayish red	49.9	10430	
5.0		S-3	1.6'	3-3-5-11 (8)			12717	
							13892	
	6.0						13608	
					6-7.5' SANDY SILT ML, moderate reddish brown to moderate brown, dry, very fine sand, semiconsolidated, some shale and sandstone fragments	143	11103	Hard drilling
		S-4	1.5'	23-29-37-42 (66)			9886	sweet odor present
							9716	
	8.0						9645	
					8-9.7' POOLY GRADED SAND WITH SILT SP-SM, medium gray, slightly damp, trace gravel, medium sand, shale pieces throughout moderate brown and brownish gray	190	9538	sweet odor present
		S-5	1.7'	15-21-24-32 (45)			9721	
							10045	
	10.0						9637	
10.0					10-10.7' WELL GRADED SAND WITH SILT AND GRAVEL SW-SM, light gray, damp	264	10360	auger scraping 10'
		S-6	2.0'	13-10-11-21 (22)	10.7-12' SILTY SAND SM, pale reddish brown, dry, consolidated		10246 End	sweet odor present
	12.0							
					12-12.83' POORLY GRADED SAND WITH SILT SP-SM, moderate reddish brown, wet, very fine-fine sand, saturated at 12.5'			scraping augers 12'
	12.83	S-7	0.83'	69-50/4"				auger refusal 12' spoon refusal 12.83'
					End of Boring			

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.WI	OBMW1 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION ____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 using HSA 6 1/4" ID

WATER LEVELS ____ START 4/1/92 1430 FINISH 4/1/92 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION (SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY)	HEADSPACE READING (ppm)	GAMMA LOG (cpm)	COMMENTS (DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION)
					0-1' asphalt and trap rock			140 lb hammer-2" splitspoon
	1.0							
		S-1	1.0'	7-44-25-8 (69)	1-1.3' WELL GRADED SAND WITH SILT SW-SM, dark yellowish brown, slightly damp, very fine to medium sand, trace clay 1.3-1.7' sandstone cobble, dark reddish brown, very fine grained 1.7-2' WELL GRADED SAND WITH CLAY SW-SC, dark yellowish orange, saturated			
	3.0							
		S-2	2.0'	10-10-16-15 (26)	3-5' WELL GRADED SAND SW, moderate yellowish brown, wet, very fine-coarse sand, quartz, feldspar, subangular at 4.5-4.75' layer of medium-coarse sand and fine gravel			
	5.0							
5.0		S-3	1.0'	20-21-17-24 (38)	5-5.5' POORLY GRADED SAND SP, moderate yellowish brown medium-coarse sand, saturated, subangular-subrounded, quartz, feldspar, opaques 5.5-6' POORLY GRADED SAND WITH CLAY SW-SC, moderate yellowish brown, saturated fine to very fine sand			
	7.0							
		S-4	1.0'	13-15-24-30 (39)	7-8' POORLY GRADED SAND WITH SILT SP-SM, trace clay, reddish brown, saturated, very fine to fine sand, sandstone chips dark, reddish brown, very fine to fine grain			
	9.0							
					End of Boring			
10.0								

Appendix E
Test-Pit Technical Memorandum

TECHNICAL MEMORANDUM CH2MHILL

TO: Mary Manto/CH2M HILL/NJO
Scott Vozza/CH2M HILL/NJO

FROM: Mary Kate Dwyer/CH2M HILL/NJO
John Longo/CH2M HILL/NJO

DATE: January 26, 1993

SUBJECT: Stepan Company and Sears and Adjacent Properties RI, Test-Pit Program

PROJECT: NJO22948.ST.TP

1.0 Introduction and Background

Starting in September 1991 and ending in March 1992, a surface geophysics investigation using a magnetometer was conducted on the Stepan, Sears, DeSaussure, Sunoco, Gulf, AMP, SWS, and Federal Express properties. The survey was conducted as part of the remedial investigation (RI) to identify areas of buried metal, which may have been potential sources of chemical contamination. The results of the magnetometer investigations were used to select locations for test pits used to characterize the buried material.

The technical memoranda describing the investigations were submitted previously to the United States Environmental Protection Agency (EPA) and EPA's oversight contractor TRC (formerly Alliance).

Test-pit locations were investigated on the Stepan, Sears, DeSaussure, Sunoco, AMP, SWS, and Federal Express properties from March 25 to May 21, 1992. Test pits were excavated on all the properties that were investigated with surface geophysics, except for the Gulf property. One hundred and twenty-nine test-pits were excavated during the field program. The test-pit team consisted of the CH2M HILL test-pit coordinator, sample manager, and industrial hygienist, the Bechtel site superintendent, health physicist (TMA Eberline), the construction/immediate response contractor (Conti Environmental), and the EPA oversight contractor TRC (formerly Alliance).

The purpose of the test-pit program was to physically investigate anomalous areas of potential buried metal identified during the surface geophysics survey. Test-pits were excavated to determine the source of the magnetic anomalies. An anomalous area was defined by either of the following criteria:

- Anomalies greater than 100 gammas extending over two or more adjacent survey lines (20 feet)

- One-line anomalies in which data on adjacent lines are inconclusive or missing because of known surface or subsurface interferences; the anomalies were exceptionally strong (several hundred gammas); and the shape of the anomalies suggested that the long dimensions of the anomalies were parallel to the survey line, in which case optimum resolution might not have been obtained

The test pits chosen for excavation were located above the strongest anomaly within each area suspected to contain buried metal. The typical area of each test pit consisted of a 10-by-10-foot excavation, unless the metal detector registered a strong response over a smaller or larger area. By concentrating on the strongest anomalies within the test-pit areas, the type of materials producing the largest anomalies were documented.

If no metal was located to explain the anomaly after the excavation was completed, no further excavation occurred within the area, which differed from the procedure specified in the workplan. The original planned approach was to continue excavating until the source of the magnetic anomaly was found. However, this approach was later modified and subsequently approved by EPA, because if no metal was found beneath the strongest anomaly, it was unlikely that metal would be found in other portions of the area. In addition, the large number of closely spaced anomalies made it infeasible to excavate every anomaly. Therefore, the anomaly exhibiting the greatest strength within a group of closely spaced anomalies was excavated and characterized.

As described in Section 2.0, all anomalies were field-screened with a metal detector to confirm the location identified during the geophysics survey. All anomalous areas were not investigated on each property as was originally proposed in the workplan, because there were a large number of anomalous areas found. On the Stepan property, Stepan amended property, and Sears property, a select number of anomalous areas were chosen for the test-pit program. These areas contained some of the strongest and most extensive anomalies and were chosen to provide sufficient areal coverage of the properties. On the DeSaussure, Sunoco, AMP, SWS, and Federal Express properties, all anomalous areas were investigated, except those located above gaslines or known utilities. No test pits were recommended on Gulf, because the two anomalies identified were thought to be caused by underground

utilities and overhead powerlines. The EPA reviewed the selection of all areas that were recommended for test pitting and approved the locations selected and the recommended approach.

EPA requested that a number of test pits be excavated at the end of the program. These test pits had previously been deleted from the program after they had been field-screened. No source of metal could be verified with a metal detector in these locations. The following areas were excavated at the request of EPA: Stepan (Area 65), AMP (Area 2), DeSaussure (Area 15), Federal Express (Areas 2 and 6), and Sears (Areas 1090E, 1970N; 900E, 1630N; 14; 15; and 1280E, 790N).

A total of 129 test pits was excavated during the field program. The number of test-pits investigated on each property is listed below:

- Stepan–22
- Stepan Amended–11
- Desaussure–12
- Sunoco–11
- AMP–5
- Federal Express–7
- SWS–11
- Sears–50

Figures 1-1 through 1-8 in Attachment 1 show the test-pit locations on each of the properties.

2.0 Field Investigation Methods and Procedures

Anomalous areas were field screened with a metal detector before excavation to accurately locate the position and extent of buried metal. If no metal was detected in areas where a potential source of interference was present, the anomaly was attributed to the cultural source and the anomaly was not investigated by test pitting (except at the locations where EPA requested test pits to be excavated).

2.1 Health and Safety

After the location of the source of the buried metal was determined and staked out, an exclusion zone was established around the perimeter of the proposed test-pit location. Data from previous investigations and onsite monitoring were used to determine the necessary level of personal protective equipment (PPE). Most test pits were initiated in a minimum of Level C personal protection. Where data from

previous investigations indicated increased potential for high levels of chemical contamination and/or the presence of drums, operations were initiated in Level B protection. If appropriate, levels of protection were downgraded for backfilling. TMA Eberline monitored health and safety for CH2M HILL and CH2M HILL-subcontractor personnel, as specified in Revision 1 of the project-specific CH2M HILL health and safety plan amendment of March 1992.

PPE that was not indicated as contaminated by the field instrument screening was double bagged and disposed of in the municipal dumpster located on the property where the PPE was generated. PPE suspected to be chemically contaminated was bagged and drummed and stored on the property where it was generated. PPE that was potentially contaminated with radiological materials (as indicated by hand-held portable scanners) was bagged separately and relinquished to the United States Department of Energy (DOE) through Bechtel personnel.

2.2 Excavation

Test pits were excavated with a rubber tire JCB-1700B combination backhoe that was capable of excavating to a maximum depth of 10 feet below grade. Test pits were logged for soil type and stratigraphy logs are provided in Attachment 2. Chemical and radiological monitoring data were collected. Test pit logs are provided in Attachment 2. Excavated soil with elevated levels of chemical or radiological contamination was placed on poly sheeting until the test pit was backfilled. In areas where chemical or radiological contamination did not appear to be elevated with respect to the surrounding and adjacent surface, soils were piled on the ground surface adjacent to the test pit during the excavation. Test pits were terminated when one of the following occurred:

- A sufficient quantity of buried ferromagnetic material was encountered to explain the anomaly.
- Saturated soils, bedrock, or native soil was reached.
- The metal detector indicated that no metal was present in the excavation.

Any metal present in the excavation was documented as it was manually removed or excavated, and it was photographed either on the surface or in the test pit, if the metal could not be removed. In a large number of test pits, soil excavation continued until native soils were encountered, in accordance with the procedure in the workplan, in order to determine the thickness of the fill material. In some cases, the

test pit was terminated at a shallower depth when a sufficient quantity of buried metal was removed and the metal detector showed no response over the excavation. EPA agreed with this criteria for termination.

The one buried container that was ruptured as a result of test pitting activities was removed and overpacked. Drums that appeared to have leaked were left in place. Because the objective of the test-pit program was to determine the presence of drums rather than remediate those drums, EPA agreed that degraded containers could be left in the excavation. During test-pitting, one container encountered in test pit 104 (Sears) was inadvertently damaged with the backhoe bucket. This container was removed and overpacked on May 15, 1992. The overpacked drum is being stored at Sears. In excavations where degraded containers were encountered, sorbent materials were placed around the potentially leaking container to absorb any free liquids.

When the excavation of each test pit was complete, the excavated soil was used to backfill the test pit. Backfilling was completed in compacted one-foot lifts. The backhoe bucket was used to compact soils in test pits excavated to a greater depth than four feet below grade. Soils placed in shallower test pits were compacted with the backhoe bucket or a mechanical vibrating plate. Excess soil was contained in drums and labeled by location. Soil is being stored on the property where it was generated.

In areas where radiologically and/or chemically contaminated soils were encountered, clean fill was placed on the top of the excavation to prevent contact with contaminated material. In grassy areas, clean top soil, grass seed, and hay were placed over backfilled soils. In paved areas, a layer of 2-inch quarry-processed gravel was placed and compacted over the test pits. Test pits in paved areas will be restored at a later date. No test pit excavations were left open overnight.

2.3 Equipment Decontamination

The backhoe and bucket were field screened for radiological contamination by TMA Eberline before being moved to the next location and before leaving each property. If radiological readings were obtained at levels above surrounding background levels, visible soil material was scraped and/or brushed from the backhoe before it was moved to the following test-pit location. Visible soil removal continued until background radiological levels were measured. The backhoe bucket was chemically decontaminated between test pit locations when the bucket was suspected to be chemically contaminated. The EPA approved of this decontamination approach as long as visible soil was removed from the bucket before it was moved to the next test-pit area on the same property.

The backhoe bucket was also chemically decontaminated before leaving each property, before proceeding to test-pit locations at another property. Decontamination consisted of the following:

- Scraping and brushing bucket to remove visible soil
- Rinsing and scrubbing with deionized water
- Rinsing with 10% nitric acid
- Rinsing with deionized water
- Rinsing/wiping with pesticide-grade methanol
- Rinsing/wiping with pesticide-grade hexane
- Air drying

2.4 Sampling Activities

Samples were collected to characterize suspect contents of buried containers or drums, and/or soils potentially impacted by drum contents. Samples were collected from test pits that satisfied the following criteria:

- A release of material from a buried container was observed.
- A buried container was accessible and contained sufficient quantity of material for analytical testing.
- Soil appeared to be significantly contaminated (e.g., presence of free product, extensive staining).
- An unusual material such as sludge was encountered.
- The geologist or test-pit coordinator determined that analytical data was required to adequately characterize the test pit (i.e., there was an abundance of miscellaneous fill material).

Samples were collected for analyses specified in Section 4.3.8 of the RI/FS workplans and operational plans for Stepan Company and Sears and adjacent properties. Samples were not collected from every drum encountered during the investigation, as was originally stated in the workplan. However, representatives samples were collected for each type of material that was found in the drums that were located. When a number of drums were found containing a similar type of material, one or two samples were collected to characterize the contents. This modified approach was approved by TRC and EPA during the test-pit program. A total of 20 samples was

collected during the test-pit program (not including field equipment blanks, matrix spike/matrix spike duplicates [MS/MSDs], and field duplicates). An additional six samples were collected for quality assurance/quality control (QA/QC).

2.4.1 Analytical Parameters

Samples were analyzed for the following parameters:

- Target Compound List (TCL) volatile organic compounds (VOCs)
- TCL semi-volatile organic compounds
- TCL pesticides and PCBs
- α-pinene, *d*-limonene, and caffeine
- Target Analyte List (TAL) metals and cyanide
- Toxicity Characteristic Leaching Procedure (TCLP) volatiles, semivolatiles, pesticides, and herbicides
- TCLP metals
- Gross alpha and beta, radium-226, radium-228, thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238

Headspace analysis was used to field screen samples for organic vapors with an OVM and an OVA (Section 2.5). Samples were also screened in the field laboratory for thorium-232 and/or radium-226 activity, using the Tennelec Model 6000 multichannel pulse height analyzer. Sample screening results were used to determine proper Department of Transportation (DOT) sample shipping procedures and to provide the laboratories with sample radioactivity documentation and information on the magnitude of VOC contamination.

2.4.2 Sampling Procedures

Samples were collected using laboratory-decontaminated stainless-steel bowls, trowels, and spoons. Whenever possible, samples were collected directly from drums or the sidewalls of the excavation. Samples collected from the backhoe bucket (at depths greater than four feet below grade) consisted only of sample material that had not contacted the bucket.

Samples collected directly from a buried container or drum were collected with trowels and placed into a stainless-steel bowl. Headspace and VOC samples were collected, prior to sample homogenization. Headspace samples were placed into a 16-ounce nalgene jar, covered with aluminum foil, and screened with a field organic-vapor monitor 10 minutes after the time of collection. The headspace sample was then used by the field laboratory for radiological screening.

After the collection of headspace and VOC samples, the sample was homogenized within the stainless-steel bowl using a trowel and the remainder of the samples were placed in jars. Samples sent for laboratory analyses were placed in laboratory-decontaminated sample jars.

Samples collected for radiological analyses were shipped by overnight courier to Core Laboratories, Inc., of Casper, Wyoming. Samples collected for inorganic and organic analyses were shipped via overnight courier to TCT St. Louis Laboratories, Inc., of St. Louis, Missouri. Both Core and TCT Laboratories maintain active Nuclear Regulatory Commission (NRC) radioactive materials licenses.

2.4.3 Sample Equipment Decontamination

Equipment used to collect samples during the test-pit program was decontaminated using the following:

- Phosphate-free detergent scrub and wash
- Deionized-water rinse
- 10% nitric acid rinse
- Deionized-water rinse
- Pesticide-grade methanol rinse
- Pesticide-grade hexane rinse
- Air drying
- Demonstrated analyte-free (HPLC grade) water rinse
- Air drying
- Aluminum foil wrap

Decontamination fluids generated on each property were drummed and subsequently stored on that property.

2.4.4 QA/QC Samples

QA/QC samples were collected as specified in Section 4.2.3.5 of the RI/FS workplans and operational plans for Stepan Company and Sears and adjacent properties, at the following frequencies:

- **Field duplicates:** 1 per 20 sample locations, or 1 per 2-week period; whichever was sooner.
- **Field equipment rinse blanks:** 1 per decontamination event, 1 per 20 samples collected, or 1 per 2-week period, whichever was sooner.
- **MS/MSDs:** 1 per 20 samples or 1 per 2-week period, whichever was sooner. MS/MSD samples were collected for laboratory QA/QC.

2.5 Field Monitoring

Field monitoring for organic vapors and radiological contamination was conducted throughout the test-pitting program. The monitoring was conducted in accordance with health and safety procedures, and also as part of field characterizing the soil from test pits for radiological and chemical contaminants.

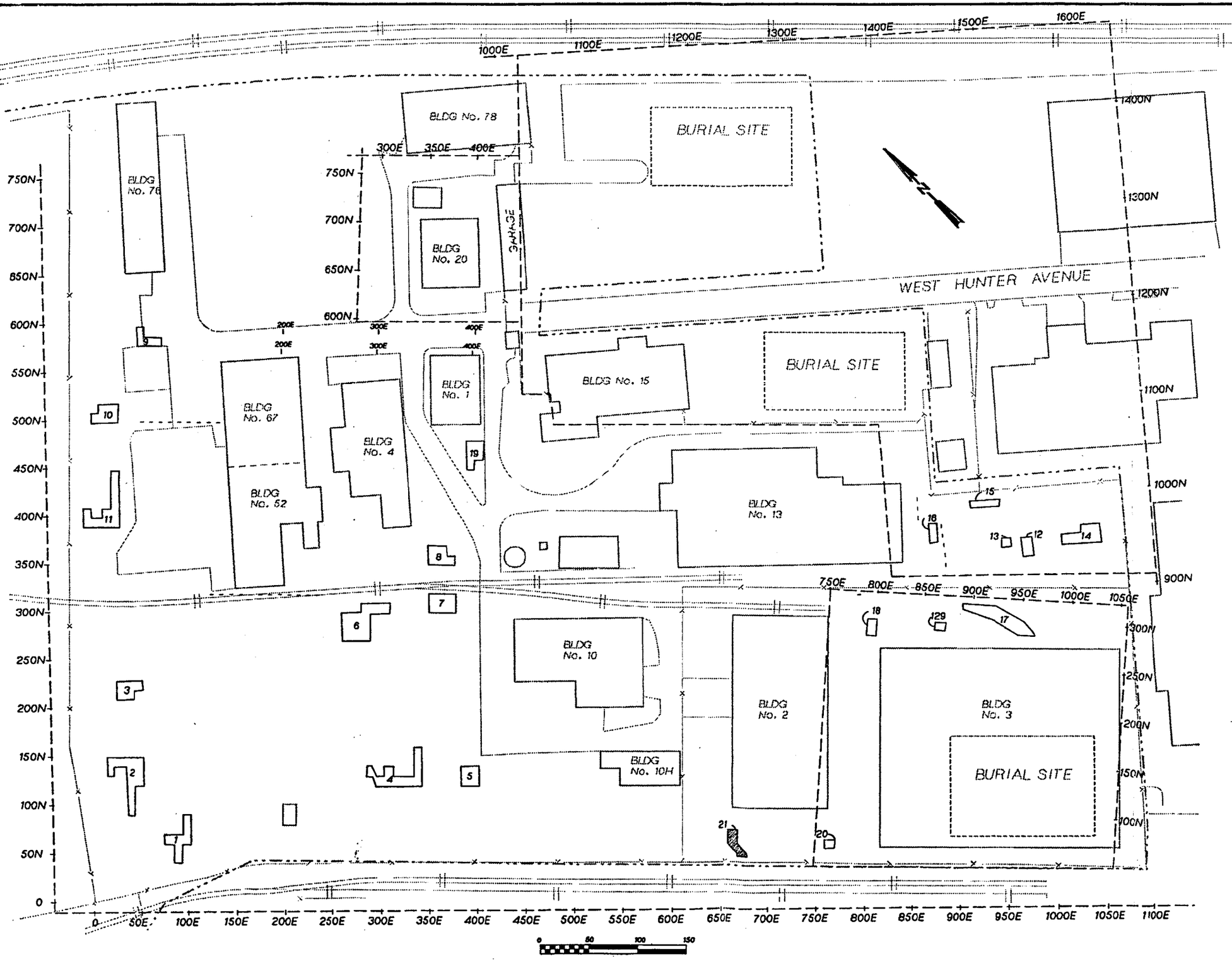
The following equipment was used to monitor for organic vapors and explosive conditions: a Century OVA, Model 128 and/or a TMA OVM, Model 580B (with a 10.6 eV bulb); and Exotox, Model 400F; and Drager tubes. Organic vapor monitoring was conducted by CH2M HILL's subcontracted industrial hygienist TMA Eberline.

3.0 Results of the Test-Pit Program

The results of the test-pit program are summarized in the tables contained in Attachment 3. Table 3-1 summarizes the metal found and the field monitoring results in each test pit for all properties, and indicates whether a sample was collected from the test-pit. Table 3-2 summarizes the samples collected from each property, the date of collection, sample depth, and headspace analysis result from each sample. Test pits where drums were encountered are indicated on Figures 1-1 through 1-8 (Attachment 1). Drums or containers containing residual materials were found only on the Sears property.

4.0 Summary and Conclusions

Analytical results from the test-pit sampling program are presented in Section 4.0 of the RI reports for Stepan Company and Sears and adjacent properties. In the section of the RI report that presents test-pit results, drum contents found on the Sears property have been categorized into distinct groups based on visual observations. Some degree of correlation between group type and similar analytical results was identified. A description of drum contents and their impact on surrounding soils is provided in the results section of the RI reports.



LEGEND

1 BOUNDARIES OF INTERPRETED METAL NO DRUMS FOUND

21 DRUMS FOUND NO CONTENTS IN DRUM

FIGURE 1

TEST-PIT LOCATIONS
STEPAN COMPANY
MAYWOOD, NJ

CH2M HILL

2948c012.dgn 21-Jan-1993

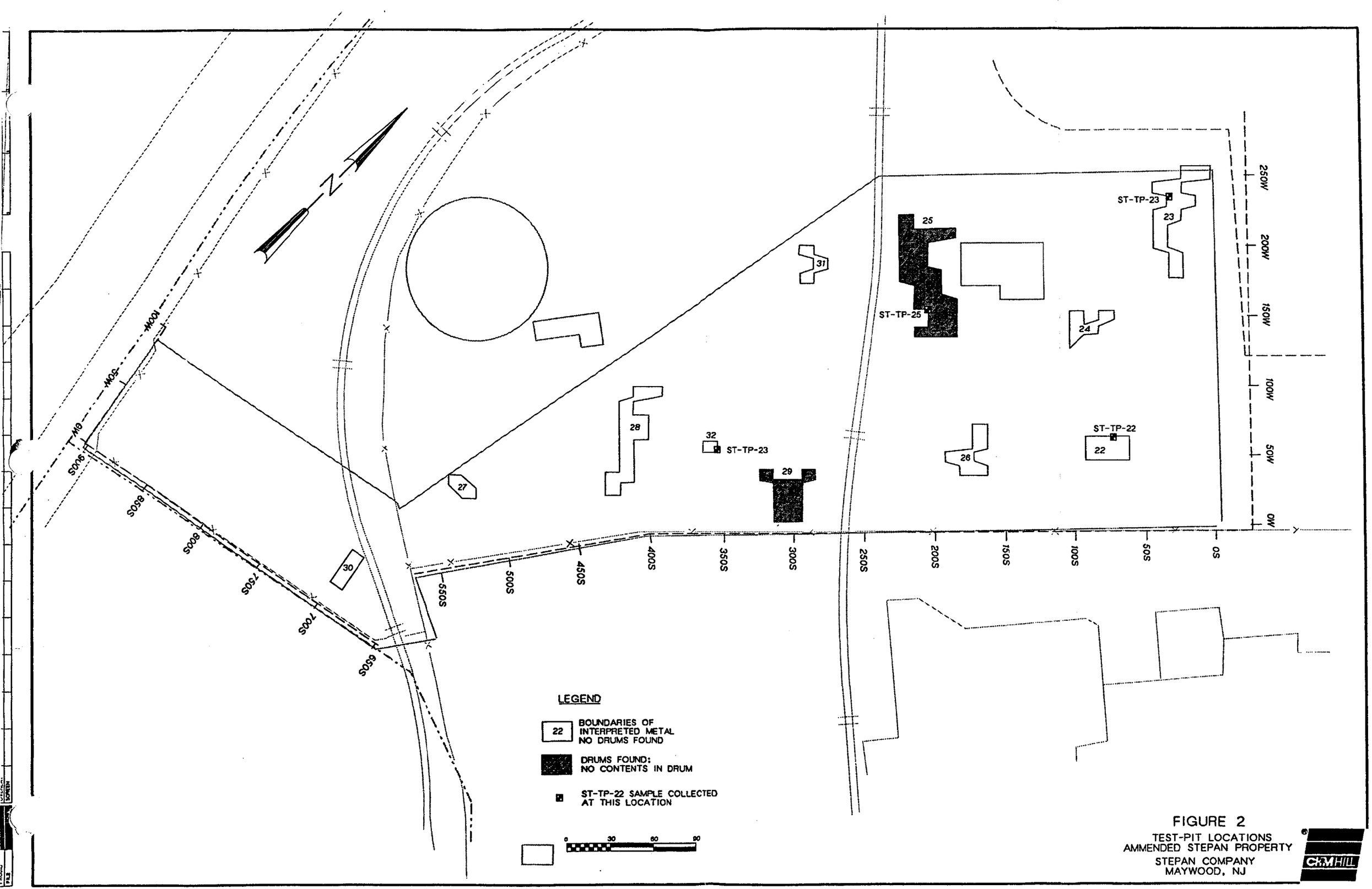
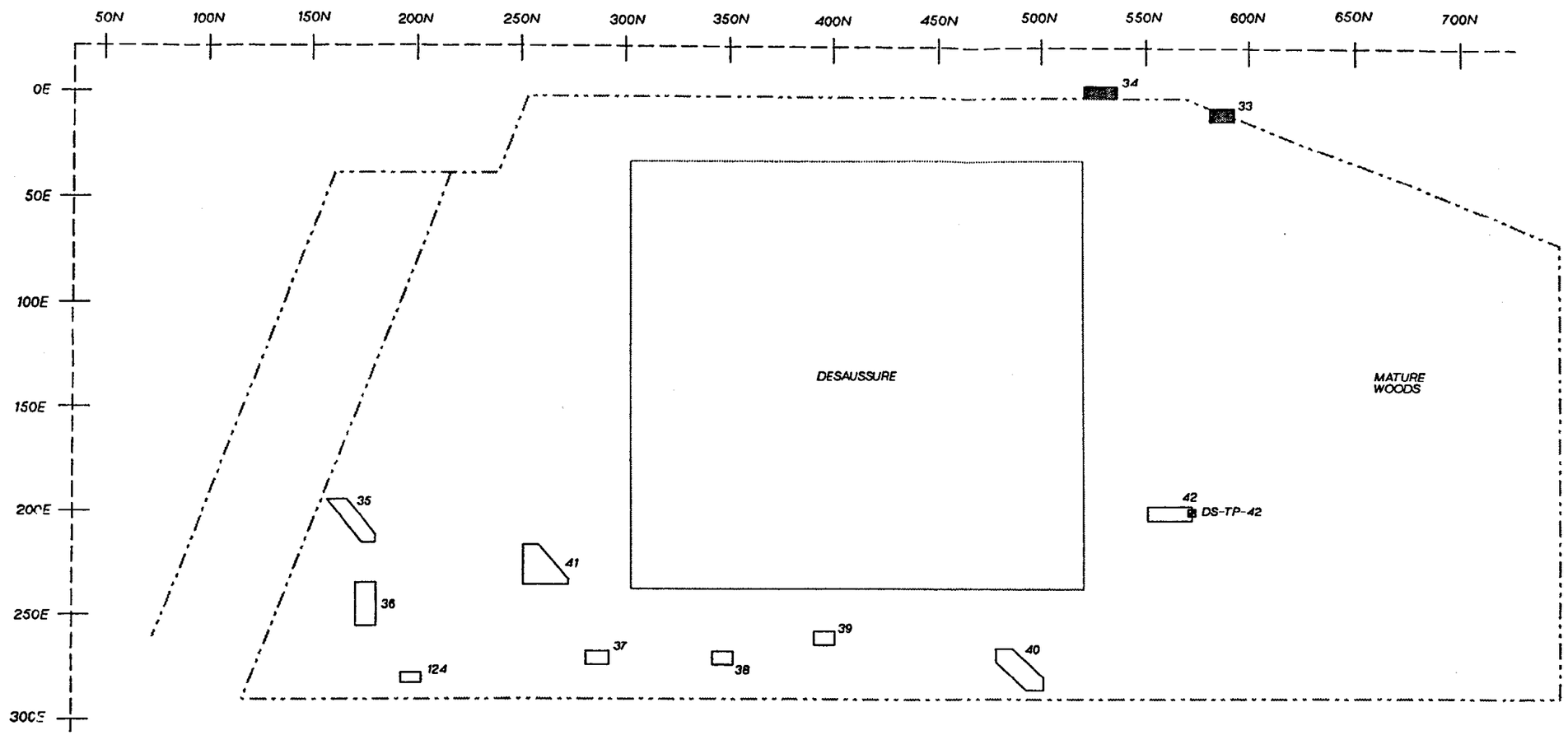


FIGURE 2

TEST-PIT LOCATIONS
AMMENDED STEPAN PROPERTY
STEPAN COMPANY
MAYWOOD, NJ

CH2MHILL

2648c028.dan 30-Dec-1992



0 30 60 90

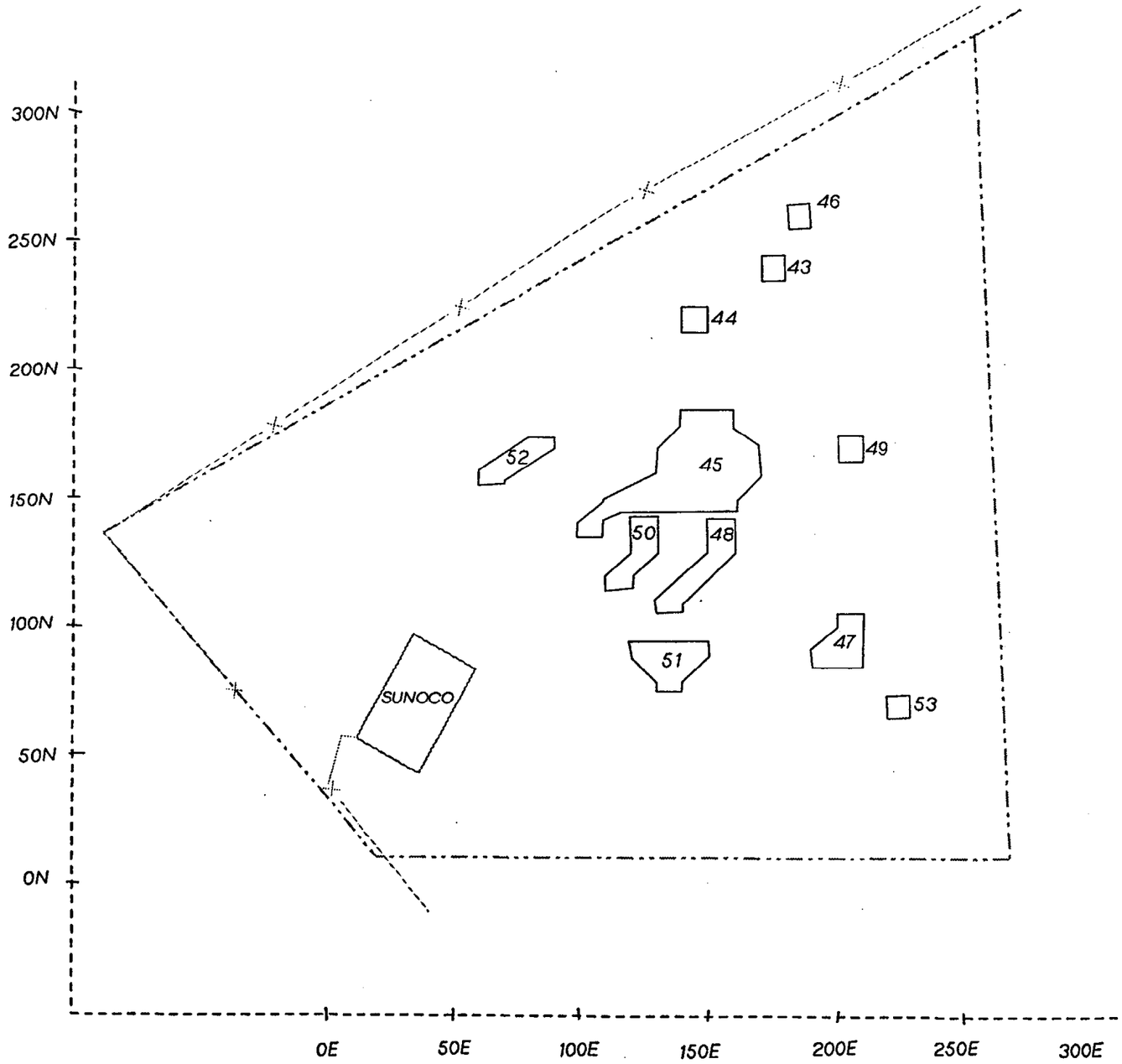
LEGEND

- PROPERTY LINE
- 35 BOUNDARIES OF INTERPRETED METAL NO DRUMS FOUND
- DRUMS FOUND: NO CONTENTS IN DRUMS
- *DS-TP-42 SAMPLE COLLECTED AT THIS LOCATION*

FIGURE 3
TEST-PIT LOCATIONS
DESAUSSURE PROPERTY
MAYWOOD, NJ

CH2MHILL

2948c019.dgn 30-Dec-1992



LEGEND

- SURVEY LINE
- FENCE LINE
- PROPERTY LINE
- 44 BOUNDARIES OF INTERPRETED METAL NO DRUMS FOUND

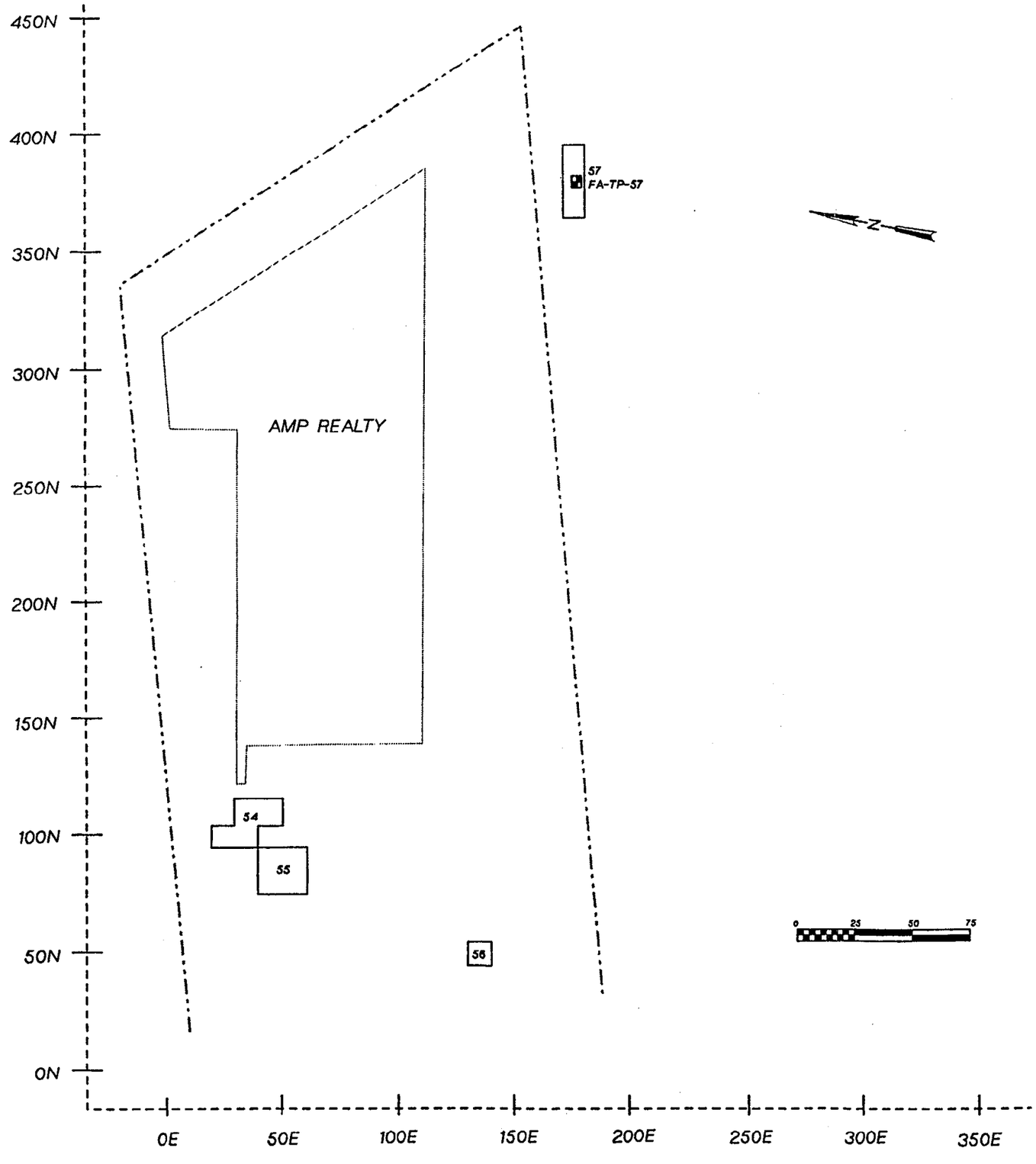
NOTE:
NO DRUMS FOUND ON SUNOCO PROPERTY

0 25 50 75

FIGURE 4
TEST-PIT LOCATIONS
SUNOCO PROPERTY
MAYWOOD, NJ

CH2MHILL

2848c021.dgn 30-Dec-1992



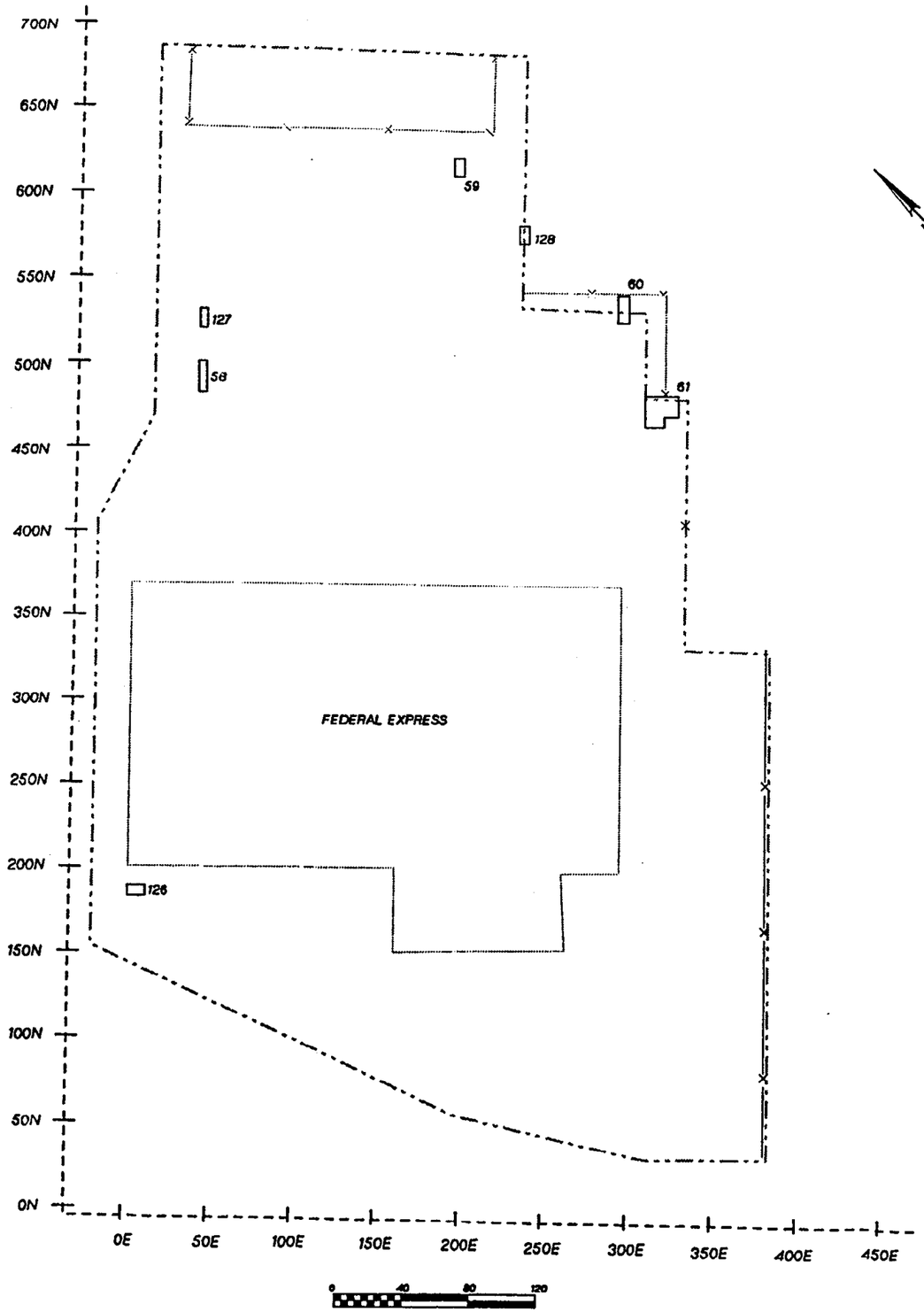
LEGEND

- FENCE LINE
- PROPERTY LINE
- 54 — BOUNDARIES OF INTERPRETED METAL NO DRUMS FOUND
- FA-TP-57 SAMPLE COLLECTED AT THIS LOCATION

NOTE:
NO DRUMS FOUND ON AMP REALTY PROPERTY

FIGURE 5
TEST-PIT LOCATIONS
AMP REALTY
MAYWOOD, NJ

CH2MHILL



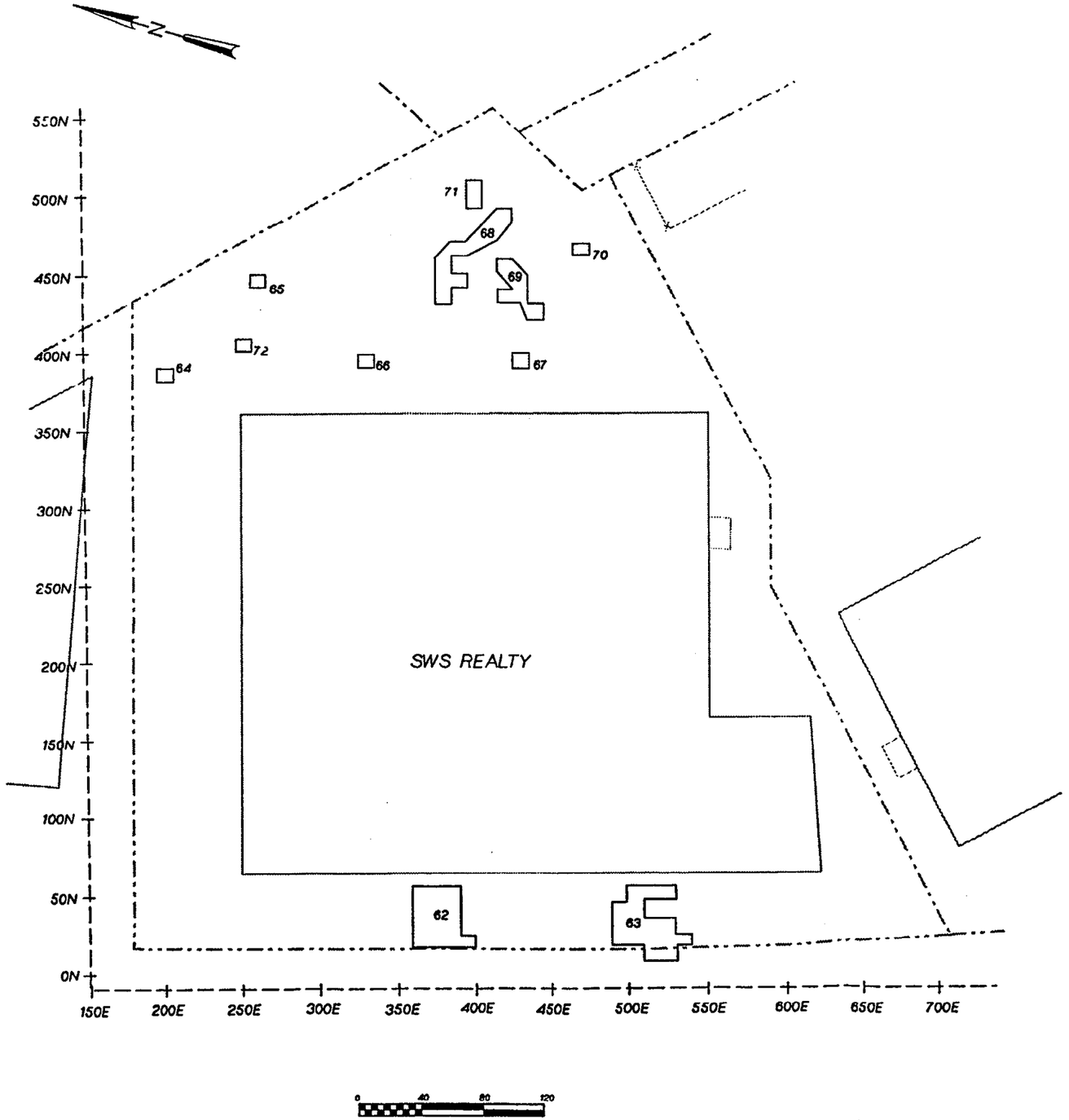
LEGEND

- FENCE LINE
- PROPERTY LINE
- [58] BOUNDARIES OF INTERPRETED METAL NO DRUMS FOUND

NOTE:
NO DRUMS FOUND ON FEDERAL EXPRESS PROPERTY

FIGURE 6
TEST-PIT LOCATIONS
FEDERAL EXPRESS PROPERTY
MAYWOOD, NJ

CH2MHILL



LEGEND

---- PROPERTY LINE

62 BOUNDARIES OF INTERPRETED METAL NO DRUMS FOUND

NOTE:
NO DRUMS FOUND ON SWS REALTY PROPERTY

FIGURE 7
TEST-PIT LOCATIONS
SWS REALTY PROPERTY
MAYWOOD, NJ

CH2M HILL

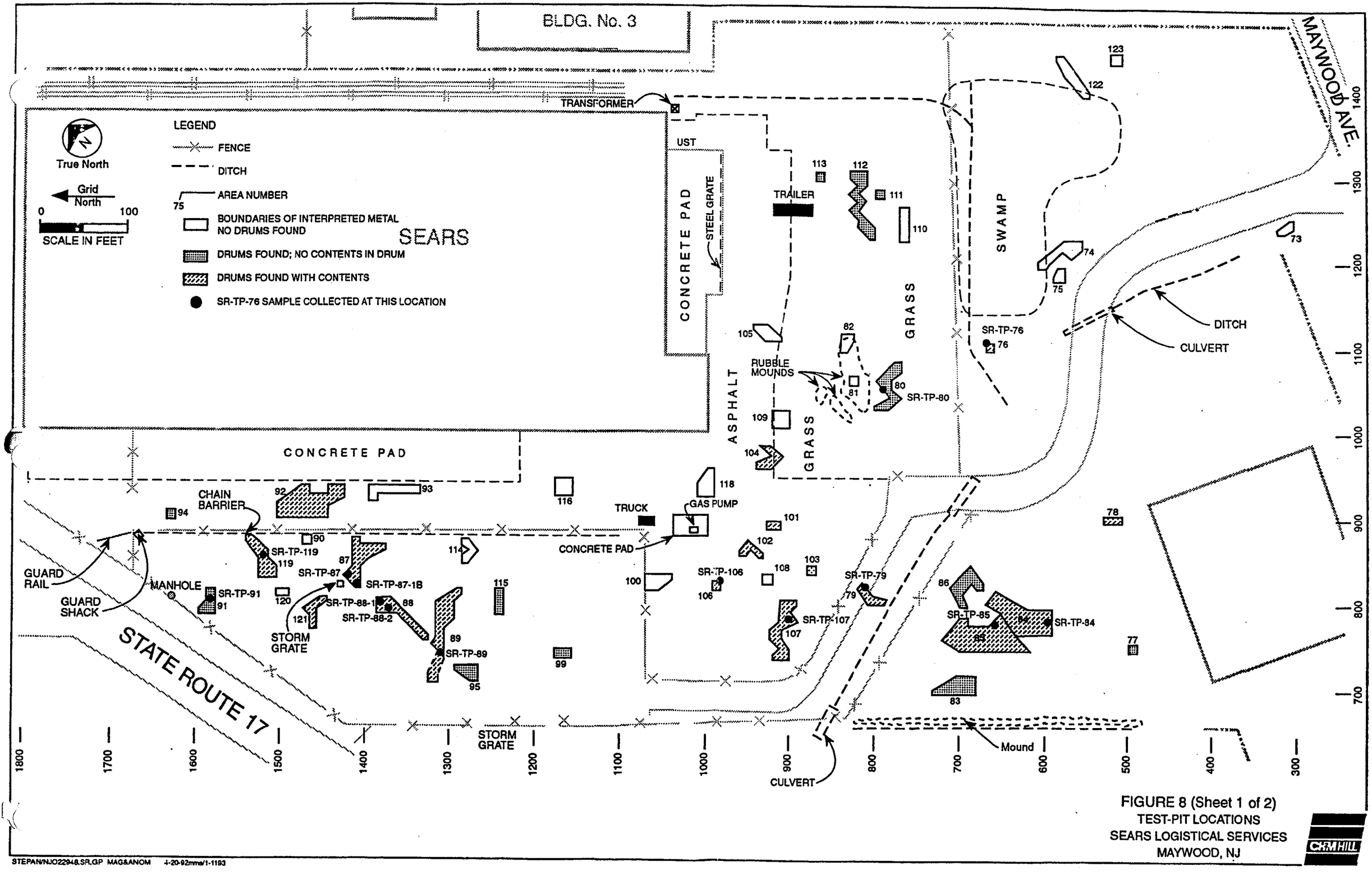


FIGURE 8 (Sheet 1 of 2)
TEST-PIT LOCATIONS
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

CH2M HILL

STEPAN/NJO22948.SR.GP MAG&ANOM 4-20-92mma/1-1193

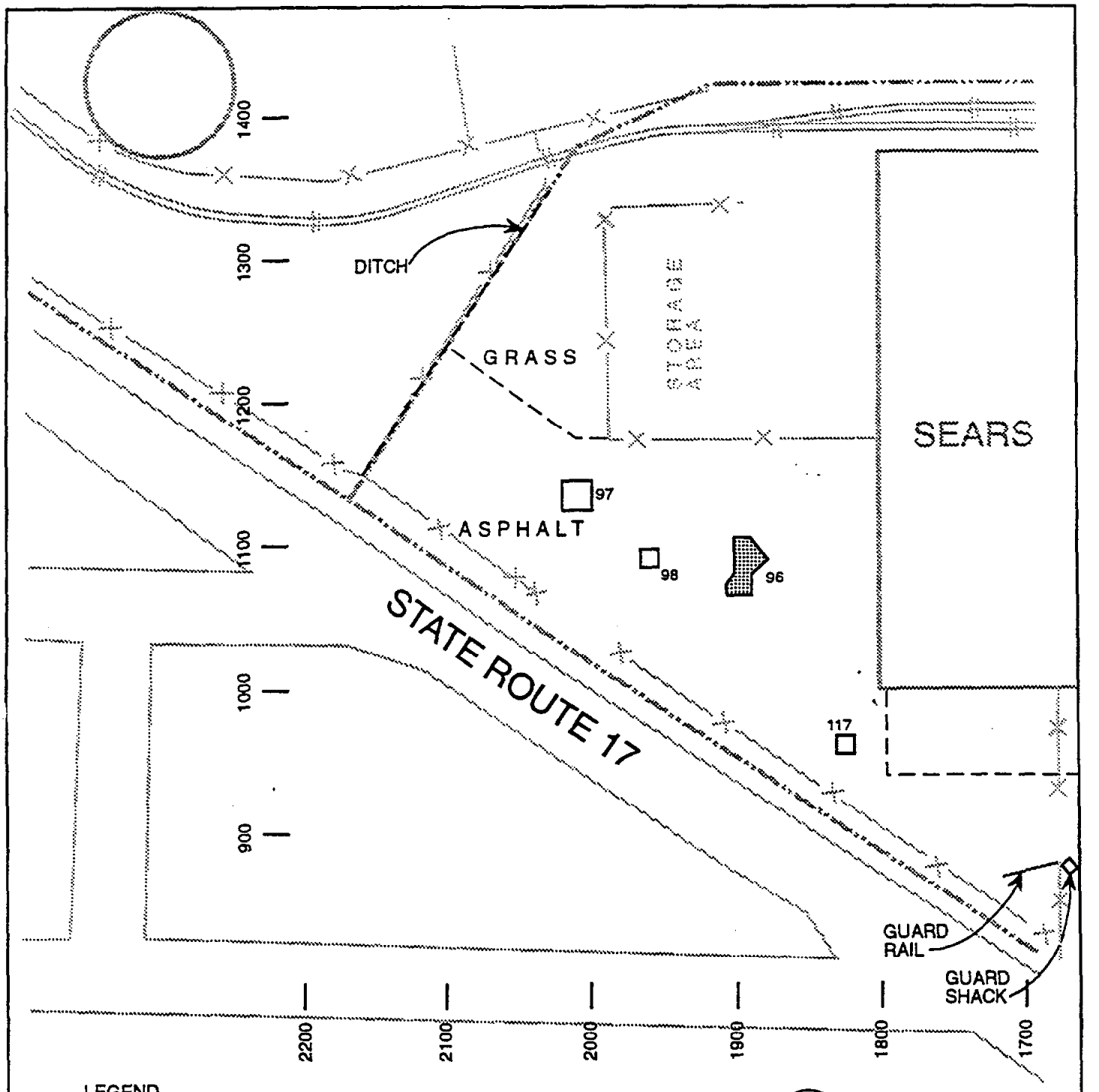


FIGURE 8 (Sheet 2 of 2)
TEST-PIT LOCATIONS
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

CH2MHILL

NJ022948.SR.GP 2 Mag & Anom 4-20-92mms

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 1 (AREA 40) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-25-92
WATER LEVEL AND DATE: WET AT 4.5' | APPROX. DIMENSIONS: Length: 7' Width: 15' Maximum Depth: 5.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.5' Brown silty sand, roots and organic materials.		METAL ENCOUNTERED:
1					Metal debris encountered at 1.5-3.5'. (Rebar, pipes, and sheet metal).
2			2.5-3.0' Brown to grey, hardpan clay (3" thick).		2'x 3'x 3' pile of composited metal.
3			3.0-4.5' Black silt and sand, organic-look oily, sweet smell (moist to wet).		
4			4.5-5.5' Brown, silty sand (native).		
5			BOTTOM OF EXCAVATION AT 5.5 FEET		FIELD MONITORING RESULTS:
6					OVA: 15 PPM (4.5-5.0') 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 45,000 CPM (3.0')
					SAMPLES: No samples obtained. Boring nearby at C4.

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CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 2 (AREA 33) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-26-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 5' Maximum Depth: 5'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Dark brown silty sand, some gravel, organic.			METAL ENCOUNTERED:
1			0.5-2.0' Medium brown silty sand, gravel, and fill debris. Roots at 2.0'.			0.5-2.0' 4-10' long 4" metal sewer pipes encountered, some sheet metal debris. Area is junction of 3 sewer lines (2 running E-W and 1 running N-S).
2			2.0-5.0' Brown silty sand fill and brick foundation debris, few small concrete slabs.			
3						
4						
5			BOTTOM OF EXCAVATION AT 5.0 FEET			FIELD MONITORING RESULTS:
6						OVA: 0 PPM in hole
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 100,000 CPM (3-3.5')
						SAMPLES:
						No samples obtained since mainly building debris and fill was encountered in hole. No visible signs of contamination.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 3 (AREA 11) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-26-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 4' Maximum Depth: 5'

DEPTH			SOIL DESCRIPTION	SYMBOL	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Brown silty sand, trace gravel, large tree roots, some black staining.		METAL ENCOUNTERED:
1					0-0.5' 2" diameter, 3' long metal pipe
					1-2' 2 (2'x 1') pieces of reinforced foundation.
2			0.5-3.0' Medium brown, finely-uniform silty sand.		2-3' 2' long blocks of reinforced foundation.
3					
4					
			3.0-5.0' Reddish-brown clayey silt (native soils).		
5					
					FIELD MONITORING RESULTS:
6			BOTTOM OF EXCAVATION AT 5.0 FEET		
					OVA: 4 PPM in hole
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 19,000 CPM (3')
					SAMPLES:
					No samples obtained.
					No signs of contamination.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 4 (AREA 3) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-26-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 16' Width: 5' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-3.0' Medium brown silty sand, roots and organic materials. Numberous brick and fill material.		METAL ENCOUNTERED:
1					1.0' 3" diameter 4' long metal beam on west side of excavation.
2					2 (5'x 2') concrete foundations.
3			3.0-4.0' Black, sticky silty clay. Wet with sheen (no OVA readings).		3.0' 14' long, 4" diameter sewer pipe.
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					FIELD MONITORING RESULTS:
6					OVA: 10-15 PPM (4.0')
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 45,000 CPM (4')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 5 (AREA 15) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-26-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 8' Width: 5' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Brown to black silty sand, little gravel, organic materials.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown-black fine sand and silt.		0.5' 3/8" thick metal sheets and pipes. Abundant sheet metal. 3'x 2'x 0.5' concrete foundation slabs.
2			1.0-3.0' Black silty clay and fine silty sand with cinders.		
3					
4			BOTTOM OF EXCAVATION AT 3.0 FEET		
5					FIELD MONITORING RESULTS:
6					OVM: 0.9 PPM 0.1 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 20,000 CPM (3')
					SAMPLES: No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 6 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-27-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 12' Width: 12' Maximum Depth: 1.0'

DEPTH			SOIL DESCRIPTION	S Y M B O L	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL		DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Medium brown and black silty sand, little gravel.		METAL ENCOUNTERED:
					0.5-1.0' Old building foundation.
1			BOTTOM OF EXCAVATION AT 1.0 FEET		
2					
3					
4					
5					
					FIELD MONITORING RESULTS:
6					
					OVA: 0 PPM
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 22,000 CPM (1')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 7 (AREA 9) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-27-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 4.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Medium brown silty sand, little gravel.		METAL ENCOUNTERED:
1			0.5-2.0' Dark brown to grey silty sand, little gravel. Fill debris and pieces of foundation.		1.0' 4" diameter water pipeline on east side of excavation (N-S).
2			2.0-4.5' Layered white (top) silty clay, medium brown clayey silt, coarser sand and gravel (bottom) beneath fill.		3.5' 2 4" diameter water pipelines on the west side of pit (N-S).
3					5.0' 10" diameter water line (E-W). Total of 4 pipelines encountered.
4					
5			BOTTOM OF EXCAVATION AT 4.5 FEET		
6					FIELD MONITORING RESULTS:
					OVM: 5 PPM (1')
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 29,000 CPM (2.5')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

========= ========= CH2M HILL =========	PROJECT NUMBER NJO 22948.ST.TP	TEST PIT NO.: 8 (AREA 10) SHEET: 1
	TEST PIT LOG	

PROJECT: STEPAN COMPANY LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 3-27-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 10' Width: 5' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG L	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Medium brown silty sand, trace gravel.			METAL ENCOUNTERED:
1			0.5-2.0' Layered black and reddish-brown, silt and gravelly sand.			0.3' 5'x 7' reinforced concrete slab removed.
2						3.0' 2" diameter pipe (E-W).
3			2.0-4.0' Medium brown silty clay and silty sand. Some thin layers of gravel. fill.			3.5' 2 4" diameter water pipelines. One N-S, one E-W.
4						
5			BOTTOM OF EXCAVATION AT 4.0 FEET			
6						FIELD MONITORING RESULTS:
						OVA: 0 PPM
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 27,000 CPM (2.5')
						SAMPLES:
						No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 9 (AREA 16) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: SEEPS AT 4.0' | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Medium brown, green-brown, and red-brown clayey silt, trace gravel.		METAL ENCOUNTERED:
1			1.0-3.0' Brown-black silty sand, little gravel. Sporadic white blobs of clay at 1-2'.		5.0' N-S pipeline on west side of trench. Pipeline ruptured and pit fills with water. No other metal encountered.
2			3.0-4.0' Black clay, oily appearance. Water at 4.0'.		Broken pieces of old building foundation.
3			5.0' White flecks (possible ash layer)		
4					
5			BOTTOM OF EXCAVATION AT 5.0 FEET		FIELD MONITORING RESULTS:
6					OVA: 200 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 350,000 CPM (2')
					SAMPLES: No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 10 (AREA 13) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: SEEPS AT 4-6' | APPROX. DIMENSIONS: Length: 15' Width: 10' Maximum Depth: 10.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-2.0' Medium brown (0-0.3) to red-brown (0.3-1.0) silty sand, trace gravel, cinder block fragments.		METAL ENCOUNTERED:
1			2.0-4. Grey-black silt and cinder layer with white ash and brick debris.		1.5' 2" diameter, 3' long pipe running E-W at 498-500 N at 10 E.
2					Additional pipe encountered.
3					
4			4.0-10.0' Reddish-brown clayey silt (native soil).		
5					
6					FIELD MONITORING RESULTS:
7					OVA: 0 PPM (in hole)
8					0 PPM in breathing zone
9					LEL: 0 %
10					OXYGEN: 20.9 %
			BOTTOM OF EXCAVATION AT 10.0 FEET		SPA-3: 34,000 CPM (2.0')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 11A (AREA 32) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 0.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Medium brown silty sand, some gravel.		METAL ENCOUNTERED:
1			0.5' Large reinforced concrete foundation.		0.5' Reinforced concrete foundation.
2			BOTTOM OF EXCAVATION AT 0.5 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 2.0 %
					OXYGEN: 20.9 %
					SPA-3: 16,000 CPM (0.5')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 11B (AREA 32) SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 8' Width: 3' Maximum Depth: 0.3'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.3' Medium brown silty sand.		METAL ENCOUNTERED:
					0.3' Reinforced concrete foundation.
1			0.3' Large reinforced concrete foundation.		
2			BOTTOM OF EXCAVATION AT 0.3 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 16,000 CPM (0.3')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 12 (AREA 50) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 5' Width: 4' Maximum Depth: 0.5'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and crushed stone.			METAL ENCOUNTERED:
						0.5' Railroad tracks.
1			0.5' Railroad tracks.			
2			BOTTOM OF EXCAVATION AT 0.5 FEET			
3						
4						
5						FIELD MONITORING RESULTS:
						OVA: 0 PPM (in hole)
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 6,000 CPM (0.5')
						SAMPLES:
						No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 13 (AREA 88) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: DAMP-WET AT 4.5' | APPROX. DIMENSIONS: Length: 6' Width: 3' Maximum Depth: 4.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and crushed stone.		METAL ENCOUNTERED:
1			0.5-2.0' Medium grey-black silty sand, trace gravel.		0.5' Railroad tracks on south side of pit.
2			2.0-4.5' Red-brown clayey silt.		Rebar metal.
3					
4					
5			BOTTOM OF EXCAVATION AT 4.5 FEET		
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 15,000 CPM (3.0')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 14 (AREA 43) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 6' Width: 5' Maximum Depth: 0.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and crushed stone.		METAL ENCOUNTERED:
			0.5' Railroad tracks.		0.5' Railroad tracks.
1			BOTTOM OF EXCAVATION AT 0.5 FEET		
2					
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 8,000 CPM (1.0')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 15 (AREA 79) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 3-31-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 6' Width: 3' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and crushed stone.		METAL ENCOUNTERED:
1			0.5-2' Medium brown silty sand.		0.5' Metal band tie.
2			2-3' Brown silty sand, gravel and ash.		
3			3-4' Brown clayey silt and sand.		
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 21,000 CPM (2')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 16 (AREA 56) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-1-92
WATER LEVEL AND DATE: SEEPS AT 5-6' | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 6.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and crushed stone.		METAL ENCOUNTERED:
1					2.0' 2" diameter pipe on NE side of pit
2			0.5-1.5' Grey silt and sand containing cinders and ash.		
3			1.5-6.0' Medium to reddish-brown silty clay.		
4					
5					
6					FIELD MONITORING RESULTS:
7			BOTTOM OF EXCAVATION AT 6.0 FEET		OVA: 0 PPM (in hole)
8					0 PPM in breathing zone
9					LEL: 0 %
10					OXYGEN: 20.9 %
					SPA-3: 16,000 CPM (2.5')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 17 (AREA 29) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-1-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 10' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and crushed stone.		METAL ENCOUNTERED:
1			0.5-2.0' Reddish-brown silty clay.		0.5' 2 3' long metal pipes S side pit.
2			2.0' Railroad track.		2.0' Railroad track.
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 21,000 CPM (2.5')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 18 (AREA 53) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-1-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 4' Width: 5' Maximum Depth: 1.0'

DEPTH			SOIL DESCRIPTION	SYMBOL	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL G	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt and crushed stone.		METAL ENCOUNTERED:
			1.0' Reinforced concrete.		1.0' Reinforced concrete.
1			BOTTOM OF EXCAVATION AT 1.0 FEET		
2					
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 7,000 CPM (0.5')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 19 (AREA 42) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-2-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 8' Width: 5' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Medium brown silty sand, trace gravel.		METAL ENCOUNTERED:
1			0.5-3.0' Medium orange-brown silty sand, little clay.		1.0' 4" diameter metal pipe with flange on SE corner of pit.
2					2.0' 2" diameter, 3' long waterline (N-S) on NE side of pit.
3			BOTTOM OF EXCAVATION AT 3.0 FEET		3.0' 2" diameter water main running N-S through center of pit.
4					3' long, 1" diameter pipe.
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 31,000 CPM (3')
					SAMPLES:
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 20 (AREA 72) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-2-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 7' Maximum Depth: 1.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.5' Medium brown silty sand, some gravel, trace clay.		1.0' Railroad track running NW-SE in pit 1.0' Reinforced concrete at SW corner. 1.0' 2" diameter pipe in NW corner.
2			BOTTOM OF EXCAVATION AT 1.5 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVM: 0.5 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 29,000 CPM (1')
					SAMPLES: No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 21 (AREA 18) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-2-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 5' Width: 6' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.5' Reddish-brown silty sand, trace gravel and clay, some brick debris		1.0' Sheet metal. 1.5-3' Rebar rod. 2.0' 2" diameter, 1.5' long pipe(SE pit) 2.0' Rebar and reinforced concrete.
2			1.5-4.0' Medium brown fine sand and silt, black cinders, some black staining		3.0' 8" diameter sewerline (N-S) on E side of pit.
3					3.0' Rebar rod (6'). 1" diameter, 5' long metal band.
4			BOTTOM OF EXCAVATION AT 4.0 FEET		3.0' 2" diameter sewer pipe (N-S) on E side of pit.
5					3.5' Crushed drum or sheet metal. 4.0' Sheet metal on W side pit.
					FIELD MONITORING RESULTS:
					OVM: 35 PPM (in hole) 0 PPM in breathing zone LEL: 2.0 % OXYGEN: 20.9 % SPA-3: 25,000 CPM (3')
					No samples obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 22 (AREA 19) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-2-92
WATER LEVEL AND DATE: WET AT 6.0' | APPROX.DIMENSIONS:Length: 16' Width: 7' Maximum Depth: 6.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Brown silty sand and gravel.		METAL ENCOUNTERED:
1			1.0-2.0' Reddish-brown fine sand and silt, trace pebbles. Violet-purple material at 1.5-2'. Substance is crystalline, fibrous, and greasy and coated with black, fine-grained soil.		3-4' 4" diameter clay pipe on E trench. 4.0' 4" diameter metal pipe (E-W) on N side of pit. Metal pipe (3"-diameter) (NW-SE) at W side of pit. Metal pipe (6"-diameter) running E-W on N side pit. 4.0' 8" diameter clay pipe on E pit.
2			2.0' Black horizon of cinders, burnt wood and plasterboard.		
3			2.0-6.0' Reddish-brown clayey silt. Bedrock fagments at 6.0'.		
4					
5					
6			BOTTOM OF EXCAVATION AT 6.0 FEET		FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 3.0 %
					OXYGEN: 20.9 %
					SPA-3: 28,000 CPM (2')
					Sample obtained of purple material.
					Sample # ST-TP-22-2.0'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 23 (AREA 4) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JC8-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.5' Gravel road surface. Brown silty sand. Gravel lense at 8".		METAL ENCOUNTERED:
1					5.0' 6-8" diameter metal pipe.
2			1.5-2.5' Blue, spongy material.		
3			2.5-5.0' Dark brown silty sand. Bright colored lense at 2.8'.		
4					
5			BOTTOM OF EXCAVATION AT 5.0 FEET		
6					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 36,000 CPM
					Sample collected at 3.5'.
					Sample # ST-TP-23-3.5'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 24 (AREA 10) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: WET AT 8' | APPROX. DIMENSIONS: Length: 12' Width: 6' Maximum Depth: 8.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt. Gravel and blue material at 6". Cinder ash.		METAL ENCOUNTERED:
1			0.5-5.0' Dark brown silty sand. Layer of black clayey material (3.7').		No metal found.
2					
3					
4					
5			5.0-8.0' Reddish clay and fractured bedrock.		
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
			BOTTOM OF EXCAVATION AT 8.0 FEET		0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 28,000 CPM (1.5')
					NO SAMPLE COLLECTED.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 25 (AREA 1) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: HAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 8' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-3.0' Brown silty sand, some cinder ash interspersed. Bricks at 1.5'-2.0'. Wood debris at 2.0'.		Crushed drum at 8".
2					3.0' Three crushed drums.
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 27,000 CPM
					Sample collected around drum at 8".
					Sample # ST-TP-25-0.6'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 26 (AREA 11) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 8' Width: 6' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-2.0' Brown silty sand, some bricks and construction debris.		1.0' Metal rebar.
2					2.0' Railroad tracks.
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 21,000 CPM (1')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 27 (AREA 29) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 14' Maximum Depth: 0.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5' Reinforced concrete slab under sod.		0.5' 14' wide reinforced concrete slab.
2			BOTTOM OF EXCAVATION AT 0.5 FEET		
3					
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 31,000 CPM (1')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 28 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-1.5' Black gravel and cinders, brick debris. Large boulders.		3.0' Black metal pipe.
2			1.5-3.0' Medium brown silty sand.		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					FIELD MONITORING RESULTS:
					OVM: 8 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 14,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 29 (AREA 5) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-3-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 20' Width: 10' Maximum Depth: 1.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.			METAL ENCOUNTERED:
1			0.5-1.0' Yellow-stained soil at 6".			0.5' Remains of crushed drum.
2			BOTTOM OF EXCAVATION AT 1.0 FEET			1.0' Large, reinforced concrete pad. Series of three 9'-circular raised pads on rectangular concrete base. Tank pads.
3						
4						
5						
						FIELD MONITORING RESULTS:
						OVA: 0 PPM (in hole)
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 18,000 CPM (1.0')
						No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 30 (AREA 39) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-3.0' Reddish-brown silty sand. Cinders and blue fibrous material at 14".		0.5' 6'-long metal pipes (1" and 3")
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 30,000 CPM (1')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 31 (AREA 16) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION:MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 2.0'

DEPTH			SOIL DESCRIPTION	SYMBOL	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-2.0' Dark brown silty sand. White, fibrous material at 8". Cinder ash and wood scraps at 1.0'. Asphalt slab at 1.5'.		0.5' 8'-long, 2"-wide metal pipe. 1.5' 6"-diameter pipe.
2					
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 20,000 CPM (1')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 32 (AREA 31) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN COMPANY | LOCATION: MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SY MBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-3.0' Dark brown silty sand and brick debris. Cinder ash. Medium brown clayey soil at 14".		3.0' 2" diameter metal pipe.
2			3.0' Pockets of white, clay-like material.		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 18,000 CPM (1')
					Collect a sample of white material.
					Sample # ST-TP-32-3'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 33 (AREA 1) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: HAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-6-92
WATER LEVEL AND DATE: WET AT 2.5' | APPROX. DIMENSIONS: Length: 10' Width: 10' Maximum Depth: 2.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-2.5' Dark brown silty sand and brick debris. Broken glass. White clay material at 8".		1.5-2.5' Two crushed drums.
2					
3			BOTTOM OF EXCAVATION AT 2.5 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 300,000 CPM
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 34 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: R. JACKSON
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-6-92
WATER LEVEL AND DATE: WET AT 2.5' | APPROX.DIMENSIONS:Length: 7' Width: 5' Maximum Depth: 2.5'

DEPTH			SOIL DESCRIPTION	SYMBOL	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-2.5' Black-brown silty sand.		0.5' Metal slug and crushed drum.
2			2.0' Wood debris and white material.		0.5-1.0' Two crushed drums.
3			BOTTOM OF EXCAVATION AT 2.5 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0.2 PPM (in hole at 2.5')
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 137,000 CPM
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 35 (AREA 12) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 7' Width: 5' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.0' Brown sandy soil.		1.0' 36" diameter reinforced concrete pipe.
2			3.0-4.0' Dark brown to grey, silty sand. Wood debris and rock at 3.5-4.0'.		
3					
4					
			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
					FIELD MONITORING RESULTS:
					OVA: 30 PPM (in hole at 3')
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 9,000 CPM
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 36 (AREA 14) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: WET AT 2.5' | APPROX. DIMENSIONS: Length: 12' Width: 5' Maximum Depth: 2.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Dark brown silty sand, roots and organic matter.		METAL ENCOUNTERED:
1			1.0'-2.5' Slightly orange-brown, clayey silt and fine sand.		2.5' 6" diameter water pipe (NW-SE)
2			BOTTOM OF EXCAVATION AT 2.5 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 10,000 CPM (2.5')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 37 (AREA 9) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: WET AT 3.0' | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.5' Dark brown organic silt and fine sand.		METAL ENCOUNTERED:
1			1.5'-3.0' Slightly orange-brown clayey silt.		0.5-3.0' 0.5" diameter ground wire, (3.5' long) running E-W in pit.
2			BOTTOM OF EXCAVATION AT 3.0 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 11,000 CPM (3.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 38 (AREA 8) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: WET AT 3.0' | APPROX. DIMENSIONS: Length: 10' Width: 6' Maximum Depth: 3.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-3.0' Dark brown silty sand with white to buff-colored clay or crisco-like waxy material throughout.			METAL ENCOUNTERED: 2.0' 2" diameter, 7' long metal bar.
1						
2			BOTTOM OF EXCAVATION AT 3.0 FEET			
3						
4						
5						FIELD MONITORING RESULTS: OVA: 0 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 6,000-7,000 CPM (2.0') No samples collected. Sample of white material already collected in boring C27 at 2-4'.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 39 (AREA 6) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 8' Maximum Depth: 1.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Dark brown organic silt.		METAL ENCOUNTERED:
1			1.0' Large tree roots prevent digging.		0.2-0.5' Reinforced concrete blocks.
2			BOTTOM OF EXCAVATION AT 1.0 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 9,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 40 (AREA 5) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 5' Width: 3' Maximum Depth: 1.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-0.5' Dark brown silty sand.		METAL ENCOUNTERED:
			0.5-1.5' Medium brown, homogeneous fine sand. Grey-blue crumbly clay at 1.5' (same as material in woods).		1.0' Reinforced concrete blocks.
1					
2			1.5' Large tree roots prevent digging.		
3			BOTTOM OF EXCAVATION AT 1.5 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 7,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 41 (AREA 10) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 8' Maximum Depth: 3-4'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0' Medium orange-brown fine to medium-grained sand.		2.0' 6" diameter sewer pipe (NW-SE) on SW corner of pit.
2			2.0-4.0' Grey and black mottled clayey silt. Wood fragments. Some thin (2") layers of blue clay.		
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 10,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 42 (AREA 4) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-7-92
WATER LEVEL AND DATE: WATER AT 3.0' | APPROX. DIMENSIONS: Length: 10' Width: 10' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Medium brown silt and organic matter mixed with blue and grey clay-like material.		METAL ENCOUNTERED:
1			0.5-3.0' Blue clay-like material.		No metal found.
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 5,000 CPM (1.0')
					Sample collected of blue material.
					Sample # DS-TP-42-1.0'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 43 (AREA 4) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-8-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 5' Maximum Depth: 1.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-0.3' Concrete.		METAL ENCOUNTERED:
1			0.3-1.0' Medium brown silty sand and rubble debris.		0-1.0' Metal cylinder (6"x 4"), wire, and other metal debris.
2			BOTTOM OF EXCAVATION AT 1.0 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 15,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 44 (AREA 5) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-8-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 6' Width: 3' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-1.0' Concrete and asphalt.		METAL ENCOUNTERED:
1			1.0-4.0' Orangish-brown fine sand and silt.		1.0' Crushed sheet metal.
2					
3					
4					
			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 50,000 CPM (3.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 45 (AREA 7) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-8-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 5' Width: 10' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt, concrete and gravel fill.		METAL ENCOUNTERED:
1			1.0-4.0' Dark brown silty sand, scrap metal and wood debris.		1.0-4.0' 6'x 6'x 3' pile of scrap metal and pipes removed from pit.
2					
3					
4					
			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 56,000 CPM (3.5')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 46 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-8-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 3.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-3.0' Medium brown silty sand.			METAL ENCOUNTERED:
1						1.0-3.0' 7'x 6'x 2' pile of scrap metal and pipes removed from pit.
2			BOTTOM OF EXCAVATION AT 3.0 FEET			
3						
4						
5						
						FIELD MONITORING RESULTS:
						OVA: 0 PPM (in hole)
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 50,000 CPM (3.0')
						No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 47 (AREA 12) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Concrete and gravel base.		METAL ENCOUNTERED:
1			0.5-3.5' Medium brown silty fine sand and gravel, wood debris and concrete blocks.		1.0' 1" diameter, 2' long pipe. 1.5' 6" wide, 4' long angle iron and minor scrap metal.
2			3.5-4.0' Grey silty clay.		
3			BOTTOM OF EXCAVATION AT 4.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVM: 75 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 18,000 CPM (3.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 48 (AREA 10) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 5' Width: 5' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt, concrete and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0' Brown sandy soil, some gravel, brick and wood debris. Concrete rubble.		0.5' Small piece of scrap metal. 0.5-1.0' 1' square metal grate. 1.0-1.5' Crushed gas tank from a car.
2					1.5-2.0' Rebar-reinforced concrete.
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 53,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 49 (AREA 8) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 6' Width: 4' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt, concrete and gravel base.		METAL ENCOUNTERED:
1			0.5-1.0' Dark brown sandy soil, some brick.		1.0-1.5' Piece of metal from a car.
2			1.0-1.5' Red-brown sandy soil with pieces of red shale, root material.		
3			1.5-2.5' Black sandy soils.		
4			2.5-4.0' Light grey clay (native soils).		
5			BOTTOM OF EXCAVATION AT 4.0 FEET		
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 28,000 CPM (2.5')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 50 (AREA 9) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: J. LONGO

ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL

EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92

WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 8' Width: 4' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.25' Asphalt, concrete and gravel base.		METAL ENCOUNTERED:
1			0.25-2.0' Light brown sandy soil, some gravel and brick.		0.5' 2" diameter, 4' long exhaust pipe.
					1-2' Concrete debris, metal pipe, and rebar.
2			BOTTOM OF EXCAVATION AT 2.0 FEET		
3					
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 740,000 CPM (2.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 51 (AREA 11) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 7' Width: 14' Maximum Depth: 3.0'

DEPTH			SOIL DESCRIPTION	SYMBOL	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	M L B O O G L	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-1.0' Medium brown fine sand.		1.0' 4'x 3'x 0.5' block of reinforced concrete removed below asphalt.
1			1.0-3.0' Medium brown silty sand.		2.0' Metal bar (1'x 2") and metal plate (3'x 1').
2			3.0' Grey silty clay.		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 75 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 710,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 52 (AREA 6) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 6' Width: 3' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.0' Medium brown silty fine sand. Concrete and wood debris.		0.5-3.0' 4'x 3'x 2' pile of sheet metal and other metal objects.
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 65,000 CPM (3.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SC.TP | TEST PIT NO.: 53 (AREA 13) | SHEET: 1

TEST PIT LOG

PROJECT: SUNOCO PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-9-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 3' Width: 3' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION)
0			0-2.0' Medium brown organic silt and sand, root matter.		METAL ENCOUNTERED: No metal found.
1					
2			BOTTOM OF EXCAVATION AT 2.0 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 15,000 CPM (2.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FE.TP | TEST PIT NO.: 54 (AREA 3) | SHEET: 1

TEST PIT LOG

PROJECT: AMP REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-10-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 6' Width: 4' Maximum Depth: 6.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.25' Dark brown top soil.		METAL ENCOUNTERED:
1			0.25-2.0' Light brown sandy soil with gravel.		0-0.25' U-shaped cro-bar.
2			2.0-6.0' Black soil (upper 4") then light grey clay (native soil).		
3					
4					
5					
6					
7			BOTTOM OF EXCAVATION AT 6.0 FEET		FIELD MONITORING RESULTS:
8					OVA: 120 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 13,000 CPM (4.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FE.TP | TEST PIT NO.: 55 (AREA 5) | SHEET: 1

TEST PIT LOG

PROJECT: AMP REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-10-92
WATER LEVEL AND DATE: WATER AT 6' | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 6.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL GL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-0.9' Brown sandy soil.		3.0' 2" diameter copper pipe on N side of pit.
2			0.9-1.75' Light brown sandy soils with "rust" patches.		
3			1.75-2.0' Black layer with roots.		
4			2-3' Light grey sandy soils with wood debris.		
5			3-6' Grey sandy soils with red-brown rust-colored soil patches (4-6').		
6					
7			BOTTOM OF EXCAVATION AT 6.0 FEET		FIELD MONITORING RESULTS:
8					OVA: 150 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 12,000 CPM (4.5')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FE.TP | TEST PIT NO.: 56 (AREA 6) | SHEET: 1

TEST PIT LOG

PROJECT: AMP REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-10-92
WATER LEVEL AND DATE: WET AT 0.5' | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 0.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
					No metal found.
1			BOTTOM OF EXCAVATION AT 0.5 FEET		
2			NOTE: Excavation terminated due to gas odor while excavating over known gasline. Water is probably ponded rain water.		
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM
					0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 7,000 CPM (0.5')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FE.TP | TEST PIT NO.: 57 (AREA 1) | SHEET: 1

TEST PIT LOG

PROJECT: AMP REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-10-92
WATER LEVEL AND DATE: WET AT 2-2.5' | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 2.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL GL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0' Red-brown (rust-colored) sandy soil and rock. Wood and brick debris.		0.25" diameter wire mesh Remains of 5-gallon bucket.
2			BOTTOM OF EXCAVATION AT 2.0 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 100 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 13,000 CPM (1')
					Sample collected of soils around bucket. Sample # FA-TP-57-2'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 58 (AREA 3) | SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.			METAL ENCOUNTERED:
1			0.5-2.0' Red-brown silty fine sand and gravel, some cobbles.			2.0' Piece of metal cable and wire. 4.0' 0.5-1.0" diameter, 4' long pipe found on S side of pit.
2			3.0' Grey silty sand.			
3			3-4' Dark brown silty fine sand.			
4			BOTTOM OF EXCAVATION AT 4.0 FEET			
5						FIELD MONITORING RESULTS:
						OVA: 25 PPM (in hole) 7 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 12,000 CPM (3.5')
						No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 59 (AREA 5) | SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 12′ Width: 5′ Maximum Depth: 6.0′

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5′ Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0′ Medium brown silty fine to medium sand.		No metal found. Anomaly may have been affected by sewerline north of testpit.
2			2.0-6.0′ Reddish-brown clayey silt.		
3					
4					
5					
6			6.0′ Bedrock fragments.		
7			BOTTOM OF EXCAVATION AT 6.0 FEET		FIELD MONITORING RESULTS:
8					OVA: 44 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 13,000 CPM (4.0′)
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 60 (AREA 8) | SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 4-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 10' Width: 4' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SAMPLE	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Dark brown silty organic sand, root matter.		METAL ENCOUNTERED:
1			0.5-4.0' Reddish-brown silty sand, some clay.		No metal found. Anomaly probably due to fence.
2					
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 12,000 CPM (4.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 61 (AREA 9) | SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 7' Maximum Depth: 8.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Dark brown silty sand, organic, root matter.		METAL ENCOUNTERED:
1			0.5-8.0' Reddish-brown silty sand, trace clay, tree roots.		No metal found. Anomaly probably due to fence.
2					
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
			BOTTOM OF EXCAVATION AT 8.0 FEET		0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 14,000 CPM (6.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 62 (AREA 9) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 20' Width: 2' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-2.0' Red-brown silty sand, some clay.		No metal found.
1					Anomaly probable due to building effect.
			2.0' Appears to be old asphalt surface.		Metal facing on warehouse building at
2			2.0-5.0' Medium brown silty sand, some brick debris.		this location.
3					
4					
5			BOTTOM OF EXCAVATION AT 5.0 FEET		
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0-300 PPM (in hole)
					0-90 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 13,000 CPM (5.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 63 (AREA 10) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-14-92
WATER LEVEL AND DATE: WET AT 5' | APPROX.DIMENSIONS:Length: 10' Width: 3' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MB OL LG	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt and gravel base.		METAL ENCOUNTERED:
--			1.0-2.0' Red-brown clayey silt.		No metal found.
1					Anomaly probable due to building effect.
--			2.0-3.0' Medium brown silty sand.		
2					
--					
3			3.0-5.0' Grey-brown fine sand and silt.		
--					
4					
--					
5			BOTTOM OF EXCAVATION AT 5.0 FEET		
--					
--					
--					FIELD MONITORING RESULTS:
--					
--					OVA: 33 PPM (in hole)
--					0 PPM in breathing zone
--					LEL: 0 %
--					OXYGEN: 20.9 %
--					SPA-3: 13,000 CPM (1.0')
--					
--					
--					No samples collected.
--					
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TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 64 (AREA 14) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE | DATE EXCAVATED: 4-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 8.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-3.0' Red-brown silty sand, rock fragments.		No metal found.
1					
2					
			3.0-4.0' Medium brown silty sand, wood debris.		
3					
4			4.0-6.0' Grey, very fine sand and silt, very compact and dense.		
5					
6			6.0-8.0' Yellowish-brown silty sand.		
7					FIELD MONITORING RESULTS:
8			BOTTOM OF EXCAVATION AT 8.0 FEET		OVA: 28 PPM (in hole)
					0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 17,000 CPM (1')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 65 (AREA 20) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 4' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-2.0' Red-brown silty sand, trace clay.		2'x 2'x 1' pile of scrap metal removed.
1					
			2.0-3.5' Grey, very fine sand and silt.		
2					
3					
			BOTTOM OF EXCAVATION AT 3.5 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 20,000 CPM (1')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 66 (AREA 15) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 6' Width: 3' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.5' Red-brown clayey silt, little very fine sand.		0.5-2' 2" diameter vertical pipe (2.5' long) set in concrete in center of pit.
2					
3					
4			BOTTOM OF EXCAVATION AT 3.5 FEET		
5					
					FIELD MONITORING RESULTS:
					OVA: 43 PPM (in hole)
					0-9 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 20,000 CPM (3.5')
					Petroleum hydrocarbon odor.
					No samples collected.

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 67 (AREA 16) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-14-92
WATER LEVEL AND DATE: WET AT 2' | APPROX. DIMENSIONS: Length: 10' Width: 7' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.5' Red-brown silty sand.		1" diameter pipe for electric line running N-S on W side of pit.
2			2.5-3.0' Dark brown to grey, silty sand.		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVM: 343 PPM (in hole)
					22 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 60,000 CPM (2.0')
					Petroleum hydrocarbon odor.
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 68 (AREA 18) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 6' Width: 4' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-3.0' Dark brown silty sand and gravel.		2-3' Sheet metal and steel strapping bands, other metal debris.
1					3' 1.5" diameter, 2' long steel pipe.
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 210 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 15,000 CPM (3.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 69 (AREA 19) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-15-92
WATER LEVEL AND DATE: WET AT 5' | APPROX. DIMENSIONS: Length: 7' Width: 4' Maximum Depth: 5.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.			METAL ENCOUNTERED:
1			0.5-5.0' Medium to dark brown silty sand and gravel.			0.5' 1" diameter electrical housing pipe in middle to W side of pit.
2						1.0' 4'x 4' reinforced concrete slab with 12" diameter manhole in center.
3						2.0' 0.5'x 0.5' reinforced concrete block.
4						
5						
			BOTTOM OF EXCAVATION AT 5.0 FEET			
						FIELD MONITORING RESULTS:
						OVM: 178 PPM (in hole)
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 12,000 CPM (4.0')
						Petroleum hydrocarbon odor.
						No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 70 (AREA 21) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE | DATE EXCAVATED: 4-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 7' Width: 4' Maximum Depth: 7.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-4.0' Dark brown silty sand, little gravel.		0.5' 1" diameter, 3' long metal rod, metal debris, metal wire, and 1" diameter, 1.5' long pipe. with 12" diameter manhole in center. 2.0' 0.5'x 0.5' reinforced concrete block.
2					
3					
4			4.0-7.0' Medium grey to light brown very fine sand and silt, dense.		
5					
6					
7			BOTTOM OF EXCAVATION AT 7.0 FEET		FIELD MONITORING RESULTS:
8					OVA: 90 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 14,000 CPM (4.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 71 (AREA 22) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 7' Width: 4' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.0' Medium-dark brown silty sand and wood debris.		1.0-1.5' 1" diameter electrical housing pipe running E-W through center of pit.
2			3-4' Grey very fine sand and silt.		3-4' Metal pipe on S side of pit.
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					FIELD MONITORING RESULTS:
					OVA: 93 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 15,000 CPM (4.0')
					Oily smelling soils.
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FH.TP | TEST PIT NO.: 72 (AREA 17) | SHEET: 1

TEST PIT LOG

PROJECT: SWS REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 4-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 8' Maximum Depth: 1.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.5' Red-brown silty sand, some gravel.		1.5' 30" diameter storm drain pipe running through W and central part of pit.
2			BOTTOM OF EXCAVATION AT 1.5 FEET		
3					
4					
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 16,000 CPM (1.5')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 73 (AREA 76) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-4-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 4' Maximum Depth: 6'

DEPTH			SOIL DESCRIPTION	SOIL SYMBOL	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and root matter, organic soil.		METAL ENCOUNTERED:
1			0.5-2.5' Medium brown silty sand, trace gravel.		No metal found.
2			2.5-4.0' Black soils.		
3			4.0-5.0' Grey silt and clay.		
4			5.0-6.0' Brown and grey silt.		
5					
6			BOTTOM OF EXCAVATION AT 6.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 88,000 CPM (2.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 74 (AREA 68) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-4-92
WATER LEVEL AND DATE: WATER SEEPS AT 3'APPROX.DIMENSIONS:Length: 10' Width: 4' Maximum Depth: 6'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and root matter.		METAL ENCOUNTERED:
1			0.5-4.5' Dark brown-black sandy silt.		No metal found.
2					
3			4.5-6.0' Grey and brown clayey silt.		
4					
5					
6			BOTTOM OF EXCAVATION AT 6.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 1 %
					OXYGEN: 20.9 %
					SPA-3: 20,000 CPM (1.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 75 (AREA 67) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-4-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 18' Width: 4' Maximum Depth: 6.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-5.0' Medium brown to black silt and sand.		No metal found.
2					
3					
4					
5			5.0-6.0' Blue grey to brown clayey silt.		
6			BOTTOM OF EXCAVATION AT 6.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVM: 2.4 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 91,000 CPM (2.0')
					No samples collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 76 (AREA 1100E,660N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-4-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 3.0'

DEPTH			SOIL DESCRIPTION	SYM	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	BOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown clayey silt.		1.0' Crushed metal (either sheet metal or drum).
2			1.0-3.0' Dark brown-black sandy silt.		
3			3.0' Blue-grey silt and very fine sand.		
4			BOTTOM OF EXCAVATION AT 3.0 FEET		
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 39,000 CPM (1.0')
					Sample collected of green-colored material that was clinging to metal. Sample # SR-TP-76-1'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 77 (AREA 750E,490N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-5-92
WATER LEVEL AND DATE: WET AT 4' APPROX.DIMENSIONS:Length: 5' Width: 3' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL G	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-2.5' Medium brown and white sandy silt white clay-like material.		1.0' Crushed metal drum.
2			2.5-4.0' Black clayey silt.		
3					
4			4.0' Medium grey clayey silt.		
5			BOTTOM OF EXCAVATION AT 4.0 FEET		
					FIELD MONITORING RESULTS:
					OVM: 0.2 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 103,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 78 (AREA 900E,510N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-5-92
WATER LEVEL AND DATE: WATER AT 3.5' APPROX.DIMENSIONS:Length: 7' Width: 5' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-3.5' Dark brown sandy silt. White clay-like material.		0.5-2.0' Parts of 3 crushed drums.
2					
3			BOTTOM OF EXCAVATION AT 3.5 FEET		
4					
5					
					FIELD MONITORING RESULTS:
					OVM: 0.8 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 90,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 79 (AREA 51) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-5-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 6' Width: 4' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MB OL GL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown sandy silt.		1.0' Crushed metal drum containing brown, tar-like substance.
2			1.0-3.0' Grey to black clayey silt.		
3			3.0' Grey silt (native marsh deposit).		
4			BOTTOM OF EXCAVATION AT 3.0 FEET		
5					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 120,000 CPM (1.0')
					Sample collected of brown drum contents and surrounding soils.
					Sample # SR-TP-79-1'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 80 (AREA 43) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-5-92
WATER LEVEL AND DATE: WATER AT 6' | APPROX.DIMENSIONS:Length: 6' Width: 4' Maximum Depth: 6.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
			0.5-1.0' Dark brown sandy silt.		1.0' Opening to drum encountered.
1			1.0-3.0' Light brown to buff, mottled clayey silt.		Terminate excavation due to high LEL.
					Excavate pit on 5-19-92 to expose hole.
2					Water inside of drum in thief. No LEL.
			3.0-6.0' Dark grey to black clayey silt.		Cover hole. Will excavate drum on 5-20.
3					Third excavation on 5-20-92.
					2.5-3.0' Remove perforated drum
4					containing water from middle of pit.
					4.0' 3' long metal bar on S side pit.
5					
			BOTTOM OF EXCAVATION AT 6.0 FEET		
					FIELD MONITORING RESULTS:
					OVA: >1000 PPM (in hole)
					20 PPM in breathing zone
					LEL: 0-45 %
					OXYGEN: 20.9 %
					SPA-3: 78,000 CPM (3.0')
					No sample collected during first excavation.
					Sample collected of black-stained soils beneath drum that initially had high LEL
					Sample # SR-TP-80-2'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 81 (AREA 1060E,820N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-5-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 2' Width: 2' Maximum Depth: 0.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Reinforced concrete block at surface		METAL ENCOUNTERED:
1			BOTTOM OF EXCAVATION AT 0.5 FEET		0-0.5' Reinforced conrete pad removed at surface. No response with metal detector after pad was removed.
2					
3					
4					
5					
					FIELD MONITORING RESULTS:
					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 80,000 CPM (0.5')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 82 (AREA 42) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-5-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 5' Maximum Depth: 5.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
			0.5-1.0' Medium brown sandy silt.		No metal found.
1					
			1.0-1.5' White clayey silt.		
2			1.5-2.0' Black and white clayey silt.		
			2.0-4.5' Dark brown sandy silt.		
3					
4			4.5-5.5' Medium grey clayey silt (native).		
5					
			BOTTOM OF EXCAVATION AT 5.5 FEET		
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 39,000 CPM (0.5')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 83 (AREA 54) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 13' Width: 4' Maximum Depth: 3.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
			0.5-3.0' Medium brown-black sandy silt.		0.5-1.0' Remains of crushed drums.
1					
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0.6 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 % OXYGEN: 20.9 % SPA-3: 120,000 CPM (0.5')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 84 (AREA 55B) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 20' Width: 5' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-3.5' Medium brown sandy silt.		0.5-2.0' Remains of 3 crushed drums.
2					2.0-3.0' Two crushed drums.
3					3.0' Crushed drum on E side pit.
4			BOTTOM OF EXCAVATION AT 3.5 FEET		
5					
6					
7					FIELD MONITORING RESULTS:
8					OVM: >1088 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 198,000 CPM (1.0')
					Sample collected from drum containing golden caramel-like material and surrounding soils.
					Sample # SR-TP-84-2'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 85 (AREA 55A) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 5' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
1			0.5-2.0' Medium brown sandy silt.		1.0' Crushed drum.
					Possible remains of second drum.
			2.0-3.0' Dark brown to black silt.		
2			3.0' Grey silt (native marsh deposit).		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 108,000 CPM (1.0')
					Sample collected from drum containing tar-like material and green-stained surrounding soils.
					Sample # SR-TP-85-1.5'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 86 (AREA 56) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-6-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 6' Maximum Depth: 2.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt, roots.		METAL ENCOUNTERED:
			0.5-2.5' Medium brown sandy silt.		0.5-1.5' 3 crushed drum.
1					
2			BOTTOM OF EXCAVATION AT 2.5 FEET		
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 178,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 87 (AREA 9) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-7-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 10' Width: 8' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-2.0' Medium brown sandy silt.		1.0-2.0' 3-4 semi-intact drum or 1 (6'x 4') tank.
1					
2			BOTTOM OF EXCAVATION AT 2.0 FEET		
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 20 %
					OXYGEN: 20.9 %
					SPA-3: 77,000 CPM (0.5')
					Sample 1 collected of black oily fluid within drums or tank.
					Sample 1B taken from surrounding soils.
					Sample # SR-TP-87-1'
					SR-TP-87-1B

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 88 (AREA 11) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-7-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 12' Width: 7' Maximum Depth: 2.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.5' Reddish-brown and black sandy silt, some gravel.		1.0-2.5' 2 crushed drums.
2			BOTTOM OF EXCAVATION AT 2.5 FEET		
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 50,000 CPM (0.5')
					Sample 1 collected of purple and black soil-like material in first drum.
					Sample 2 of wet black soils in second drum.
					Sample # SR-TP-88-1'
					SR-TP-88-2'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 89 (AREA 12) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-7-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 14' Width: 7' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.5' Medium brown sandy silt and burnt wood debris.		0.5' Crushed drum.
2			1.5-5.0' Dark brown-black sand and silt, white material.		2-3' Second drum on W side of pit.
3					
4					
5			5.0' Reddish-brown very fine sand, silt, and clay (native).		
6			BOTTOM OF EXCAVATION AT 5.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0-19 %
					OXYGEN: 20.9 %
					SPA-3: 178,000 CPM (1.0')
					Sample collected of white and black soil-like material in second drum.
					Sample # SR-TP-89-1'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 90 (AREA 870E,1470N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-8-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 14' Width: 5' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt and gravel base.		METAL ENCOUNTERED:
			1.0-2.0' Dark brown sandy silt, some moss green material.		1.0' 1' long metal bar and collar.
1					Terminate digging at 2' due to high OVA readings.
2					Second excavation performed in Level B on 5-19-92.
			3.0' Green organic material.		3.0' Scrap metal and wood.
3					
			4-5' Grey clay.		
4					
5			BOTTOM OF EXCAVATION AT 5.0 FEET		
6					
7					FIELD MONITORING RESULTS:
8					OVA: 6 PPM (in hole)
					0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 37,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 91 (AREA 5) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:HAYWOOD, NJ | LOGGER: J. LONGO
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-8-92
WATER LEVEL AND DATE: WATER AT 5-5.5' | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 6.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt and gravel base.		METAL ENCOUNTERED:
1			1.0-4.0' Dark brown-black sandy soils. Some white-grey material.		1.5' Top of drum (no bottom).
2					2-3' Crushed and perforated drum.
3					3-4' Sheet metal and concrete debris.
4			4-6' Native grey silty clay. Some white-grey material.		
5					
6			BOTTOM OF EXCAVATION AT 6.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0-1000 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 117,000 CPM (2.0')
					Sample collected of white-grey material under telephone pole (sidewall).
					Sample # SR-TP-91-3'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 92 (AREA 7) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-11-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 20' Width: 4' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.2' Asphalt.		METAL ENCOUNTERED:
1			0.2-1.0' Concrete.		1.0' 1" diameter, 2.5' long metal bar.
2			1-2' Medium brown silty sand.		2.0' 2 crushed drums in N-mid pit.
3			2-5' Dark brown-black sandy silt and wood debris. Beige colored layer (3')		3.0' Crushed metal container on N pit.
4					3.0' Crushed drum on N side of pit.
5					
6			BOTTOM OF EXCAVATION AT 5.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					>1000 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 255,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 93 (AREA 14) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-11-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 5' Width: 4' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SOIL SYMBOL	COMMENTS
DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL		DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.2' Asphalt.		METAL ENCOUNTERED:
1			0.2-1.0' Concrete pad.		No metal found.
2			1-4' Dark brown very fine sandy silt, wood debris.		
3					
4					
			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 50 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 73,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 94 (AREA 900E,1630N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: HAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-11-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 5' Width: 4' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.2' Asphalt.		METAL ENCOUNTERED:
1			0.2-1.0' Concrete pad.		1.0-2.0' Crushed drum.
2			1-2' Medium to dark brown very fine sandy silt.		
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 20 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 98,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 95 (AREA 13) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-11-92
WATER LEVEL AND DATE: SEEPS AT 1' | APPROX. DIMENSIONS: Length: 8' Width: 5' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-3.0' Dark brown sandy silt and gravel.		0.5-1.0' Crushed drum and pile of wire.
1					1.5' 0.75" diameter metal pipe on E side of pit.
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 100 PPM (in hole)
					0 PPM in breathing zone
9					LEL: 0 %
					OXYGEN: 20.9 %
10					SPA-3: 230,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 96 (AREA 3) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-12-92
WATER LEVEL AND DATE: WET AT 5' | APPROX. DIMENSIONS: Length: 8' Width: 7' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.0' Red-brown very fine sand and silt		1.0' Sheet metal on E side of pit.
2			1.0-4.0' Light to medium brown coarse sand		2-3' Sheet metal throughout pit. Large volume.
3					3' Crushed remains of drum. Total metal= 5'x 5'x 4' pile.
4			4-5' Medium brown clayey silt.		
5			5' Native grey clayey silt.		
6			BOTTOM OF EXCAVATION AT 5.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					40 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 32,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 97 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: J. LONGO
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-12-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 8' Width: 6' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION			COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	GY	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt.			METAL ENCOUNTERED:
			1.0-4.0' Black sandy soils.			1.5' Possible drum remains.
4			4' Native grey silty clay.			
			BOTTOM OF EXCAVATION AT 4.0 FEET			FIELD MONITORING RESULTS:
						OVA: >1000 PPM (in hole)
						0-15 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 82,000 CPM (1.0')
						No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 98(AREA 1090E,1970N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-12-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 10' Width: 6' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.5' Medium to red-brown very fine sandy silt, some gravel.		1.5' 1.5" diameter, 1.5' long pipe.
2					
3					
4			BOTTOM OF EXCAVATION AT 3.5 FEET		
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 4 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 51,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 99 (AREA 740E,1170N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-12-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 4' Width: 2' Maximum Depth: 1.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.5' Medium brown sand, silt, and gravel.		0.5-1.5' Base of crushed drum.
2			BOTTOM OF EXCAVATION AT 1.5 FEET		
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 0 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 508,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP	TEST PIT NO.: 100 (AREA 23)	SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-12-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 15' Width: 4' Maximum Depth: 4.5'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.			METAL ENCOUNTERED:
1			0.5-2.0' Dark brown to black sand and silt little gravel and wood debris.			Excavation terminated at 2' due to high OVA readings in breathing zone.
2			2.0-4.5' Black, very fine sandy silt and organic debris (oily smell).			Second excavation performed in Level B on 5-14-92.
3						3.0' 2" diameter, 6' long pipe.
4			BOTTOM OF EXCAVATION AT 4.5 FEET			
5						
6						
7						FIELD MONITORING RESULTS:
8						OVA: >1000 PPM (in hole)
9						320 PPM in breathing zone
10						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 267,000 CPM (1.0')
						Strong oily odor.
						No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 101 (AREA 890E,910N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 6' Width: 5' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.5' Red brown clayey silt.		3.0' Semi-intact drum encountered in middle to north of pit. Drum contents
2			1.5-3.5' Medium brown fine sand and silt.		is brown viscous liquid sampled in TP# 84. Few other pieces of metal removed
3			BOTTOM OF EXCAVATION AT 3.5 FEET		from pit.
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0-80 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 230,000 CPM (2.5')
					No sample collected.
					Sample of material already obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 102 (AREA 30) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 8' Width: 5' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION	SYM BOL	SYM GOL	COMMENTS
0			0-0.5' Asphalt and gravel base.			METAL ENCOUNTERED:
1			0.5-1.5' Medium brown silty sand.			Remains of crushed drum, broken into 2 sections. Sticky black and brown caked material in hole and possibly associated with drums. Similar to material already sampled in TP# 79.
2			1.5-4.0' Dark brown to black very fine sand and silt. Wood debris, cinders, and burnt debris.			
3						
4			BOTTOM OF EXCAVATION AT 4.0 FEET			
5						
6						
7						FIELD MONITORING RESULTS:
8						OVA: >1000 PPM (in hole)
9						300 PPM in breathing zone
10						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 121,000 CPM (3.0')
						No sample collected.
						Sample of material already obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 103 (AREA 840E,870N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 9' Width: 4' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SYM	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	BOIL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-4.0' Dark brown sand, silt, and gravel Bricks and burnt cinder debris. (Dark burnt soils predominant at 2').		3.0' Remains of half a drum (base). No associated drum materials found.
2					
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					100 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 116,000 CPM (2.0')
					Hydrocarbon and bitter tar-like odor.
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 104 (AREA 36) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: HAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 15' Width: 7' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	DEPTH TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.5' Dark brown sand, silt, and gravel		1.0' Metal debris at N end and middle of pit. Crushed metal drum at N side of pit.
2					1-2' Second drum in mid-east side of pit. Liquid in drum is similar to TP# 84. High OVA readings in breathing zone terminate excavation.
3					Second excavation performed in Level B on 5-14-92.
4			BOTTOM OF EXCAVATION AT 3.5 FEET		'2-3' Drum on W side of pit with black fluid similar to that sampled in TP# 87. 2 more drums on SW corner of pit containing same brown fluid.
5					One leaking drum removed and overpacked in third excavation on 5-15-92.
6					
7					FIELD MONITORING RESULTS:
8					
9					OVA: >1000 PPM (in hole)
10					10 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 61,000 CPM (2.0')
					No sample collected. Sample of both materials already obtained.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 105 (AREA 40) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-13-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 8' Width: 4' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0' Medium brown sand, silt, and some gravel.		0.5-2.0' Fence wire mesh from center of pit.
2			BOTTOM OF EXCAVATION AT 2.0 FEET		
3					
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					0 PPM in breathing zone
10					LEL: 2 %
					OXYGEN: 20.9 %
					SPA-3: 21,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 106 (AREA 820E,980N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 10' Width: 9' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.0' Medium brown to black sandy silt, little gravel.		1-2' Crushed drum on N side of pit. Drum contents similar to TP# 101. 3' Part of second drum S of first drum.
2					
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					FIELD MONITORING RESULTS:
8					OVA: 200 PPM (in hole)
9					30 PPM in breathing zone
10					LEL: 4 %
					OXYGEN: 20.9 %
					SPA-3: 209,000 CPM (2.0')
					Sample collected of brown material to confirm that it was same material sampled before. Sample # SR-TP-106-2'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 107 (AREA 32) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 6' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-4.5' Medium brown to black sandy silt, moist and burnt wood debris.		3.0' Crushed drum on W wall of pit. Buff colored crumbly soil material.
2					
3					
4					
5			4.5-5.0' Grey native silt.		
6			BOTTOM OF EXCAVATION AT 5.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: >1000 PPM (in hole)
9					300 PPM in breathing zone
10					LEL: 2 %
					OXYGEN: 20.9 %
					SPA-3: 56,000 CPM (1.0')
					Sample collected of tan material.
					Sample # SR-TP-107-3'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 108 (AREA 830E,920N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-14-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 5' Width: 4' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-5.0' Medium brown to black sandy silt, some gravel, bricks, timbers, and scrap wood. Some oily looking horizons.		No metal found.
2					
3					
4					
5			5.0' Grey native silt.		
6			BOTTOM OF EXCAVATION AT 5.0 FEET		
7					FIELD MONITORING RESULTS:
8					OVA: 600 PPM (in hole)
9					10 PPM in breathing zone
10					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 140,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 109 (AREA 38) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE DATE EXCAVATED: 5-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 15' Width: 5' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL OG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.2' Gravel cover.		METAL ENCOUNTERED:
1			0.2-4.0' Medium to dark brown sandy silt, trace gravel, timber, wood debris, blocks of concrete and asphalt.		1-2' Rebar or guy wire on N side of pit (0.5" diameter, 14' long wire).
2					
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 900 PPM (in hole) 40 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 21,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 110 (AREA 46) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 10' Width: 4' Maximum Depth: 0.5'

DEPTH			SOIL DESCRIPTION	S Y M B O L		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL			DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover, organic silt, and roots			METAL ENCOUNTERED:
						0.2' Metal mesh, post, and metal plate.
1			BOTTOM OF EXCAVATION AT 0.5 FEET			
2						
3						
4						
5						
6						
7						
8						
						FIELD MONITORING RESULTS:
9						
						OVA: 8 PPM (in hole)
10						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 13,000 CPM (0.5')
						No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 111(AREA 1280E,790N)SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 8' Width: 5' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover, organic silt, and roots			METAL ENCOUNTERED:
1			0.5-1.5' Medium brown very fine sandy silt			3-4' 3 pieces of a crushed drum.
2			1.5-4' Black, moist, very fine silt with timbers and organic material.			
3						
4			BOTTOM OF EXCAVATION AT 4.0 FEET			
5						
6						
7						
8						
9						FIELD MONITORING RESULTS:
10						OVA: >1000 PPM (in hole)
						10 PPM in breathing zone
						LEL: 3-5 %
						OXYGEN: 20.9 %
						SPA-3: 57,000 CPM (2.0')
						No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 112 (AREA 45) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-15-92
WATER LEVEL AND DATE: WATER AT 4.5' | APPROX. DIMENSIONS: Length: 10' Width: 6' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover, organic silt, and roots		METAL ENCOUNTERED:
1			0.5-1.5' Red brown clayey silt, trace gravel.		1.0' 4"x 0.5", 4' long bar at SW pit.
2			1.5-5.0' Black silt with organic material.		2.0' Crushed metal drum in middle pit. 4' 2-1" diameter, 6-8' long pipes running E-W through pit. Other scrap metal.
3					
4					
5			BOTTOM OF EXCAVATION AT 5.0 FEET		
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: >1000 PPM (in hole) 350 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 74,000 CPM (2.5')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 113(AREA1300E,860N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-15-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 10' Width: 5' Maximum Depth: 2.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover, organic silt, and roots		METAL ENCOUNTERED:
1			0.5-1.5' Red brown very fine sandy silt.		1-2' Crushed drum.
2			1.5-2' Black organic silt.		
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 100 PPM (in hole)
					3 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 64,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 114 (AREA 15) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-18-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 10' Width: 7' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown silty sand.		2.0' 1'x 2' piece of scrap metal on S side of pit.
2			1.0-3.0' Dark brown to black fine sand and silt.		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: >1000 PPM (in hole) 18 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 101,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 115 (AREA 17) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-18-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 6' Width: 5' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown silty sand, little clay.		1.0-2.0' Crushed drum on SW side of pit
2			1.0-2.0' Dark brown very fine sand, little silt.		
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: >1000 PPM (in hole) 0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 270,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 116 (AREA 20) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-18-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 8' Width: 5' Maximum Depth: 3.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt and concrete block, with gravel base.		METAL ENCOUNTERED:
1			1.0-3.5' Medium brown silt and very fine sand, trace gravel.		No metal found.
2					
3					
4			BOTTOM OF EXCAVATION AT 3.5 FEET		
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: 50 PPM (in hole)
					8 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 14,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 117(AREA 960E,1820N)SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-18-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 6' Width: 5' Maximum Depth: 3.0'

DEPTH			SOIL DESCRIPTION	S Y M B O L	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL		DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown fine to medium sand and gravel.		No metal found.
2			1.0-2.5' Medium brown to black fine sand and silt, some gravel, brick debris, and trace wood debris.		
3			2.5-3.0' Light brown very fine sandy silt.		
4					
5			BOTTOM OF EXCAVATION AT 3.0 FEET		
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 90 PPM (in hole)
					12 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 42,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 118 (AREA 27) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-18-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX.DIMENSIONS:Length: 4' Width: 5' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Asphalt, concrete, and gravel base.		METAL ENCOUNTERED:
1			1.0-3.0' Red brown very fine sand and silt.		No metal found.
2			3.0' Black silt, oily.		
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: 90 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 26,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 119 (AREA 6) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-19-92
WATER LEVEL AND DATE: WATER AT 4.0' | APPROX. DIMENSIONS: Length: 6' Width: 6' Maximum Depth: 4.0'

DEPTH			SOIL DESCRIPTION	SY	COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MBOL	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADTIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0' Dark brown to black very fine sandy silt, wood debris, brick, and broken glass.		0.5' 1" diameter, 1.5' long metal strip 2.0' Sheet metal on N and S side pit. 2.0' Crushed drum on NW side of pit.
2			2.0-2.5' Buff colored silt, dense.		Moss-green and black, oily material on soils associated with drum.
3			2.5-4.0' Black silt and very fine sand, wood, and brick debris.		3-4' Crushed drum in SW side pit.
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: >1000 PPM (in hole) 20 PPM in breathing zone LEL: 0 % OXYGEN: 21.1 % SPA-3: 188,000 CPM (1.0')
					Sample collected of black/green soil. Sample # SR-TP-119-3-4'

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 120(AREA810E,1500N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-19-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 6' Width: 5' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-1.0' Medium brown fine sand and silt, little gravel.		No metal found.
2			1.0-4.0' Dark brown very fine sandy silt.		
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: 65 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 66,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 121 (AREA 8) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION:MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION:50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-19-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX.DIMENSIONS:Length: 12' Width: 6' Maximum Depth: 4.5'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-4.5' Medium brown to dark grey and white flecked fine sand and silt, some gravel, wood debris, brick, and concrete.		1.0' Crushed metal in center of pit.
2					1-2' 4", 5' long piece of angle iron from SE corner of pit.
3					2-3' Nearly intact drum on S side pit filled with surrounding soils. Another crushed drum encountered in SE corner.
4			BOTTOM OF EXCAVATION AT 4.5 FEET		2-3' Third crushed drum from NW corner of pit.
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: 400 PPM (in hole) 20-30 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 247,000 CPM (2.0')
					No sample collected. No materials encountered in pit or associated with drums that have not already been sampled.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 122 (AREA 71) | SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES | LOCATION:MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION:50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-20-92
WATER LEVEL AND DATE: SEEPS AT 0.5' | APPROX.DIMENSIONS:Length: 10' Width: 5' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.2' Grass and weed surface cover.		METAL ENCOUNTERED:
1			0.2-2.0' Black organic silt and roots.		No metal found.
2			2.0' Brown-grey native silty clay.		
3			BOTTOM OF EXCAVATION AT 2.0 FEET		
4					
5					
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 11,000 CPM (1.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.SR.TP | TEST PIT NO.: 123 (AREA1440E,520N) SHEET: 1

TEST PIT LOG

PROJECT: SEARS LOGISTICAL SERVICES LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-20-92
WATER LEVEL AND DATE: SEEPS AT 1.5' APPROX. DIMENSIONS: Length: 5' Width: 6' Maximum Depth: 1.5'

DEPTH			SOIL DESCRIPTION	SY		COMMENTS
DEPTH BELOW SURFACE	INTERVAL	TYPE AND NUMBER	SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	MB	LOG	DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.2' Grass and weed surface cover.			METAL ENCOUNTERED:
			0.2-1.5' Dark brown to black organic silt.			No metal found.
1						
2			BOTTOM OF EXCAVATION AT 1.5 FEET			
3						
4						
5						
6						
7						
8						FIELD MONITORING RESULTS:
9						
10						OVA: 0 PPM (in hole)
						0 PPM in breathing zone
						LEL: 0 %
						OXYGEN: 20.9 %
						SPA-3: 11,000 CPM (1.0')
						No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.DS.TP | TEST PIT NO.: 124 (AREA 15) | SHEET: 1

TEST PIT LOG

PROJECT: DESAUSSURE PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-20-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-1.0' Dark brown very fine sand and organic silt, numberous roots.		METAL ENCOUNTERED:
1			1.0-3.0' Medium brown very fine sandy silt.		3.0' 5" metal bar.
2			3.0-4.0' Dark brown silt and sand.		
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 0 PPM (in hole) 0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 9,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FE.TP | TEST PIT NO.: 125 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: AMP REALTY PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-17008 COMBINATION BACKHOE | DATE EXCAVATED: 5-20-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 5' Width: 6' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-2.0' Medium brown sandy silt, little gravel.		1.0' 3" diameter vertical pipe in center of pit.
2			BOTTOM OF EXCAVATION AT 2.0 FEET		2.0' 2" diameter metal pipe (SW-NE).
3					
4					
5					
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 300 PPM (in hole) 18-60 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 8,000 CPM (2.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 126 (DEPRESSION PIT) SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY LOCATION: MAYWOOD, NJ LOGGER: MK DWYER
ELEVATION: 50-55 FT. CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE DATE EXCAVATED: 5-21-92
WATER LEVEL AND DATE: NOT ENCOUNTERED APPROX. DIMENSIONS: Length: 5' Width: 4' Maximum Depth: 3.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION (SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL)	SYMBOL	COMMENTS (DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Grass cover and organic silt.		METAL ENCOUNTERED:
1			0.5-3.0' Medium brown very fine sandy silt		0.5' 8" diameter metal circle.
2					1.0' Soda cans and scrap metal.
3			BOTTOM OF EXCAVATION AT 3.0 FEET		
4					
5					
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 0 PPM (in hole)
					0 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 10,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 127 (AREA 2) | SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-21-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 5.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.0' Medium brown very fine sandy silt little gravel. Lenses of crushed white material and rock debris.		No metal found.
2			3.0-5.0' Dark brown silt, trace clay.		
3					
4			5.0' Red-brown sand and silt with bedrock fragments (native soil).		
5			BOTTOM OF EXCAVATION AT 5.0 FEET		
6					
7					
8					
9					FIELD MONITORING RESULTS:
10					OVA: 200 PPM (in hole) 8 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 13,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.FA.TP | TEST PIT NO.: 128 (AREA 6) | SHEET: 1

TEST PIT LOG

PROJECT: FEDERAL EXPRESS PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER
ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL
EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-21-92
WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 10' Width: 4' Maximum Depth: 4.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRAD TIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
1			0.5-3.0' Orange-brown very fine sandy silt		No metal found.
2			3.0-4.0' Red brown silt, with sandstone bedrock fragments.		
3					
4			BOTTOM OF EXCAVATION AT 4.0 FEET		
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: 0 PPM (in hole) 0 PPM in breathing zone LEL: 0 % OXYGEN: 20.9 % SPA-3: 13,000 CPM (3.0')
					No sample collected.

TPLSYM 06/06/88

CH2M HILL

PROJECT NUMBER NJO 22948.ST.TP | TEST PIT NO.: 129 (AREA 65) | SHEET: 1

TEST PIT LOG

PROJECT: STEPAN PROPERTY | LOCATION: MAYWOOD, NJ | LOGGER: MK DWYER

ELEVATION: 50-55 FT. | CONTRACTOR: CONTI ENVIRONMENTAL

EXCAVATION EQUIPMENT: JCB-1700B COMBINATION BACKHOE | DATE EXCAVATED: 5-21-92

WATER LEVEL AND DATE: NOT ENCOUNTERED | APPROX. DIMENSIONS: Length: 4' Width: 10' Maximum Depth: 2.0'

DEPTH BELOW SURFACE	DEPTH INTERVAL	TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVE CONDITION, COLLAPSE OF WALLS, SAND HEAV DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			0-0.5' Asphalt and gravel base.		METAL ENCOUNTERED:
			0.5-2.0' Red-brown sandy silt.		2.0' 3" diameter utility line running E-W through center of pit.
1					
2			BOTTOM OF EXCAVATION AT 2.0 FEET		
3					
4					
5					
6					
7					
8					FIELD MONITORING RESULTS:
9					
10					OVA: 100 PPM (in hole)
					5 PPM in breathing zone
					LEL: 0 %
					OXYGEN: 20.9 %
					SPA-3: 13,000 CPM (2.0')
					No sample collected.

ATTACHMENT 3
TABLES

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
		STEPAN (Figure 1)		
1	40; 91-98E, 62-68N	rebar, pipes, sheet metal	15	45,000
2	33; 36-42E, 144-153N	4 sewer pipes, sheet metal	0	100,000
3	11; 42-48E, 210-220N	pipe, reinforced foundation	4	19,000
4	3; 325-330E, 126-130N	metal beam, pipe, foundation	15	45,000
5	15; 395-405E, 123-130N	metal sheets, pipes, foundation	0.9[d]	20,000
6	2; 280-290E, 280-290N	building foundation	0	22,000
7	9; 362-365E, 300-310N	4 pipelines	5[d]	29,000
8	10; 360E, 350-370N	3 pipes, reinforced foundation	0	27,000
9	16; 578-582N, 50-60E	pipeline, building foundation	200	350,000
10	13; 10E, 500-510N	2 pipes	0	34,000
11A	32; 42-48E, 208-212N	reinforced concrete foundation	0	16,000
11B	32; 42-48E, 218-220N	reinforced concrete foundation	0	16,000
12	50; 940N, 1500-1510E	railroad tracks	0	6,000
13	88; 950N, 1480-1490N	railroad tracks, rebar	0	15,000
14	43; 960N, 1560-1570E	railroad tracks	0	8,000
15	79; 990-995N, 1465-1470E	metal band tie	0	21,000
16	56; 1410E, 950-970N	metal pipe	0	16,000
17	29; 300-306N, 920-930E	2 pipes, railroad track	0	21,000
18	53; 288-290N, 790-794E	reinforced concrete	0	7,000
19	42; 402-409E, 458-466N	4 pipes	0	31,000
20	72; 60N, 764-770E	railroad track, pipe, reinforced concrete	0.5[d]	29,000
21	18; 62-67N, 663-670E	sheet metal, rebar, 3 pipes, crushed drum	35[d]	25,000

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
129	65; 290N, 860-870E	metal pipe	100	13,000
STEPAN AMENDED PROPERTY (Figure 2)				
22*	19; 60-67W, 55-59S	3 metal pipes	0[d]	28,000
23*	4; 232-240W, 37-43S	metal pipe	0[d]	36,000
24	10; 90-100S, 140-147W	no metal found	0[d]	28,000
25*	1; 158-163W, 200-207S	4 crushed drums	0[d]	27,000
26	11; 40-47W, 174-180S	metal rebar, railroad tracks	0[d]	21,000
27	29; 25-32W, 520-527S	reinforced concrete slab	0[d]	31,000
28	2; 68-72W, 410-418S	metal pipe	8[d]	14,000
29	5; 10-15W, 297-307S	crushed drum, reinforced concrete pad	0[d]	18,000
30	39; 17-23N, 688-692S	2 metal pipes	0	30,000
31	16; 188-192W, 270-280S	2 metal pipes	0	20,000
32*	31; 58-62W, 344-352S	metal pipe	0	18,000
DESAUSSURE (Figure 3)				
33	1; 7-13E, 580-584N	2 crushed drums	0	300,000
34	2; 3W-0E, 517-523N	3 crushed drums, metal slug	0.2	137,000
35	12; 217-222E, 160-165N	reinforced concrete pipe	30	9,000
36	14; 246-250E, 170-180N	metal pipe	0[d]	10,000
37	9; 265-270E, 282-285N	ground wire	0	11,000
38	8; 266-274E, 345-350N	metal bar	0	7,000
39	6; 260E, 390-400N	reinforced concrete	0	9,000
40	5; 268-273E, 486-490N	reinforced concrete	0	7,000
41	10; 220-227E, 256-265N	metal sewer pipe	0	10,000

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
42*	4; 196-202E, 550-560N	no metal found	0	5,000
124	15; 280E, 190-200N	metal bar	0	9,000
		SUNOCO (Figure 4)		
43	4; 240N, 180-190E	metal debris, wire	0	15,000
44	5; 220N, 140-150E	metal sheet	0	50,000
45	7; 160N, 136-141E	scrap metal, pipes	0	56,000
46	2; 260N, 180-190E	scrap metal, pipes	0	50,000
47	12; 86-90N, 187-190E	pipe, scrap metal	75[d]	18,000
48	10; 128-133N, 154-160E	scrap metal, reinforced concrete	0	53,000
49	8; 170-176N, 204-210E	scrap metal	0	28,000
50	9; 128-133N, 120-130E	2 pipes, rebar	0	740,000
51	11; 90-100N, 123-130E	metal bar, plate, reinforced concrete	75	710,000
52	6; 160N, 60-68E	sheet metal, metal debris	0	65,000
53	13; 70N, 220-230E	no metal found	0	15,000
		AMP (Figure 5)		
54	3; 110N, 30-40E	crowbar	120	13,000
55	5; 90N, 40-60E	metal pipe	150	12,000
56	6; 50N, 136-145E	no metal found	>1,000	7,000
57*	1; 380N, 170-180E	wire mesh	100	12,000
125	2; 20E, 180N	2 metal pipes	300	8,000
		FEDERAL EXPRESS (Figure 6)		
58	3; 40E, 480-490N	metal cable, wire, pipe	25	12,000
59	5; 190E, 610-620N	no metal found	44	13,000

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
60	8; 290E, 520-530N	no metal found	0	12,000
61	9; 310E, 470-480N	no metal found	0	14,000
126	depression pit[e]	scrap metal	0	10,000
127	2; 40E, 520-530N	no metal found	200	13,000
128	6; 230E, 570-580N	no metal found	0	13,000
		SWS (Figure 7)		
62	9; 50N, 370-390E	no metal found	300	13,000
63	10; 50N, 510-520E	no metal found	33	13,000
64	14; 380N, 200-210E	no metal found	28	18,000
65	20; 439-442N, 265-270E	scrap metal	0	20,000
66	15; 390N, 426-432E	metal pipe	43	19,000
67	16; 385-390N, 426-432E	metal pipe	343[d]	16,000
68	18; 460N, 390-400E	sheet metal, pipe	210	15,000
69	19; 450N, 422-426E	pipe, manhole, reinforced concrete	178[d]	12,000
70	21; 460N, 467-470E	metal rod, wire, debris	90	14,000
71	22; 488-492N, 404-410E	2 pipes	93	15,000
72	17; 400N, 250-260E	metal pipe	0	16,000
		SEARS (Figure 8)		
73	76; 1247-1252E, 310-320N	no metal found	0[d]	88,000
74	68; 1208-1212E, 594-600N	no metal found	0[d]	20,000
75	67; 1180E, 582-590N	no metal found	2.4[d]	91,000
76*	1100E, 660N[f]; 1100-1106E, 658-663N	sheet metal or drum	0[d]	39,000

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
77	750E, 490N[f]; 747-750E, 490-495N	crushed drum	0.2[d]	103,000
78	900E, 510N; 895-900E, 515-520N	remains of 3 crushed drums	0.8[d]	90,000
79*	51; 860-864N, 810-815E	crushed drum	0[d]	120,000
80*	43; 1048-1053E, 775-785N	crushed drum	>1,000	78,000
81	1060E, 820N[f]; 1058-1062E, 820-823N	reinforced concrete	0[d]	80,000
82	42; 1107-1113E, 830-840N	no metal found	0[d]	39,000
83	54; 708-712E, 702-710N	crushed drums	0.6	120,000
84*	55B; 780E, 605-610N	6 crushed drums	1,088[d]	198,000
85*	55A; 770E, 658-672N	1 or 2 crushed drums	>1,000	108,000
86	56; 798-803E, 688-700N	3 crushed drums	0	178,000
87*	9; 827-833E, 1406-1413N	3-4 drums or 1 tank	>1,000	77,000
88*	11; 800-806E, 1375-1387N	2 crushed drums	>1,000	50,000
89*	12; 742-753E, 1312-1319N	2 crushed drums	>1,000	178,000
90	870E, 1470N[f]; 868-872E, 1468-1482N	scrap metal, bar	>1,000	37,000
91*	5; 802-805E, 1580-1586N	crushed drum, sheet metal	>1,000	117,000
92	7; 908-912E, 1469-1492N	3 crushed drums, container, bar	>1,000	255,000
93	14; 928-932E, 1340-1350N	no metal found	70	73,000
94	900E, 1630N[f]; 895-899E, 1630-1635N	crushed drum	20	98,000
95	13; 710-716E, 1278-1285N	crushed drum, wire, pipe	100	230,000
96	3; 1088-1095E, 1870-1879N	sheet metal, drum	>1,000	32,000
97	2; 1137-1143E, 2000-2010N	possible drum	>1,000	82,000

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
98	1090E, 1970N[f]; 1086-1092E, 1970-1980N	metal pipe	4	51,000
99	740E, 1170N[f]; 738-741E, 1178-1181N	crushed drum	0	508,000
100	23; 818-822E, 1050-1070N	pipe	>1,000	267,000
101	890E, 910N[f]; 897E, 907-912N	drum, metal debris	>1,000	230,000
102	30; 858-863E, 930-935N	crushed drum	>1,000	121,000
103	840E, 870N[f]; 840E, 869-878N	drum remains	>1,000	116,000
104	36; 968-973E, 913-924N	4 crushed drums	>1,000	61,000
105	40; 1119-1123E, 920-928N	wire mesh	>1,000	21,000
106*	820E, 980N[f]; 820-828E, 974-982N	2 crushed drums	200	209,000
107*	32; 780E, 890-910N	crushed drum	>1,000	56,000
108	830E, 920N[f]; 828-832E, 916-920N	no metal found	600	140,000
109	38; 1016-1022E, 897-904N	rebar, wire	900	21,000
110	46; 1238-1243E, 767-773N	metal mesh, post, plate	8	13,000
111	1280E, 790N[f]; 1275-1285E, 794-800N	crushed drum	>1,000	57,000
112	45; 1297-1303E, 810-820N	1 drum, 2 pipes, bar	>1,000	74,000
113	1300E, 860N[f]; 1298-1302E, 857-866N	crushed drum	100	64,000
114	15; 847-853E, 1280-1290N	scrap metal	>1,000	101,000
115	17; 787-793E, 1240-1246N	crushed drum	>1,000	270,000
116	20; 927-933E, 1160-1167N	no metal found	50	14,000
117	960E, 1820N[f]; 956-964E, 1822-1828N	no metal found	90	42,000

Table 1
Test-Pit Summary Table: Metal Encountered and Field Monitoring Results

Pit No.	Area No. from Geophysics Investigation; Location	Metal Found	Field Monitoring[a]	
			Organic Vapors[b] (ppm)	Radiological Measurement[c] (cpm)
118	27; 928-933E, 1000-1010N	no metal found	90	26,000
119*	6; 846-851E, 1518-1524N	2 drums, sheet metal	>1,000	188,000
120	810E, 1500N[f]; 807-812E, 1503-1510N	no metal found	65	66,000
121	8; 787-798E, 1460-1470N	3 drums, crushed metal	400	247,000
122	71; 1440E, 580-588N	no metal found	0	11,000
123	1440E, 520N[f]; 1440E, 515-520N	no metal found	0	11,000

[a]Indicates the highest organic vapor and radiological measurements detected within an excavation.
[b]Obtained using a Century OVA model 128, unless otherwise noted.
[c]Obtained using an Eberline model PRS-1 count rate meter with an Eberline model SPA-3 (unshielded) probe.
[d]Obtained using a TMA OVM model 580B with a 10.6 eV bulb.
[e]One of three depression pits located off the southwest corner (approximately 30E, 180N) of the Federal Express building was excavated. The determination to excavate the depression pit was based on the peculiarity of the depression and a positive field metal-detector response.
[f]Coordinates assigned as area numbers.

Notes: ppm = parts per million
cpm = counts per minute
*Denotes sample location

Table 2
Test-Pit Sample Summary

Sample Designation	Pit Number	Sample Date	Property	Sample Depth[a] (foot)	Sample Matrix	Head Space Measurement[b] (ppm)	Remarks
ST-TP-22-02	22	4-2-92	Stepan Amended	2	Sludge	0[c]	MS/MSD; purple/blue colored fibrous material
ST-TP-22-02-D	22	4-2-92	Stepan Amended	2	Sludge	NT	Duplicate of ST-TP-22-02
ST-TP-23-3.5	23	4-3-92	Stepan Amended	3.5	Sludge	4.2[c]	Tan colored, hard chalky material
ST-TP-25-.6	25	4-3-92	Stepan Amended	0.6	Soil	0[c]	Soils associated with crushed drum
ST-TP-32-3	32	4-6-92	Stepan Amended	3	Sludge	0	White, soft, paste-like material adjacent to buried pipe
DS-TP-42-1	42	4-7-92	DeSaussure	1	Sludge	0[c]	Blue-gray colored, chalk-like material
FA-TP-57-2	57	4-10-92	AMP	2	Soil	1.5	Soils associated with crushed bucket remains
SR-TP-76-1	76	5-4-92	Sears	1	Soil	10.8[c]	MS/MSD; black-green colored soils from within folds of crushed drum
SR-TP-79-1	79	5-5-92	Sears	1	Sludge	2.9[c]	Hard, caramel-colored resin from within folds of drum; some soil included in sample
SR-TP-79-1-D	79	5-5-92	Sears	1	Sludge	NT	Duplicate of SR-TP-79-1
SR-TP-84-2	84	5-6-92	Sears	2	Sludge	475[c]	Very viscous, caramel-colored resin from within crushed drum
SR-TP-85-1.5	85	5-6-92	Sears	1.5	Soil	25.3	Black-green colored soils associated with crushed drum
SR-TP-87-1	87	5-7-92	Sears	1	Sludge	700[d]	Very viscous, black oil-like material from within drum or tank
SR-TP-87-1B	87	5-7-92	Sears	1	Soil	>1,000	Visibly impacted soils from above drum or tank
SR-TP-88-1	88	5-7-92	Sears	1	Soil	1,000	Low-density, black/light purple, with gray "marbling" soils, from within drum
SR-TP-88-2	88	5-7-92	Sears	2	Soil	640	Similar to soil sample SR-TP-88-1, from within separate drum
SR-TP-89-1	89	5-7-92	Sears	1	Soil	740	Soil impacted by hard, white material (from within drum)
SR-TP-91-3	91	5-8-92	Sears	3	Sludge	0.5	White, silty material

Table 2
Test-Pit Sample Summary

Sample Designation	Pit Number	Sample Date	Property	Sample Depth[a] (foot)	Sample Matrix	Head Space Measurement[b] (ppm)	Remarks
SR-TP-106-2	106	5-14-92	Sears	2	Sludge	350	Viscous, brown/caramel-colored resin from within drum
SR-TP-107-3	107	5-14-92	Sears	3	Sludge	180	Hard, tan-colored, chalky material from drum. Soils associated with material appeared to be petroleum contaminated
SR-TP-119-3-4	119	5-19-92	Sears	3-4	Soil	5	MS/MSD; soils impacted by black, oil-like substance associated with crushed drum
SR-TP-80-2	80	5-20-92	Sears	2	Soil	200	Soils from beneath drum
SR-TP-80-2-D	80	5-20-92	Sears	2	Soil	100	Duplicate of SR-TP-80-2

[a]Depth below ground surface.
[b]Obtained using a Century OVA Model 128, unless otherwise noted.
[c]Obtained using a TMA OVM Model 580B, with 10.6 eV bulb.
[d]10-minute holding time was exceeded by 15 minutes; headspace was probably higher than reported value.

Notes: ppm = parts per million
MS/MSD = matrix spike/matrix spike duplicate
NT = not taken
NA = not applicable

Appendix F
Soil Boring Field Screening Results

SOIL BORING SAMPLING – FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
Stepan	C4	(1–3)	1	85	8	
		(3–5) [c]	3	70	9.4	
		(5–7) [c]	3	76	10.0	
		(7–9) [c]	3	67	11.7	
		(9–11)	0	65	12	
	C5	(0–2) [c]	0 [d]	50	0 [d]	
		(2–4) [c]	0 [d]	50	0 [d]	
	C20	(0.5–2.5)	0	76	0	
		(2.5–4.5) [c]	0.2	77	0	
		(4.5–6.5) [c]	103	40	1345	
		(6.5–8.5) [c,e]	75	92	1543	The 7.5–to–8.5–ft. interval contained black stained gravel and exhibited a chemical odor.
	C38	(0–2)	0	78	0	
		(2–4)	0	70	0	
		(4–6)	2	210	2	Hydrogen sulfide odor. Black and gray fill material.
		(6–8)	7	590	17.8	Hydrogen sulfide odor. Black clay fill material with white mottling.
		(8–10) [c]	20 [f]	18600	20	Black sludge material.
		(10–12) [c,e]	0	27400	10	Black sludge material.
		(12–14) [c,e]	0	569	Not taken [g]	Sludge material, with native soil in the 13–to–14–ft. interval.
	C39	(0–2) [c]	0	60	3.2	
		(2–4)	1	57	2.1	
		(4–6) [c]	0	42	2.0	
		(6–8) [c]	0.2	68	3.6	
	C40	(0–2)	0 [d]	Not taken [h]	4.9	
		(2–4) [c]	0 [d]	60	6.8	
		(4–6) [c]	0 [d]	47	10.8	
		(6–8) [c]	0 [d]	45	10.1	
		(8–10) [c]	0 [d]	48	10.8	

SOIL BORING SAMPLING – FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
Stepan	C41	(0–2) [c]	0 [d]	50	0 [d]	
		(2–4)	0 [d]	80	0 [d]	Streaks of black staining in the soil.
		(4–6) [c]	0 [d]	50	0 [d]	Streaks of black staining in the soil.
		(6–8) [c]	0 [d]	80	0 [d]	
		(8–10)	0 [d]	80	0 [d]	
		(10–12)	1 [d]	75	0 [d]	
		(12–14)	0 [d]	65	0 [d]	
	C42	(0–2)	17	69	111	Similar chemical odors to C20 and C43.
		(2–4)	38	70	108	Gray, black, and orange stained fill material.
		(4–6) [c]	115	47	112	Gray and black sludge material.
		(6–8) [c]	14	85	100	
		(8–10)	0 [d]	35	55	The 8–to–9–ft. interval contained sludge.
		(10–12) [c]	0	58	8.8	
		(12–14)	50 [d]	88	7.0	
		(14–16)	20 [d]	87	18.8 [d]	
	C43	(1–3)	0.4	71	13.8	Black staining within fill material. Similar chemical odor to C20.
		(3–5) [c]	8	40	45	Black staining within fill material.
		(5–7)	0.5	70	3.5	
		(7–9) [c]	0	84	30	
		(9–11)	13	67	31.3	
		(11–13) [c]	35	96	111	
	C44	(0–2)	2.9 [d]	Not taken [h]	21	
		(2–4)	15 [d]	50	211	Soils emitted a chemical odor.
		(4–6) [c]	5 [i]	65	49.9	Soils emitted a chemical odor.
		(6–8) [c]	500 [i]	21	143	Soils emitted a chemical odor.
		(8–10) [c]	20 [i]	70	190	Soils emitted a chemical odor.
		(10–12)	8 [i]	21	26.4	Soils emitted a chemical odor.
Federal Express	C26	(0–2) [c]	1	70	7	
		(2–4) [c]	3	80	9	
		(4–6) [c]	3	65	10	
		(6–8)	0	75	Not taken [j]	

SOIL BORING SAMPLING – FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
Federal Express	C28	(1–3)	0.5	100	3.1	
		(3–5) [c]	0.7	60	3	
		(5–7) [c]	1	98	3.6	
		(7–9) [c]	1	76	3.4	
	C30	(1–3) [c]	0	56	1.4	Encountered bedrock at 2.5 feet. The 0–to–1–ft. interval was asphalt and trap rock.
	C32	(1–3) [c]	0	55	0.5	The 0–to–1–ft. interval contained asphalt.
		(3–5) [c]	0	70	2.3	
		(5–7) [c]	0	52	1.2	
		(7–9)	0	58	Not taken [h]	
	C35	(1–3)	0.2	83	4	The 0–to–1–ft. interval contained asphalt.
		(3–5) [c]	0.5	73	3	
		(5–7) [c]	2	60	4	
		(7–9) [c]	1	80	1	
SWS	C25	(0.5–2.5) [c]	113	70	600	The 0–to–0.5–ft. interval contained asphalt. Soil from the 0.5–to–2.5–ft. interval was stained and emitted a petroleum odor.
		(2.5–4.5)	1000	60	1520	Sample emitted a petroleum odor.
		(4.5–6.5) [c]	600	60	1680	Sample emitted a petroleum odor.
		(6.5–8.5)	470	65	1450	Sample emitted a petroleum odor.
		(8.5–10.5) [c]	1300	40	3777	Sample emitted a petroleum odor.
	C34	(1–3) [c]	0	65	8	
		(3–5) [c]	0	55	5.6	
		(5–7) [c]	0	70	5.3	
		(7–9)	0	80	5.8	
DeSaussure	C27	(0–2)	0	10	0	The 1.7–to–2–ft. interval contained white fill material.
		(2–4) [c]	0	12	0	Sample contained a soft gray, white, and tan fill material.
		(4–6) [c]	0	17	0	
		(6–8) [c]	0	8	0	

SOIL BORING SAMPLING – FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
DeSaussure	C31	(0–2)	0.2	80	3	
		(2–4) [c]	0.5	65	1	
		(4–6) [c]	0.5	65	2	
		(6–8) [c]	0.5	70	4.4	
		(8–10)	0	80	1	
	C37	(0–2) [c,e]	0	150	0.5	
		(2–4) [c]	1.0	90	2.2	The 3.5–to–4.0–ft. interval contained gray streaks.
Sunoco	C15	(0–2) [c]	2.1	Not taken [k]	2.5	Due to underground tanks in close proximity to boring, sample was taken from sidewalls after excavation with a shovel.
		(3–5) [c,e]	4.0	500	34.8	Slight petroleum odor. Gray sand with some black fill material. Black fill material exhibited elevated rad readings.
		(5–7) [c]	1.3	60	6.5	
		(7–9)	1.2	55	3.4	
	C33	(1–3) [c]	8	65	4.3	
		(3–5) [c]	3.7	95	3.6	The 4.5–to–5.0–ft. interval contained black organic material similar to the 3–to–5–ft. interval within C15.
		(5–7)	1	65	4.2	
		(7–9) [c]	3	50	7.9	
		(9–11)	0	80	3.3	
Gulf	C11	(1–3)	0	75	3.3	
		(3–5) [c]	0	45	13.8	
		(5–7) [c]	0	40	5.4	
		(7–9) [c]	0	42	4.8	
		(9–11)	0	55	Not taken [l]	
AMP	C22	(1–3) [c]	1	48	5.6	
		(3–5) [c]	0	69	2.0	
		(5–7) [c]	2	60	3.0	
		(7–9)	2	75	Not taken [j]	
Sears	C1	(1–3) [c]	0 [d]	90	0 [d]	
		(3–5) [c]	0 [d]	60	0 [d]	
		(5–7) [c]	0.3 [d]	50	0 [d]	Soils emitted a petroleum odor.
		(7–9)	15 [d]	70	290 [d]	Soils emitted a petroleum odor.

SOIL BORING SAMPLING -- FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
Sears	C2 [m]	(0-2) [c]	0	60	0	
		(2-4)	0	60	0	Sampled only the 3-to-4-ft. interval.
	C3	(0-2) [c]	0	60	1.6	The 0-to-0.5-ft. interval was concrete. Sample was collected from the 1.5-to-2-ft. interval.
		(2-4) [c]	1.4	60	1.7	
		(4-6)	0.2	Not taken [i]	Not taken [i]	
	C6	(0-2) [c]	0	60	0	Interval contained black gravel (railroad ballast).
		(2-4)	0	Not taken [k]	Not taken [k]	
	C7 [n]	(0-2)	0	60	0	
		(2-4) [c]	4.1	290	2.0	Soils emitted a hydrogen sulfide odor. Soft, black and gray fill material.
		(4-6) [c,e]	1.2	190	2.7	Encountered black and white fill material. Soils emitted a hydrogen sulfide odor.
		(6-8) [c]	0	70	2.9	
	C8	(0-2) [c]	0	130	2.0	
		(2-4) [c,e]	0	47	1.6	The 2-to-3-ft. interval contained slough from interval above. Sample was collected from the 3-to-4-ft. interval.
		(4-6)	0	Not taken [o]	Not taken [o]	
		(6-8)	0	60	3.4	
	C9	(0-2) [c,e]	0.7	100	3.1	
		(2-4)				No recovery.
		(4-6) [c]	1.7	60	22	Some dark staining and pieces of concrete were present.
		(6-8)	2.0	60	Not taken [k]	Soils emitted a petroleum odor.
	C10 [p]	(0-2)	0	400	2.3	The 1-to-2-ft. interval contained white and gray fill material.
		(2-4)	0	100	2.4	
		(4-6) [c]	1.2	100	2.3	
		(6-8) [c]	0	70	1.6	
	C12	(0.5-2.5) [c]	0	60	0.7	The 0.5-to-1-ft. interval contained gravel and asphalt.
		(2.5-4.5) [c]	0	60	1.2	
		(4.5-6.5)				No recovery.
		(6.5-8.5)	0	60	Not taken [k]	

SOIL BORING SAMPLING – FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
Sears	C13	(1–3) [c]	0 [d]	50	0 [d]	The 2.5–to–3–ft. interval contained black stained soils.
		(3–5) [c]	0 [d]	60	0 [d]	Some black staining.
		(5–7) [c]	0 [d]	60	0 [d]	
		(7–9)	0 [d]	60	0 [d]	
	C14	(0–2)	0	230	1.0	The 0.7–to–1–ft. interval contained fill which was light gray with pale pink streaks.
		(2–4) [c,e]	0.6	200	2.2	The 2–to–3.5–ft. interval contained gray and white fill.
		(4–6) [c]	0	100	2.0	
		(6–8)	0	100	1.9	
	C16 [q]	(0–2)	0	200 [h]	0	The 1.5–to–2–ft. interval contained gray and white fill material.
		(2–4) [c,e]	0	250	0	The 3.5–to–4–ft. interval contained gray and white fill material. Sample emitted a hydrogen sulfide odor.
		(4–6)	0	200	0	
		(6–8)	0	200	0	
	C17 [r]	(0–2) [c]	0	180	0	
		(2–4)	0	130	0	
		(4–6)	0	80	0	
	C18	(0–2) [c]	0	60	0	
		(2–4) [c]	0	60	0	
	C19	(0–2) [c]	0	60	0	Sample contained small amounts of blue material.
		(2–4) [c]	0	60	0	
		(4–6) [c]	0	60	0	
	C21	(0–2) [c]	0	400	0	The 1–to–2–ft. interval contained gray and white fill material.
		(2–4) [c,e]	0	150	0	The 3–to–4–ft. interval contained grayish sand and white fill material.
		(4–6)	0	150	Not taken [k]	Encountered gray sand material.
	C23	(0–2) [c]	0	60	0	
		(2–4)	0	60	0	
		(4–6) [c]	0	60	0	
		(6–8)	0	60	Not taken [k]	
	C24	(0–2)	0	200	0	
		(2–4) [c,e]	0	200	0	
		(4–6) [c]	0	200	0	

SOIL BORING SAMPLING – FIELD SCREENING RESULTS

Property	Boring No.	Depth Interval (ft)	Maximum PID Scan [a] (ppm)	Maximum Rad Scan [b] (cpm)	Maximum Headspace Reading [a] (ppm)	Remarks
Sears	C29	(1–3) [c]	0	250	0	Black fill material with gray mottling.
		(3–5)	0	80	0	Black/brown sludge.
		(5–7) [c,e]	0	200	0	
		(7–9) [c]	0	60	0	Sample emitted a petroleum odor.
	C36	(0–2) [c]	0	60	0	
		(2–4) [c]	0	60	0	
		(4–6) [c]	0	60	0	

[a] PID scan and headspace screening were performed using a Photon PID, except where noted. PID scan measurements often fluctuated as the instrument was moved along the soil in the split spoon. Only the maximum PID readings have been presented in this table.
[b] Radiological scan was performed using an HP–210 or HP–260 probe.
[c] Sample interval sent for chemical analysis.
[d] PID scan and/or headspace screening were performed using an OVM.
[e] Sample interval was sent for radiological analysis.
[f] PID scan and headspace screening were performed using an HNu PID.
[g] Headspace sample spilled before reading was taken.
[h] Instrument was not working properly.
[i] PID scan and headspace screening were performed using an OVA.
[j] Headspace reading not taken because no sample was collected due to shallow bedrock.
[k] Rad scan inadvertently not taken for this sample.
[l] Headspace reading and/or rad scan were not taken because no sample was collected due to the shallow occurrence of groundwater.
[m] The sample from the 3–to–4–ft. interval of boring C2 was sent for chemical analysis.
[n] The samples from the 4–to–5–ft., 5–to–7–ft., and 7–to–8–ft. intervals of boring C7 were sent for chemical analysis.
[o] Headspace and/or rad scan were not taken because the sample was not representative of the interval.
[p] Samples from the 2–to–3–ft., 4–to–6–ft., and 6–to–8–ft. intervals of boring C10 were sent for semivolatile, metals, cyanide, caffeine, d–limonene, and a–pinene analysis. VOC analysis, however, was done only on the sample from the 3–to–4–ft. interval.
[q] The samples from the 1.5–to–2.5–ft., 2.5–to–4.0–ft., and 4.0–to–5.5–ft. intervals of boring C16 were sent for chemical analysis.
[r] The samples from the 2–to–3–ft. and 3–to–4–ft. intervals of boring C17 were sent for chemical analysis.

Appendix G
Information Contained in Appendix D

INFORMATION CAN BE FOUND IN APPENDIX D

Appendix H
Well Rehabilitation Data/Nuclear Regulatory Commission Well Logs

Engineers
Planners
Economists
Scientists

January 7, 1992

NJO22948.ST.CY

Mr. Jeffrey Gratz, Project Manager
USEPA
Special Programs Branch
New York, NY 10278

Dear Mr. Gratz:

Subject: Maywood Chemical Company Site, Administrative Order Index No. II - CERCLA-10105; Sears and Adjacent Properties, Administrative Order on Consent, Index No. II - CERCLA-70104: Rehabilitation and Evaluation Survey of the Nuclear Regulatory Commission Wells Located on Stepan Co. Property, Maywood, New Jersey

Introduction

As per the conversations among Stepan Co., CH2M HILL, and EPA during the preparation of the **RI/FS Work Plan and RI Operations Plan For The Stepan Company Property**, Stepan has completed its rehabilitation and evaluation survey of the Nuclear Regulatory Commission (NRC) monitor wells, which were proposed to be used for the collection of groundwater samples during the RI on the Stepan properties. The intent of this survey was to determine if the monitor wells, located in the immediate vicinity of the radiological burial sites, are suitable for collecting representative groundwater samples from the overburden groundwater system. As agreed between Stepan and EPA, wells that are determined unsuitable for sampling, shall be replaced. EPA has agreed that existing wells constructed of polyvinyl chloride (PVC) are acceptable for sampling, however, the analytical results shall be qualified during final reporting.

Well Rehabilitation and Evaluation Survey

The well rehabilitation and evaluation survey was conducted from December 10 through 13, 1991, and included the following wells:

- Well 1 (B38W-8A)
- Well 2 (B38W-9A)
- Well 5 (B38W-11A)
- Well 6 (No B38W-series number assigned)
- Well 8 (No B38W-series number assigned).

The locations of these wells are shown on Figure 4-4 (see RI/FS Work Plan and RI Operations Plan). The boring logs (attached) indicate that the wells were installed in June 1983.

The rehabilitation was performed using the following procedure:

- Access the well and inspect the general integrity of the well and surface seals
- Determine the depth to water and the bottom depth of the well
- Scrub and surge the screened interval of the well using a dedicated laboratory brush attached to dedicated PVC pipe
- Bail and/or pump the well and observe changes in water quality, yield, and recovery.

Discussion of Results and Recommendations

The results of the survey indicate that all wells, except for Well 6, are acceptable for sampling. Data collected at Well 6 indicated the PVC well casing or screen may be structurally damaged. While rehabilitating the well, gravel and coarse sand were observed within the discharge water. Since the well was not locked, this material may have been introduced from the surface during previous sampling events. Although the well yield was sufficient, the presence of the coarse fragments mentioned above could compromise the integrity of groundwater samples collected from the well.

During the survey, it was determined that Well 6 is not located in the area, as shown on Figure 4-4. The well is actually located near the southwest corner of Burial Site No. 1 (see attached map). Since a shallow well is needed to supplement the hydrogeological conditions near bedrock well BRWM-17, Stepan recommends installing a replacement well (OBMW-17) at the location where Well 6 was originally shown on Figure 4-4, resulting in a OBMW-17/BRMW-17 well couplet. Stepan does not intend to install a new shallow well near the southwest corner of Burial Site No. 1.

Wells 1, 2, and 5 were capable of being pumped (approximately 0.3 to 0.5 gpm) and produced sufficient quantities of groundwater for sampling.

The yield, recovery rate, and the boring log associated with Well 8, indicate that the well is screened across an aquitard or a strata with limited water-bearing properties. It is unlikely that a new well installed in this area will yield a larger quantity of groundwater than the existing well. Therefore, Stepan recommends sampling the existing well. It should be noted that this well may need to be sampled over a two day period.

Should you have any questions or comments pertaining to this submittal, please call Scott Vozza or me at (201) 316-9300. If the recommendations are acceptable to you, please provide us with written notification.

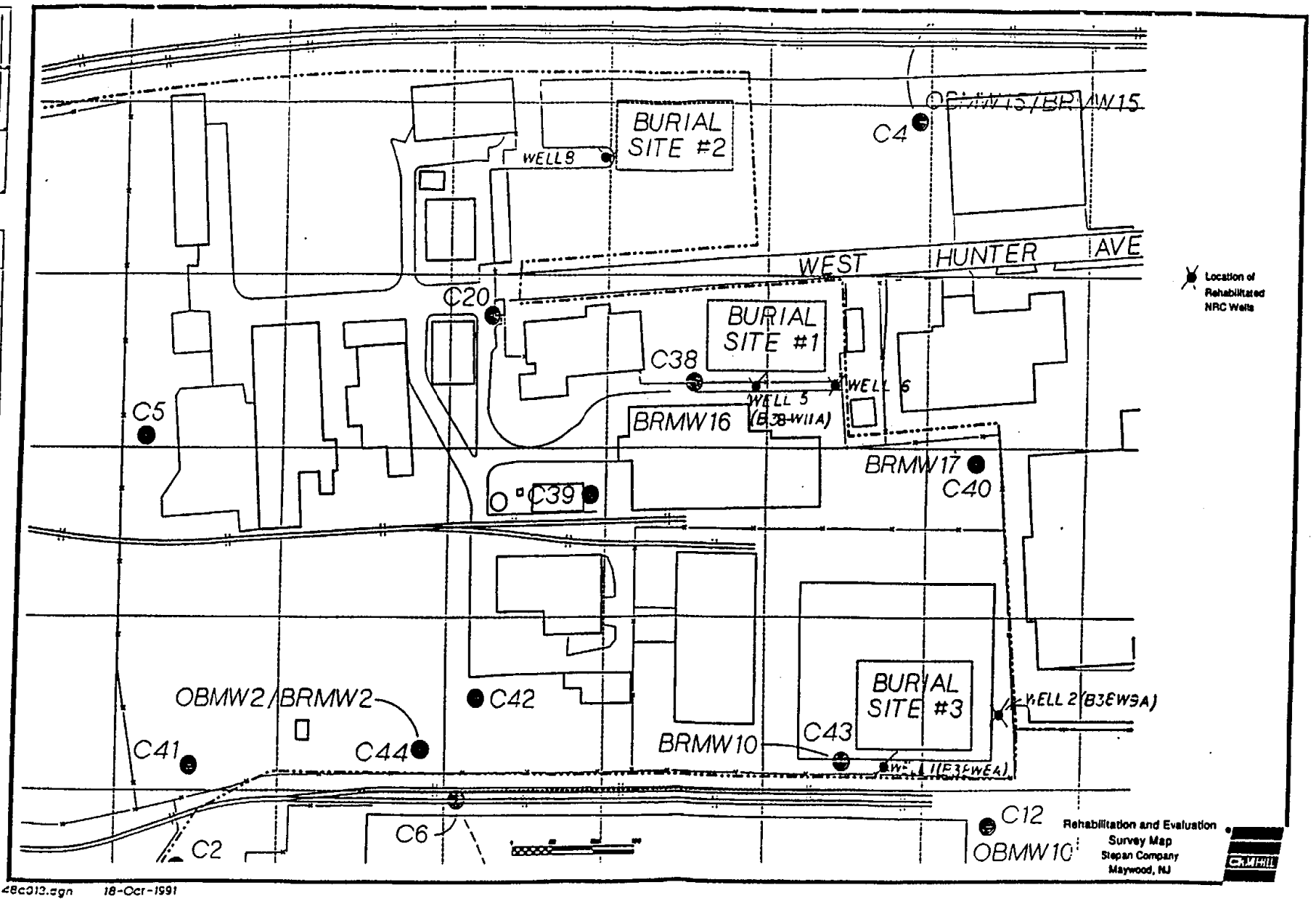
Sincerely,

CH2M HILL

Mary Manto
Project Manager

mtc/NJC9/006C9.51
cc: J. Bartlett/Stepan
Scott Vozza/NJO
Cliff Bell/NJO

Attachments



2948c013.dgn 18-Oct-1991

SUMMARY OF WELL REHABILITATION AND EVALUATION
STEPAN CO. RI/FS

WELL NO.		PURGE VOLUME (GAL)	WATER LEVEL (FEET)	TOTAL DEPTH FIELD MEAS.	TOTAL DEPTH WELL LOG	pH	COND. (UMHOS)	TEMP. (C)	TOTAL PURGE VOLUME (GAL)	PUMPING RATE (GAL/MIN)	P.I.D. READING (PPM)	GENERAL REMARKS
WELL 1	B38W8A	0 4 6 8	8.36	14.34	15.00	6.38 6.86 6.80 6.85	510 550 575 606	16 18.7 18.7 17.9	10	0.26	1.6	Well in good condition. Water quality parameters reasonable and stable although temperature was elevated. Able to obtain 10 well volumes. Turbidity decreased while pumping.
WELL 2	B38W9A	0 4.5 7.5 10	9.04	18.54	19.00	6.60 6.67 6.70 6.71	900 980 950 980	18.3 18.8 18.9 18.6	10	0.68	0	Well in good condition. Water quality parameters reasonable and stable although temperature was elevated. Able to obtain 6 well volumes. Water quality improved from black to tan while pumping.
WELL 5 (a)	B38W11A	0 5 9 13	6.24	11.14	12.00	4.16 4.22 4.34 3.73	600 780 800 810	14 15 15 14	13	(b)	0	Condition of well generally good. Needs new flushmount road box, lock, and concrete pad. Highly turbid throughout bailing. Able to obain 13 well volumes.
WELL 6 (a)	N/A	3 5 8 12	5.22	8.94	9.00	5.48 5.68 4.76 4.73	425 420 405 420	14 14 13 14	12	(b)	0.4	Needs new flushmount road box, lock, and concrete pad. Water remained highly turbid throughout bailing. Although parameters stablized, bailer took on copious amounts of sand and gravel. Well casing may be structurally damaged.
WELL 8	N/A	0	11.37	16.98	17.00	6.30	700	15.7	2	(c)	0	Well in good condition. Although well recoved less than 25% in 30 minutes, well produced 2 well volumes. Well partially screened in mudstone residuum,explaining low yield (compact, low permeability matrix with little to no fractures).

NOTES:

Well 5 and Well 6 pH readings were drifting during field measurments. Measurments may not be representive of actual conditions.

All wells are 2-inch in diameter and have a PVC inner casing.

N/A - B38 designation not applicable.

FOOTNOTES:

(a) Denotes flushmount well.

(b) Used bailer to purge well.

(c) Well was evacuated after 30 seconds of pumping.

WELL LOG

WELL NO. 1

DATE DRILLED: 6/83

DEPTH (FT.)	DESCRIPTION
0 - 2	Asphalt cover underlain by fill containing concrete fragments and lumber (blow cts: 21-9-8-21)
2 - 4	Fill material containing concrete fragments and lumber (blow cts: 62-1-20-19)
4 - 6	Reddish brown silt with layer of fragmented, reddish brown mud/silt stone (blow cts: 16/2ft.)
6 - 8	Alternating layers of reddish brown clay, silt, and fine silty sand (blow cts: 9-19-16-22)
8 - 10	Sand grading to clay and poorly indurated mudstone, water at 9.5 ft. (blow cts:23-16-23-22)
10 - 12	Sand (10-11) underlain by reddish brown poorly indurated mudstone (11-12) (blow cts: 21-8-9-13)
12 - 14	Sand grading to silty sand with increasing clay content and mudstone fragments (blow cts: 14-20 -26-26)
14 - 16	Interbedded mudstone and clay (64-67-57-100/2")

Water level measured 10/18/83:

WELL CONSTRUCTION DETAILS: Well #1

DEPTH (FT.)	
5 - 15	Screen
4 - 15	Sand packing
2 - 4	Bentonite seal
0 - 2	Grout

WELL LOG

WELL NO. 2

DATE DRILLED: 6/83

DEPTH (FT.)	DESCRIPTION
0 - 2	Asphalt cover underlain by fill material, poor sample recovery (blow cts: 13-3-1-2)
2 - 4	Loose silty fill material with some gravel and brick fragments (blow cts: 3-2-2-2)
4 - 6	Apparent fill material but no sample recovery (blow cts: 2-1-1-1)
6 - 8	Silty fill material grading to fine black fill material (charcoal?) at 6.5 ft (blow cts: 3-2-5-5)
8 - 10	Grey silt with poor sample recovery; water encountered at approximately 9.5 ft. (blow cts: 7-11-9-5)
10 - 12	Clayey silt grading to silty sand and fine to medium sand at 12 ft. (blow cts: 4-4-11-10)
12 - 14	Silty sand grading to clayey silt (blow cts: 19-12-20-21)
14 - 16	Fine to medium sand (blow cts:22-19-20-25)
16 - 18	Fine sand (blow cts: 33-16-21-19)
18 - 20	Silty clay grading to weathered mudstone (blow cts: 32-26-19-60)

Water level measured 10/18/83: 11 ft. 2 in. from top of casing

WELL CONSTRUCTION DETAILS: Well #2

DEPTH (FT.)	
9 - 19	Screen
8 - 19	Sand packing
6 - 8	Bentonite seal
0 - 6	Grout

PROJECT NUMBER	BORING NUMBER	
NJ022948.SB.WI	OBMW11	SHEET 1 OF 1

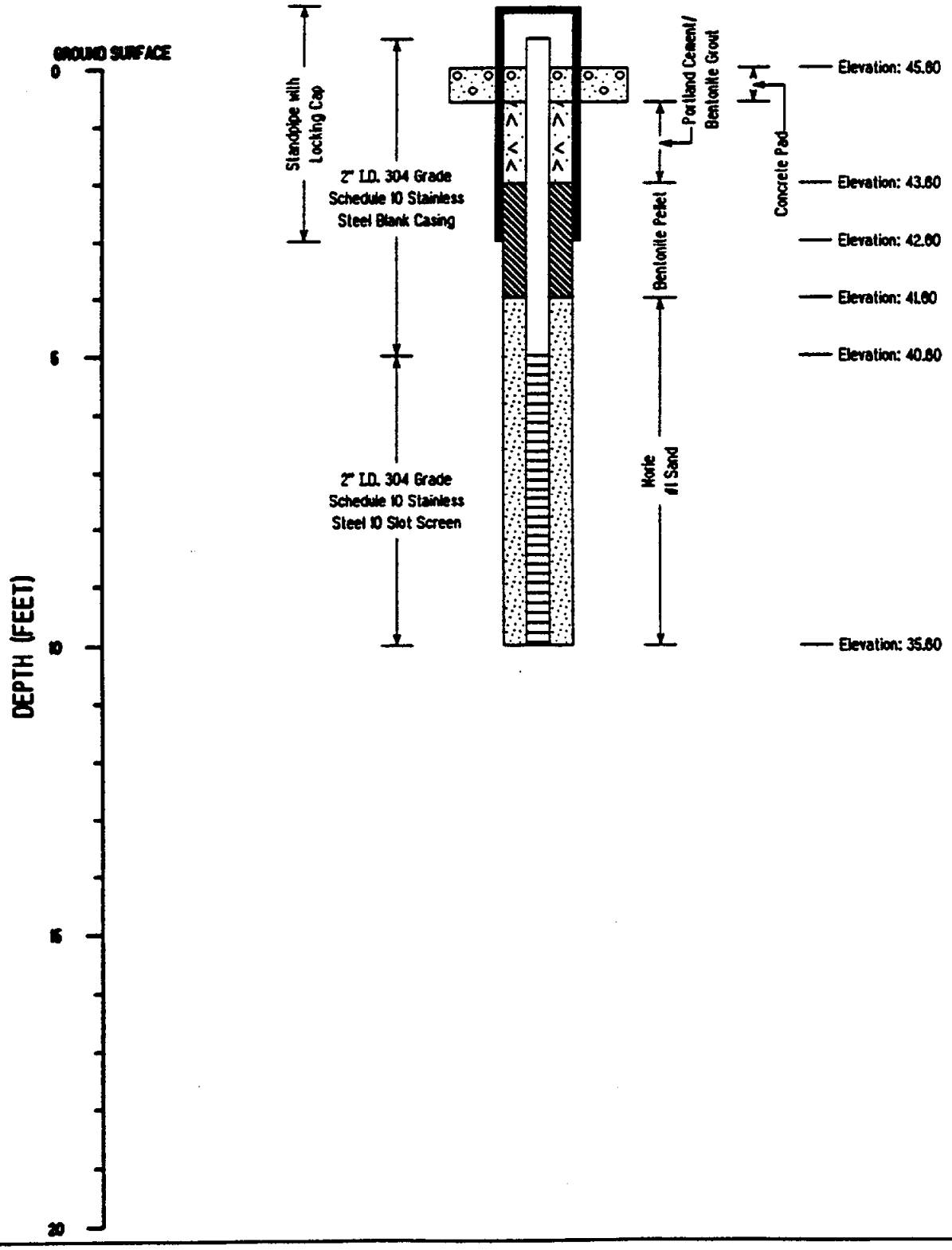
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.6 (GS); 48.28 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT CME ATV Rig 4 3/4" I.D. HSA

WATER LEVELS 2.57 (ft); 45.66 (MSL), 6/22/92 START 4-28-92 FINISH 4-28-92 LOGGER S. Repko



See Boring Log For Drilling Details

R-138 M
31

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 28 - 28455
Atlas Sheet Coordinates 28 : 09 : 535

WNER IDENTIFICATION - Owner KEN PROPERTIES
ddress 77 TARRYTOWN RD. SUITE 100
ity WHITE PLAINS State NY Zip Code 10607

VELL LOCATION - If not the same as owner please give address. Owner's Well No. ORMW-11
County Bergen Municipality HAYWOOD BORO Lot No. 30 Block No. 124
Address 149-151 Tarrytown Rd., Maywood, NJ

DEVELOPED 5/01/92 COMPLETED
TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4 / 15 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 201 316-9200

WELL CONSTRUCTION

Total depth drilled 10 ft.
Well finished to 10 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	5'	10'	2"	Stainless Steel
Tail Piece	NA	NA	NA	
Gravel Pack	3'	10'	8"	# 1 Gravel
Annular Seal/Grout	0'	3'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 6 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile b-61
Name of Driller Robert Arkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-4' fill
4'-9' sand and gravel
9'-10' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/12/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

CKM HILL

PROJECT NUMBER	BORING NUMBER	
NJ02294B.EA.WT	ORMW12	SHEET 1 OF 1

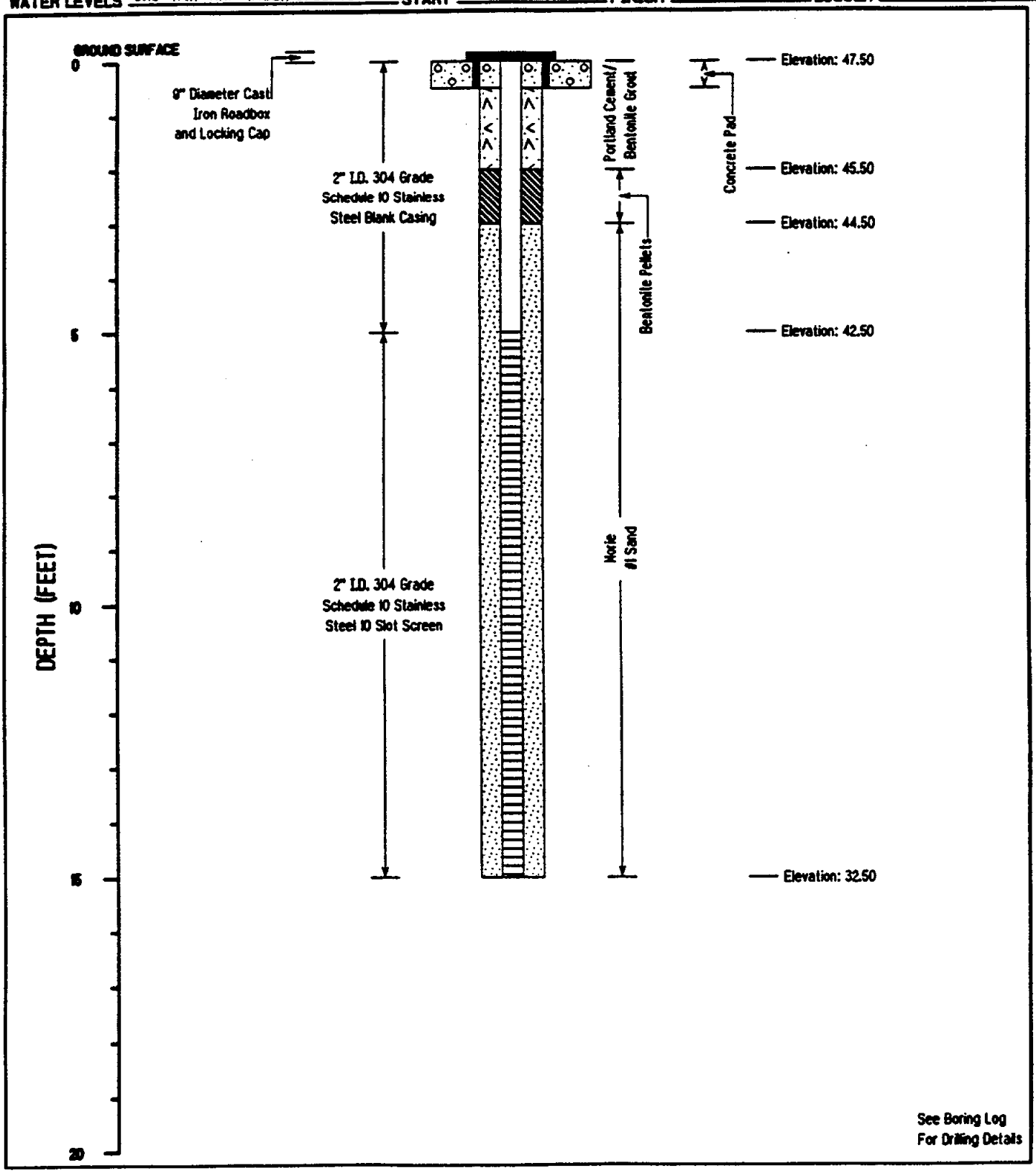
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.5 (GS); 47.27 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B60 HSA 4 1/4" I.D.

WATER LEVELS 8.10 (ft); 41.17 (MSL), 8/22/92 START 4-29-92 FINISH 4-29-92 LOGGER L. Vogel



See Boring Log For Drilling Details

38 M

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 24- 28471
Atlas Sheet Coordinates 26 : 03 :

ER IDENTIFICATION - Owner M. H WEIL, TRUSTEE
ass 51 COMMERCE ST
SPRINGFIELD State NJ Zip Code
DEVELOPED 4/29/92 (COMPLETED)

L LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-12
ty Bergen Municipality Lot No. Block No.
ass 29 Essex St., Maywood, NJ MAYWOOD BORO 5 124

E OF WELL (as per Well Permit Categories) Date well completed 3 / 5 / 92
latory Program Requiring Well MONITORING Case I.D. #
CERCLA
SULTING FIRM/FIELD SUPERVISOR (if applicable) CHZM Hill Tele. # 201 316-9300

L CONSTRUCTION

depth drilled 15 ft.
finished to 15 ft.
hole diameter:
Top 8 in.
tom 8 in.
was finished: ☐ above grade
☒ flush mounted
ished above grade, casing
ht (stick up) above land
ace ft.
steel protective casing installed?
Yes ☒ No
ic water level after drilling 7 ft.
er level was measured using M Scope
was developed for 1½ hours at 2+ gpm
nod of development submersible Pump
s permanent pumping equipment installed? ☐ Yes ☒ No
p capacity NA gpm
p type: NA
ing Method Hollow Stem Augers
ing Fluid NA Type of Rig Mobile B- 61
ne of Driller Robert Atkinson
lth and Safety Plan submitted? ☐ Yes ☐ No
el of Protection used on site (circle one) None D C B A
License No. J 1478
ne of Drilling Company ENVIRONMENTAL DRILLING INC

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	5'	15'	2"	Stainless Steel
Tail Piece	NA	NA	NA	
Gravel Pack	3'	15'	8"	# 1 Gravel
Annular Seal/Grout	0'	3'	8"	Cement
Method of Grouting	Gravity			

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-13' sand, medium and fine
13'-15' weathered rock

rtify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable te rules and regulations.

Driller's Signature _____ Date 6/18/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL LOG

WELL NO. 5

DATE DRILLED: 6/83

DEPTH (FT.)	DESCRIPTION
0 - 4	Clayey silt with rock/mudstone fragments
4 - 6	Silty sand with rock fragments overlaying clayey silt with rock fragments (blow cts: 11-12-14-15) Water encountered at 4.5-5.0 ft.
6 - 8	Sandy silt overlaying clayey silt (blow cts: 16-19-16-23)
8 - 11	Indurated mudstone grading to fragmented rock with clayey silt (9-11 ft. blow cts: 95-60-46-36)
11 - 13	Indurated rock, rotary drilled with no samples

Water level measured 10/19/83: 8 ft. 1.5 in. from top of casing

WELL CONSTRUCTION DETAILS: Well #5

DEPTH (FT.)	
5 - 12	Screen
4 - 12	Sand packing
2 - 4	Bentonite seal
0 - 2	Grout

WELL LOG

WELL NO. 6

DATE DRILLED: 6/83

DEPTH (FT.)	DESCRIPTION
0 - 2	Gravel fill overlying fine sand (blow cts: 11-6-5-5)
2 - 4	Interbedded silty clays and silty sands with rock fragments grading to fractured silt/sandstone (blow cts:* 15-17-27-21)
4 - 6	Silty sand with some clay and rock fragments, water at 4 ft. (blow cts: 11-11-9-8)
6 - 8	Medium sand grading to silty clay with silt/mudstone fragments
8 - 9	Clay with mudstone fragments grading to indurated mudstone (blow cts:* 12-11-40/2 in.) refusal at 9 ft.

* 300 lb. hammer and large spoon used

Water level measured 10/19/83: 7 ft. .5 in. from top of casing

WELL CONSTRUCTION DETAILS: Well #6

DEPTH (FT.)	
4 - 9	Screen
3.5 - 9	Sand packing
2 - 3.5	Bentonite seal
0 - 2	Grout

WELL LOG

WELL NO. 8

DATE DRILLED: 6/83

DEPTH (FT.)	DESCRIPTION
0 - 2	Reddish-brown silt
2 - 4	Reddish-brown silt (blow cts: 8-11-14-15)
4 - 6	Reddish-brown clayey silt grading to siltstone at 6 ft. (blow cts: 16-11-22-15)
6 - 8	Partially indurated deposits, poor spoon recovery (blow cts:* 11-12-15 12)
8 - 17	Mud/silt/sandstone deposits with varying degrees of induration, rotary drilled with no samples

* 300 lb. hammer used

Water level measured 11/7/83: 14 ft. .5 in. from top of casing

WELL CONSTRUCTION DETAILS: Well #8

DEPTH (FT.)	
7 - 17	Screen
6 - 17	Sand packing
4 - 6	Bentonite seal
0 - 4	Grout

MONITORING WELL

PROJECT: FUSRAP

WELL NO.: MISS-4

JOB NO.	SITE	COORDINATES (IN FEET)
14501	MAYWOOD I.S.S.	N 9216.49 E 9996.87

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
10-26-84	12-26-84	P.H.NELSON	TOP OF RISER CASING

ELEV. - TOP OF SURFACE CASING: 57.23

ELEV. - TOP OF RISER CASING: 57.14

GENERALIZED GEOLOGIC LOG

0.0-4.0 FEET
SAND (SM-SC):
REDDISH BROWN,
FINE GRAINED
WITH CLAYEY SILT.

4.0-10.0 FEET
SAND (SM)/
CLAYEY SILT (ML):
GRAYISH RED FINE
SAND AND BLACK
CLAYEY SILT.

SURFACE CASING
DIA: 4 INCHES
TYPE: STEEL

BACKFILL MATERIAL
TYPE: CEMENT GROUT: 1:1
WITH 2.5% BENTONITE BY WT.

RISER CASING
DIA: 2 INCHES
TYPE: SCHEDULE 40 PVC

ANNULAR SEAL
TYPE: BENTONITE PELLETS

FILTER PACK
TYPE: SAND (#1 WELL GRAVEL)

SCREEN:
DIA: 2 INCHES
TYPE: SCHEDULE 40 PVC
OPENINGS: WIDTH: 0.02 INCH
TYPE: MACHINE SLOTTED

HOLE DIA: 7 INCHES

	DEPTH (FT)	ELEV. (FT)
GROUND SURFACE	0.0	55.00
BOTTOM OF SURFACE CASING	2.77	52.23
TOP OF SEAL	3.00	52.00
TOP OF FILTER PACK	3.80	51.20
TOP OF SCREEN	4.70	50.30
BOTTOM OF SCREEN	9.70	45.30
BOTTOM OF SUMP	9.70	45.3
BOTTOM OF HOLE	10.00	45.00

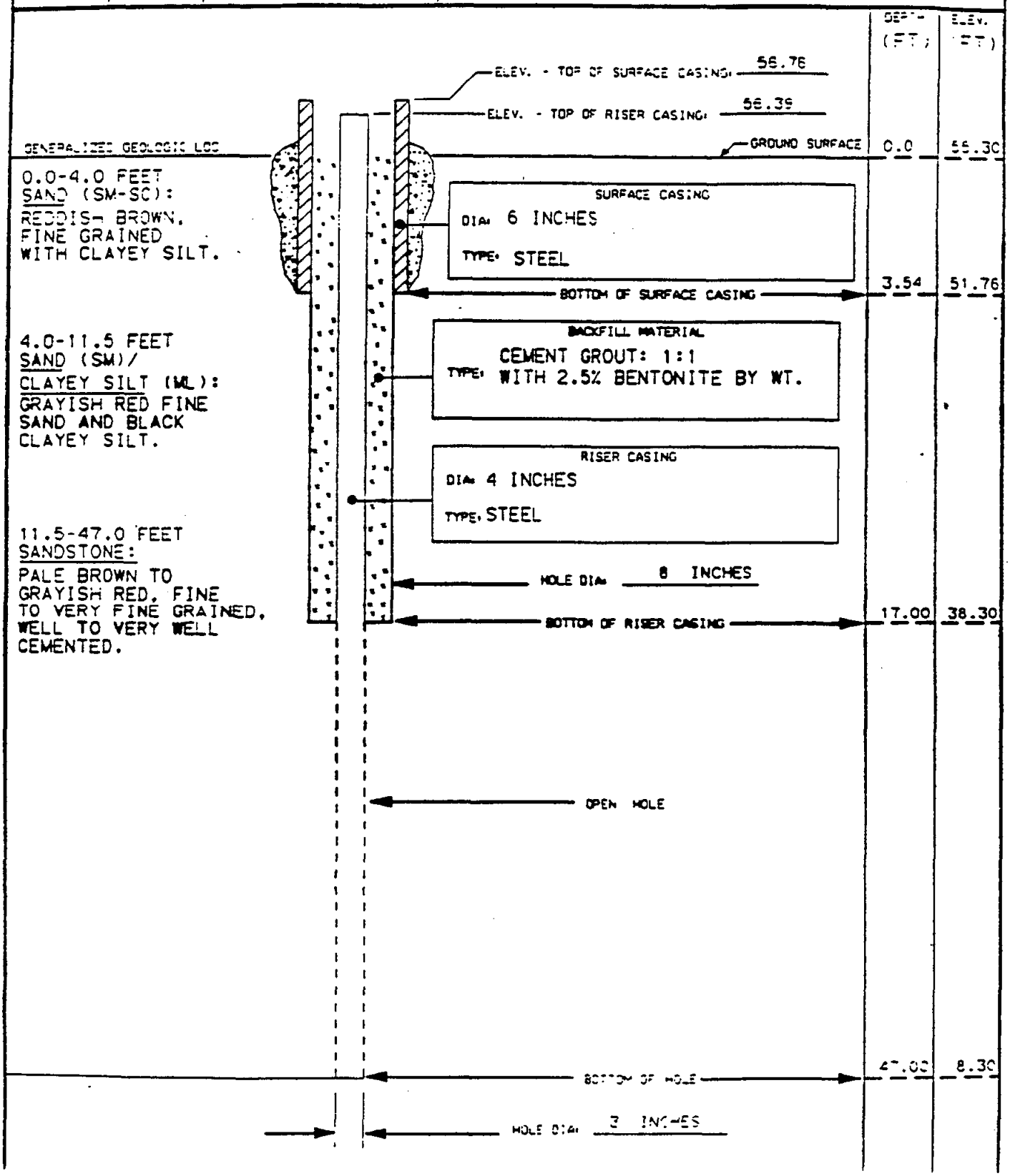
MONITORING WELL

PROJECT: FUSRAP

WELL NO.: MW3-4B

JOB NO.	SITE	COORDINATES (FEET)
14501	MAYWOOD I.S.S.	N 9208.16 E 10,008.36

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
10-25-84	11-10-84	R. H. NELSON	TOP OF RISER CASING

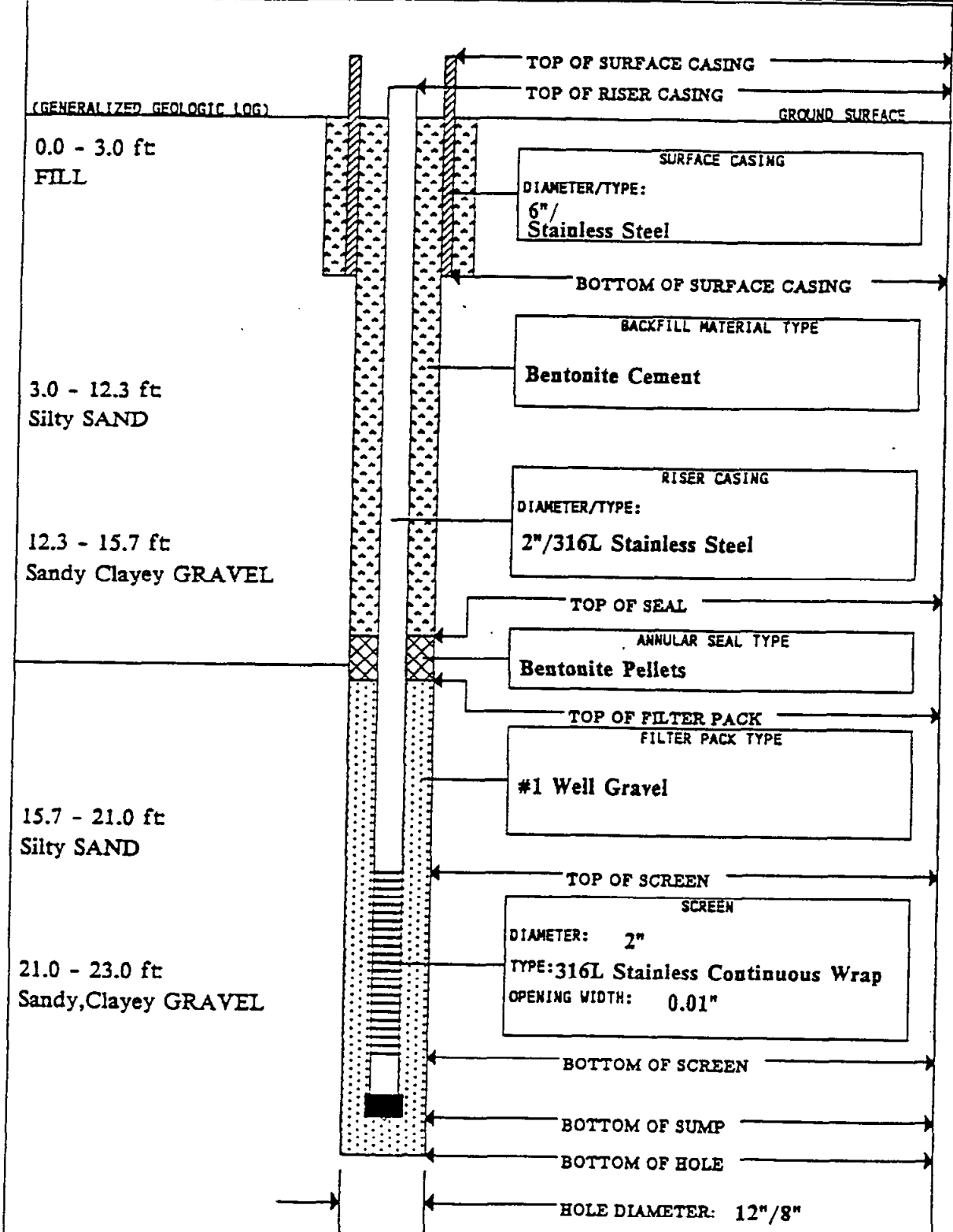


MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W1S

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	NY Susquehanna & Western RR	N 10,072 E 9,926

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
11-21-88	11-21-88	J. Lord	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+2.0	57.2
TOP OF RISER CASING	+2.0	57.2
GROUND SURFACE	0.0	55.2
BOTTOM OF SURFACE CASING	1.8	53.4
TOP OF SEAL	12.0	43.2
TOP OF FILTER PACK	14.0	41.2
TOP OF SCREEN	17.0	38.2
BOTTOM OF SCREEN	22.0	33.2
BOTTOM OF SUMP	23.0	32.2
BOTTOM OF HOLE	23.0	32.2

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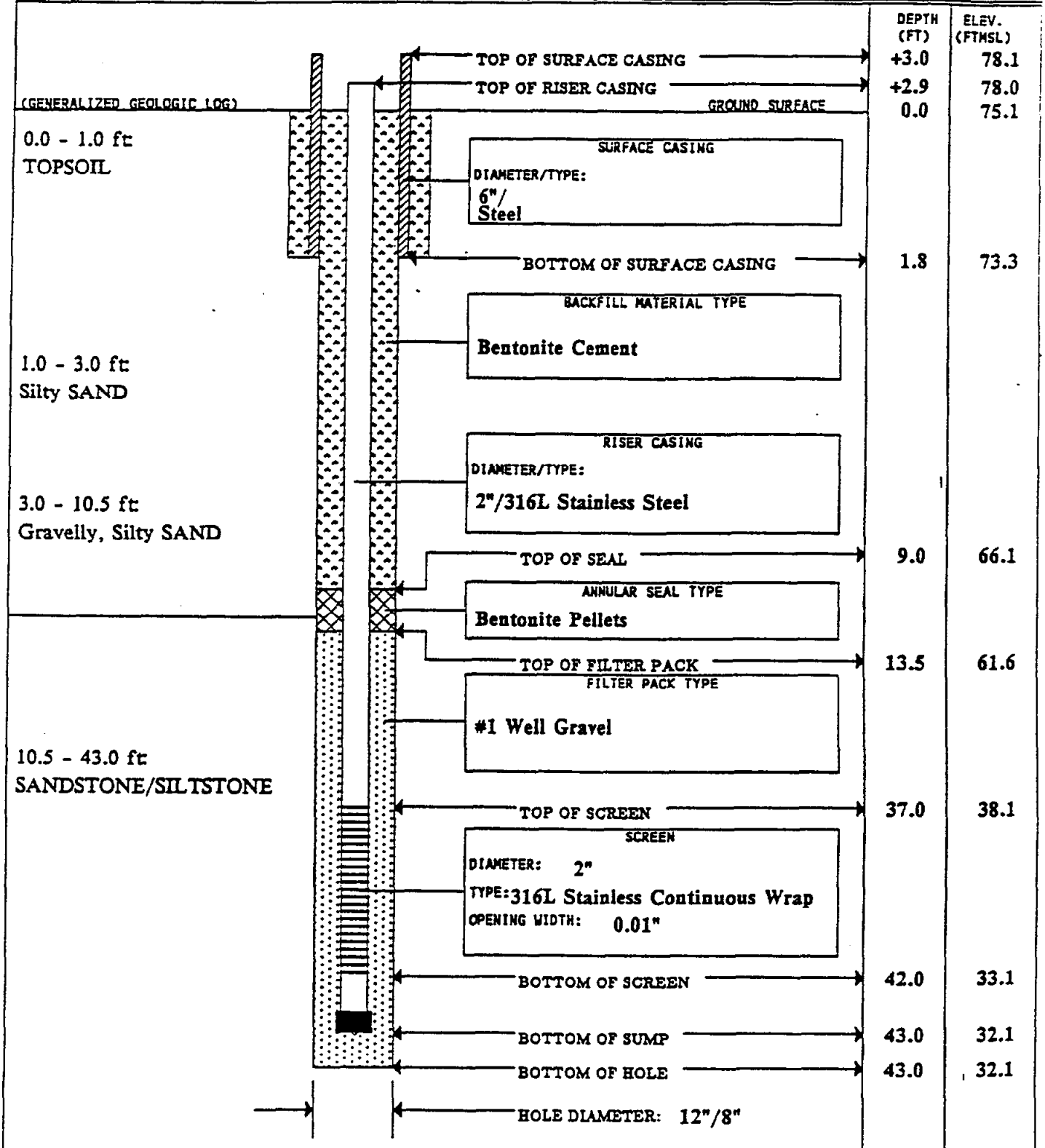
MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W2D

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	NY Susquehanna & Western RR	N 10,111 E 10,444

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
11-9-88	11-9-88	J. Lord	Ground Surface



Update: 04-30-92
Template: 11WELLOG

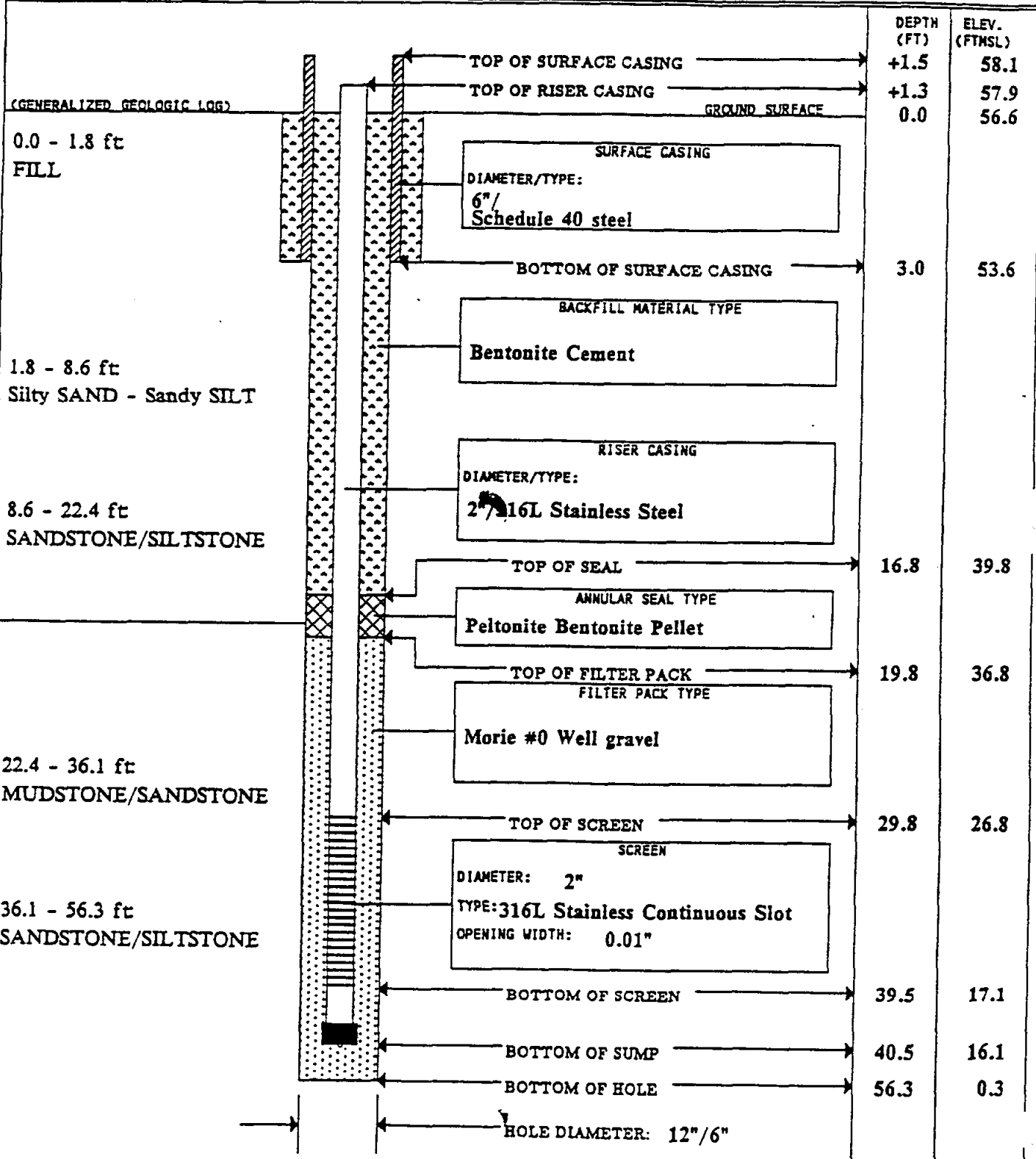
NOT TO SCALE

MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W3B1

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Stepan Property	N 9.428 E 10,043

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
8-24-87	8-31-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+1.5	58.1
TOP OF RISER CASING	+1.3	57.9
GROUND SURFACE	0.0	56.6
BOTTOM OF SURFACE CASING	3.0	53.6
TOP OF SEAL	16.8	39.8
TOP OF FILTER PACK	19.8	36.8
TOP OF SCREEN	29.8	26.8
BOTTOM OF SCREEN	39.5	17.1
BOTTOM OF SUMP	40.5	16.1
BOTTOM OF HOLE	56.3	0.3

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Template: 11WELLOG

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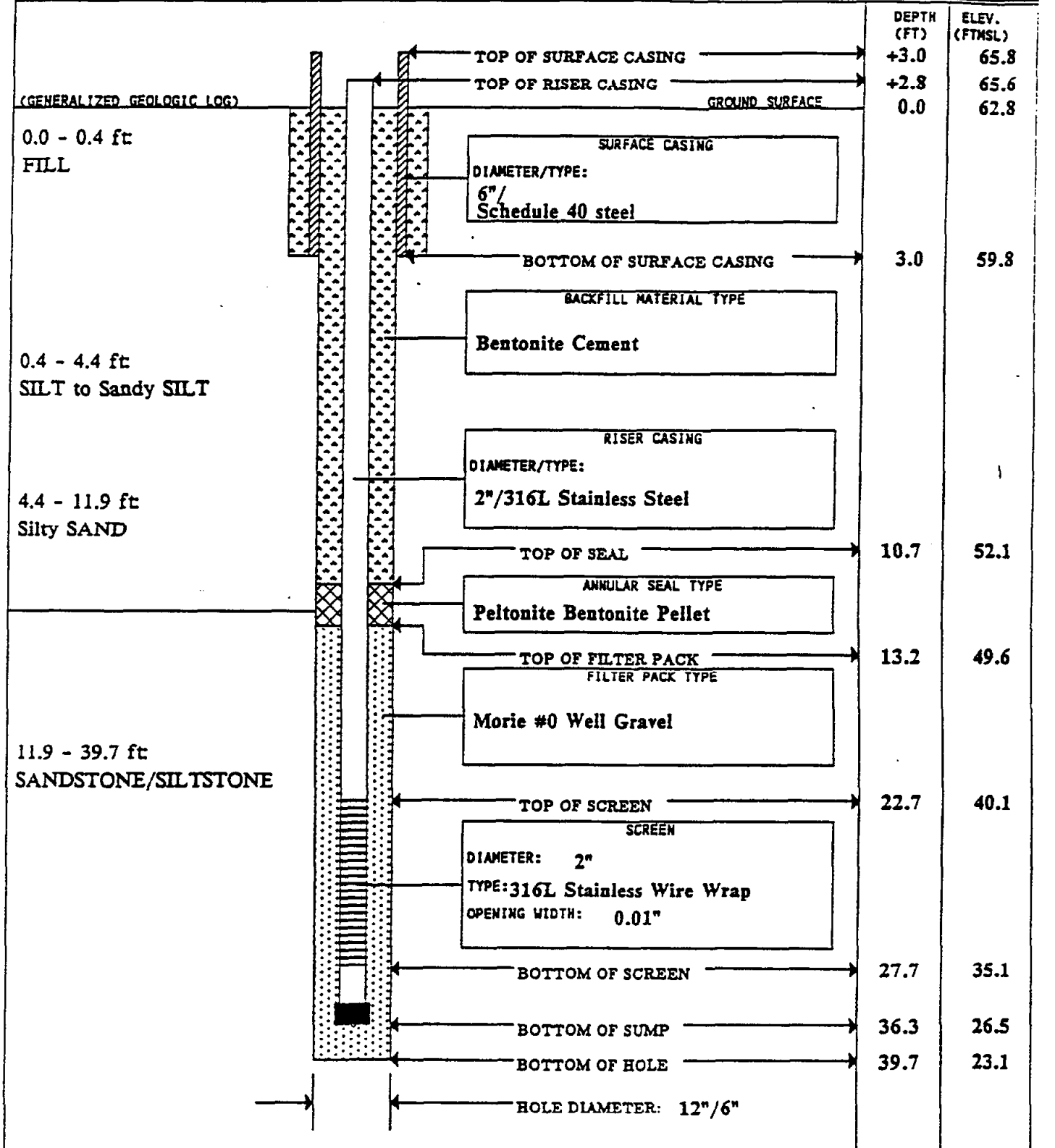
MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W4B

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Stepan Property	N 9.564 E 10,488

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
9-11-87	9-15-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+3.0	65.8
TOP OF RISER CASING	+2.8	65.6
GROUND SURFACE	0.0	62.8
BOTTOM OF SURFACE CASING	3.0	59.8
TOP OF SEAL	10.7	52.1
TOP OF FILTER PACK	13.2	49.6
TOP OF SCREEN	22.7	40.1
BOTTOM OF SCREEN	27.7	35.1
BOTTOM OF SUMP	36.3	26.5
BOTTOM OF HOLE	39.7	23.1

Update: 04-30-92
Template: 11WELLOG

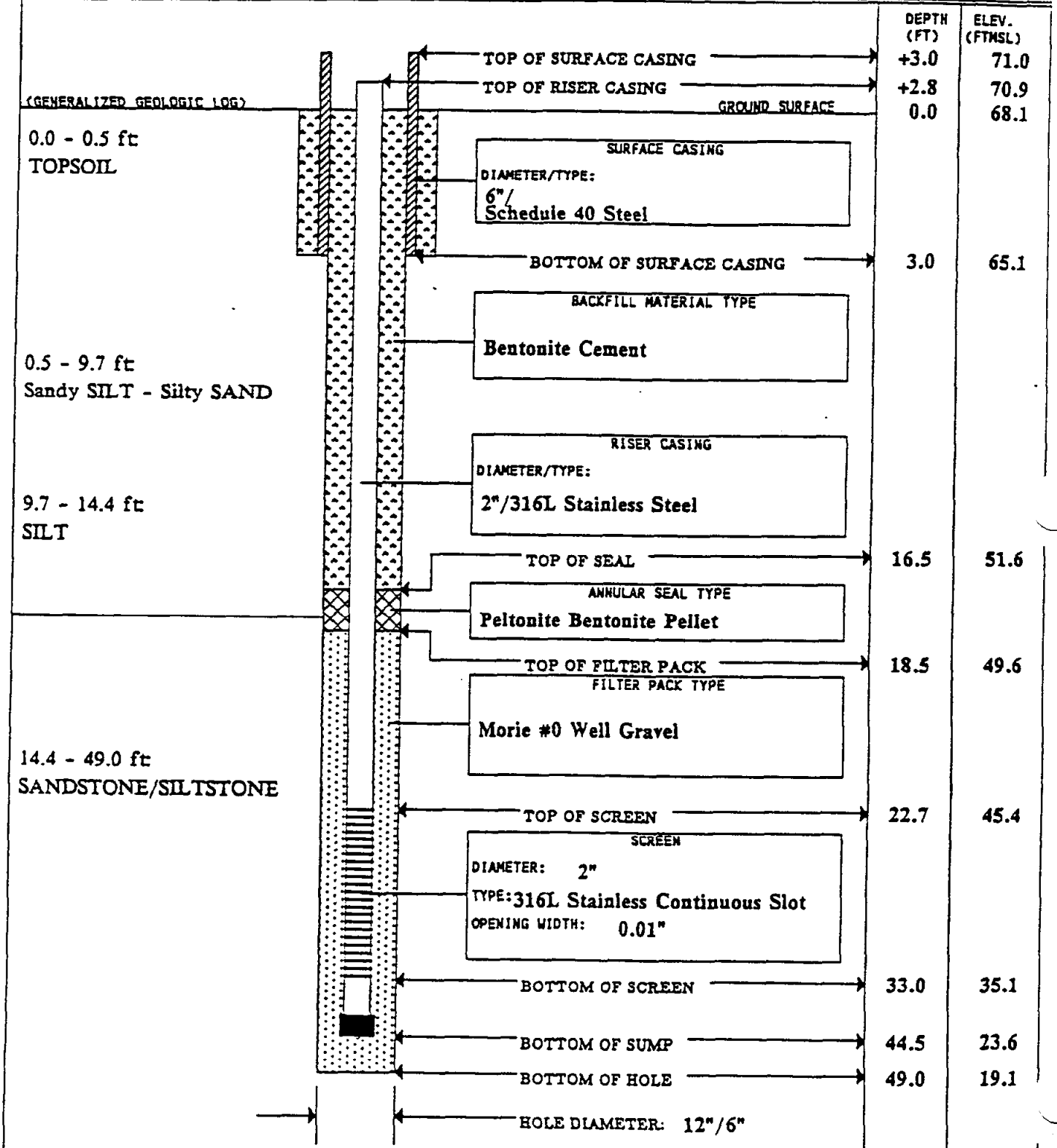
NOT TO SCALE

MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W5B

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Stepan Property	N 9.880 E 10.772

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
9-16-87	9-21-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+3.0	71.0
TOP OF RISER CASING	+2.8	70.9
GROUND SURFACE	0.0	68.1
BOTTOM OF SURFACE CASING	3.0	65.1
TOP OF SEAL	16.5	51.6
TOP OF FILTER PACK	18.5	49.6
TOP OF SCREEN	22.7	45.4
BOTTOM OF SCREEN	33.0	35.1
BOTTOM OF SUMP	44.5	23.6
BOTTOM OF HOLE	49.0	19.1

Update: 04-30-92
Template: 11WELLOG

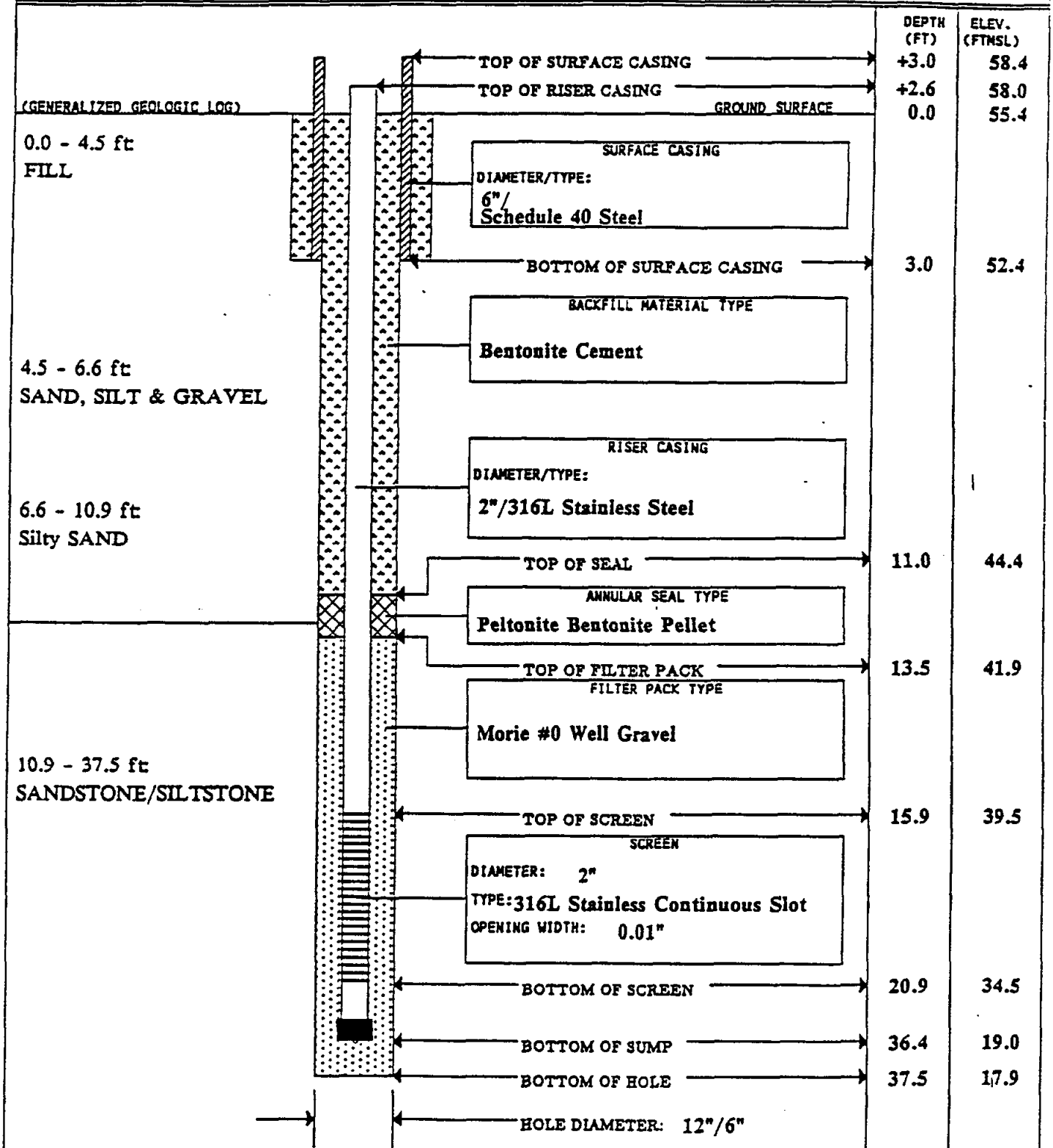
NOT TO SCALE

MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W6B

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Stepan Property	N 9,335 E 10,311

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
9-3-87	9-10-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+3.0	58.4
TOP OF RISER CASING	+2.6	58.0
GROUND SURFACE	0.0	55.4
BOTTOM OF SURFACE CASING	3.0	52.4
TOP OF SEAL	11.0	44.4
TOP OF FILTER PACK	13.5	41.9
TOP OF SCREEN	15.9	39.5
BOTTOM OF SCREEN	20.9	34.5
BOTTOM OF SUMP	36.4	19.0
BOTTOM OF HOLE	37.5	17.9

Update: 04-30-92
Template: 11WELLOG

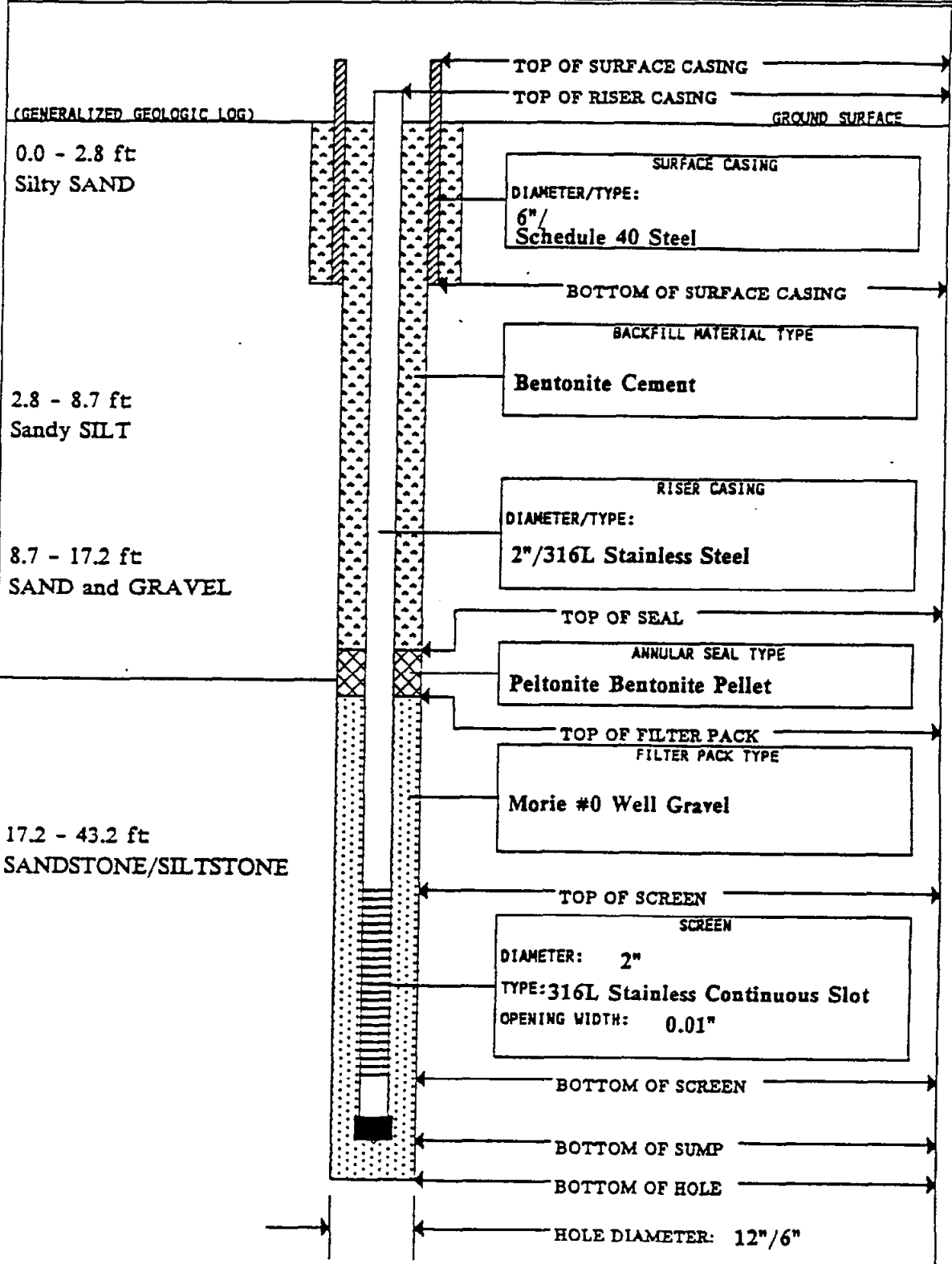
NOT TO SCALE

MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W7B

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Stepan Property	N 8.999 E 9.933

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
9-22-87	9-30-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+1.3	52.7
TOP OF RISER CASING	+2.0	53.4
GROUND SURFACE	0.0	51.4
BOTTOM OF SURFACE CASING	13.0	48.4
TOP OF SEAL	13.0	38.4
TOP OF FILTER PACK	16.0	35.4
TOP OF SCREEN	18.5	32.9
BOTTOM OF SCREEN	28.8	22.6
BOTTOM OF SUMP	39.2	12.2
BOTTOM OF HOLE	43.2	8.2

Update: 04-30-92
Template: 11WELLOG

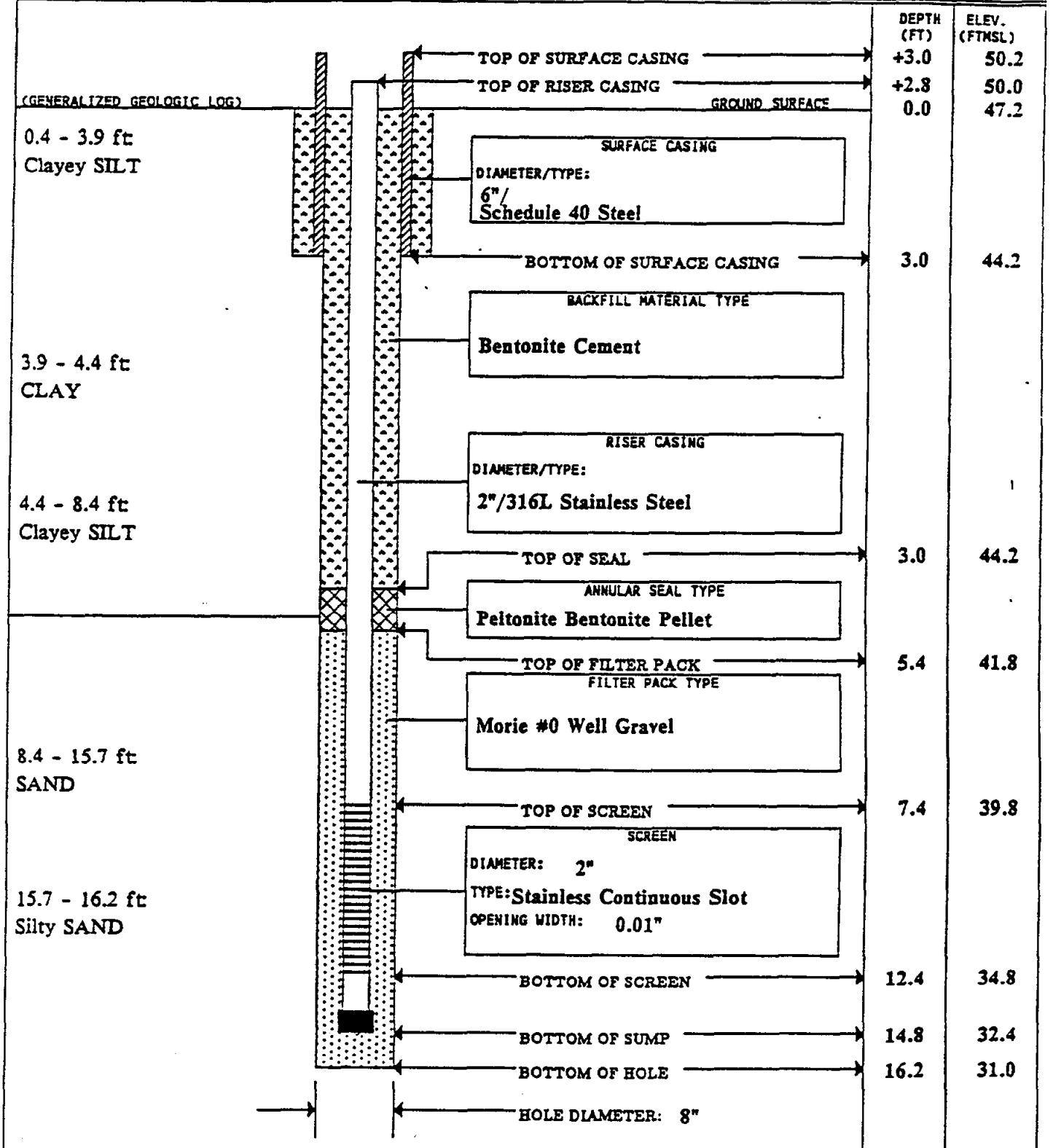
NOT TO SCALE

MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W12A

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Desaussure Property	N 8.773 E 11.631

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
10-13-87	10-14-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+3.0	50.2
TOP OF RISER CASING	+2.8	50.0
GROUND SURFACE	0.0	47.2
BOTTOM OF SURFACE CASING	3.0	44.2
TOP OF SEAL	3.0	44.2
TOP OF FILTER PACK	5.4	41.8
TOP OF SCREEN	7.4	39.8
BOTTOM OF SCREEN	12.4	34.8
BOTTOM OF SUMP	14.8	32.4
BOTTOM OF HOLE	16.2	31.0

Update: 04-30-92
Template: 11WELLOG

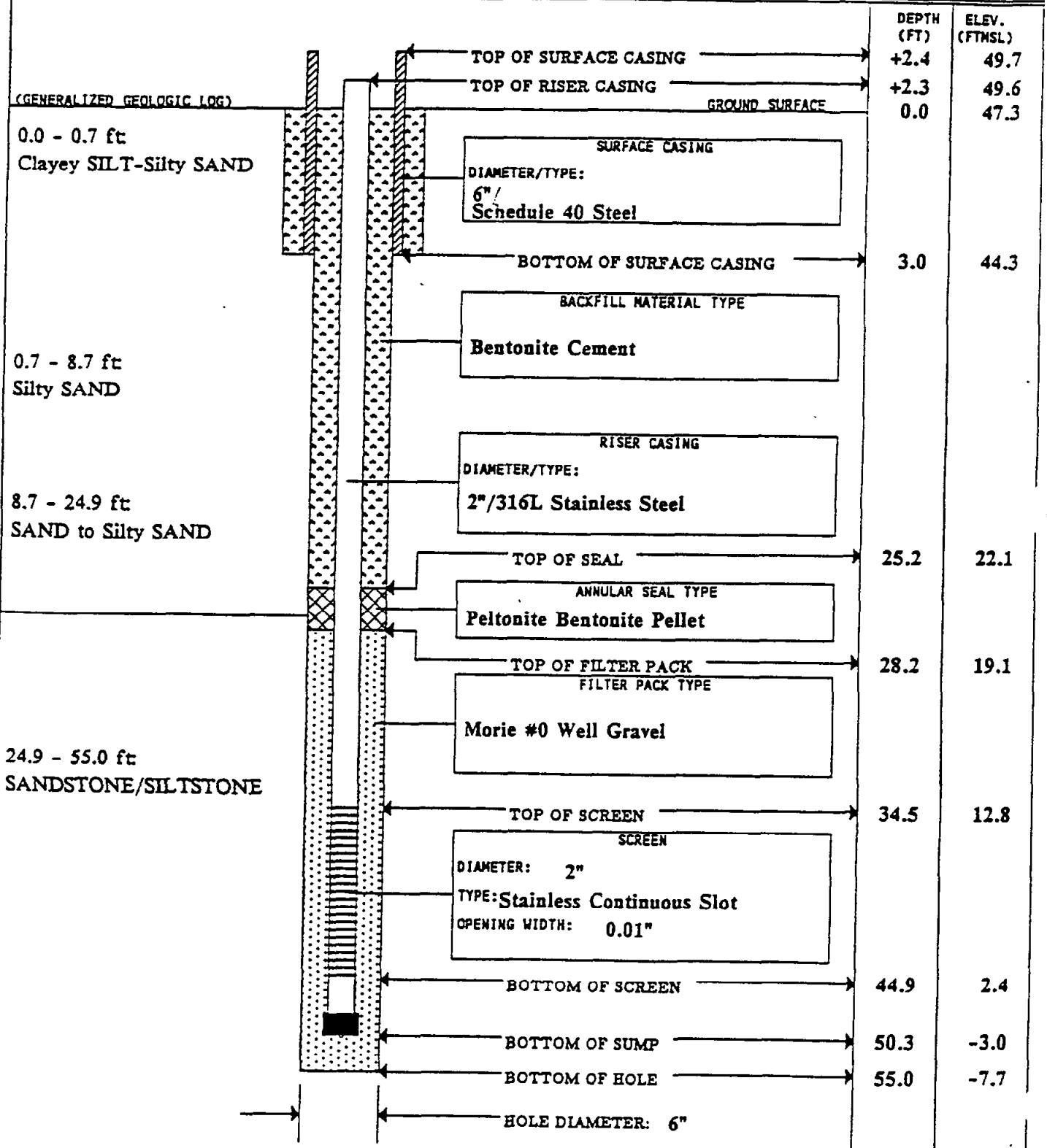
NOT TO SCALE

MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W12B

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	Desaussure Property	N 8,768 E 11,638

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
10-14-87	10-14-87	C.A. Clark	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+2.4	49.7
TOP OF RISER CASING	+2.3	49.6
GROUND SURFACE	0.0	47.3
BOTTOM OF SURFACE CASING	3.0	44.3
TOP OF SEAL	25.2	22.1
TOP OF FILTER PACK	28.2	19.1
TOP OF SCREEN	34.5	12.8
BOTTOM OF SCREEN	44.9	2.4
BOTTOM OF SUMP	50.3	-3.0
BOTTOM OF HOLE	55.0	-7.7

Update: 04-30-92
Template: 11WELLOG

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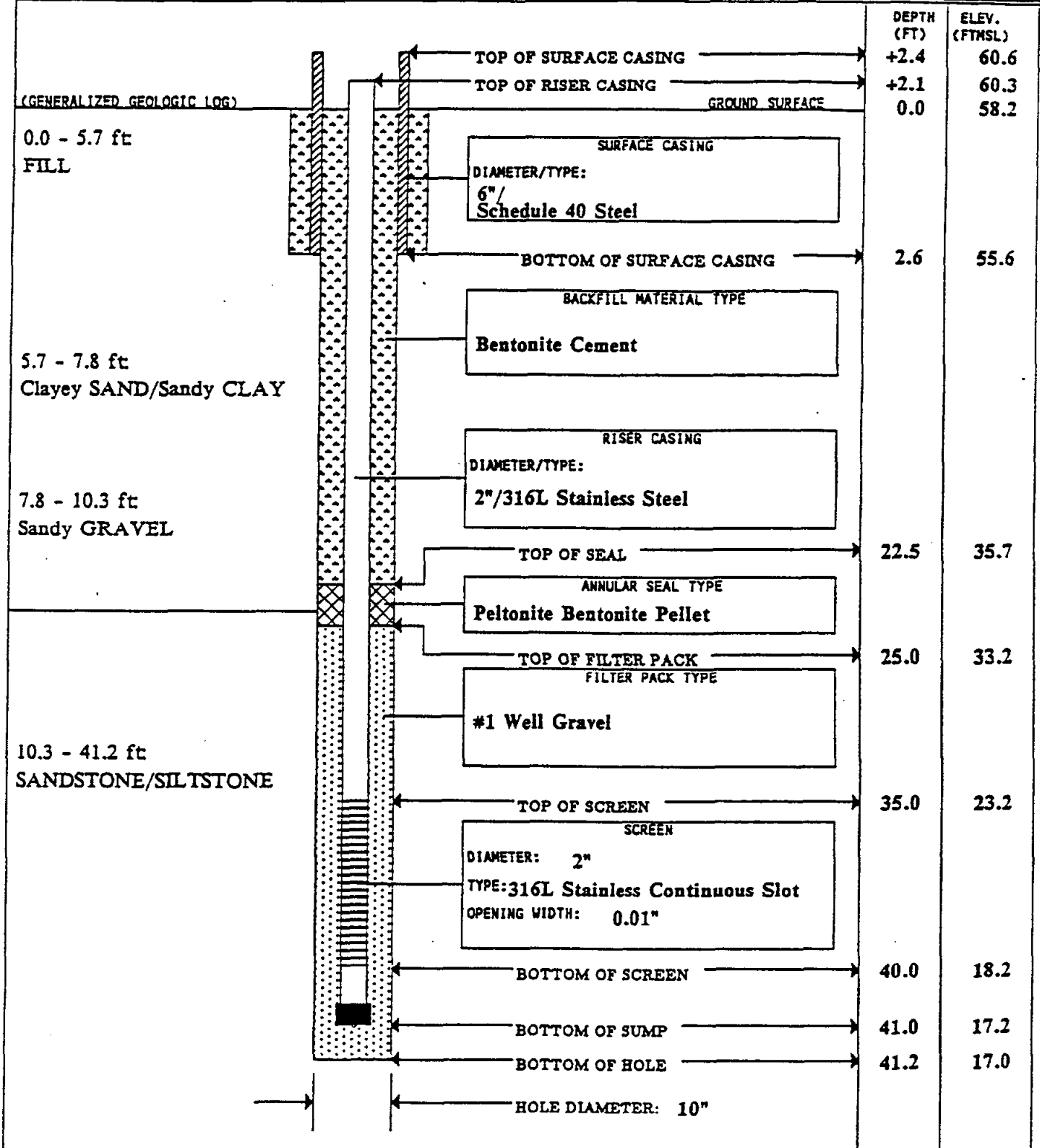
MONITORING WELL

PROJECT	WELL NO.
FUSRAP	B38W18D

JOB NO.	SITE	COORDINATES and/or STATIONING
14501	MISS on Site	N 9,793 E 10,108

BEGUN	COMPLETED	PREPARED BY	REFERENCE POINT FOR MEASUREMENTS
10-18-88	10-21-88	R. Talmage	Ground Surface



	DEPTH (FT)	ELEV. (FTMSL)
TOP OF SURFACE CASING	+2.4	60.6
TOP OF RISER CASING	+2.1	60.3
GROUND SURFACE	0.0	58.2
BOTTOM OF SURFACE CASING	2.6	55.6
TOP OF SEAL	22.5	35.7
TOP OF FILTER PACK	25.0	33.2
TOP OF SCREEN	35.0	23.2
BOTTOM OF SCREEN	40.0	18.2
BOTTOM OF SUMP	41.0	17.2
BOTTOM OF HOLE	41.2	17.0

Update: 04-30-92
Template: 11WELLOG

NOT TO SCALE

Appendix I
Drilling Mud Information

Baroid
Drilling Fluids Products

AQUAGEL GOLD SEAL®
Premium Untreated Bentonite for Geotechnical Drilling

AQUAGEL GOLD SEAL® premium high-yield bentonite is mined from deposits located in Wyoming. AQUAGEL GOLD SEAL bentonite contains no polymer additives or chemical treatments of any kind. Only the highest quality bentonite is used for the product AQUAGEL GOLD SEAL. Wyoming bentonite is composed predominantly of soldium montmorillonite (a layered alumino-silicate) and is a completely naturally occurring clay.

AQUAGEL GOLD SEAL bentonite acts as a viscosifier and filtrate reducer for drilling fluids. The clay particles through positive and negative charged surfaces form gel structures and develop viscosity. The clay is structured in flat plate-like layers which overlap and form a thin impermeable filter cake on the face of a borehole.

AQUAGEL GOLD SEAL bentonite is a dry powdered clay and can be added directly to fresh water or freshwater drilling fluids. For use in salty or brackish water (less than 8000 ppm chloride), AQUAGEL GOLD SEAL is first hydrated in fresh water and then added to the salty or brackish water.

AQUAGEL GOLD SEAL bentonite when used in the treatment levels and manner recommended is an **environmentally safe** product.

Recommended Uses:

- Improving hole-cleaning capacity of fluid
- Reducing water seepage or filtration into permeable formations.
- Rapidly forming a thin filter cake with low permeability
- Promoting hole stability in poorly consolidated formations
- Preventing loss of fluids to circulation zones

Major Advantages:

- No polymer or chemical additives
- All naturally occurring clay material
- Quality controlled and manufactured to **exceed API standards** — yield 92+ bbl/ton of 15 centipoise fluid
- Environmentally acceptable product
- AQUAGEL GOLD SEAL is non-polluting and nontoxic when used as recommended. It has been analyzed by an independent testing laboratory and passed the EPA's protocol on Toxicity Characteristic Leaching Procedure (TCLP). Test data available on request.

DMD 76
Printed in U.S.A.

Baroid Drilling Fluids, Inc.
P.O. Box 1675, Houston, Texas 77251

Typical Properties:

Dry Screen Analysis (Ground Material)
80% through 200 mesh (74 microns)

X-Ray Analysis (Typical Wyoming Bentonite)
85% Montmorillonite
5% Quartz
5% Feldspars
2% Cristobalite
2% Illite
1% Calcite and Gypsum

Chemical Analysis
(All Elements Reported as Oxide Form)

SiO_2	55.44%
Al_2O_3	20.14%
Fe_2O_3	3.67%
CaO	0.49%
MgO	2.49%
Na_2O	2.76%
K_2O	0.60%
Bound water	5.50%
Moisture (220° F)	8.00%
TOTAL	99.09%

Packaging:

AQUAGEL GOLD SEAL® premium bentonite is packaged in multiwall, water resistant paper bags containing 50 pounds (22.7 kg) or 40 kg (for Canada), or 100 pounds (55.4 kg).

Availability:

AQUAGEL GOLD SEAL® premium bentonite can be purchased through any QUIK-GEL® retailer, Baroid Service Center, or from the Houston customer service department.

Recommended Treatment

Approximate amount of AQUAGEL GOLD SEAL Premium Bentonite Added to Fresh Water or to Freshwater Drilling Fluid

	lb/100 gal	lb/bbl*	kg/m³
Added to Fresh Water:			
Under normal drilling conditions	30-50	13-22	35-60
To stabilize caving formations	60-80	25-35	70-100
To stop circulation loss	70-95	30-40	85-110
Added to Freshwater Mud:			
Under normal drilling conditions	10-25	4-10	11-28
To stabilize caving formations	20-45	9-18	25-50
To stop circulation loss	25-50	10-20	28-56

Method of addition: mix slowly through a jet mixer or sift slowly into the vortex of a high-speed stirrer.

*1 bbl = 42 U.S. Gallons

Baroid
Drilling Fluids Products

QUIK-GEL®
Viscosifier

QUIK-GEL® viscosifier is a finely ground, premium-grade western sodium bentonite, specially processed to promote ease of mixing and superior mud-making qualities in fresh water.

Recommended Uses:

In Fresh Water or In Freshwater-based Drilling Fluids

Improved hole-cleaning capabilities.

Forms on permeable sections of the well bore a thin impermeable filter cake that can be removed easily by backflushing.

Promotes hole stability in poorly consolidated and caving formations.

Reduces water seepage in permeable formations.

Avoids or overcomes loss of circulation.

In Fresh Water Fluids

Making an economical, single-sack, low-solids drilling fluid.

Making gel-foam for air drilling.

Major Advantages:

Effectiveness. QUIK-GEL viscosifier makes more than twice as much mud of the same viscosity as an equal weight of API-standard bentonite.

Fast yield. QUIK-GEL viscosifier reaches high viscosity quickly.

Easy mixing. QUIK-GEL viscosifier saves time and effort in making mud.

Convenience. The sturdy 50-pound (22.7 kg) bag is easy to handle.

Environmental acceptability. QUIK-GEL viscosifier does not ferment, and passed the EPA's suggested protocol for Toxicity Characteristic Leaching Procedure (TCLP) in *Federal Register*, Vol. 51, No. 114. Independent lab findings are available on request.

National Sanitation Foundation (NSF) certified product.

Recommended Treatment:

See table below.

Approximate Amounts of QUIK-GEL Viscosifier Added to Fresh Water or to Freshwater Drilling Fluids

	lb/100 gal	lb/bbl	kg/m³
	Added to Fresh Water		
Under normal drilling conditions.	15-25	6-11	15-30
In gravel or other poorly consolidated formations.	25-40	12-18	35-50
To stop loss of circulation.	35-45	15-20	40-55
	Added to Freshwater Mud		
To improve performance; for better hole cleaning, thinner filter cake, and increased hole stability.	5-10	2-5	6-14

Method of addition: Preferably, mix by adding slowly through a jet mixer or high-speed stirrer. If such mixing equipment is not available, sift QUIK-GEL viscosifier slowly into the liquid close to the pump suction while circulating.

DMD 34
Printed in U.S.A.

Baroid Drilling Fluids, Inc.
P.O. Box 1675, Houston, Texas 77251

Packaging:

QUIK-GEL® viscosifier is packaged in multiwall, water-resistant paper bags containing 50 pounds (22.7 kg).

Availability:

QUIK-GEL viscosifier may be purchased through any Baroid Service Center, QUIK-GEL Retailer or from the Houston Customer Service Department.

Physical Characteristics:

Appearance	Beige to tan powder
Specific Gravity	2.5 to 2.6
Moisture	Less than 10%
Bulk Density	72 lb/ft^3, compacted
	47 lb/ft^3, uncompacted

This product has been certified by NSF to contribute no adverse health problem to ground water when used as the manufacturer recommends.

In accordance with National Sanitation Foundation (NSF) certification requirements and good well development practices, as much product as practical should be flushed from the finished well resulting in a turbidity level below 1 NTU, before completing as a drinking water source.

Mineralogical Analyses (Typical)

85% Montmorillonite
5% Quartz
5% Feldspars
2% Cristobalite
2% Illite
1% Calcite and Gypsum

Chem

20.14%	Al_2O_3
3.67%	Fe_2O_3
0.49%	CaO
2.49%	MgO
2.76%	Na_2O
0.60%	K_2O
5.50%	Bound Water
8.00%	Moisture at 220°F
99.09%	TOTAL

QUIK-GEL contains a small amount of non-toxic organic polymer of the type approved by the U.S. Food and Drug Administration for use in packages for food and other consumer products.

Baroid Drilling Fluids, Inc.

National Sanitation Foundation Certified Products for Water Well and Geotechnical Drilling

The following Baroid water well drilling and grouting products have been certified by the National Sanitation Foundation (NSF). The NSF certification means that these products have passed stringent laboratory procedures designed to ensure that the products pose no adverse health risks when used according to manufacturer's recommendations. Please refer to usage and dosage chart on the reverse side of this sheet.

AQUAGEL®

Material: Wyoming bentonite, sodium montmorillonite
Use: gel-forming colloidal clay used to adjust viscosity and gel strength, and reduce filtrate loss
Features: industry standard bentonite clay, 2.7 specific gravity, 200-mesh grind, yields 92 barrels of 15-centipoise drilling mud per ton, environmentally compatible
Container: 50-pound (22.7 kg) or 100-pound (45.5 kg) multiwall paper bag

AQUAGEL® GOLD SEAL®

Material: Wyoming bentonite, non-treated sodium montmorillonite
Use: gel-forming colloidal clay used to improve hole cleaning, reduce filtrate loss, form a thin impermeable filter cake on borehole
Features: premium quality containing only ground sodium bentonite clay, no polymers or chemical additives or treatments, 2.7 specific gravity, 200-mesh grind, environmentally compatible, yields 91 barrels of 15 centipoise mud per ton
Container: 50-pound (22.7 kg) or 100-pound (45.5 kg) multiwall paper bag

AQUA-GROUT™

Material: inorganic catalyst used with BENSEAL for pumpable grout
Use: added to water for retarding set-time of BENSEAL product to allow placement in annular space
Features: inorganic, non-fermenting, white powder, easily dispersible in water, environmentally safe when used as manufacturer recommends
Container: 30-pounds (13.6 kg) contained in 5-gallon plastic pail

BENSEAL®

Material: Wyoming bentonite, sodium montmorillonite
Use: with AQUA-GROUT catalyst forms a pumpable grouting slurry for sealing and plugging boreholes, and grouting steel and plastic pipe; can be applied dry as a plug and seal for boreholes
Features: non-treated, granular 8-mesh high quality sodium bentonite, environmentally compatible, will rehydrate after atmospheric drying cycle to reform plug
Container: 50-pound (22.7 kg) multiwall paper bag

HOLEPLUG®

Material: Wyoming bentonite, sodium montmorillonite
Use: plug and abandon boreholes, forms a semi-rigid plug between hole and production tubing
Features: non-treated, two sizes – 3/8" and 3/4" chunks, naturally occurring so has not been mechanically stressed, does not bridge easily downhole, will fall through column of standing water, rehydrates after atmospheric drying cycle to reform semi-plastic plug
Container: 50-pound (22.7 kg) multiwall paper bag

QUIK-GEL®

Material: high-yield Wyoming bentonite, sodium montmorillonite
Use: forms high viscosity mud faster than ordinary bentonite clays, used particularly in drilling seismic shot holes and water wells where small mixing equipment necessitates fast yielding mud
Features: easily and rapidly mixed, low cost, will not ferment, high yield of 200 barrels of 15-centipoise drilling fluid per ton, 2.7 specific gravity, 200-mesh grind size
Container: 50-pound (22.7 kg) multiwall paper bag

SHURGEL®

Material: calcium-tolerant, sodium bentonite clay, Wyoming bentonite
Use: added to drilling fluid systems as a stabilizer and viscosity enhancer for abandonment of exploration holes
Features: semi-rigid plastic plugs formed in 8-15 days, prevents fluid migration in holes, premium-grade bentonite
Container: 50-pound (22.7 kg) multiwall paper bag

USAGE AND DOSAGE CHART FOR NSF CERTIFIED PRODUCTS

PRODUCT	FUNCTIONS p – PRIMARY s – SECONDARY				RECOMMENDED USAGE			RECOMMENDED APPLICATION			USE LEVEL
	Viscosifier–thickener	Filtrate reducer	Lost circulation material	Formation stabilizer	Fresh water	Brackish water	Low solids	Grouting & plugging	Drilling	Stemming shot holes	
AQUAGEL	p	p	s	p	p	s			p		20–50 pounds/ 100 gallons
AQUAGEL GOLD SEAL	p	p	s	p	p	s			p		20–50 pounds/ 100 gallons
AQUA–GROUT					p	s		p			as per Product Data Sheet
BENSEAL			s					p	s		as per Product Data Sheet
HOLEPLUG			s					p		s	as per Product Data Sheet
QUIK–GEL	p	p	s	p	p		p		p		15–20 pounds/ 100 gallons
SHURGEL	p	p		p	p			p	s		as per Product Data Sheet

Baroid Drilling Fluids, Inc.
410 17th Street, Suite 2300
Denver, Colorado 80202
(303) 825-5712

Baroid
Drilling Fluids Products

HOLEPLUG®
Graded Bentonite

HOLEPLUG® graded bentonite is a naturally occurring clay which is used to seal and plug drilled holes. The clay is a high-swelling sodium-based Wyoming bentonite (montmorillonite) which has the specific characteristic of swelling in fresh water. The HOLEPLUG graded bentonite is mined from deposits which have the ability to swell at a controlled, slow rate. HOLEPLUG bentonite will fall through a column of standing water and easily reach the bottom of the hole before hydration or water swelling begins. Complete fill of the annular space can be achieved, and this acts to prevent bridging of the particles in the upper hole. Complete fill is a requirement of forming a good plug.

HOLEPLUG graded bentonite is sized in two particle ranges, HOLEPLUG 3/8" and HOLEPLUG 3/4". HOLEPLUG 3/4" bentonite is mined and screened so that 100% will pass through a 3/4" screen, but be retained on a 3/8" screen. HOLEPLUG 3/8" bentonite has 100% passing a 3/8" screen, but 100% is retained on a 1/4" screen. The particles are:

HOLEPLUG 3/4"	3/8" to 3/4" granules
HOLEPLUG 3/8"	1/4" to 3/8" granules

The size of the open annular space will determine which HOLEPLUG bentonite product size to be used.

When annular space is 1-1/2" or more HOLEPLUG 3/4" bentonite is used.
When annular space is 3/4" or more HOLEPLUG 3/8" bentonite is used.

Major Advantages:

- **Prevents entry of surface water into borehole**
- **Prevents vertical movement of fluids in the hole between porous zones**
- **Forms a permanent, flexible downhole seal**
- **Easy pipe recovery**
- **Prevents blowouts and surface cratering in shot hole**
- **Eliminates post shot clean-up and plugging of shot holes**
- **Allows hole re-entry**
- **Superior alternative to pelletized bentonite**
- **Packaged in easy-to-open sewn sacks**
- **Simple to apply and no mixing expense**
- **Weatherproof packaging**

Recommended Uses

- **Sealing outside casing annulus**
- **Sealing above gravel packs**
- **Plugging boreholes**
- **Sealing around conductor pipe**
- **Stemming pre-shot and plugging seismic shot holes**
- **Sealing lost circulation zones**
- **Shutting off artesian wells**

This product has been certified by National Sanitation Foundation (NSF) to contribute no adverse health problems to ground water when used as the manufacturer recommends.

DMD 59
Printed in U.S.A.

Baroid Drilling Fluids, Inc.
P.O. Box 1675, Houston, Texas 77251

Application Methods:

Plugging and stemming drill holes:

1. Open top of HOLEPLUG® graded bentonite bag
2. Hold bag about two feet above hole
3. Pour HOLEPLUG graded bentonite slowly (2 minutes per bag) into hole
4. Fill hole as required (above static water level or near ground surface)
5. Observe all regulatory specifications

Stopping loss of circulation and stabilizing unconsolidated formations:

1. Pull drill pipe out of hole
2. Pour HOLEPLUG graded bentonite into hole to fill above problem zone
3. Drill ahead slowly with reduced pump pressure

Plugging artesian water flows:

1. Pour HOLEPLUG graded bentonite into hole until water flow subsides or hole is filled to surface

Hole Size and Volume Table

Hole Diameter Inches	Hole Volume cu/ft/foot	Pounds HOLEPLUG Bentonite To Fill One Foot	Feet Filled By One Bag HOLEPLUG Bentonite	Bags HOLEPLUG Bentonite To Fill 100 ft
2	0.022	1.6	31.3	3.2
2-1/2	0.034	2.5	20.0	5.0
3	0.049	3.5	14.3	7.0
3-1/2	0.067	4.8	10.4	9.6
4	0.087	6.3	7.9	12.6
4-1/2	0.110	7.9	6.3	15.8
5	0.136	9.8	5.1	19.6
5-1/2	0.165	11.9	4.2	23.8
6	0.196	14.1	3.5	28.2
6-1/2	0.230	16.6	3.0	33.2
7	0.267	19.2	2.6	38.4
7-1/2	0.307	22.1	2.3	44.2
8	0.349	25.1	2.0	50.2
8-1/2	0.394	28.4	1.8	56.8
9	0.442	31.8	1.6	63.6
9-1/2	0.492	35.4	1.4	70.8
10	0.545	39.2	1.3	78.4
11	0.660	47.5	1.1	95.0
12	0.785	56.5	0.89	113.0
15	1.227	88.3	0.57	176.6
18	1.767	127.2	0.39	254.4
20	2.1817	157.1	0.32	314.2
25	3.409	245.4	0.20	490.8
30	4.909	353.4	0.14	706.8

2. In case of severe flows add BAROID® barite weight material along with HOLEPLUG graded bentonite

Typical Physical Properties:

Bulk Density, uncompacted:

HP 3/4	71.8 lb/ft^3
HP 3/8	68.8 lb/ft^3

Moisture 17%

Permeability of resulting plug:

$K = 1.5 \times 10^{-9}$ cm/sec.

Test data available on request.

Environmental Information:

HOLEPLUG graded bentonite is a natural, unaltered mineral with no added chemicals or contaminants.

HOLEPLUG graded bentonite is non-toxic (96 hour LC_{50} is greater than 100,000 ppm).

HOLEPLUG graded bentonite does not spoil or ferment.

HOLEPLUG graded bentonite is environmentally safe and complies with the EPA's proposed protocol for toxicity characterization by leaching procedure. Lab report available on request.

Packaging:

HOLEPLUG graded bentonite is packaged in multiwall paper bags containing 50 pounds (22.7 kg).

Availability:

HOLEPLUG graded bentonite may be purchased through Baroid Service Centers or from QUIK-GEL® Retailers.

Baroid
Drilling Fluids Products

BAROID® BENTONITE PELLETS
Sealing and Plugging Agent

BAROID® BENTONITE PELLETS sealing and plugging agent are formed of high yield sodium bentonite which has been processed without organic polymers or other additives. No filler or adulterating agents have been included in BAROID BENTONITE PELLETS. The BAROID BENTONITE PELLETS have been pressure molded into hard tablets which aid in placement in well bores. The hardened tablet form with no polymer coating or mold release agent, retards the swelling characteristic of the bentonite long enough to allow placement in boreholes. BAROID BENTONITE PELLETS can be tremied into the hole when necessary.

BAROID BENTONITE PELLETS when placed into a well bore form a casing grout, an instrument isolation plug or an abandoned hole plugging agent. BAROID BENTONITE PELLETS when properly placed and allowed to hydrate form a semi-solid but flexible seal. The hydraulic conductivity measured in a fixed wall permeameter is less than 1×10^{-8} cm/sec. The hydrated BAROID BENTONITE PELLETS are chemically stable in the presence of water, brines, and waters containing organic hydrocarbons. The BAROID BENTONITE PELLETS are rehydratable to original specifications if the plug is subjected to wet/dry cycles.

BAROID BENTONITE PELLETS are high quality Wyomin bentonite composed primarily of sodium montmorillonite. Sodium montmorillonite is a swelling form of clay which contributes several needed characteristics. BAROID BENTONITE PELLETS have been formed into three sizes: 1/4", 3/8" and 1/2". The bentonite material is stable in storage, not affected by heat or cold, and will not spoil or ferment. The pellets, when placed downhole, will conform to the size and shape of the borehole, and will swell to fill the available space. The BAROID BENTONITE PELLETS require no special handling equipment, are clean to use, and are not soluble in organic solvents.

Recommended Uses:

- Sealing or grouting plastic or steel casing
- Isolating screen intervals, subsurface instrumentation, and sampling zones
- Providing a protective interface between gravel pack and cement grout
- Plugging abandoned earthen boreholes
- Creating a stable, permanent below-grade seal in
  - monitor/observation wells
  - dewatering holes
  - caisson holes
  - soil sampling holes
  - minerals exploration holes
  - water wells

Major Advantages:

- High quality Wyoming bentonite (sodium-based clay) which will swell in the presence of water
- Hardened form eliminates premature swelling and allows use in dry or wet holes
- Forms a below-grade permanent, flexible seal which can be easily removed
- Does not generate heat of hydration
- No organics or chemical treatments associated with the pellets
- Rehydratable to original specification
- Can be tremied into borehole

DMD-97
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P.O. Box 1675, Houston, Texas 77251

Physical Characteristics:

Appearance	pelletized clay - off white to tan in color
Chemical definition	Wyoming bentonite, untreated Hydrous silicate of alumina, composed essentially of sodium montmorillonite clay
Specific gravity of clay	2.6 - 2.7

Bulk density	1/4"	3/8"	1/2"
Uncompacted	71 lb/ft³	71 lb/ft³	67 lb/ft³
Compacted	73 lb/ft³	74 lb/ft³	72 lb/ft³
Weight of one quart	2.4 lb	2.4 lb	2.3 lb

pH (6% in water suspension) 8.8

Minerological Analysis (x-ray diffraction) – typical Wyoming bentonite

Montmorillonite	85%
Quartz	5%
Feldspars	5%
Cristobalite	2%
Illite	2%
Calcium and Gypsum	1%

Chemical Analysis – typical Wyoming bentonite

SiO_2	55.44%
Al_2O_3	20.14%
Fe_2O_3	3.67%
CaO	0.49%
MgO	2.49%
Na_2O	2.76%
K_2O	0.60%
Bound Water	5.50%
Moisture (220°F/104°C)	8.00%
TOTAL	99.09%

BAROID BENTONITE PELLETS meet all requirements of EPA and RCRA as a suitable monitoring well agent.

References: Article 46 & 56, *EPA Manual of Water Well Construction Practicess* (EPA 570/9-75-001)

Title 40, *Code of Federal Regulations*, Part 265, Subpart F

Usage Levels:

VOLUMES/AMOUNTS FOR GROUTING AND PLUGGING

Nominal Size, In.		Cubic Ft/Ft	Gallons/Ft	Pound/Ft		
Fraction	Decimal			1/4"	3/8"	1/2"
1/2	0.50	0,001	0.010	0.10	0.10	0.09
3/4	0.75	0.003	0.023	0.22	0.22	0.21
1	1.00	0.006	0.041	0.39	0.39	0.37
1-1/2	1.50	0.012	0.092	0.87	0.87	0.83
2	2.00	0.022	0.163	1.54	1.55	1.47
2-1/4	2.25	0.028	0.207	1.95	1.95	1.86
2-1/2	2.50	0.034	0.255	2.40	2.41	2.30
3	3.00	0.049	0.367	3.48	3.48	3.30
4	4.00	0.087	0.651	6.15	6.15	5.86
4-1/2	4.50	0.110	0.823	7.77	7.80	7.41
5	5.00	0.136	1.017	9.63	9.67	9.18
5-1/4	5.25	0.150	1.122	10.59	10.64	10.10
5-1/2	5.50	0.165	1.235	11.66	11.70	11.15
5-3/4	5.75	0.180	1.347	12.72	12.77	12.12
6	6.00	0.196	1.466	13.84	13.90	13.19
7	7.00	0.267	2.00	18.88	18.96	18.00
7-1/4	7.25	0.287	2.145	20.25	20.33	19.31
7-1/2	7.50	0.307	2.295	21.69	21.79	20.68
8	8.00	0.349	2.612	24.66	24.76	23.51
8-1/4	8.25	0.371	2.777	26.21	26.33	24.99
8-1/2	8.50	0.394	2.948	27.83	27.95	26.53
8-3/4	8.75	0.418	3.113	29.48	29.61	28.10
10	10.00	0.545	4,081	38.52	38.69	36.73
10-1/4	10.25	0.573	4.286	40.46	40.63	38.57
11	11.00	0.660	4.938	46.61	46.81	44.44
11-1/2	11.50	0.721	5.378	50.92	51.14	48.54
12	12.00	0.785	5.876	55.47	55.70	52.88
12-1/4	12.25	0.818	6.124	57.81	58.06	55.11
12-1/2	12.50	0.852	6.353	60.17	60.42	57.35
13	13.00	0.922	6.897	65.11	65.38	62.07
13-1/2	13.50	1.000	7.438	70.21	70.51	66.94
15	15.00	1.227	9.182	86.68	87.05	82.64
17-1/4	17.25	1.623	12.143	114.63	115.12	109.29
26	26.00	3.687	27.487	260.30	261.41	248.14
30	30.00	4.909	36.596	346.56	348.03	330.36

To calculate the volume of material needed for filling annular space:

Subtract the volume needed to fill the nominal casing O.D. from the volume needed to fill the nominal drilled hole size.

EXAMPLE
5 inch casing in an 8-3/4" drilled hole, and using 1/4" pellets

Volume Needed = Volume Drilled Hole – Volume Casing O.D.
= 29.48 pounds – 9.63 pounds
= 19.85 pounds to fill annular space

Recommended Application:

- Pour slowly from surface to minimize bridging of pellets
- Break up bridges as they occur
- Can be tremied into place when necessary
- Volume needed can vary ±15% in a rotary drilled hole
- Calculate and monitor pellet addition amounts to ensure proper hole fill
- Calculated volume should be applied to bore hole
  - if less than calculated volume is used, indicates bridging or hole collapse
  - if more than calculated volume is used, indicates hole wash out

Packaging:

BAROID® BENTONITE PELLETS are packaged in 5-gallon plastic pails containing 50 pounds each. The 50 pounds will occupy 0.6 cubic feet.

Availability:

BAROID® BENTONITE PELLETS can be purchased through any QUIK-GEL® Retailer, Baroid Service Center or the Baroid Houston Office located at 3000 N. Sam Houston Parkway East, Houston, Texas 77032. The product can be ordered through the Customer Service Department at (713) 987-5067.

Baroid Drilling Fluids, Inc.
Environmental, Safety and Transportation Data Sheet

NATIONAL BENTONITE

HEALTH HAZARD 0 FLAMABILITY 0 REACTIVITY 0
Ratings based on NFPA
'Standard system for the Identification of the Fire Hazards of Materials'

I. PRODUCT IDENTIFICATION

Supplier
BAROID DRILLING FLUIDS, INC.
Address
P.O. BOX 1675 HOUSTON, TEXAS 77251
Trade Name
NATIONAL BENTONITE
Generic Description
WYOMING BENTONITE, SODIUM MONTMORILLONITE, CAS #1302-78-9

Regular Telephone No. 713/987-4970
Emergency Telephone No. 713/987-4000

II. HAZARDOUS INGREDIENTS

Material or Component	%	Hazard Data
SILICA 14808-60-7	2-6	LOW CONCENTRATIONS OF CRYSTALLINE SILICA (SiO2) IN THE FORM OF QUARTZ, CRISTOBALITE,AND TRIDYMITE MAY BE PRESENT (SEE SECTION V)

III. PHYSICAL DATA

Boiling Point (Deg F): NA
Melting Point: ND
Freezing Point: ND
Specific Gravity (Water = 1): 2.5
Vapor Pressure (mm Hg): NA
Vapor Density (Air = 1): NA
Solubility in water, % by wt.: NA
Volatiles, % by Volume: NA
Evaporation Rate (Butyl Acetate = 1): NA
Appearance and Odor: LIGHT TAN TO GRAY SOLIDS, NO ODOR
Density @ 20 Deg C: 47 LBS CF
pH: NA

NA = Not Applicable ND = Not Determined

All information recommendations and suggestions herein concerning our product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Baroid Drilling Fluids, Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Baroid Drilling Fluids, Inc. assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

(R) NATIONAL BENTONITE is a Registered Trademark

IV. FIRE AND EXPLOSION DATA

NATIONAL BENTONITE IS NOT FLAMMABLE AND NOT EXPLOSIVE. DOES NOT SUPPORT COMBUSTION.

EXTINGUISHING MEDIA: WATER

V. HEALTH HAZARD INFORMATION

Carcinogenicity -SEE ROUTES OF EXPOSURE AND EFFECTS BELOW

Acute Oral (LD50)	Acute Dermal (LD50)	Aquatic Toxicity (LC50)
ND	ND	ND

Routes of exposure and effects
THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS.

TLV FOR RESPIRABLE DUST

$$\frac{10\ \text{MG/M3}}{\%\ \text{RESPIRABLE QUARTZ} + 2}$$

TLV FOR "TOTAL DUST"

$$\frac{30\ \text{MG/M3}}{\%\ \text{QUARTZ} + 2}$$

IF CRISTOBALITE OR TRIDYMITE IS DETECTED, USE ONE-HALF THE VALUE CALCULATED FROM FORMULAE FOR QUARTZ

SKIN: POTENTIAL IRRITANT
EYES: IRRITANT
INHALATION: IRRITATION TO LUNGS, NOSE, AND THROAT; PROLONGED INHALATION OF THE POWDER MAY RESULT IN SILICOSIS, A NONCANCEROUS LUNG DISEASE.

Emergency and First Aid procedures
SKIN: FLUSH SKIN WITH LARGE AMOUNTS OF WATER
EYES: FLUSH EYES WITH WATER AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, CONTACT PHYSICIAN
INHALATION: MOVE TO FRESH AIR

VI. REACTIVITY DATA

Conditions contributing to instability
THIS PRODUCT IS STABLE UNDER NORMAL DRILLING CONDITIONS.

Incompatibility
NONE

Hazardous Decomposition Products
NONE

Conditions Contributing to Hazardous Polymerization
NONE

VII. SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled
NORMAL HOUSEKEEPING, CAUSES SLIPPERY SURFACES WHEN WET.

Neutralizing Chemicals
NA

Waste Disposal Method
DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS

VIII. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements
MECHANICAL, GENERAL ROOM VENTILATION
USE LOCAL VENTILATION TO MAINTAIN TLV (SEE SECTION V)

Specific Personal Protective Equipment
Respiratory
USE A NOISH APPROVED MECHANICAL FILTER RESPIRATOR FOR NON TOXIC DUSTS.
Eye
SAFETY GLASSES, GOGGLES
Gloves
WORK GLOVES
Other Clothing and Equipment
APRON, EYEWASH STATION

IX. SPECIAL PRECAUTIONS

Precautionary Statements
AVOID PROLONGED INHALATION.

RECOMMENDED LABEL:

FRONT PANEL: CAUTION
SEE BACK PANEL FOR CAUTION BEFORE USE.

BACK PANEL: CAUTION
THIS PRODUCT CONTAINS FREE SILICA. PROLONGED INHALATION OF THE POWDER MAY RESULT IN LUNG DISEASE. AVOID CREATING DUSTY CONDITIONS AND USE A NIOSH APPROVED DUST RESPIRATOR

Other Handling and Storage Requirements
NATIONAL BENTONITE IS NOT HAZARDOUS. NO HAZARDS ARE INVOLVED WITH NORMAL HANDLING.

STORE IN SHELTERED AREA OR COVER FOR MOISTURE PROTECTION.

X. DEPARTMENT OF TRANSPORTATION INFORMATION

Proper Shipping Name:
NOT REGULATED

Placards:
NONE

Reportable quantity:
-

Hazard Class:
NOT HAZARDOUS

ID Number:
NONE

Hazardous Substance:
SILICA

Label:
NONE REQUIRED

NL Baroid

Environmental, Safety and Transportation Data Sheet

QUIK-GEL

I PRODUCT IDENTIFICATION

SUPPLIER NL BAROID	REGULAR TELEPHONE NO. (713) 987-5900 EMERGENCY TELEPHONE NO. (713) 987-4000
ADDRESS P.O. BOX 1675 HOUSTON, TEXAS 77251	
TRADE NAME QUIK-GEL®	
GENERIC DESCRIPTION HIGH YIELD BENTONITE; SODIUM MONTMORILLONITE	

II HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
SILICA 7631-86-9	2-6%	LOW CONCENTRATIONS OF
		CRYSTALLINE SILICA (SiO_2)
		IN THE FORM OF QUARTZ,
		CRISTOBALITE, AND TRIDYMITE
		MAY BE PRESENT
		(SEE SECTION V)

III PHYSICAL DATA

BOILING POINT (°F) NA	MELTING POINT NA	FREEZING POINT NA
SPECIFIC GRAVITY (H_2O = 1) 2.5	VAPOR PRESSURE (mm Hg) NA	
VAPOR DENSITY (AIR = 1) NA	SOLUBILITY IN H_2O, % BY WT. NA	
% VOLATILES BY VOL. NA	EVAPORATION RATE (BUTYL ACETATE = 1) NA	
APPEARANCE AND ODOR GREY, TAN POWDER	Density @ 20° C. 41.6 lbs/ft³ (UNCOMPACTED)	
pH NA		

NA = Not Applicable ND = Not Determined

QUIK-GEL®

HEALTH HAZARD 2

FLAMMABILITY 0

REACTIVITY 0

Ratings based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974)

BEST Sheet

IV FIRE AND EXPLOSION DATA

NOT FLAMMABLE OR EXPLOSIVE.

EXTINGUISHING MEDIA: WATER

V HEALTH HAZARD INFORMATION

CARCINOGENICITY — SEE ROUTES OF EXPOSURE AND EFFECTS (BELOW)

ACUTE ORAL LD_{50}	ACUTE DERMAL LD_{50}	AQUATIC TOXICITY (LC_{50})
ND	ND	10,000 mg/l

ROUTES OF EXPOSURE AND EFFECTS

THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS. PROLONGED INHALATION OF THE POWDER MAY RESULT IN SILICOSIS, A NONCANCEROUS LUNG DISEASE.

TLV FOR RESPIRABLE DUST

$$\frac{10\ mg/m^3}{\%\ RESPIRABLE\ QUARTZ + 2}$$

TLV FOR "TOTAL DUST"

$$\frac{30\ mg/m^3}{\%\ QUARTZ + 3}$$

IF CRISTOBALITE OR TRIDYMITE IS DETECTED, USE ONE-HALF THE VALUE CALCULATED FROM FORMULAE FOR QUARTZ

SKIN: POTENTIAL IRRITANT
EYES: IRRITANT
INHALATION: IRRITATION TO LUNGS, NOSE, AND THROAT; PROLONGED INHALATION MAY CAUSE LUNG INJURY, OR DISEASE

EMERGENCY AND FIRST AID PROCEDURES

NORMAL PERSONAL HYGIENE.

BEST Sheet

VI REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

STABLE

INCOMPATIBILITY

NONE

HAZARDOUS DECOMPOSITION PRODUCTS

NONE

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

NONE

VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

NORMAL HOSUEKEEPING; CAUSES SLIPPERY SURFACES WHEN WET.

NEUTRALIZING CHEMICALS

NA

WASTE DISPOSAL METHOD

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

VIII INDUSTRIAL HYGIENE CONTROL MEASURES

VENTILATION REQUIREMENTS

MECHANICAL, GENERAL ROOM VENTILATION
USE LOCAL VENTILATION TO MAINTAIN TLV (SEE SECTION V)

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY

USE A NIOSH APPROVED MECHANICAL FILTER RESPIRATOR FOR NONTOXIC DUSTS.

EYE

SAFETY GLASSES, GOGGLES

GLOVES

NONE REQUIRED

OTHER CLOTHING AND EQUIPMENT

APRON, EYEWASH

BEST Sheet

IX SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS

RECOMMENDED LABELING:

FRONT PANEL: CAUTION
SEE BACK PANEL FOR CAUTION BEFORE USE.

BACK PANEL: CAUTION
THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS. PROLONGED INHALATION OF THE POWDER MAY RESULT IN SILICOSIS, A NONCANCEROUS LUNG DISEASE. AVOID CREATING DUSTY CONDITIONS AND USE A NIOSH APPROVED DUST RESPIRATOR.

OTHER HANDLING AND STORAGE REQUIREMENTS

STORE IN SHELTERED AREA OR COVER TO PROTECT FROM MOISTURE

DEPARTMENT OF TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: NOT REGULATED

PLACARDS: NONE

REPORTABLE QUANTITY: NONE

HAZARD CLASS: NOT HAZARDOUS

ID NUMBER: NONE

HAZARDOUS SUBSTANCE: NONE

LABEL: NONE REQUIRED

PREPARED BY **NL Barold**
ENVIRONMENTAL SERVICES

DATE
JUNE, 1988

Appendix J
Well Construction Diagrams/Well Records

PROJECT NUMBER	BORING NUMBER
NJ022948.GE.WI	OBMW3 SHEET 1 OF 1

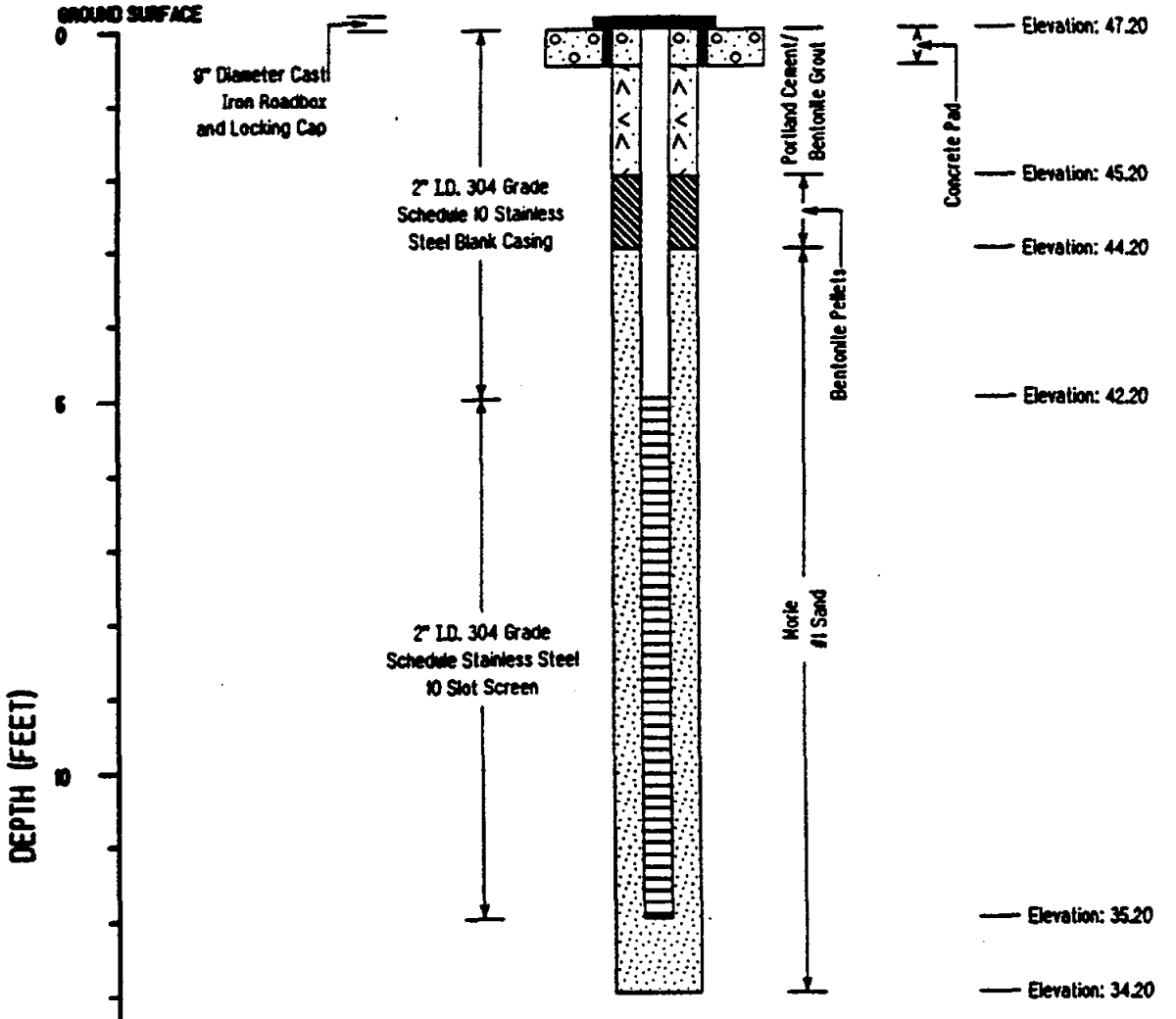
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.2 (GS); 46.80 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 4.47 (ft); 42.33 (MSL), 6/22/92 START 4-23-92 FINISH 4-23-92 LOGGER L. Vogel, S. Vozza



See Boring Log For Drilling Details

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28447
Atlas Sheet Coordinates 26 : 62 : 535

R IDENTIFICATION - Owner CUMBERLAND FARMS, INC.
s 777 DURHAM STREET
CANTON State MA Zip Code 02021

OCATION - If not the same as owner please give address. Owner's Well No. OBMW-3
Bergen Municipality HAYWOOD BORO Lot No. 1 Block No. 124
s 239 N/S Rt. 17, Maywood, NJ DEVELOPED 4/28/92 (COMPLETED)

OF WELL (as per Well Permit Categories) MONITORING Date well completed 3 / 9 / 92
ory Program Requiring Well CERCLA Case I.D. # 10105
JLTING FIRM/FIELD SUPERVISOR (if applicable) CH2M HILL Tele. # 1 201 316-9300

CONSTRUCTION

epth drilled 13 ft.
ished to 12 ft.
ie diameter:
o 8 in.
n 8 in.
as finished: ☐ above grade
☒ flush mounted
ed above grade, casing stick up) above land ____ ft.
eel protective casing installed?
s ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	4'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	4'	12'	2"	Stainless steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	2'	12'	8"	# 1 Gravel
Annular Seal/Grout	0'	2'	8"	Cement
Method of Grouting	Tremie Pressure			

/ater level after drilling 6 ft.
evel was measured using M Scope
s developed for 1½ hours at 2+ gpm
of development submersible Pump
rmanent pumping equipment installed? ☐ Yes ☒ No
apacity NA gpm
ype: NA
Method Hollow Stem Auger
Fluid NA Type of Rig Mobile B-61
f Driller Robert Atkinson
and Safety Plan submitted? ☐ Yes ☐ No
Protection used on site (circle one) None D C B A
ense No. 11478
f Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-8' fill
8'-13' weathered rock

that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable ules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.W1	OBMW2	SHEET 1 OF 1

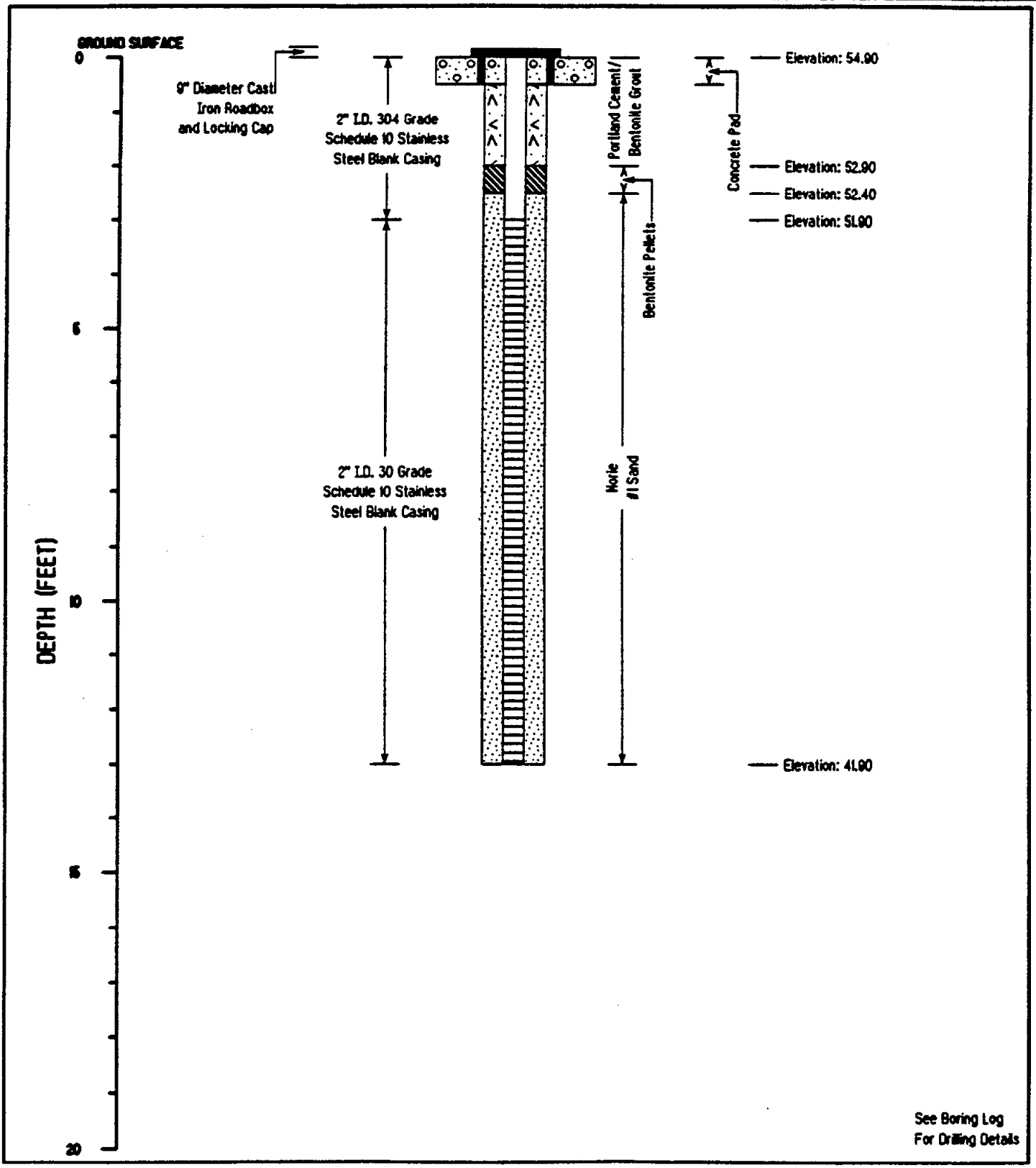
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 54.9 (GS); 54.40 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 6 1/4" ID

WATER LEVELS 5.11 (ft); 49.29 (MSL), 6/22/92 **START** 4-22-92 **FINISH** 4-22-92 **LOGGER** L. Vogel



See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28459
Atlas Sheet Coordinates 26 : 03 : 535

OWNER IDENTIFICATION - Owner ~~SIKRAN COMPANY~~
Address 22 WEST FRONTAGE ROAD
City NORTHFIELD State IL Zip Code 60093

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-2
County Bergen Municipality ~~MAYWOOD BORO~~ Lot No. ~~32~~ Block No. ~~124~~
Address 100 West Hunter Avenue, Maywood, NJ

DEVELOPED 4/22/92 (COMPLETED)
TYPE OF WELL (as per Well Permit Categories) Date well completed 3 / 02 / 92
Regulatory Program Requiring Well ~~MONITORING~~ ~~CERCLA~~ Case I.D. # ~~18105~~
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 609 795-6800

WELL CONSTRUCTION

Total depth drilled 13 ft.
Well finished to 13 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	3'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	3'	13'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	1'	13'	8"	# 1 Gravel
Annular Seal/Grout	0'	1'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 10 ft.
Water level was measured using M Scope
Well was developed for 2½ hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 1478
Name of Drilling Company ~~ENVIRONMENTAL DRILLING~~ INC

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-10' fill
10'-13' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/18/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.WI	ORMW1	SHEET 1 OF 1

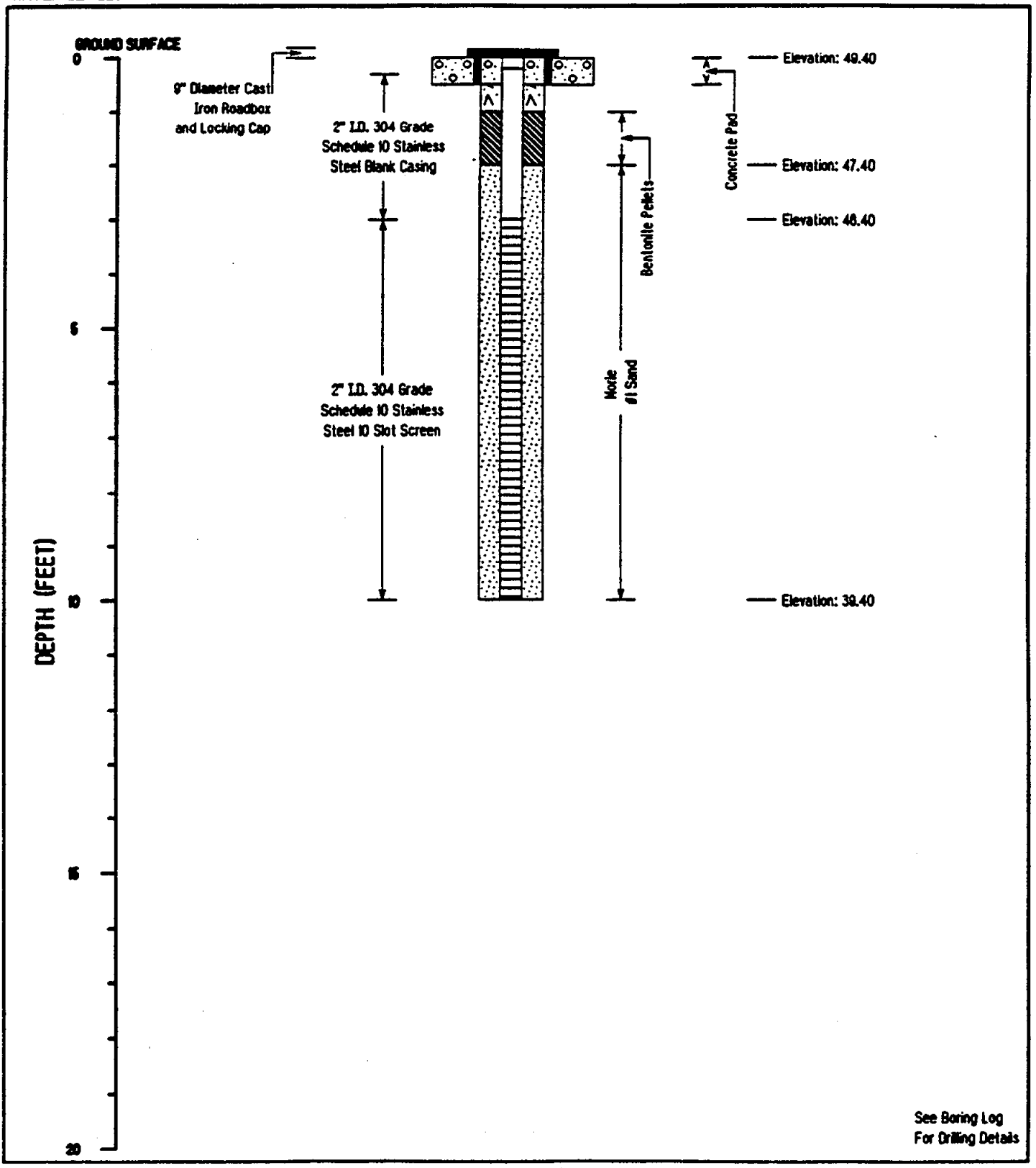
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 49.4 (GS); 48.82 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4 I.D.

WATER LEVELS 5.00 (ft); 43.82 (MSL), 8/22/92 **START** 4-27-92 **FINISH** 4-27-92 **LOGGER** L. Vogel



See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28450
Atlas Sheet Coordinates 26 : 03 : 535

OWNER IDENTIFICATION - Owner ~~KEN PROPERTIES~~
Address 77 TARRYTOWN RD. SUITE 100
City WHITE PLAINS State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-1
County Bergen Municipality ~~MAYWOOD BORO~~ Lot No. 30 Block No. 124
Address 149-151 Maywood Ave., Maywood, NJ
DEVELOPED 4/27/92 (COMPLETED)

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 4 / 01 / 92
Regulatory Program Requiring Well ~~MONITORING~~ CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 316-9300

WELL CONSTRUCTION

Total depth drilled 10 ft.
Well finished to 10 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	3'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	3'	10'	2"	Stainless Steel
Tail Piece	NA	NA	NA	
Gravel Pack	1'	10'	8"	#1 Gravel
Annular Seal/Grout	0'	1'	8"	~~cement~~
Method of Grouting	gravity			

Static water level after drilling 4 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem AUger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-4' glacial till
4'-10' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date _____

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.WT	OBMW4 SHEET 1 OF 1

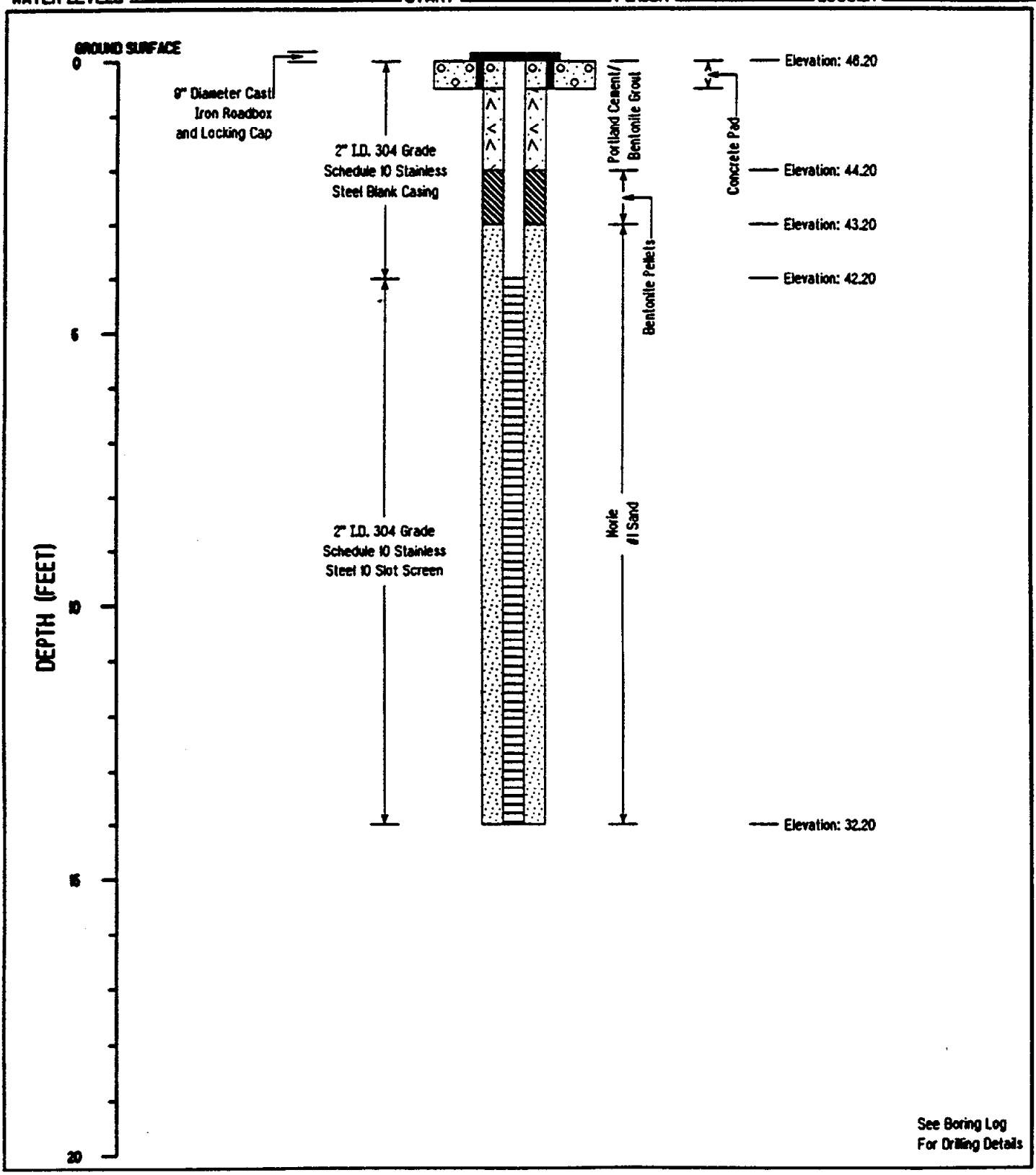
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.2 (GS); 45.96 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 2.49 (ft); 43.47 (MSL), 6/22/92 **START** 4-28-92 **FINISH** 4-28-92 **LOGGER** L. Vogel



See Boring Log For Drilling Details

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New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28451
Atlas Sheet Coordinates ___ : ___ : ___

WNER IDENTIFICATION - Owner FIN PROPERTIES
ddress 77 TARRYTOWN RD SUITE 100
ity WHITE PLAINS State NY Zip Code 02021 10607

/ELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-4

ounty Bergen Municipality MAYWOOD BORO Lot No. 30 Block No. 124
ddress 239 N/S Rt. 17, Maywood, NJ DEVELOPED 4/28/92 (COMPLETED)

YPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4 / 02 / 92
egulatory Program Requiring Well CERCLA Case I.D. # 10105
ONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 316-9300

/ELL CONSTRUCTION

Total depth drilled 14 ft.
Well finished to 14 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface ___ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	0'	4'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	4'	14'	2"	Stainless Steel slot .010
Tail Piece	NA	NA	NA	
Gravel Pack	2'	14'	8"	#1 Gravel
Annular Seal/Grout	0'	2'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 5 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow stem auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-5' silty sand
5'-9' sand
9'-14' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

CRA HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.SN.WI	OBMW5	SHEET 1 OF 1

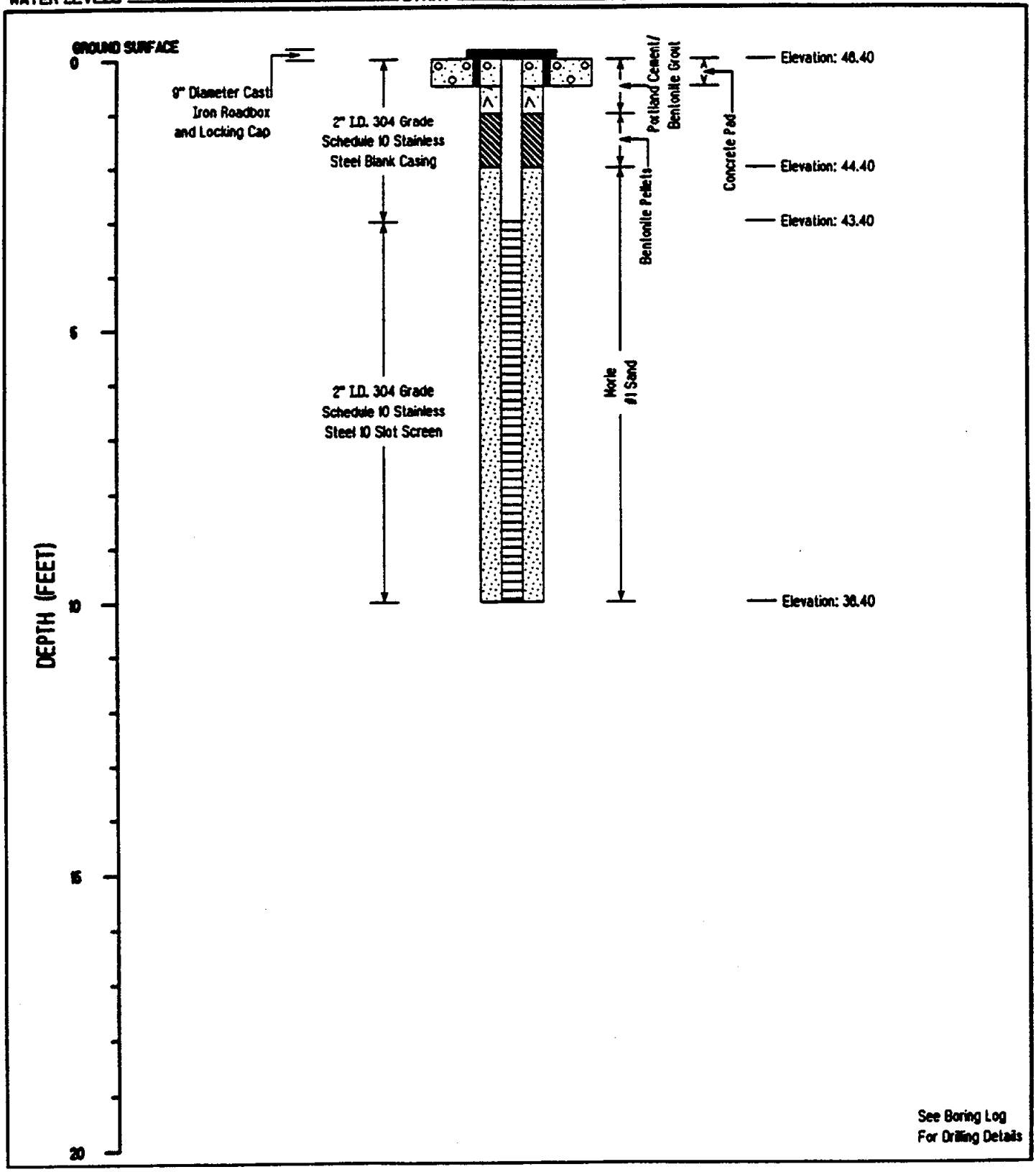
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.4 (GS); 46.13 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 3.95 (ft); 42.18 (MSL), 6/22/92 START 4-29-92 FINISH 4-29-92 LOGGER L. Vogel



See Boring Log For Drilling Details

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New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 25 - 28448
Atlas Sheet Coordinates 25 : 08 : 535

WNER IDENTIFICATION - Owner SUN OIL CORPORATION
ddress 1801 MARKET STREET
ity PHILADELPHIA State PA Zip Code 19103

/ELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-5
County Bergen Municipality HAYWOOD BRO Lot No. 2 Block No. 124
ddress 167 N/S Rt. 17, Maywood, NJ DEVELOPED 4/29/92 (COMPLETED)

YPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 3 / 09 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 316-9300

/ELL CONSTRUCTION

Total depth drilled 10 ft.
Well finished to 10 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	4'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	4'	10'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	2'	10'	8"	# 1 Gravel
Annular Seal/Grout	0'	2'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 5 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company [illegible]

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-8' fill
8'-10' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/18/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.SB.WI	OBMW6 SHEET 1 OF 1

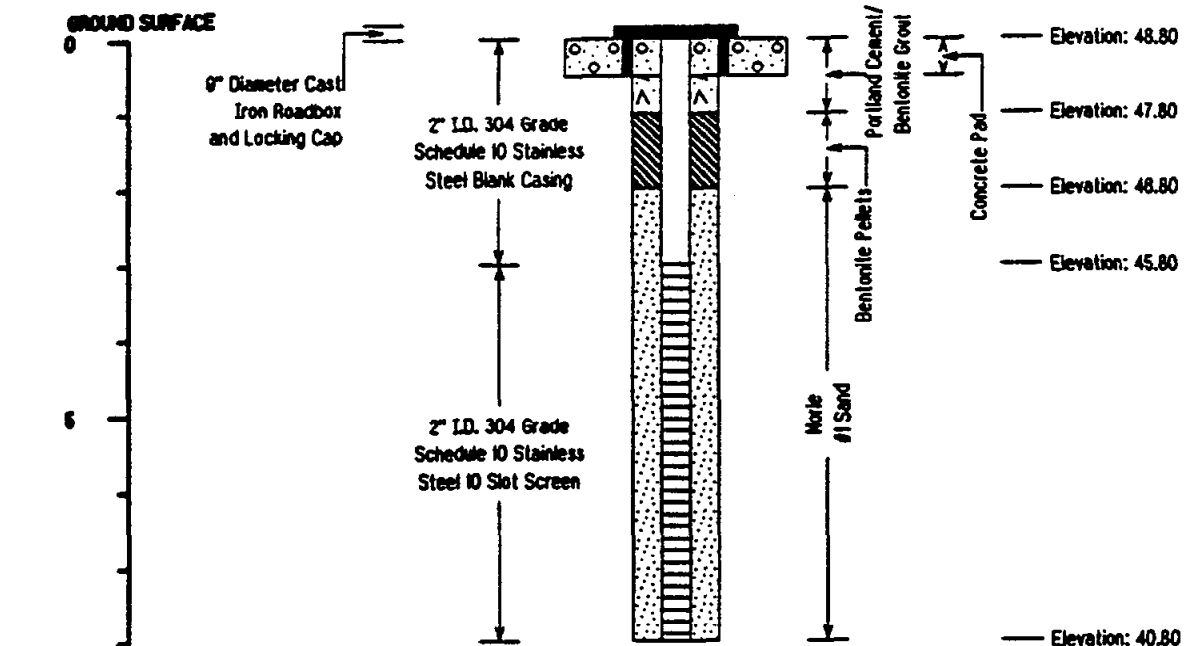
WELL COMPLETION LOG

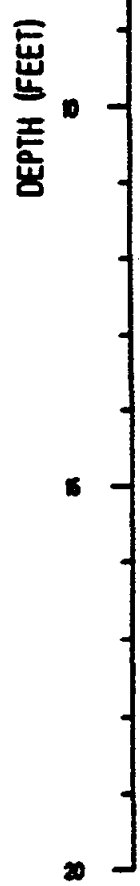
PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 48.8 (GS); 48.94 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 3.00 (ft); 45.94 (MSL), 6/22/92 **START** 4-30-92 **FINISH** 4-30-92 **LOGGER** L. Vogel





See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28452
Atlas Sheet Coordinates 26 : 03 : 535

OWNER IDENTIFICATION - Owner ~~ICIN PROPERTIES~~
Address ~~77 TARRYTOWN RD SUITE 100~~
City ~~WHITE PLAINS~~ State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-6
County Bergen Municipality ~~HAYWOOD BORO~~ Lot No. 30 Block No. 124
Address 239 N/S Rt 17, Maywood, NJ DEVELOPED 4/30/92

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4 / 02 /92
Regulatory Program Requiring Well ~~CRRCLA~~ Case I.D. # ~~10185~~
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 201 316-9300

WELL CONSTRUCTION

Total depth drilled 8 ft.
Well finished to 8 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	3'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	3'	8'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	1'	8'	8"	# 1 Gravel
Annular Seal/Grout	0'	1'	8"	Cement
Method of Grouting	+ Gravity			

Static water level after drilling 3 ft.
Water level was measured using M Scope
Well was developed for 2½ hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ~~ENVIRONMENTAL DRILLING, INC~~

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-7' fine sand
7'-8' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.WI	ORMW7 SHEET 1 OF 1

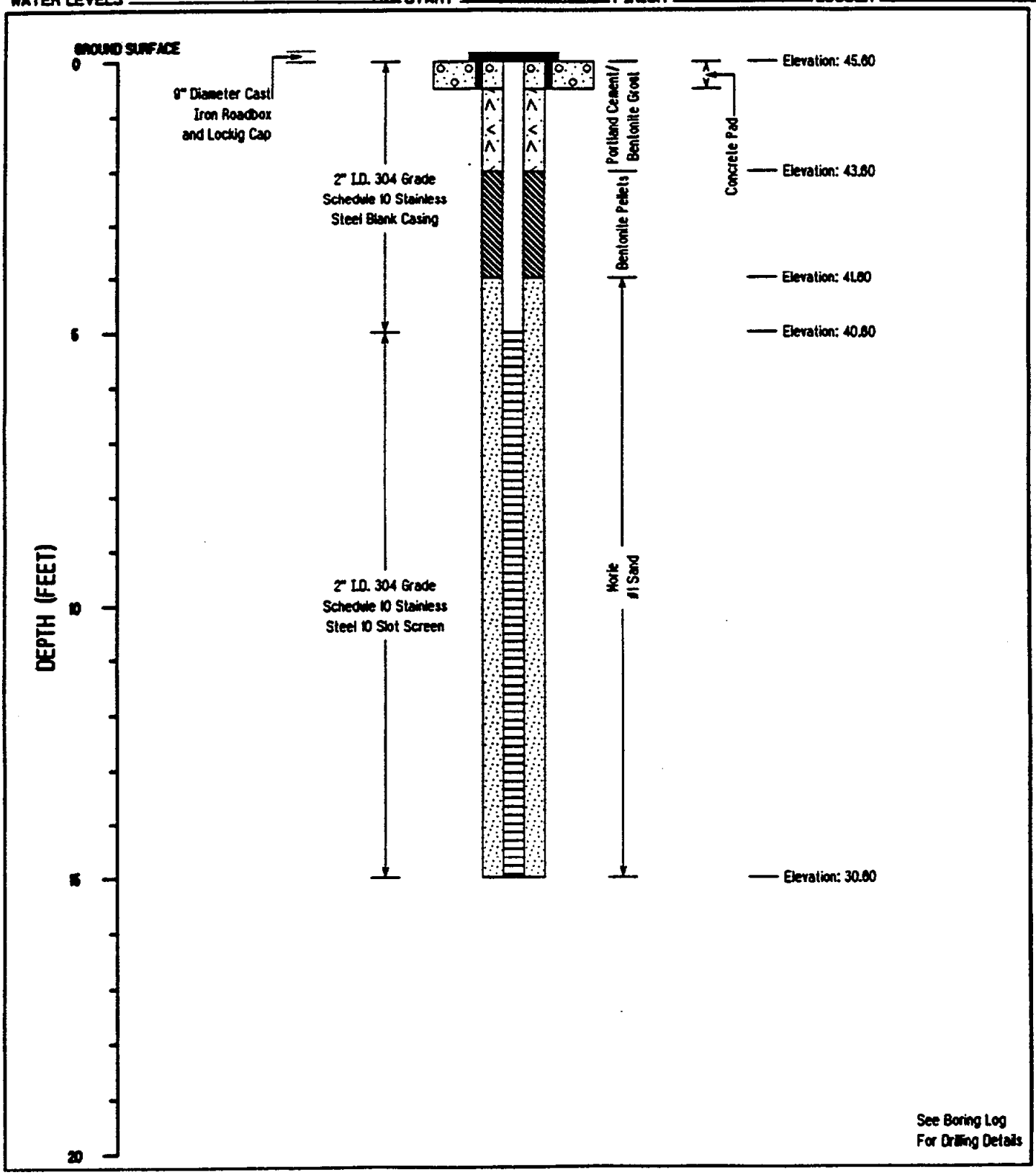
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 45.6 (GS); 44.95 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 1.94 (ft); 43.01 (MSL), 6/22/92 START 4-30-92 FINISH 4-30-92 LOGGER S. Repko



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New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28453
Atlas Sheet Coordinates 26 : 03 : 5'0"

WNER IDENTIFICATION - Owner KIN PROPERTIES
ddress 77 TARRYTOWN RD SUITE 100
ity WHITE PLAINS State NY Zip Code 02021 10607

/ELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-7
ounty Bergen Municipality MAYWOOD BORO Lot No. 30 Block No. 124
ddress Sears - 149-151 Maywood Ave., Maywood, NJ DEVELOPED 4/30/92 (COMPLETED)
YPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4 / 15 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. #

VELL CONSTRUCTION

Total depth drilled 15 ft.
Well finished to 15 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface ____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	2"	PVC Stain.Steel
Outer Casing (Not Protective Casing)	NA	NA NA		
Screen (Note slot size)	5'	15'	2"	Stain. Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	3'	15'	8"	# 1 Gravel
Annular Seal/Grout	0'	3'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 7 ft.
Water level was measured using M Scope
Well was developed for 1½ hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity na gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-80
Name of Driller Thomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 1499
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-5' fill
5'-11' clay
11'-15' silt sand and gravels

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/18/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.WT	ORMWR SHEET 1 OF 1

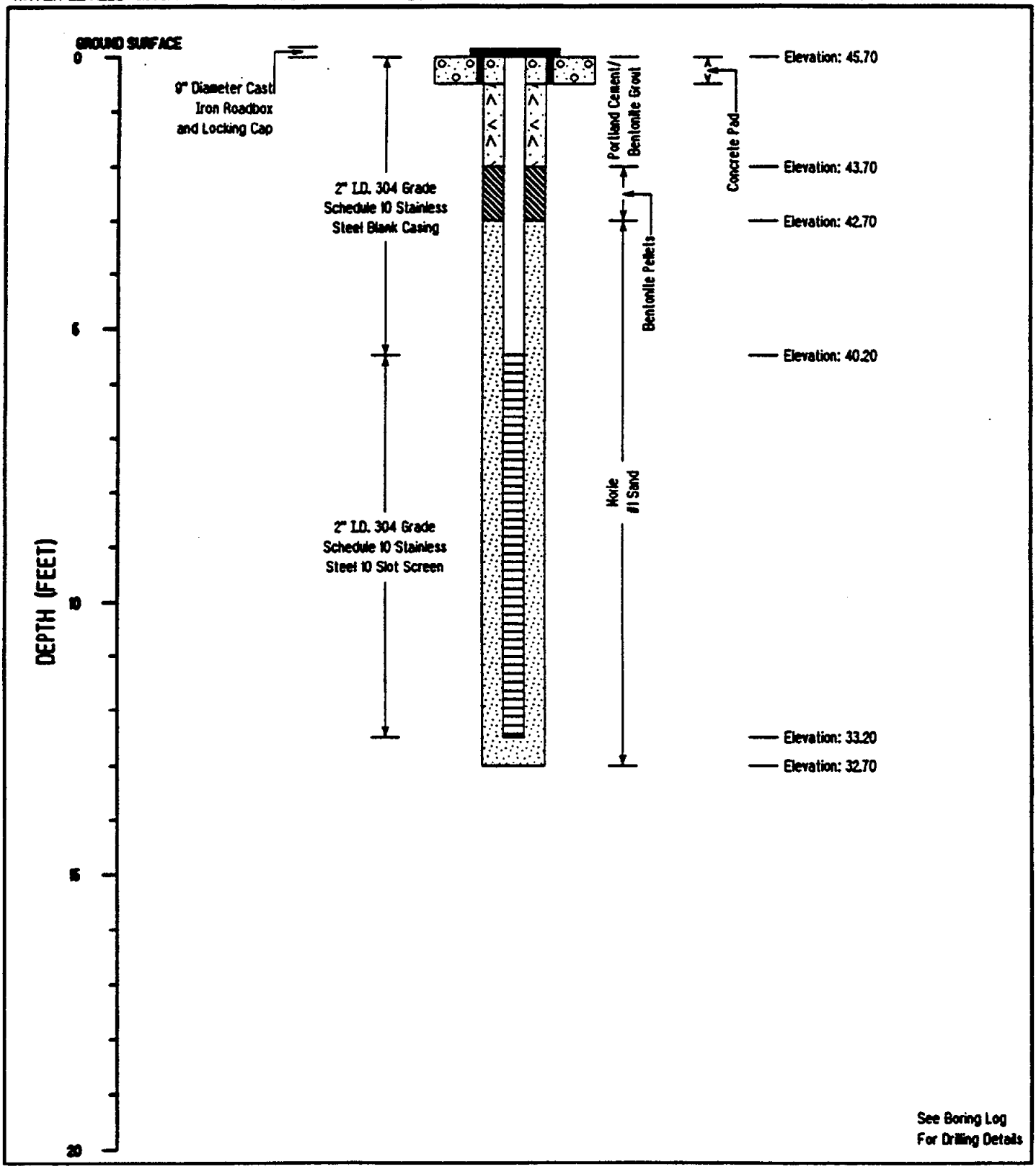
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 45.7 (GS); 45.55 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B60 HSA 4 1/4" I.D.

WATER LEVELS 4.71 (ft); 40.84 (MSL), 6/22/92 **START** 4-24-92 **FINISH** 4-24-92 **LOGGER** L. Vogel



See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. [illegible] - [illegible]
Atlas Sheet Coordinates [illegible] : [illegible] : [illegible]

OWNER IDENTIFICATION - Owner S. W. S. REALTY
Address 500 RT. 17S
City HASBROUCK HEIGHTS State NJ Zip Code 07604

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-8
County Bergen Municipality MAYWOOD BORO Lot No. 4 Block No. 124
Address 87 & Rt 17 NMaywood, NJ

DEVELOPED 4/29/92 (COMPLETED)

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 3/14/92
Regulatory Program Requiring Well CERCLA Case I.D. # [illegible]
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 201 316-9300

WELL CONSTRUCTION

Total depth drilled 13 ft.
Well finished to 12.5 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5.5'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	5.5'	12.5'	2"	Stainless Steel slot.010
Tail Piece	NA	NA	NA	
Gravel Pack	3.5'	12.5'	8"	# 1 Gravel
Annular Seal/Grout	0'	3.5'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 7 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method hollow stem auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-8' sand
8'-13' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.W1	ORMW10 SHEET 1 OF 1

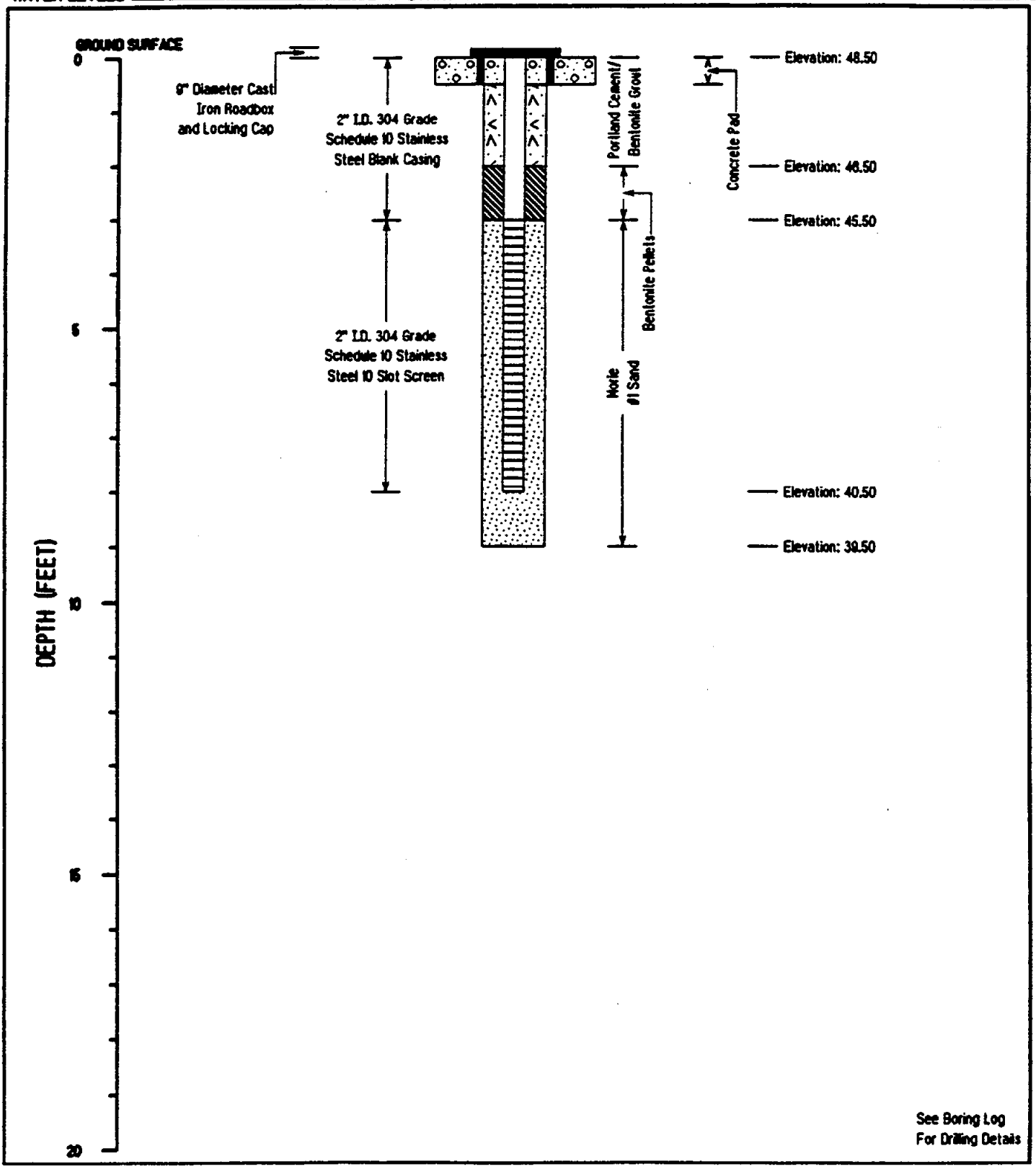
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 48.5 (GS); 48.09 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B60 HSA 4 1/4" I.D.

WATER LEVELS .11 (ft); 47.98 (MSL), 6/22/92 **START** 4-28-92 **FINISH** 4-28-92 **LOGGER** L. Vogel



See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28454
Atlas Sheet Coordinates 26 : 02 : 535

OWNER IDENTIFICATION - Owner IGN PROPERTIES
Address 77 TARRYTOWN RD. SUITE 100
City WHITE PLAINS State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-10
County Bergen Municipality MAYWOOD BORO Lot No. 30 Block No. 124
Address 149-151 Tarrytown Rd., Maywood, NJ COMPLETION DATE 4/30/92 DEVELOPE

TYPE OF WELL (as per Well Permit Categories) Date well completed 4 / 15 / 92
Regulatory Program Requiring Well MONITURING Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 201 316-9300

WELL CONSTRUCTION

Total depth drilled 15 ft.
Well finished to 15 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	5'	15'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	3'	15'	8"	# 1 Gravel
Annular Seal/Grout	0'	3'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 6 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow stem auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 11478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-4' fill
4'-9' sand and gravel
9'-10' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.WI	OBMW13 SHEET 1 OF 1

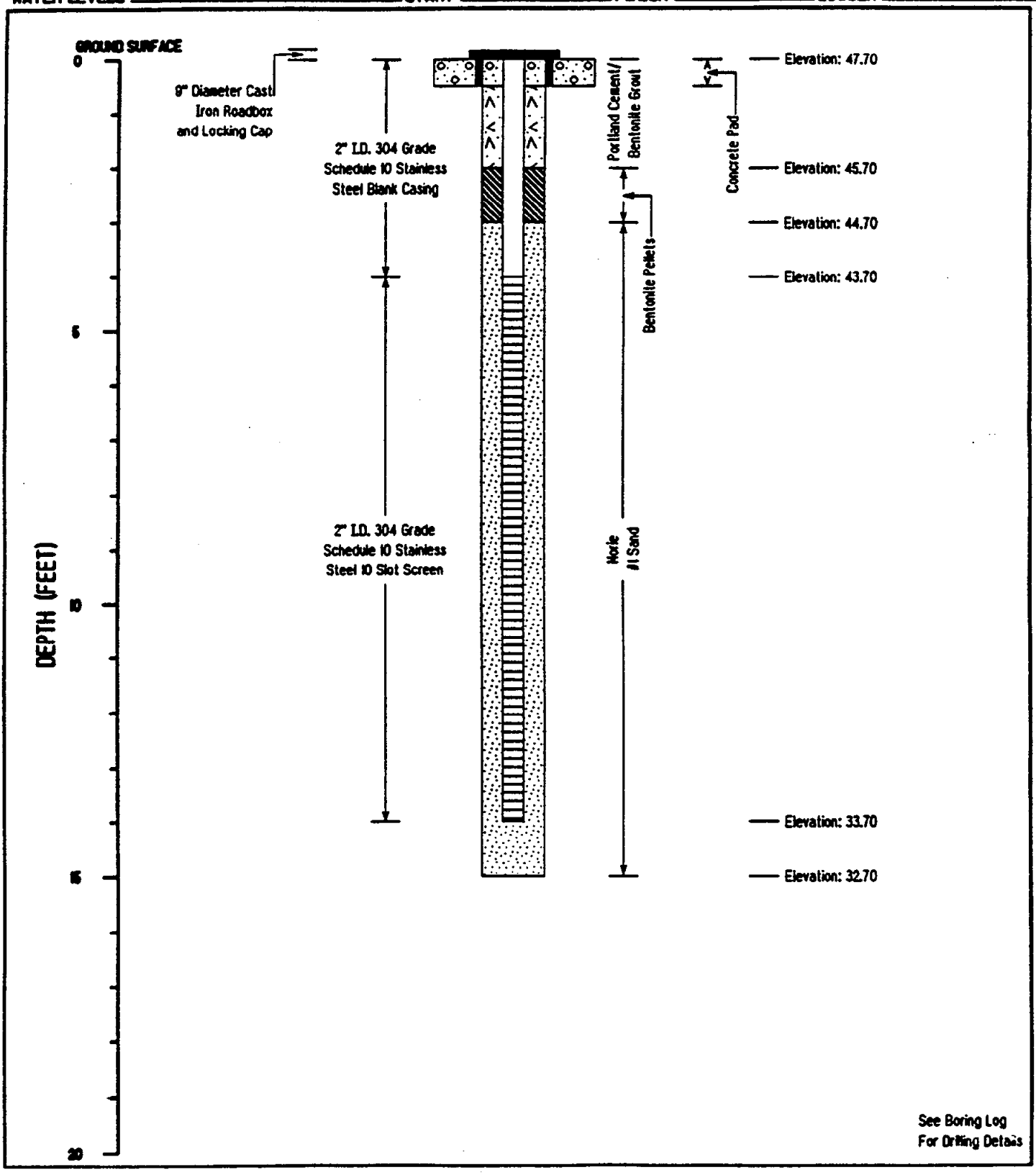
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.7 (GS); 47.26 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B60 HSA 4 1/4" I.D.

WATER LEVELS 3.93 (ft); 43.33 (MSL), 8/22/92 START 4-23-92 FINISH 4-23-92 LOGGER S. Vozza



See Boring Log For Drilling Details

JWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28456
Atlas Sheet Coordinates 26 : 09 : E-35

OWNER IDENTIFICATION - Owner KIN PROPERTIES
Address 77 TARRYTOWN RD SUITE 100
City WHITE PLAINS State NY Zip Code 10607

DEVELOPED 4/24/92 COMPLETED

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-13
County Bergen Municipality MAYWOOD BORO Lot No. 30 Block No. 124
Address 149-151 Tarrytown Rd., Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4 / 6 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 201 316-9300

WELL CONSTRUCTION

Total depth drilled 15 ft.
Well finished to 13 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	3'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	3'	13'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	1'	13'	8"	#1 Gravel
Annular Seal/Grout	0'	1'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 6 ft.
Water level was measured using M Scope
Well was developed for 2 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Arkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-3' fill
3'-14' sand and gravel
14'-15' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.WI	ORMW14	SHEET 1 OF 1

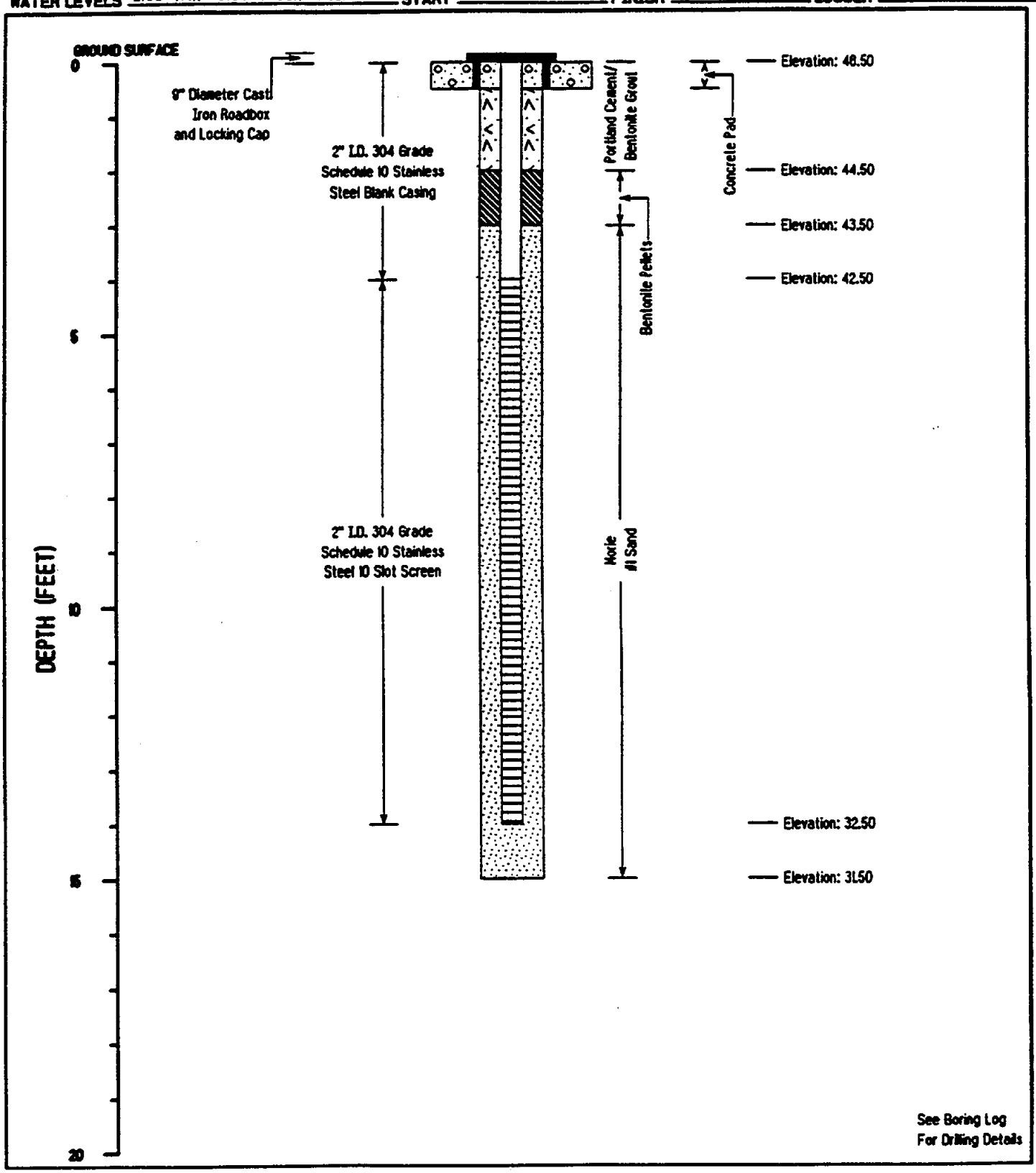
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.5 (GS); 46.02 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 2.93 (ft); 43.09 (MSL), 6/22/92 START 4-27-92 FINISH 4-27-92 LOGGER S. Vozza



See Boring Log For Drilling Details

:-138 M

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. ~~26~~ - ~~2845~~
Atlas Sheet Coordinates ~~26~~ : ~~03~~ : ~~53~~

WNER IDENTIFICATION - Owner ~~KIN PROPERTIES~~
ldress ~~77 TARRYTOWN RD. SUITE 100~~
ty WHITE PLAINS State NY Zip Code 10607

ELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-14
ounty Bergen Municipality MAYWOOD BORO Lot No. 30 Block No. 124
ddress 149-1512 Tarrytown Rd., Maywood, NJ DEVELOPED 4/27/92 (COMPLETED)

YPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4 / 06 92
egulatory Program Requiring Well CERCLA Case I.D. # 10106
ONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 316-9300

WELL CONSTRUCTION

otal depth drilled 15 ft.
Well finished to 15 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	5'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	5'	15'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	3'	15'	8"	# 1 Gravel
Annular Seal/Grout	0'	3'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 6 ft.
Water level was measured using M Scope
Well was developed for 2½ hours at 2+ gpm
Method of development submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0'-5' fill
5'-14' sand and gravel

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/18/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	OBMW15 SHEET 1 OF 1

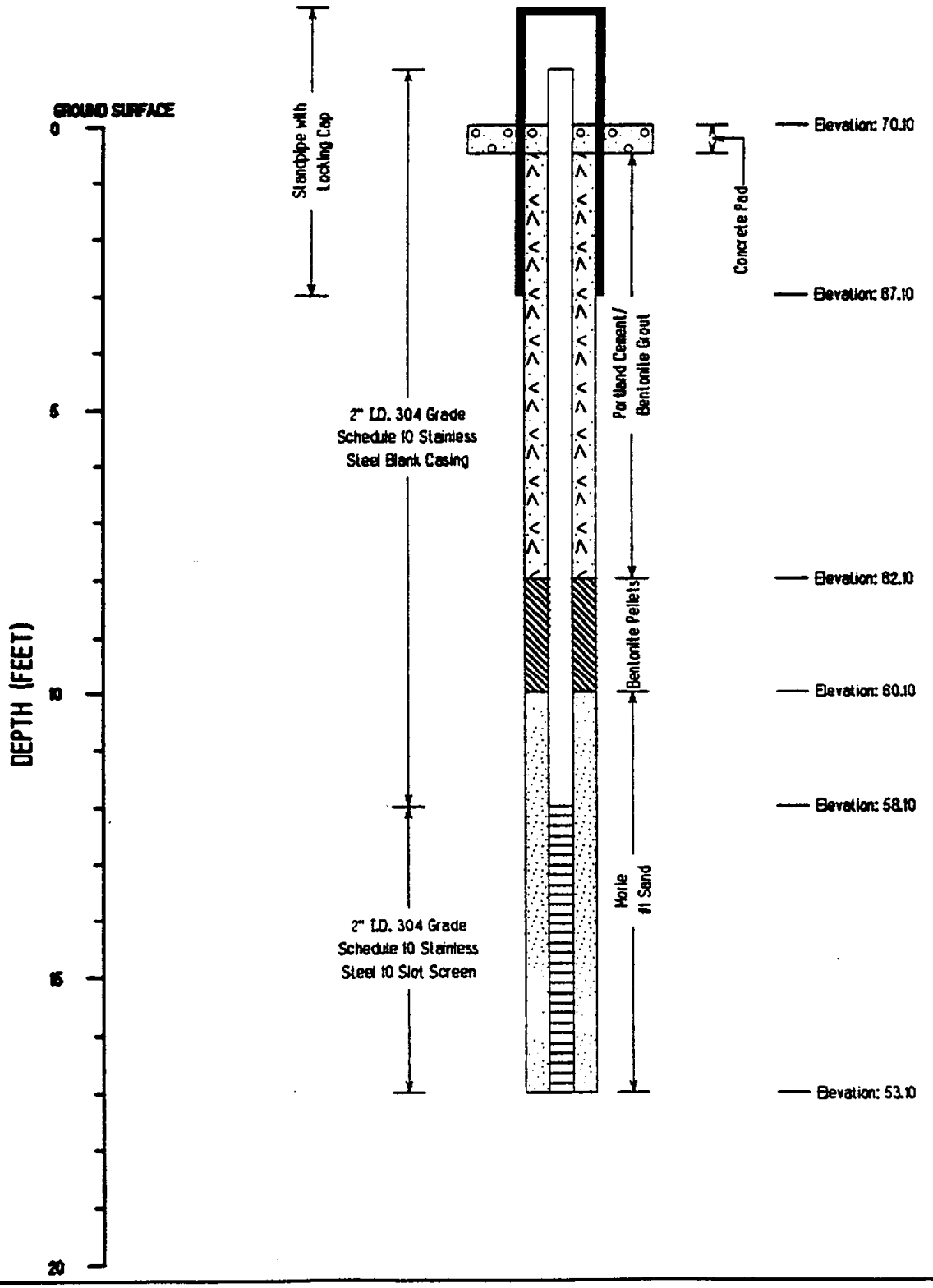
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 70.1 (GS); 72.27 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 5 7/8 Roller Bit Water Rotary

WATER LEVELS 12.60 (ft); 58.67 (MSL), 6/22/92 START 4-22-92 FINISH 4-22-92 LOGGER L. Vogel



See Boring Log For Drilling Details

38 M

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 28 - 28893
Atlas Sheet Coordinates 26 : 03 : 336

IER IDENTIFICATION - Owner SHERMAN COMPANY
ess 22 WEST FRONTAGE ROAD
NORTHFIELD State IL Zip Code
DEVELOPED 4/30/92 (COMPLETED)

L LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-15

ity Bergen Municipality ~~MAYWOOD BORO~~ Lot No. ~~48~~ Block No. ~~124~~
ess 100 West Hunter Avenue, Maywood, NJ

E OF WELL (as per Well Permit Categories) MONITORING Date well completed 3 / 11 / 92
ulatory Program Requiring Well ~~CERCLA~~ Case I.D. # 10105
SULTING FIRM/FIELD SUPERVISOR (if applicable) Ch2M Hill Tele. # 201 316-9300

L CONSTRUCTION

l depth drilled 17 ft.
finished to 17 ft.
hole diameter:
Top 8 in.
tom 8 in.
l was finished: [X] above grade
[ ] flush mounted
ished above grade, casing
ht (stick up) above land
ace 2 ft.
s steel protective casing installed?
Yes [ ] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	+2'	12'	2"	stainless steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	12'	17'	2"	Stainless Steel
Tail Piece	NA	NA	NA	
Gravel Pack	10'	17'	8"	# 1 Gravel
Annular Seal/Grout	0'	10'	8"	Cement
Method of Grouting	Tremie Pressure			

tic water level after drilling 13 ft.
ter level was measured using M Scope
l was developed for 1 hours at 2+ gpm
hod of development Submersible Pump
s permanent pumping equipment installed? [ ] Yes [X] No
mp capacity NA gpm
mp type: NA
ling Method Hollow Stem Auger
ling Fluid NA Type of Rig Mobile B-61
me of Driller Robert Atkinson
alth and Safety Plan submitted? [ ] Yes [ ] No
el of Protection used on site (circle one) None D C B A
. License No. 11478
me of Drilling Company ENVIRONMENTAL DRILLING INC

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-8' fill
8'-17' rock

ertify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable ate rules and regulations.

Driller's Signature _____ Date 6/18/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.WI	ORMW17	SHEET 1 OF 1

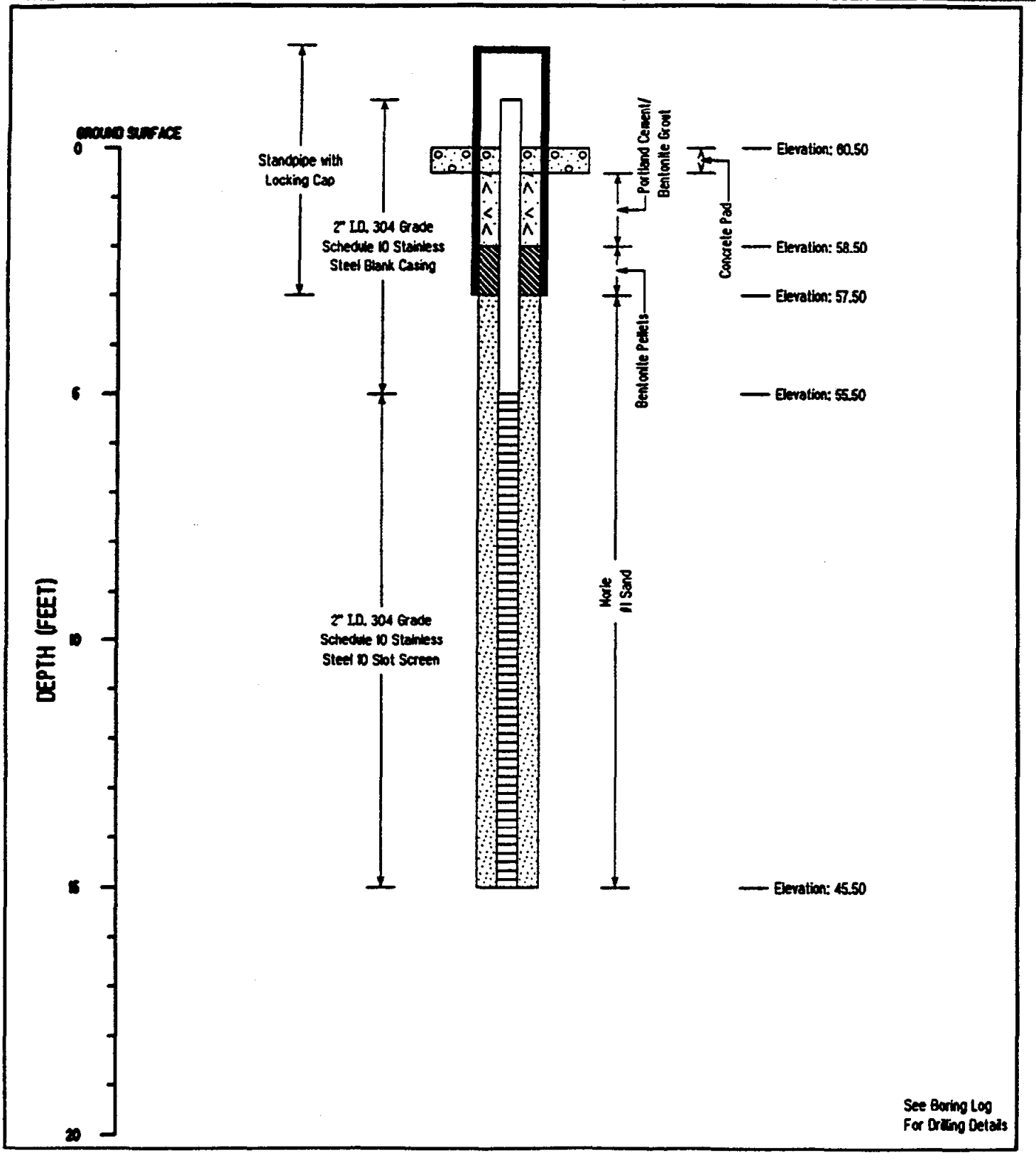
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 60.5 (GS); 62.70 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 HSA 4 1/4" I.D.

WATER LEVELS 7.50 (ft); 55.20 (MSL), 6/22/92 **START** 4-23-92 **FINISH** 4-23-92 **LOGGER** L. Vogel



See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28894
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner STEPHAN COMPANY
Address 22 WEST FRONTAGE ROAD
City NORTHFIELD State IL Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. OBMW-17
County Bergen Municipality MAYWOOD BORO Lot No. 40 Block No. 124
Address 100 West Hunter Avenue, Maywood, NJ

DEVELP ED 5/19/92 (COMPLETED)
TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 3/11/92
Regulatory Program Requiring Well ECRU Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 201 316-9300

WELL CONSTRUCTION

Total depth drilled 15 ft.
Well finished to 15 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: [X] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 2 ft.
Was steel protective casing installed? [X] Yes [ ] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	+2'	5'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	NA	NA	NA	
Screen (Note slot size)	5'	15'	2"	Stainless Steel
Tail Piece	NA	NA	NA	
Gravel Pack	3'	15'	8"	# 1 Gravel
Annular Seal/Grout	0'	3'	8"	Cement
Method of Grouting	Gravity			

Static water level after drilling 7 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity NA gpm
Pump type: NA
Drilling Method Hollow Stem Auger
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? [ ] Yes [ ] No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-9' sand
9'-15' weathered rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/16/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.WT	BRMW1	SHEET 1 OF 1

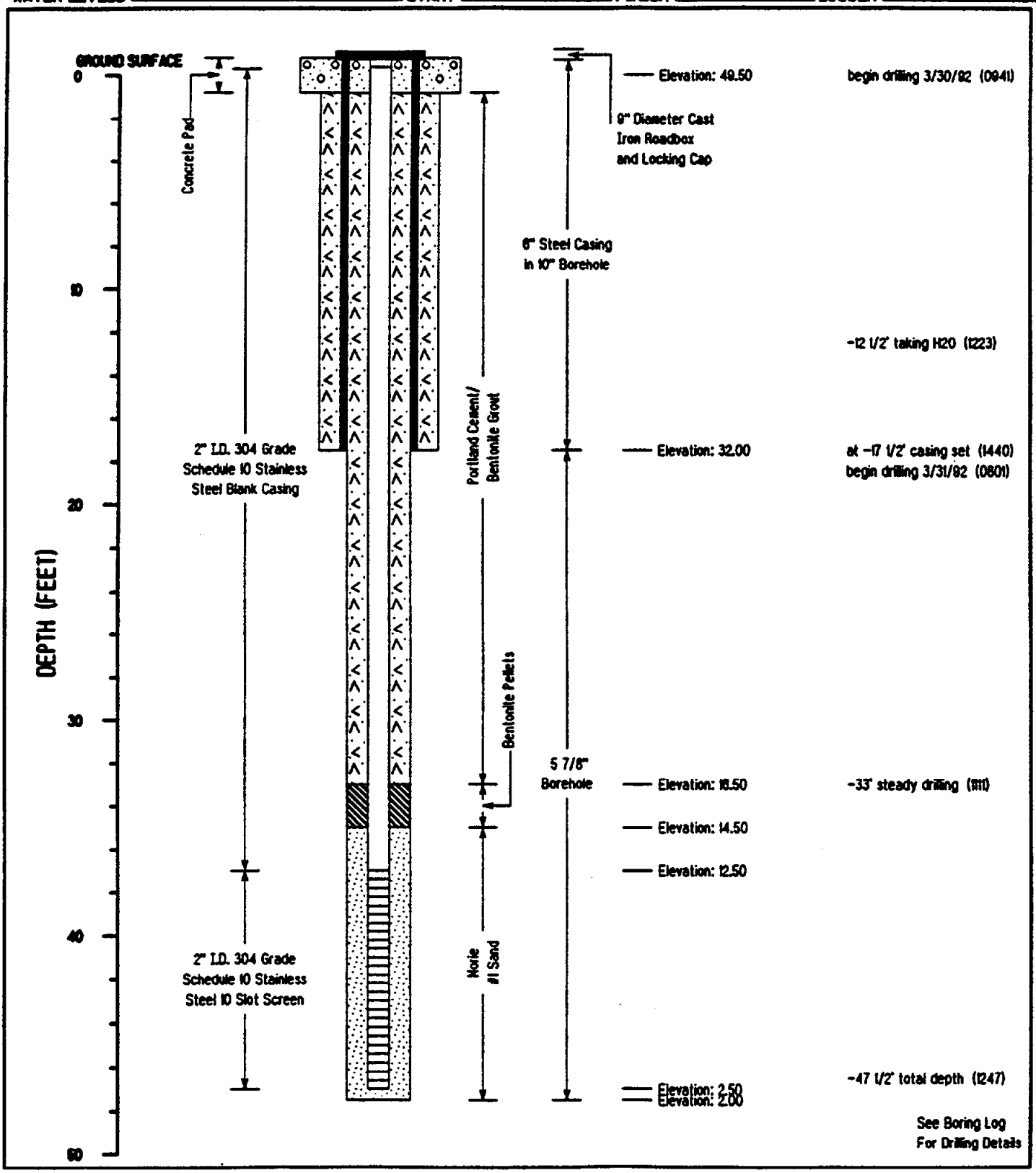
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 49.5 (GS); 49.08 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 5.60 (ft); 43.48 (MSL), 6/22/92 **START** 3-30-92 **FINISH** 3-31-92 **LOGGER** D. Snyder



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 28 - 28450
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner KEN PROPERTIES
Address 77 TARRYTOWN RD. SUITE 100
City WHITE PLAINS State NY Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-1
County Bergen Municipality Lot No. 12,30 Block No. 124
Address 149-151 Maywood Ave., Maywood, NJ MAYWOOD BORO

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 21 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 908 316-9300

WELL CONSTRUCTION

Total depth drilled 47/5 ft.
Well finished to 37 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	27'	2"	Stainless steel
Outer Casing (Not Protective Casing)	0'	17½'	6"	steel casing
Screen (Note slot size)	27'	37'	2"	Slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	25'	37'	6"	# 1 Gravel
Annular Seal/Grout	0'	25'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 4 ft.
Water level was measured using M Scope
Well was developed for 1½ hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile b-80
Name of Driller Thomas Lynch & Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1499 & J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-6' fill
6'-12' weathered sandstone
12'-17½' sandstone & Shale
17½'-47.5 sandstone & Shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.W1	BRMW2	SHEET 1 OF 1

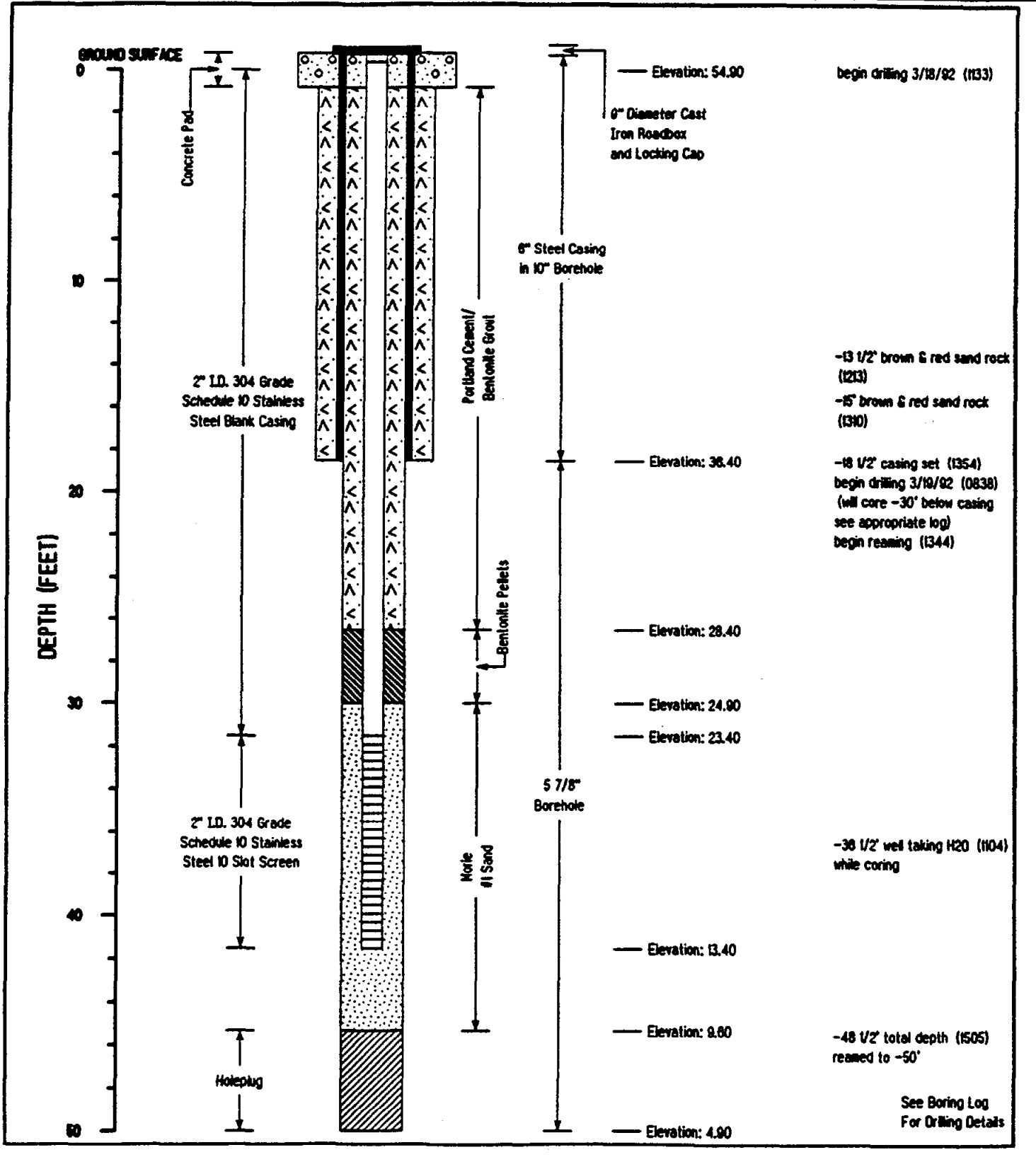
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 54.9 (GS); 54.61 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile 880 Water Rotary

WATER LEVELS 8.52 (ft); 46.09 (MSL), 6/22/92 START 3-18-92 FINISH 3-19-92 LOGGER D. Snyder



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28467
Atlas Sheet Coordinates 36 : 43 : 536

OWNER IDENTIFICATION - Owner STEPAN COMPANY
Address 22 WEST FRONTAGE ROAD
City NORTHFIELD State IL Zip Code 60093

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-2
County Bergen Municipality MAYWOOD BORO Lot No. 32 Block No. 124
Address 100 West Hunter Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 08 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 908 316-9300

WELL CONSTRUCTION

Total depth drilled 48.5 ft.
Well finished to 41.5 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	31.5	2"	[illegible]
Outer Casing (Not Protective Casing)	0'	20'	6"	Steel casing
Screen (Note slot size)	31.5	41.5	2"	Slot .010
Tail Piece	NA	NA	NA	
Gravel Pack	29.5	41.5	6"	#1 Gravel
Annular Seal/Grout	0'	29.5	19/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 8 ft.
Water level was measured using M Scope
Well was developed for 1½ hours at 2+ gpm
Method of development submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-5' fill
5'-8' clay
8'-13' silty sand and clays
13' -18' sandstone
18'-48.5 sandstone and shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.GE.WI	BRMW3 SHEET 1 OF 1

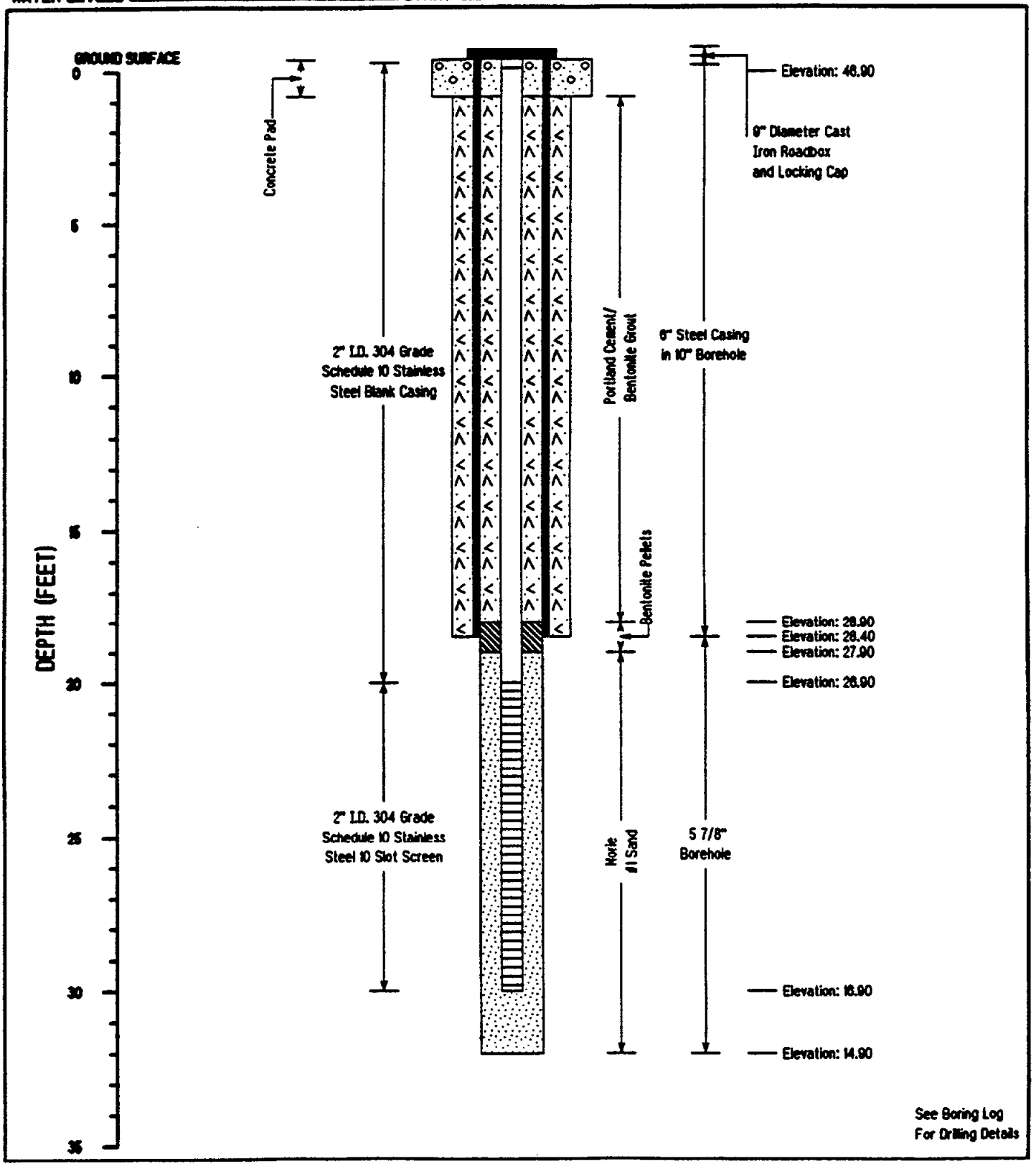
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.9 (GS); 46.67 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary; Air Rotary

WATER LEVELS 3.85 (ft); 42.82 (MSL), 6/22/92 **START** 3-26-92 **FINISH** 3-27-92 **LOGGER** D. Snyder



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28302
Atlas Sheet Coordinates 28 : 09 : 535

OWNER IDENTIFICATION - Owner CUMBERLAND FARMS, INC.
Address 777 DEDHAM STREET
City CANTON State MA Zip Code 02021

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-3
County Bergen Municipality HAYWOOD BORO Lot No. 1 Block No. 124
Address 239 N/S Rt 17, Haywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 18 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 908 316-9200

WELL CONSTRUCTION

Total depth drilled 51 ft.
Well finished to 30 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface ____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	20'	2"	Stainless steel
Outer Casing (Not Protective Casing)	0'	18'	6"	Steel Casing
Screen (Note slot size)	20'	30'	2"	Stainless steel Slot .010
Tail Piece	NAQ	NA	NA	
Gravel Pack	18'	4 30'	6"	# 1 Gravel
Annular Seal/Grout	0'	18'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 4 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80
Name of Driller THomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1499
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-6' fill
6'-8' clay
8'-13½' cobbles & boulders
13½'-18' sandstone
18'-25' sandstone
25'-51' rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	BRMW4 SHEET 1 OF 1

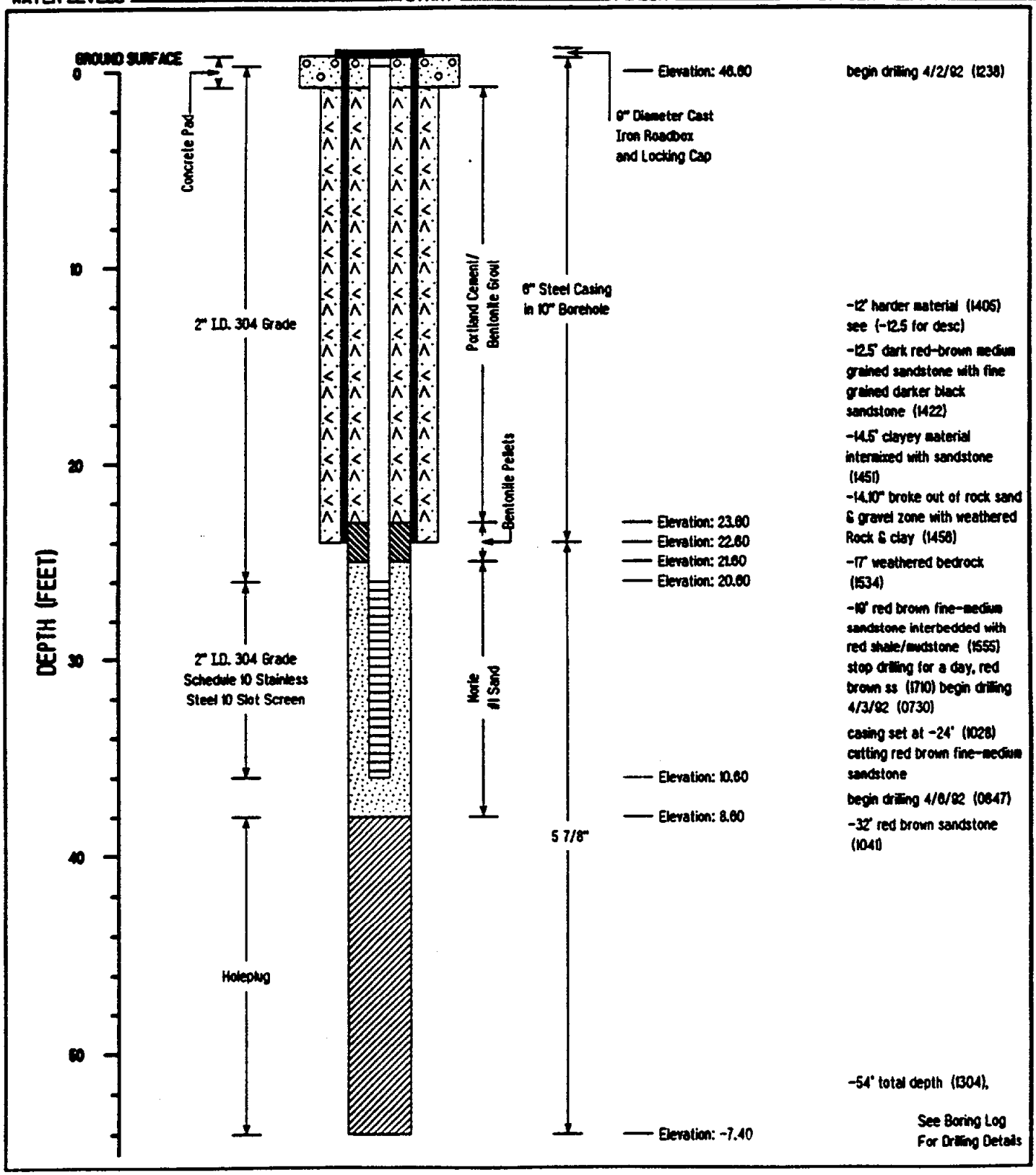
WELL COMPLETION LOG

PROJECT tepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.6 (GS); 46.33 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 3.44 (ft); 42.89 (MSL), 6/22/92 **START** 3-2-92 **FINISH** 3-3-92 **LOGGER** S. Scanlon



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 08 - 28450
Atlas Sheet Coordinates 08 : 04 : 536

OWNER IDENTIFICATION - Owner KEN PROPERTIES
Address 77 TARRYTOWN RD. SUITE 100
City WHITE PLAINS State NY Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-4
County Bergen Municipality HAYWOOD BORO Lot No. 12,30 Block No. 124
Address 149-151 Maywood Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 03 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele 908 316-9300

WELL CONSTRUCTION

Total depth drilled 56½ ft.
Well finished to 35 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	26'	2"	stainless steel
Outer Casing (Not Protective Casing)	0'	26	6"	steel
Screen (Note slot size)	26'	36'	2"	stainless steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	24'	36'	6"	# 1 Gravel
Annular Seal/Grout	0'	34'	10/6"	cement
Method of Grouting	tremie pressure			

Static water level after drilling 2½ ft.
Water level was measured using scope
Well was developed for 2 hours at 2+ gpm
Method of development submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80
Name of Driller Thomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 1499
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-11½ fill
11'-19.5' sand, cobbles & Boulders
19.5'-24½' sandstone & shale
24½'-54½' sandstone & Shale
54½-56½' sandston & shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/24/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SC.WI	BRMW5	SHEET 1 OF 1

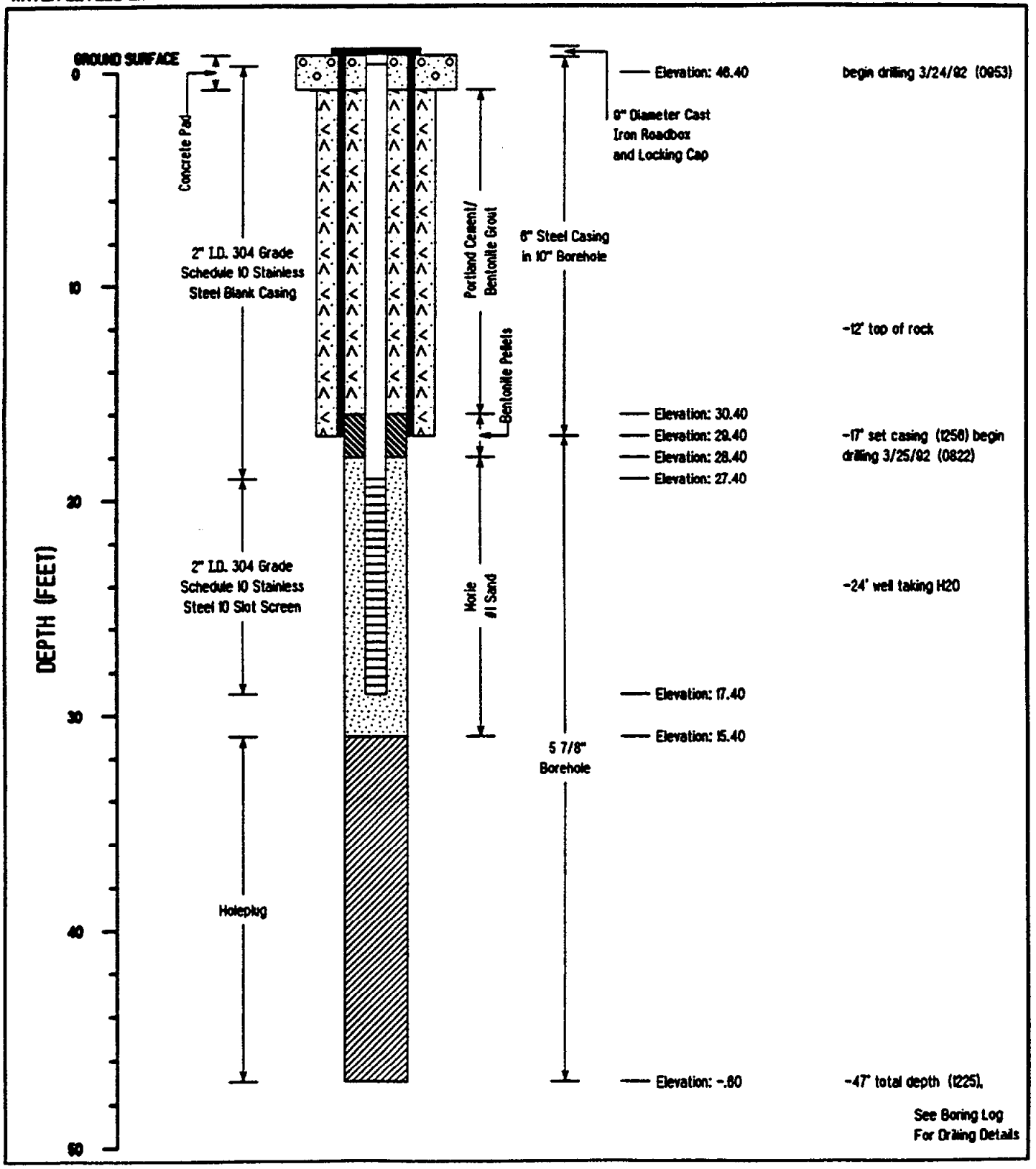
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 46.4 (GS); 45.97 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 3.92 (ft); 42.05 (MSL), 8/22/92 START 3-24-92 FINISH 3-25-92 LOGGER D. Snyder



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28449
Atlas Sheet Coordinates 28 : 03 : 536

OWNER IDENTIFICATION - Owner SUN OIL CORPORATION
Address 1801 MARKET STREET
City PHILADELPHIA State PA Zip Code 19103

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-5
County Bergen Municipality HAYWOOD BORO Lot No. 2 Block No. 124
Address 167 N/S Rt. 17, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 15 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 908 316-9300

WELL CONSTRUCTION

Total depth drilled 47 ft.
Well finished to 40 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	30'	2"	Stainless steel
Outer Casing (Not Protective Casing)	0'	17'	6"	Steel Casing
Screen (Note slot size)	30'	40'	2"	Stainless steel Slot .010
Tail Piece	NA	NA	NA	
Gravel Pack	28'	40'	6"	# 1 Gravel
Annular Seal/Grout	0'	28'	10/6"	Cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 5 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80 & B-61
Name of Driller Thomas Lynch & Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1499 and J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-8' fill
8'-10' silt and clay
10'-17' sandstone & Shale
17'-47' sandstone & Shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.WT	BRMW8	SHEET 1 OF 1

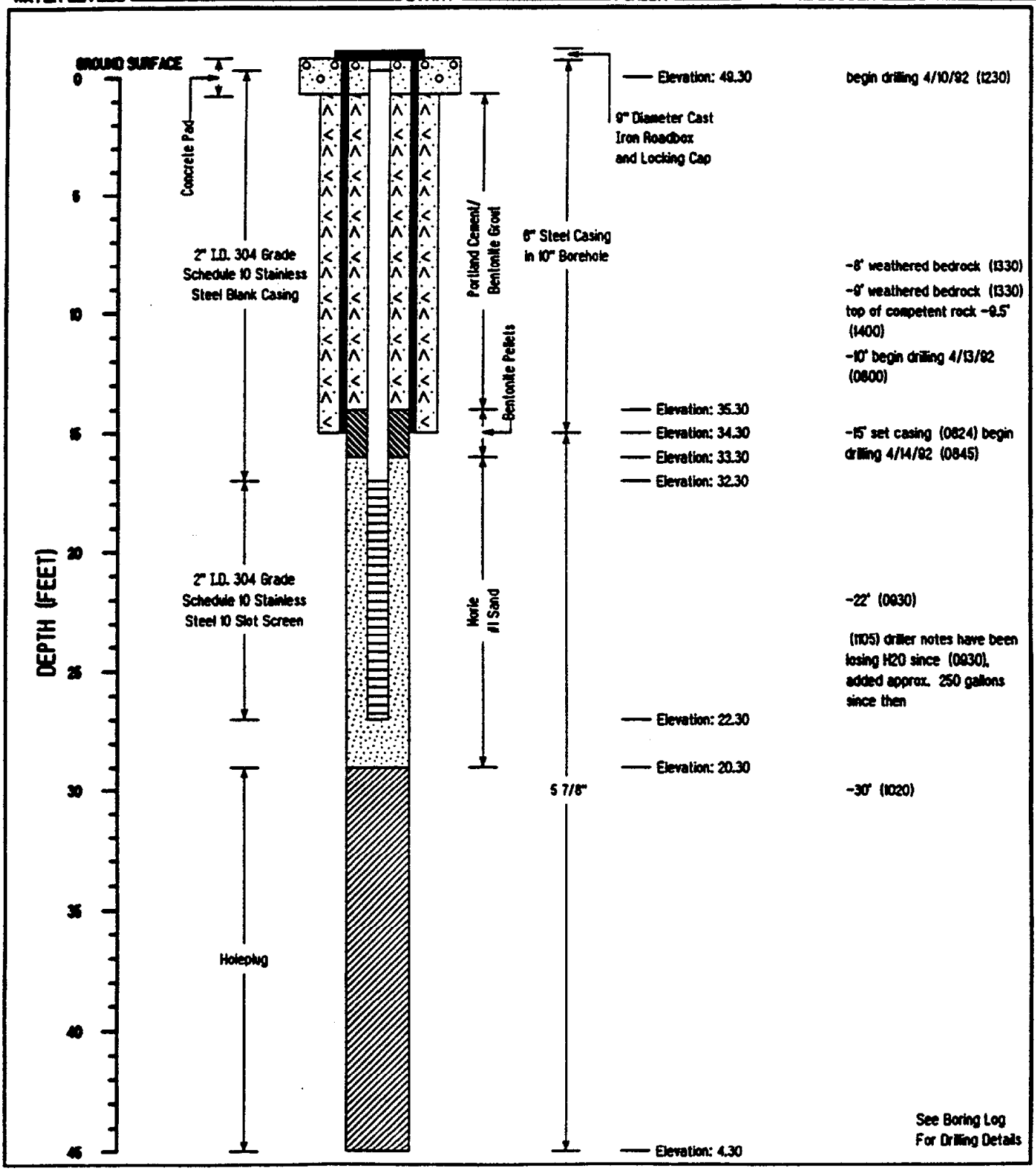
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 49.3 (GS); 49.06 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 3.12 (ft); 45.94 (MSL), 6/22/92 START 4-10-92 FINISH 4-14-92 LOGGER S. Repko



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28460
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner ~~IGN PROPERTIES~~
Address ~~77 TARRYTOWN RD. SUITE 100~~
City ~~WHITE PLAINS~~ State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-6
County Bergen Municipality ~~MAYWOOD BORO~~ Lot No. ~~12,30~~ Block No. ~~124~~
Address 149-151 Maywood Ave., Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 6 / 11 / 92
Regulatory Program Requiring Well MONITORING ~~CERCLA~~ Case I.D. # ~~10105~~
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 908 316-9300

WELL CONSTRUCTION

Total depth drilled 45 ft.
Well finished to 27 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	0'	17'	2"	stainless steel
Outer Casing (Not Protective Casing)	0'	15'	6"	Steel casing
Screen (Note slot size)	17'	27'	2"	Slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	15'	27'	6"	# 1 Gravel
Annular Seal/Grout	0'	15'	10/6"	Cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 2½ ft.
Water level was measured using M Scope
Well was developed for 1½ hours at 2+ gpm
Method of development SUbmersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile b-80
Name of Driller k Thomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1499
Name of Drilling Company ~~ENVIRONMENTAL DRILLING~~ INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-0'-5' fill
5'-15' red sandstone
15'-45' red sandstone/some red shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.W7	BRMW7	SHEET 1 OF 1

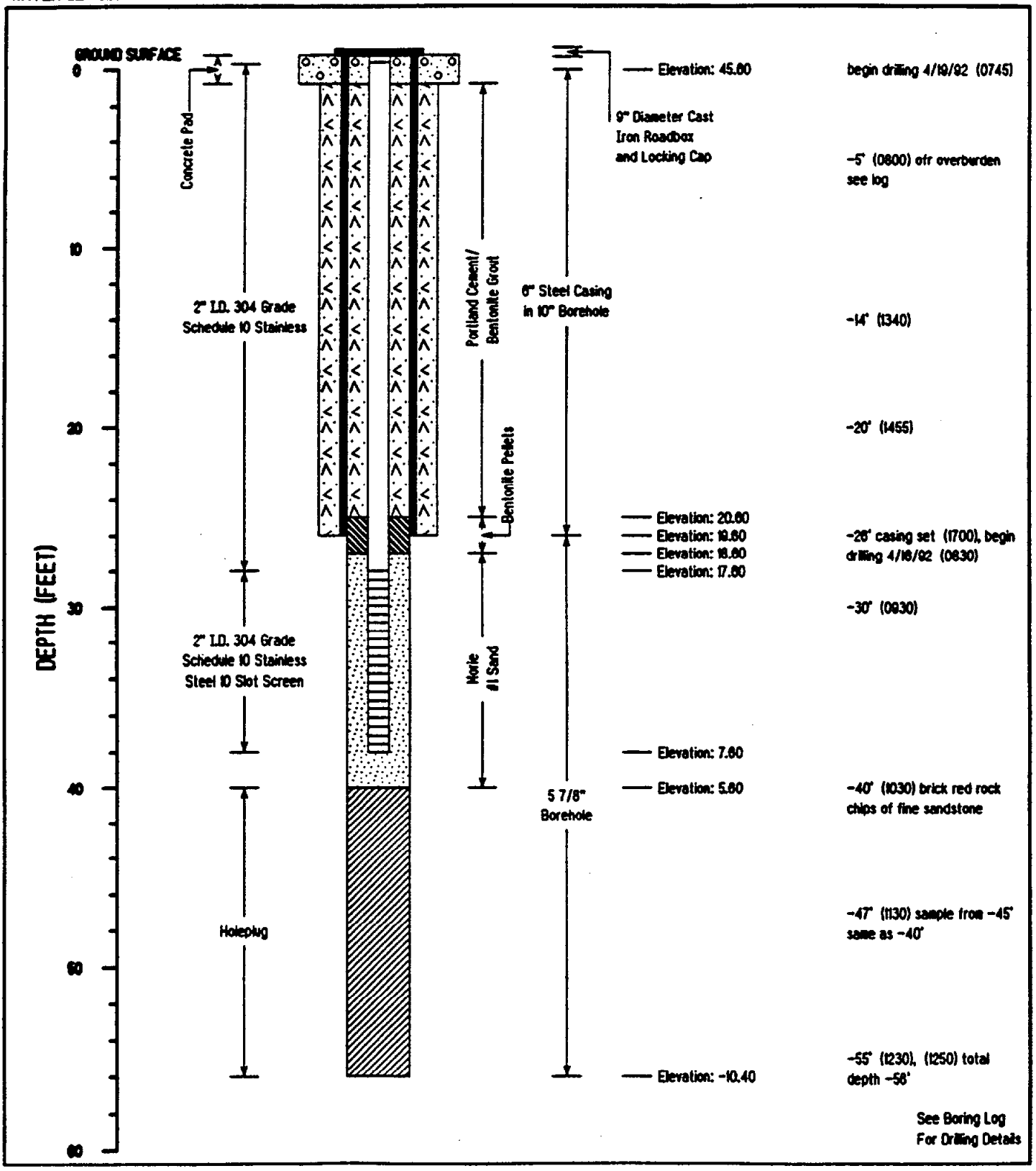
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 45.8 (GS); 45.11 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 2.18 (ft); 42.93 (MSL), 6/22/92 **START** 4-15-92 **FINISH** 4-16-92 **LOGGER** S. Repko



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 28-28461
Atlas Sheet Coordinates 26 : 07 : 536

OWNER IDENTIFICATION - Owner KEH PROPERTIES
Address 77 TARRYTOWN RD. SUITE 100
City WHITE PLAINS State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-7
County Bergen Municipality MAYWOOD BORO Lot No. 12,30 Block No. 124
Address 149-151 Maywood Ave., Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 10 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. #

WELL CONSTRUCTION

Total depth drilled 56 ft.
Well finished to 38 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	28'	2"	stainless steel
Outer Casing (Not Protective Casing)	0'	28'	6"	Steel casing
Screen (Note slot size)	28'	38'	2"	Ft. Slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	26'	38'	6"	# 1 Gravel
Annular Seal/Grout	0'	26'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 1 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80
Name of Driller Thomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1499
Name of Drilling Company ENVIRONMENTAL DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-6' fill
6'-17' sandstone
17'26' sandstone some shale
26'-56' sandstone

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.WT	BRMW8	SHEET 1 OF 1

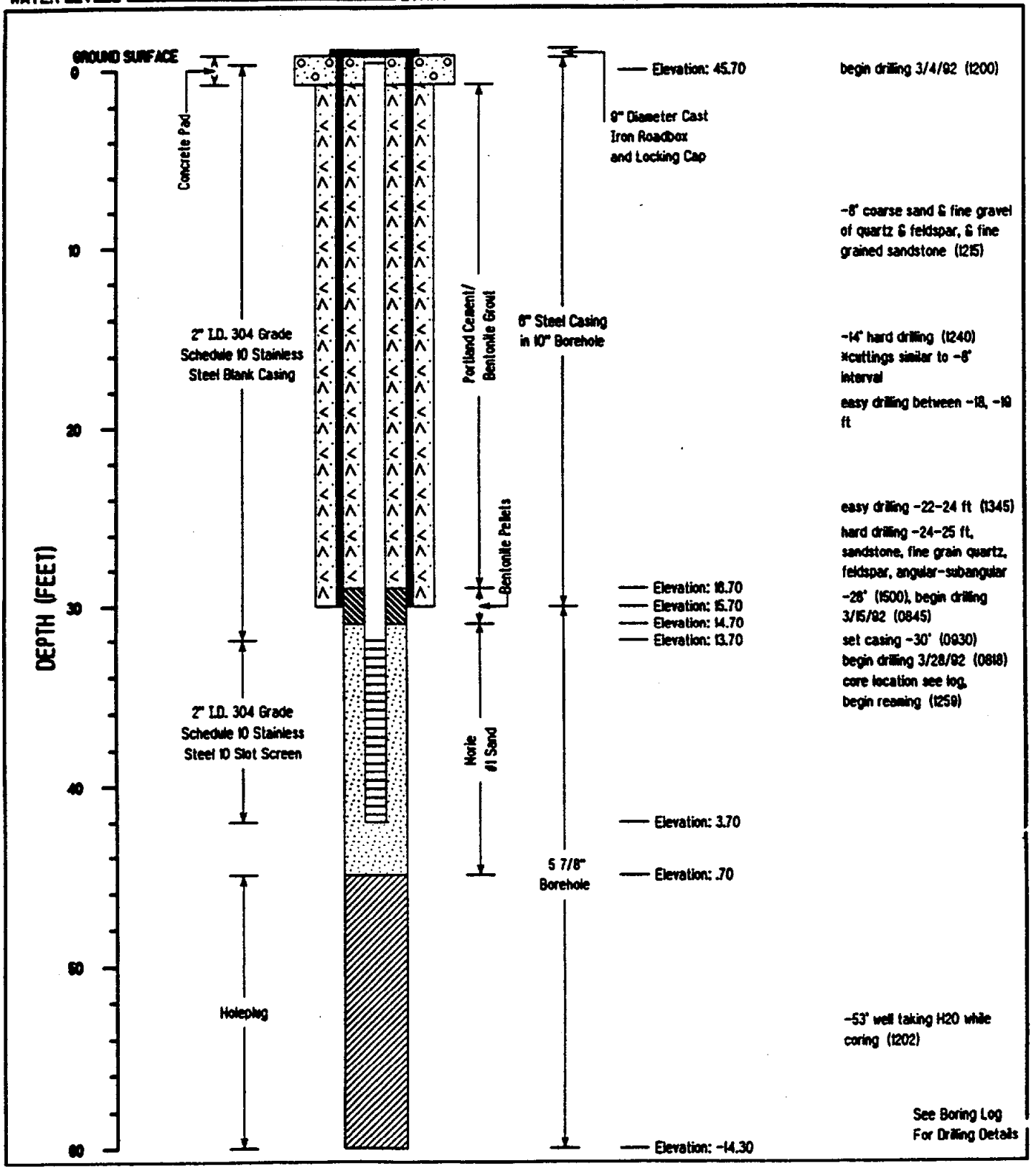
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 45.7 (GS); 45.17 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 Water Rotary

WATER LEVELS 4.50 (ft); 40.67 (MSL), 6/22/92 **START** 4-15-92 **FINISH** 4-16-92 **LOGGER** D.Snyder, L. Vogel



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28475
Atlas Sheet Coordinates 26 : 13 : 535

OWNER IDENTIFICATION - Owner S. W. S. REALTY
Address 500 RT 17 S
City HASBROUCK HEIGHTS State NJ Zip Code 07604

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-8
County Bergen Municipality HAYWOOD BORO Lot No. 4 Block No. 124
Address 87 Rt 17 N., Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 5 / 29 / 92
Regulatory Program Requiring Well MONITORING CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 316-9300

WELL CONSTRUCTION

Total depth drilled 60 ft.
Well finished to 42 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☒ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	32'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	0'	30'	6"	steel
Screen (Note slot size)	32'	42'	2"	stainless steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	30'	42'	6"	# 1 Gravel
Annular Seal/Grout	0'	30'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 5 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development air
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud rotary
Drilling Fluid na Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-8' sand
8'-25' weathered rock
25'-28' competent rock
28'-30' rock

30'-60' sandstone & shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/10/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.W1	BRMW9 SHEET 1 OF 1

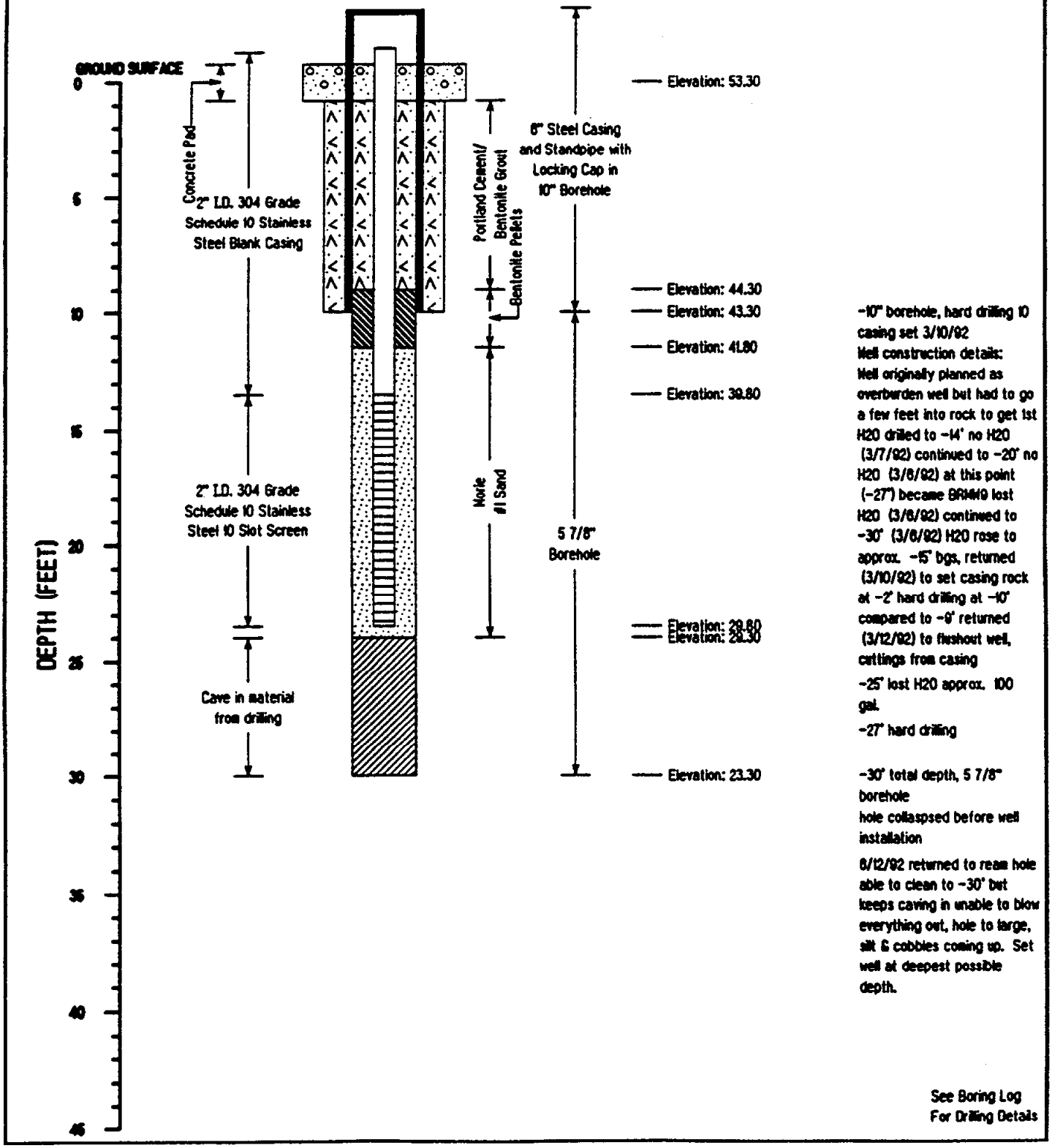
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 53.3 (GS); 54.34 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 Water Rotary, B80 Air Rotary

WATER LEVELS 15.57 (ft); 38.77 (MSL), 6/22/92 **START** 3-10-92 **FINISH** 3-12-92 **LOGGER** L. Vogel



-10" borehole, hard drilling 10 casing set 3/10/92
Well construction details:
Well originally planned as overburden well but had to go a few feet into rock to get 1st H20 drilled to -14' no H20 (3/7/92) continued to -20' no H20 (3/8/92) at this point (-27') became BRMW9 lost H20 (3/8/92) continued to -30' (3/8/92) H20 rose to approx. -15' bgs, returned (3/10/92) to set casing rock at -2' hard drilling at -10' compared to -9' returned (3/12/92) to flushout well, cuttings from casing

-25' lost H20 approx. 100 gal.

-27' hard drilling

-30' total depth, 5 7/8" borehole
hole collaspsed before well installation

8/12/92 returned to ream hole able to clean to -30' but keeps caving in unable to blow everything out, hole to large, silt & cobbles coming up. Set well at deepest possible depth.

See Boring Log For Drilling Details

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28472
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner M.M. Well, Trustee
Address 51 Commerce Street
City Springfield State NJ Zip Code 07081

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-9
County Bergen Municipality MAYWOOD BORO Lot No. 5 Block No. 124
Address 239 N/S RT 17, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 12 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 316-9300

WELL CONSTRUCTION

Total depth drilled 30 ft.
Well finished to 25 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☒ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	15'	2"	stainless steel
Outer Casing (Not Protective Casing)	0'	10'	6"	steel casing
Screen (Note slot size)	15'	25'	2"	stainless steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	13'	25'	6"	# 1 Gravel
Annular Seal/Grout	0'	13'	10/6"	Cement
Method of Grouting				

Static water level after drilling 14 ft.
Water level was measured using M Scope
Well was developed for 2 hours at 2+ gpm
Method of development air
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile 61
Name of Driller Thomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 1499
Name of Drilling Company ENVIRONMENTAL DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'—2' top soil
2'-14' rock
14'-30' bedrock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/10/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ02294B.ST.WI	BRMW10 SHEET 1 OF 1

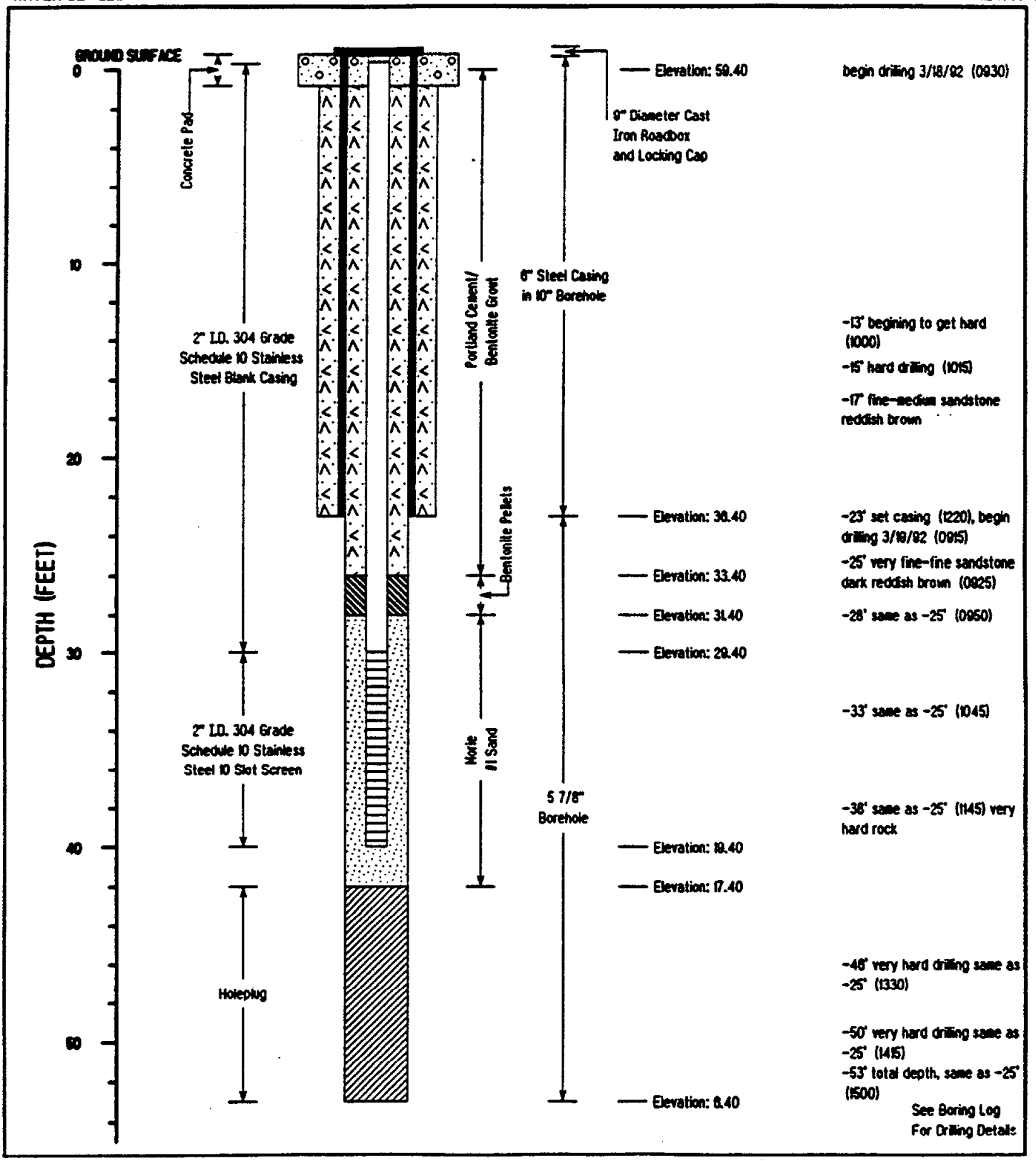
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 59.4 (GS); 58.95 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 Water Rotary

WATER LEVELS 7.57 (ft); 51.38 (MSL), 6/22/92 START 3-18-92 FINISH 3-19-92 LOGGER L. Vogel



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28468
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner STEPAN COMPANY
Address 22 WEST FRONTAGE ROAD
City NORTHFIELD State IL Zip Code 60093

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-10
County Bergen Municipality _____ Lot No. 32 Block No. 124
Address 100 West Hunter Avenue, Maywood, MAYWOOD BORO

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 04 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2mhill Tele. # 908 316-9300

WELL CONSTRUCTION

Total depth drilled 53 ft.
Well finished to 29 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	19'	2"	Stainless steel
Outer Casing (Not Protective Casing)	0'	25'	6"	Steel Casing
Screen (Note slot size)	19'	29'	2"	Stainless steel Slot .010
Tail Piece	NA	NA	NA	
Gravel Pack	17'	29'	6"	# 1 Gravel
Annular Seal/Grout	0'	17'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 10 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development SubmersiblePump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 11478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-12' sand, fine and medium
12'-17' weathered rock
17'-23' competent rock
23'-53' competent rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.WT	BRMW11	SHEET 1 OF 1

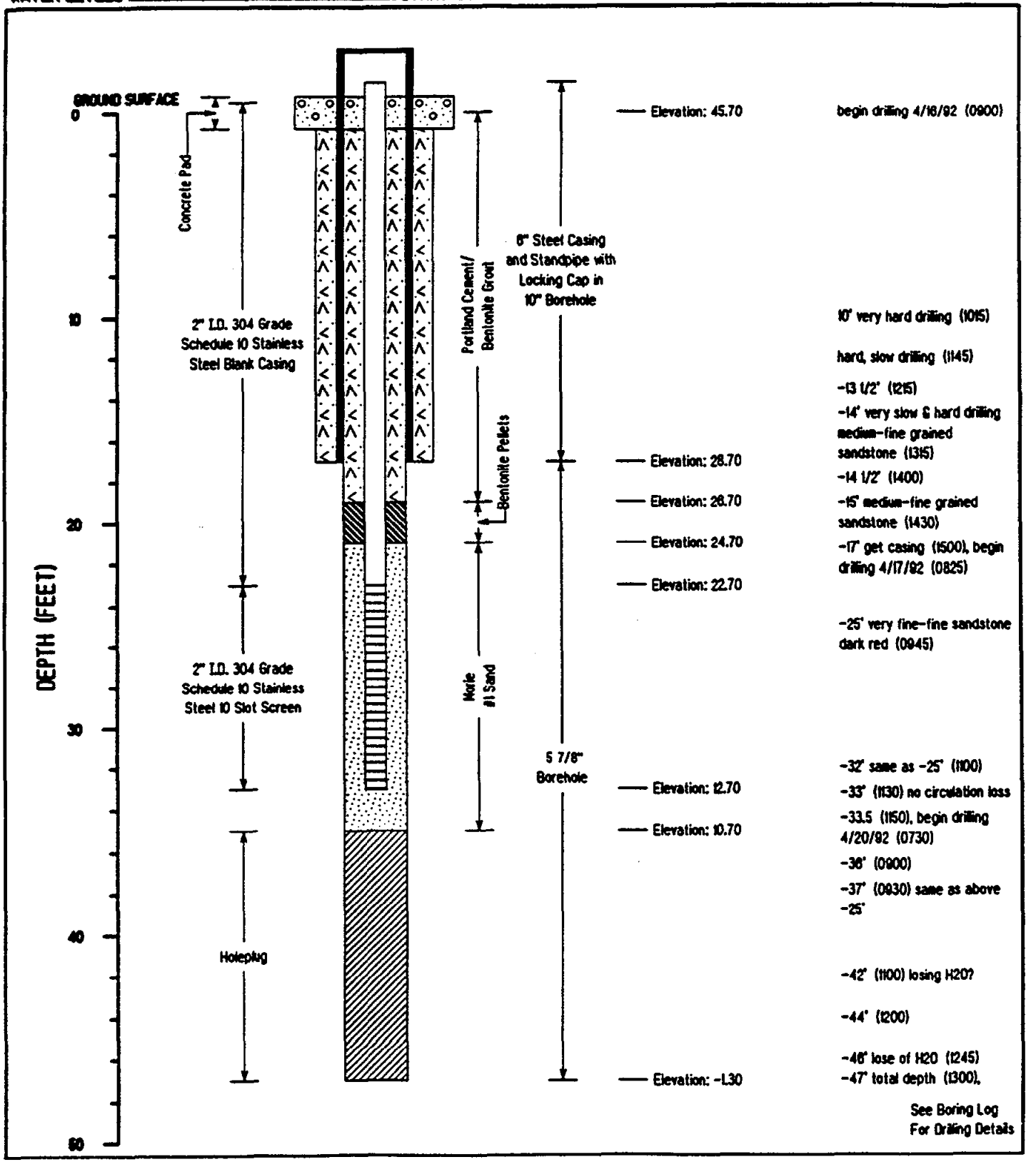
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI — LOCATION Maywood, NJ

ELEVATION 45.7 (GS); 47.79 (inner casing) — DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT CME ATV Water Rotary

WATER LEVELS 2.91 (ft); 44.88 (MSL), 6/22/92 — START 4-16-92 — FINISH 4-20-92 — LOGGER L. Vogel, S. Repko



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28462
Atlas Sheet Coordinates 26 : 113 : 536

OWNER IDENTIFICATION - Owner KIN PROPERTIES
Address 77 TARRYTOWN RD SUITE 100
City WHITE PLAINS State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-11
County Bergen Municipality HAYWOOD BORO Lot No. 30 Block No. 124
Address 149-151 Maywood Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 6 / 11 / 92
Regulatory Program Requiring Well MONITORING CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 908 316-9300

WELL CONSTRUCTION

Total depth drilled 47 (m 33) ft.
Well finished to _____ ft.

Borehole diameter:
Top 10 in.
Bottom 6 in.

Well was finished: ☐ above grade ☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2 ft.

Was steel protective casing installed?
☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	+2'	23'	2"	Stainless steel
Outer Casing (Not Protective Casing)	+2'	17'	6"	steel casing
Screen (Note slot size)	23'	33'	2"	Slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	21'	33'	6"	# 1 Gravel
Annular Seal/Grout	0'	21'	10/6"	Cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 1 ft.
Water level was measured using MScope
Well was developed for 1½ hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid na Type of Rig Mobile B- 53
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1478
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-4' fill
4'-9' sand & Gravel
9'-10' weathered rock
10'-17' rock
17'-33' bed rock
33'-47' bedrock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.EA.WI	BRMW12	SHEET 1 OF 1

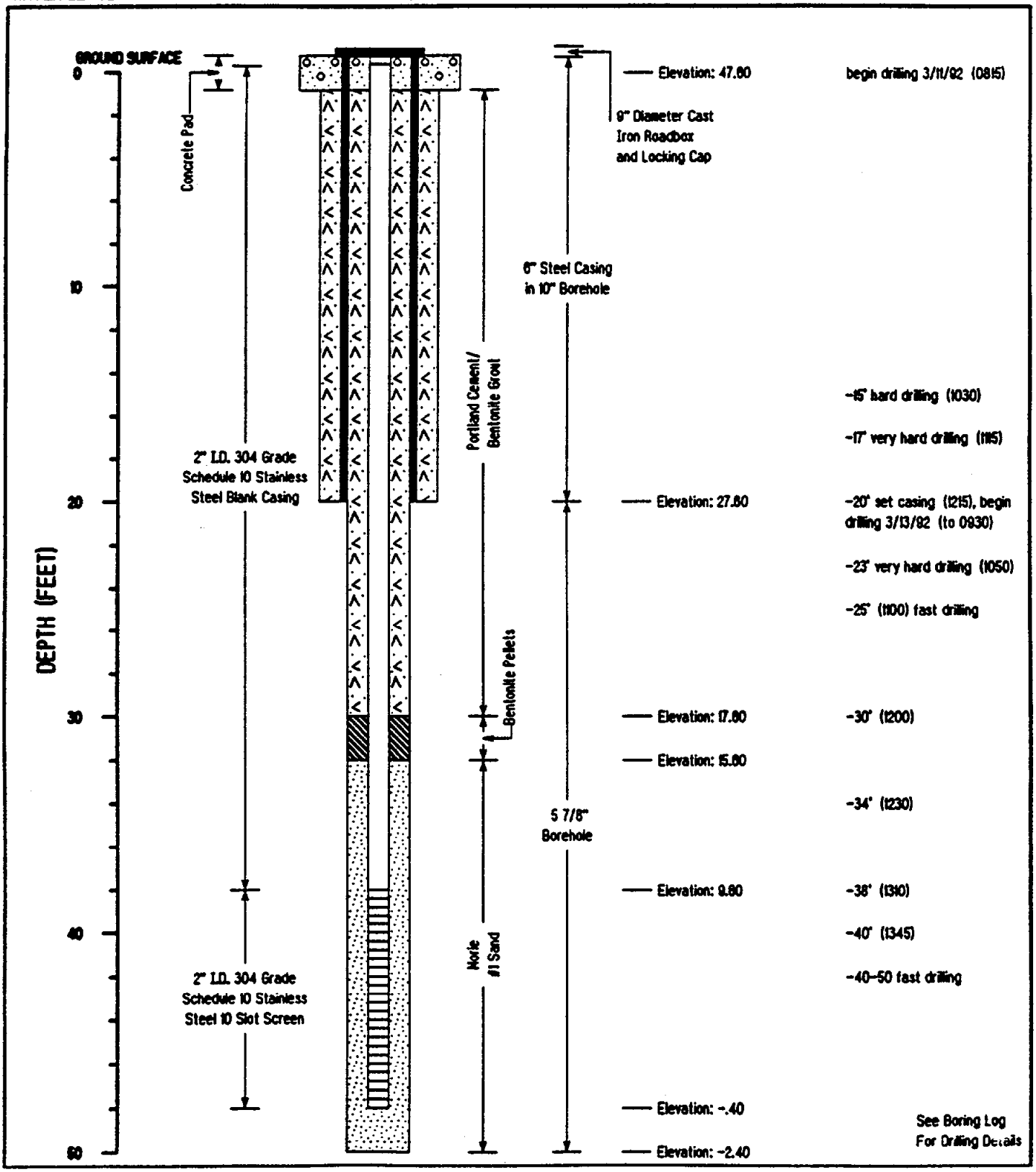
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 47.6 (GS); 47.23 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 Water Rotary

WATER LEVELS 4.58 (ft); 42.65 (MSL), 8/22/92 **START** 3-11-92 **FINISH** 3-13-92 **LOGGER** L. Vogel



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28473
Atlas Sheet Coordinates 28 : 03 : 536

OWNER IDENTIFICATION - Owner U. S. NAVAL, TRUSTEE
Address 51 COMMERCE ST
City SPRINGFIELD State NJ Zip Code 07081

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-12
County Bergen Municipality HAYWOOD BORO Lot No. 5 Block No. 124
Address 239 N/S RT 17, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 5 / 28 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 201 3169300

WELL CONSTRUCTION

Total depth drilled 50 ft.
Well finished to 48 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☐ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	38'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	0'	20'	6"	Steel Casing
Screen (Note slot size)	38'	48'	2"	Stainless Steel
Tail Piece	NA	NA	NA	
Gravel Pack	36'	48'	6"	# 1 Gravel
Annular Seal/Grout	0'	36'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 5 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development Air
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478
Name of Drilling Company ENVIRONMENTAL DRILLING, INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-7' sand
7'-13' weathered rock
13'-20' rock
20'-50' bedrock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 6/17/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ02294B.SR.WT	BRMW13 SHEET 1 OF 1

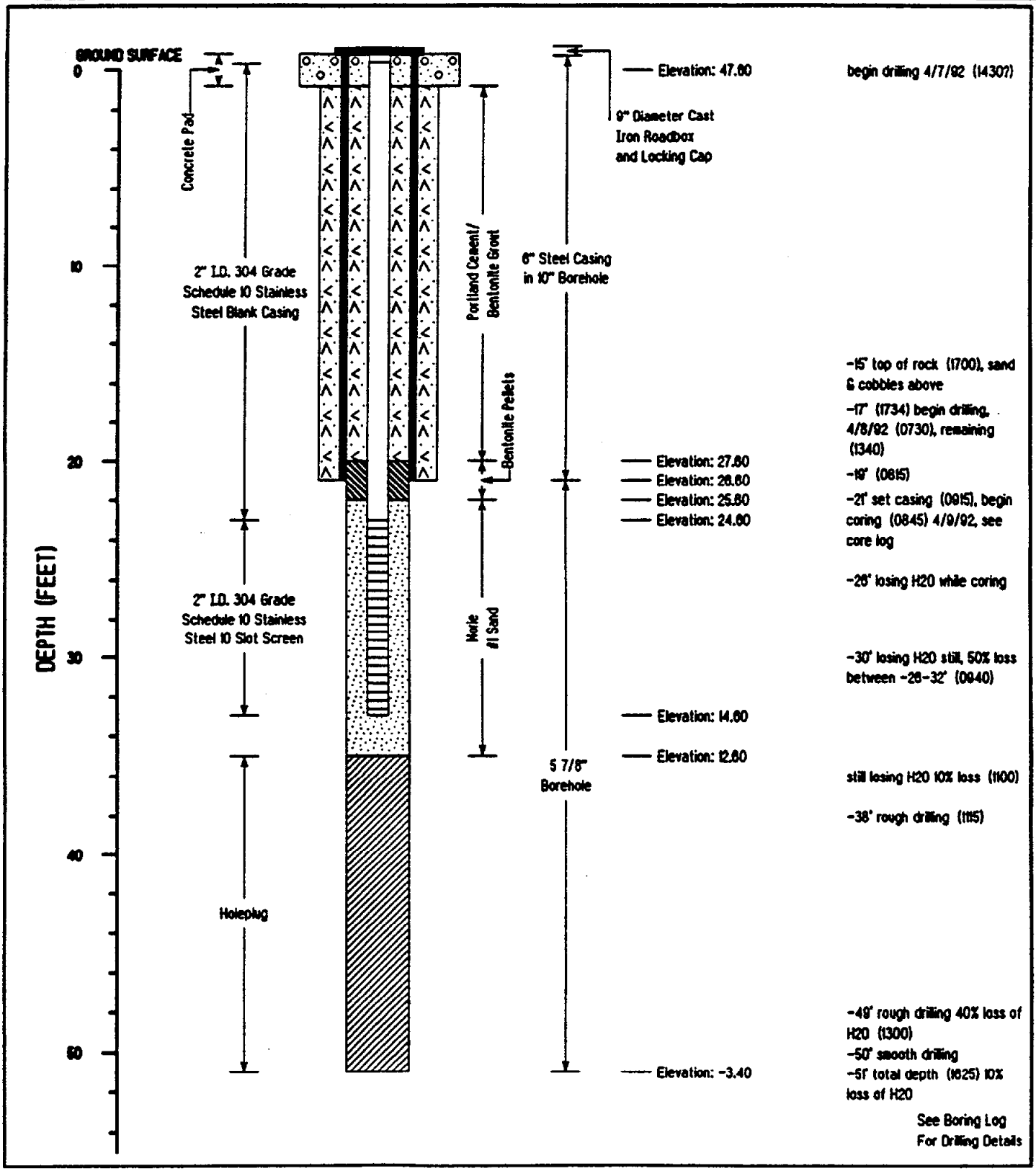
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION 47.6 (GS); 47.21 (inner casing) DRILLING CONTRACTOR Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile 880 Water Rotary

WATER LEVELS 3.81 (ft); 43.40 (MSL), 6/22/92 START 4-7-92 FINISH 4-9-92 LOGGER L. Vogel



DWR-138 M,
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28463
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner ~~EIN PROPERTIES~~
Address ~~77 TARRYTOWN RD. SUITE 100~~
City ~~WHITE PLAINS~~ State ~~NY~~ Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-13
County Bergen Municipality ~~MAYWOOD BORO~~ Lot No. 30 Block No. 124
Address 149-151 Maywood Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 6 / 10 / 92
Regulatory Program Requiring Well ~~CERCLA~~ MONITORING Case I.D. # ~~10105~~
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. #908 316-9300

WELL CONSTRUCTION

Total depth drilled 51 ~~33~~ ft.
Well finished to _____ ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade
X ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed?
☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	0'	23'	2"	Stainless steel
Outer Casing (Not Protective Casing)	0'	23'	6"	Steel casing
Screen (Note slot size)	23'	33'	2"	slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	21'	33'	6"	# 1 Gravel
Annular Seal/Grout	0'	21'	10/6"	cement
Method of Grouting	tremie pressure			

Static water level after drilling 4½' ft.
Water level was measured using m Scope
Well was developed for 1½ hours at 2+ gpm
Method of development submersible pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: na
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80 B-61
Name of Driller Thomas Lynch & Robert Atkinson
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1499 J1478
Name of Drilling Company ~~ENVIRONMENTAL DRILLING INC~~

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-9' fill
9'-15' sand & gravels
15'-16' sandstone & Shale
16'-21' sandstone
21=51' sandstone

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.WT	BRMW14	SHEET 1 OF 1

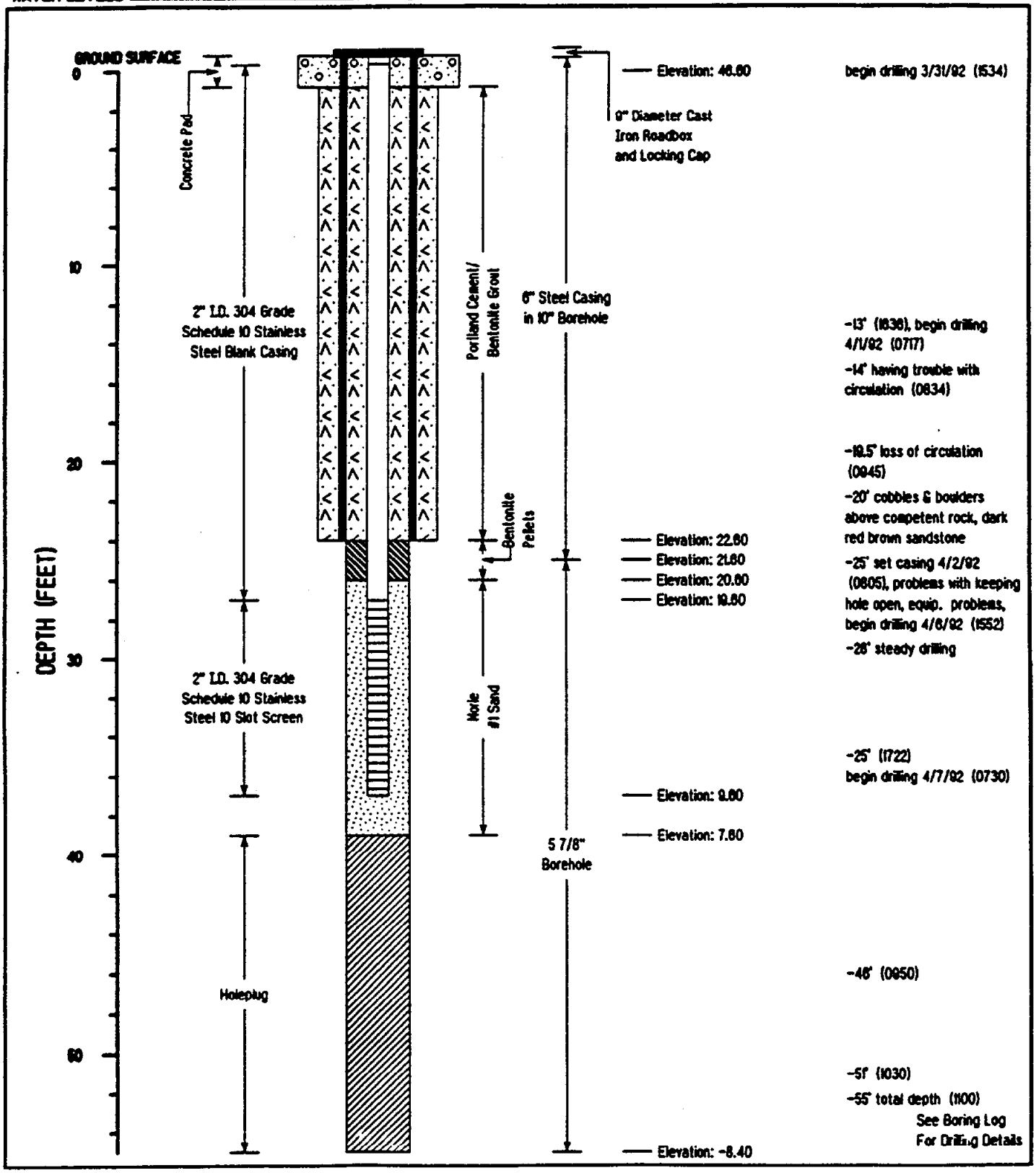
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 46.6 (GS); 46.22 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 4.05 (ft); 42.17 (MSL), 6/22/92 **START** 3-31-92 **FINISH** 4-7-92 **LOGGER** S. Scanlon, D. Snyder



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28464
Atlas Sheet Coordinates 26 : 03 : 136

OWNER IDENTIFICATION - Owner FSN PROPERTIES
Address 77 TARRYTOWN RD. SUITE 100
City WHITE PLAINS State NY Zip Code 10607

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-14
County 149-151 Maywood Ave. Municipality _____ Lot No. _____ Block No. _____
Address Maywood, NJ Bergen Co. MAYWOOD BORO 30 124

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 6 / 10 / 92
Regulatory Program Requiring Well MONITORING CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Ch2M Hill Tele. # 908 316-9300

WELL CONSTRUCTION

Total depth drilled 55 ft.
Well finished to 37 ft.
Borehole diameter: 10
Top 10 in.
Bottom 6 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0'	27'	2"	4" stainless steel
Outer Casing (Not Protective Casing)	0'	27'6"	6"	Steel Casing
Screen (Note slot size)	27'	37'	2"	Slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	25'	37'	6"	# 1 Gravel
Annular Seal/Grout	0'	25'	10/6"	cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 4 ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development submersible Pump
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80
Name of Driller Thomas Lynch
Health and Safety Plan submitted? ☐ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1499
Name of Drilling Company ENVIRONMENTAL DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-7' fill
7'-11' clay
11'-12' sand & cobbles
12'-20' sand, silt with cobbles
20'-25' sandstone
25'-35' sandstone & Shale
35'-55' sandstone & Shale

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.WI	BRMW16	SHEET 1 OF 1

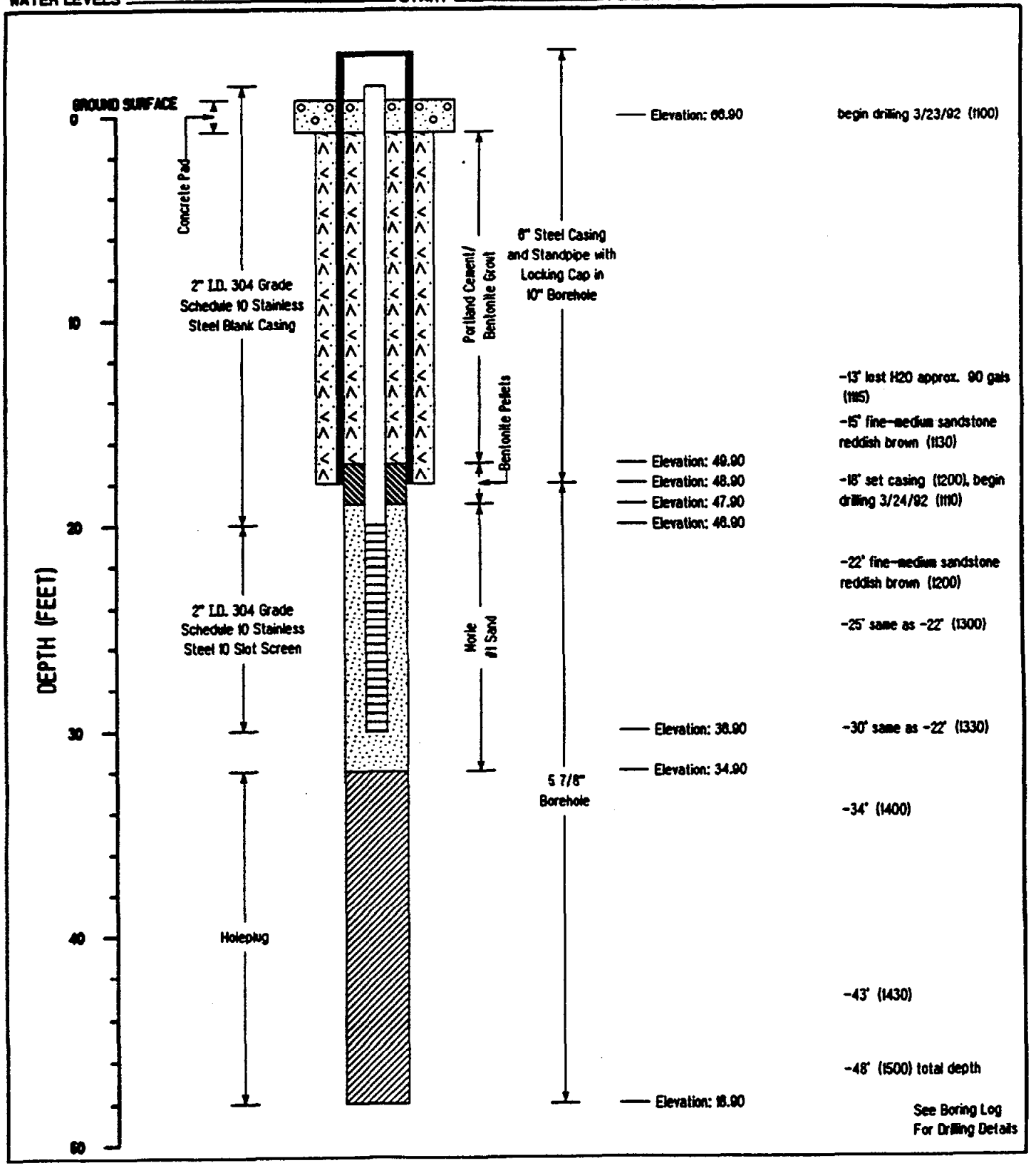
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 66.9 (GS); 67.96 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 Water Rotary

WATER LEVELS 9.96 (ft); 58.00 (MSL), 6/22/92 **START** 3-23-92 **FINISH** 3-24-92 **LOGGER** L. Vogel



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 28 - 28465
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner CIBA-GEIGY CORPORATION
Address 222 WEST FRONTAGE ROAD
City NORTHFIELD State IL. Zip Code 60093

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-16
County Bergen Municipality MAYWOOD BORO Lot No. 40 Block No. 124
Address 100 West Hunter Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 09 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 908 316-9300

WELL CONSTRUCTION

Total depth drilled 47 ft.
Well finished to 30 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: [X] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 2 ft.
Was steel protective casing installed? [X] Yes [ ] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	+2'	20'	2"	Stainless steel
Outer Casing (Not Protective Casing)	+2'	18'	6"	Steel Casing
Screen (Note slot size)	20'	30'	2"	Slot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	18'	30'	6"	# 1 Gravel
Annular Seal/Grout	0'	18'	10/6"	Cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 8 ft.
Water level was measured using M Scope
Well was developed for 2½ hours at 2+ gpm
Method of development Submersible Pump
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? [ ] Yes [ ] No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J1478
Name of Drilling Company ENVIRONMENTAL DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-13' sand
13'-18' rock
18'-50' rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 72 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	BRMW17 SHEET 1 OF 1

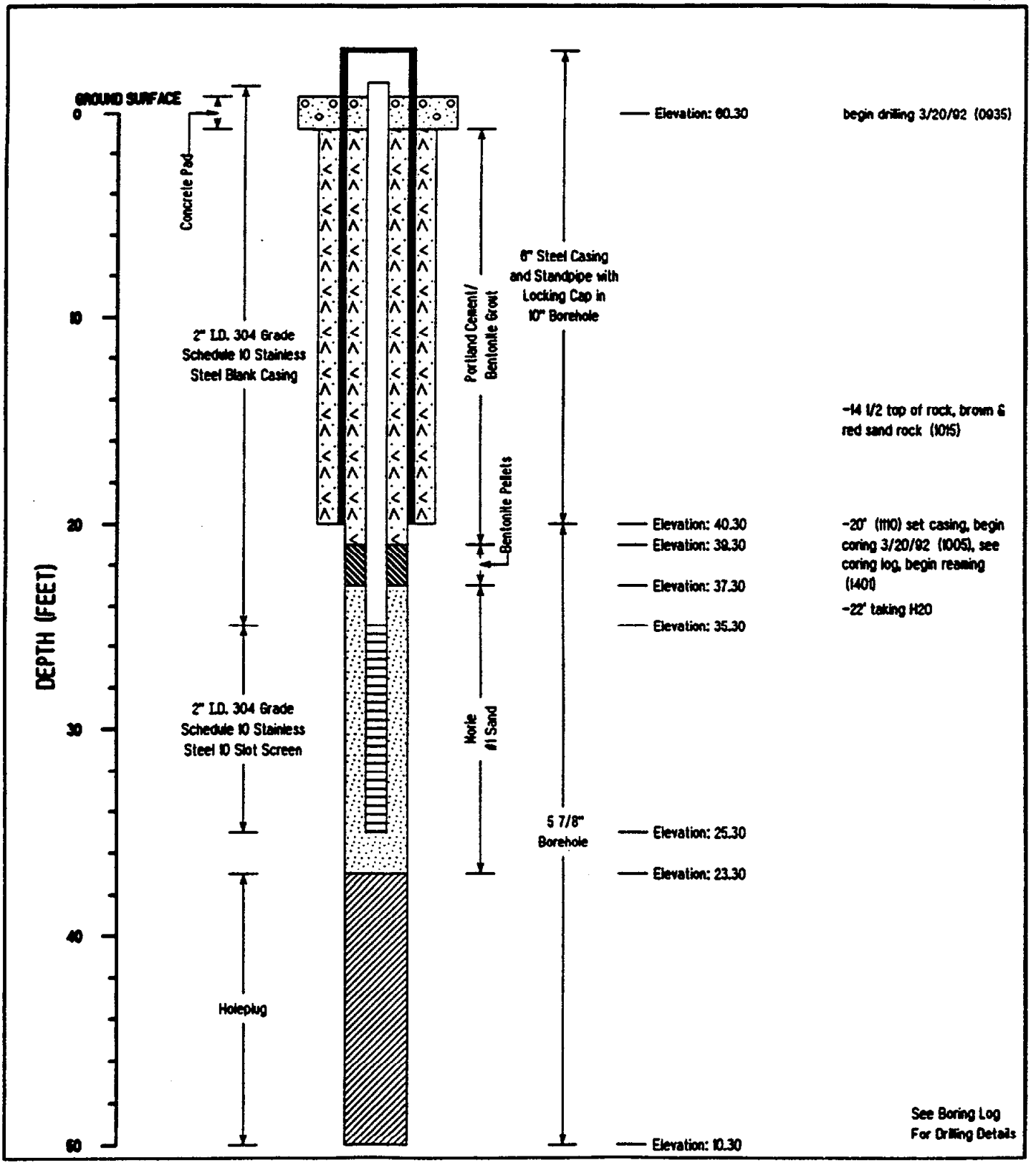
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 60.3 (GS); 62.04 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B80 Water Rotary

WATER LEVELS 6.17 (ft); 55.87 (MSL), 6/22/92 **START** 3-20-92 **FINISH** 3-23-92 **LOGGER** D. Snyder



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12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 26 - 28466
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner STERAN COMPANY
Address 22 WEST FRONTAGE ROAD
City NORTHFIELD State IL Zip Code 60093

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-17
County Bergen Municipality MAYWOOD BORO Lot No. 40 Block No. 124
Address 100 West Hunter Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 9 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 1 908 316-9300

WELL CONSTRUCTION

Total depth drilled 50 ft.
Well finished to 35' ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: [X] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 2 ft.
Was steel protective casing installed? [X] Yes [ ] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	+2'	25'	2"	Stainless steel
Outer Casing (Not Protective Casing)	+2'	20'	6"	Steel Casing
Screen (Note slot size)	25'	35'	2"	SLot .010 S.S.
Tail Piece	NA	NA	NA	
Gravel Pack	23'	35'	6"	# 1 Gravel
Annular Seal/Grout	0'	23'	10/6"	Cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 4 ft.
Water level was measured using M Scope
Well was developed for 1½ hours at 2+ gpm
Method of development submersible Pump
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud Rotary
Drilling Fluid NA Type of Rig Mobile B-80
Name of Driller Robert Atkins & Thomas Lynch
Health and Safety Plan submitted? [ ] Yes [ ] No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J 1478 & J1499
Name of Drilling Company ENVIRONMENTAL DRILLING INC.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-4' fill
4'- 15' silt and clay
15'-20' sandstone & Shale
20'-50' rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/23/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	BRMW15 SHEET 1 OF 1

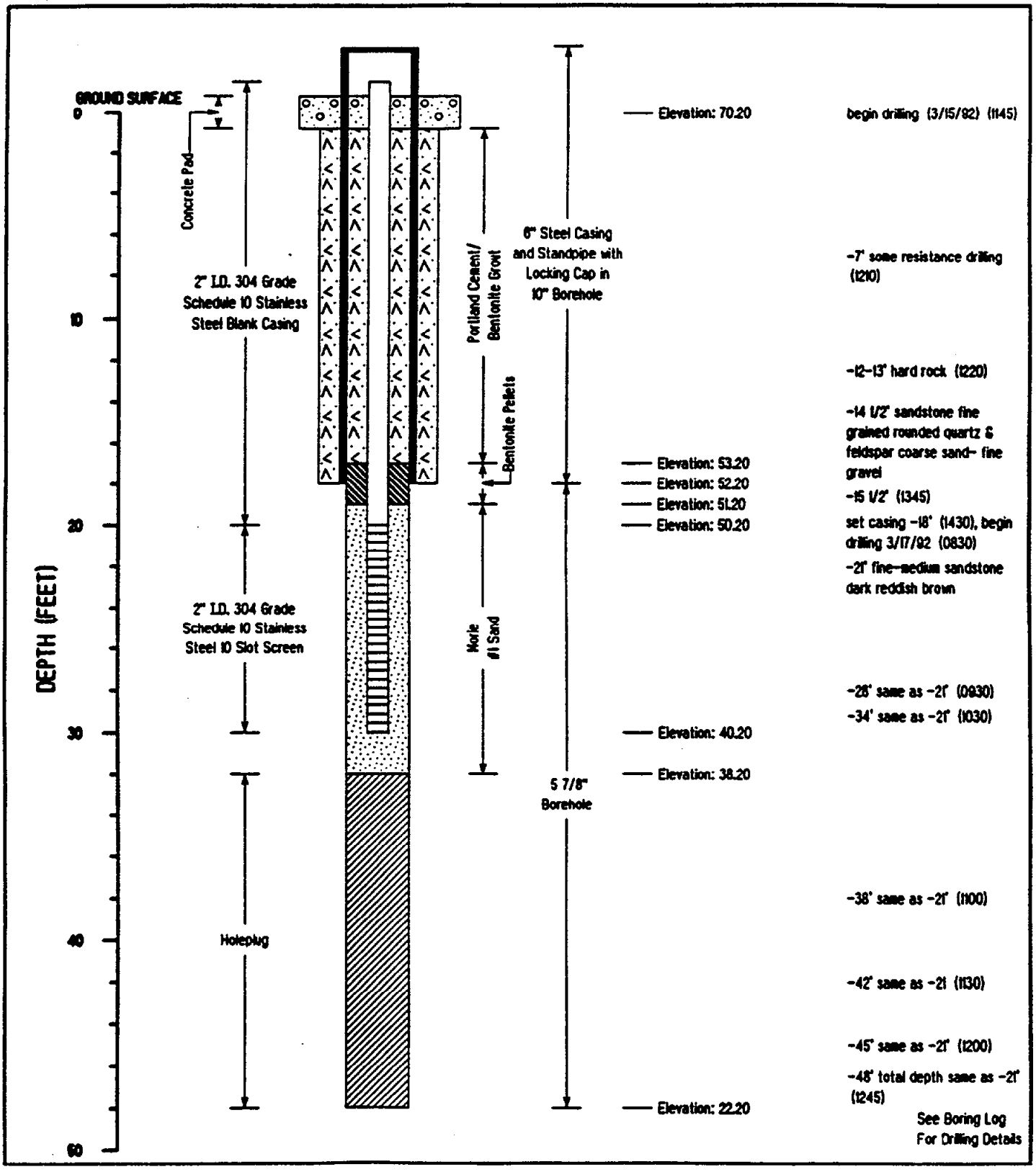
WELL COMPLETION LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION 70.2 (GS); 71.63 (inner casing) **DRILLING CONTRACTOR** Environmental Drilling Inc., West Creek, NJ

DRILLING METHOD AND EQUIPMENT Mobile B61 Water Rotary

WATER LEVELS 11.89 (ft); 59.74 (MSL), 6/22/92 **START** 3-16-92 **FINISH** 3-17-92 **LOGGER** L. Vogel



DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No: 26 - 28892
Atlas Sheet Coordinates 26 : 03 : 536

OWNER IDENTIFICATION - Owner STEPHAN COMPANY
Address 22 WEST FRONTAGE ROAD
City NORTHFIELD State ILL Zip Code 60093

WELL LOCATION - If not the same as owner please give address. Owner's Well No. BRMW-15
County Bergen Municipality MAYWOOD BORO Lot No. 40 Block No. 124
Address 100 West Hunter Avenue, Maywood, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6 / 01 / 92
Regulatory Program Requiring Well CERCLA Case I.D. # 10105
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) CH2M Hill Tele. # 908 316-9300

WELL CONSTRUCTION

Total depth drilled 48 ft.
Well finished to 35 ft.
Borehole diameter:
Top 10 in.
Bottom 6 in.
Well was finished: [X] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 2 ft.
Was steel protective casing installed? [X] Yes [ ] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	+2'	25'	2"	Stainless Steel
Outer Casing (Not Protective Casing)	0'	18'	6"	Steel
Screen (Note slot size)	25'	35'	2"	Stainless Steel .010
Tail Piece	NA	NA	NA	
Gravel Pack	23'	35'	6"	# 1 Gravel
Annular Seal/Grout	0'	23'	10/6"	Cement
Method of Grouting	Tremie Pressure			

Static water level after drilling 8½' ft.
Water level was measured using M Scope
Well was developed for 1 hours at 2+ gpm
Method of development AIR
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity NA gpm
Pump type: NA
Drilling Method Mud rotary
Drilling Fluid NA Type of Rig Mobile B-61
Name of Driller Robert Atkinson
Health and Safety Plan submitted? [ ] Yes [ ] No
Level of Protection used on site (circle one) None D C B A
N.J. License No. J-1478
Name of Drilling Company DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-9' sand
9'-11' weathered rock
11'-18' comp. rock
18'48' comp. rock

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____ Date 7/10/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

Appendix K
Geophysical Signatures

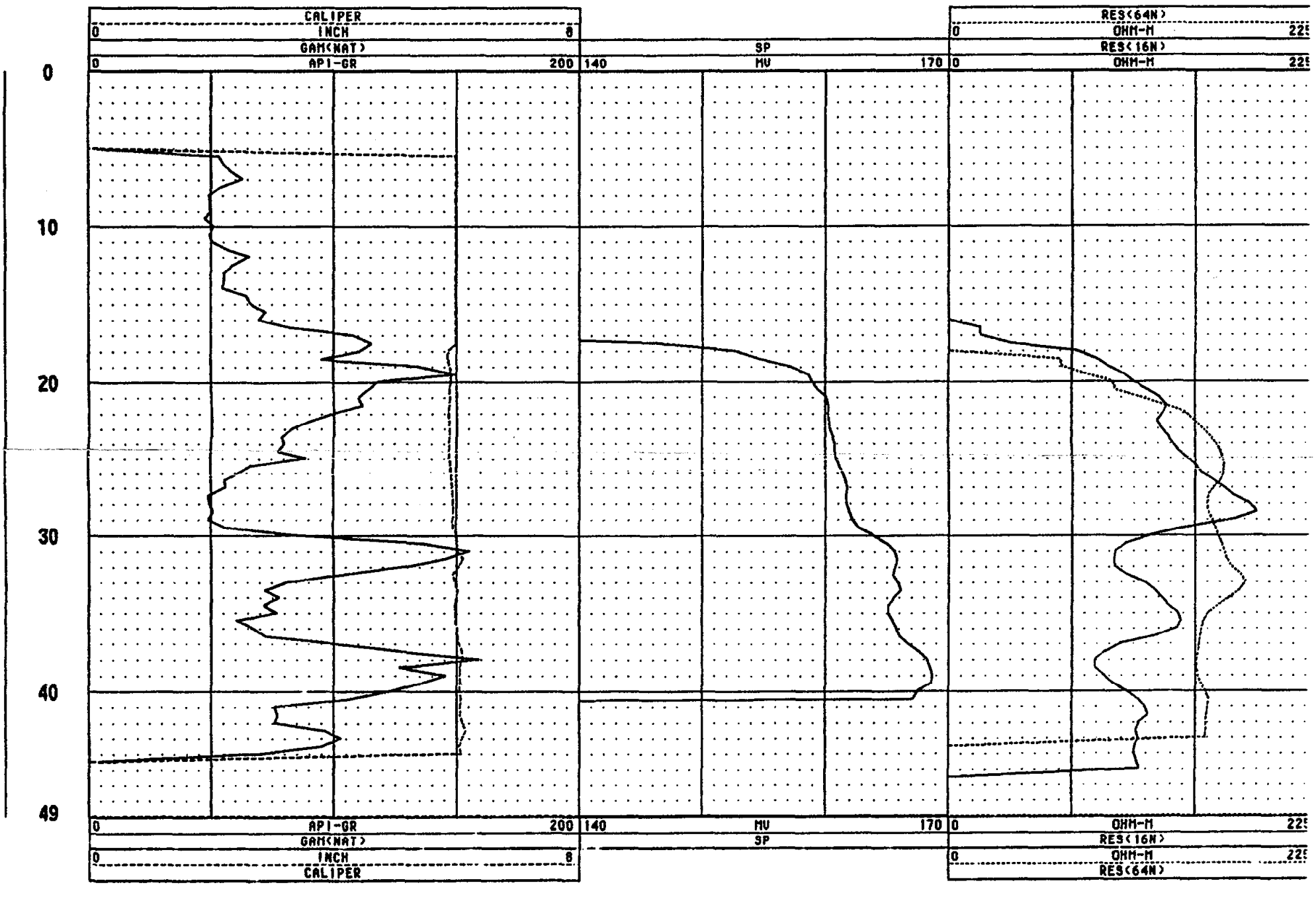
BRMW-1

COMPANY	: STEPAN		
WELL	: BRMW-1	OTHER SERVICES:	
LOCATION/FIELD	: MAYWOOD/SEARS	TEMP	
COUNTY	: BERGEN	FLUIDRES	
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/16/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 47.5	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 48.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.50	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 17.5	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 90400
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 5
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 1
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T : 210	THRESH: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-1

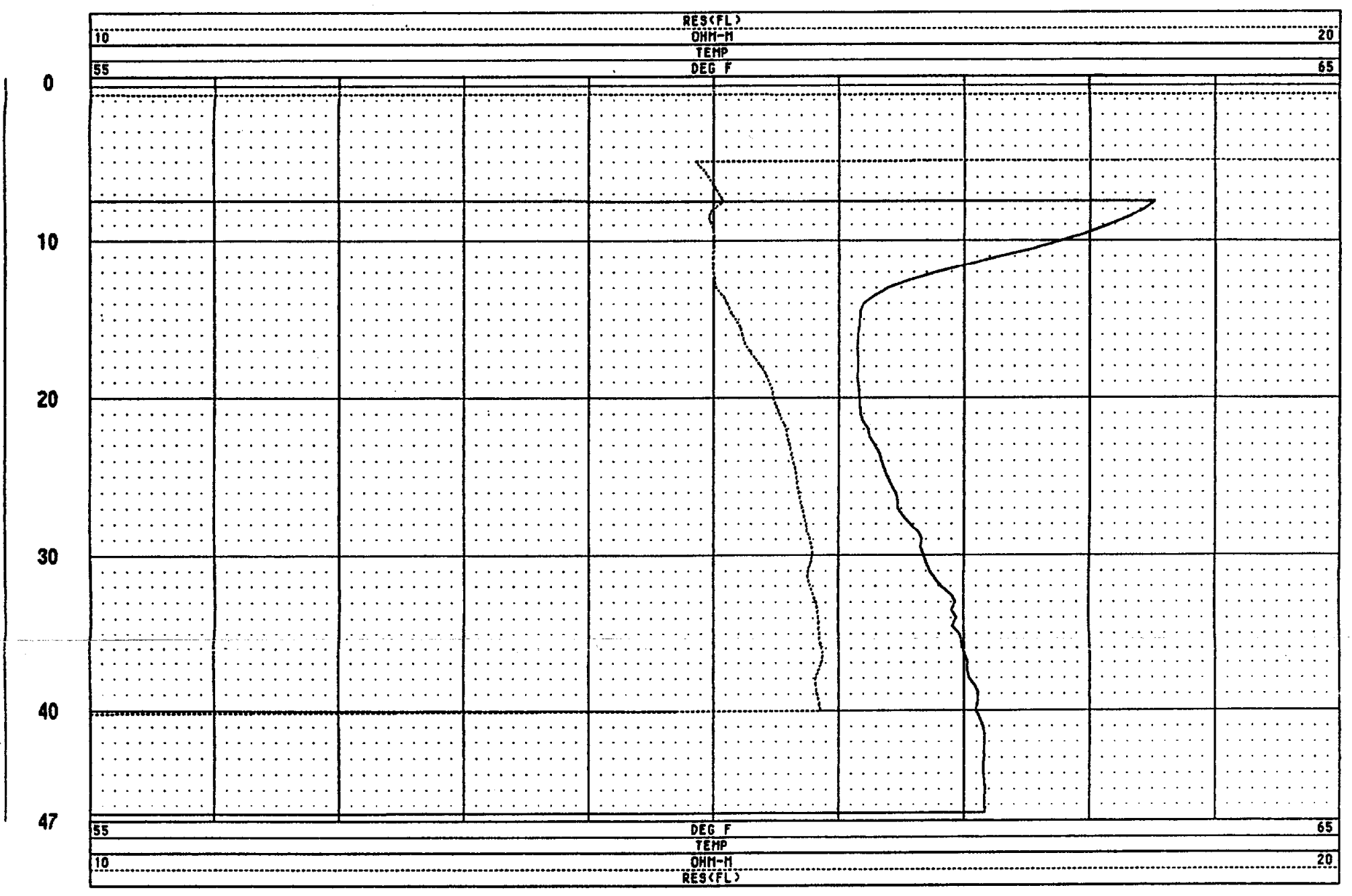
COMPANY	: STEPAN		
WELL	: BRMW-1		
LOCATION/FIELD	: MAYWOOD/SEARS		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/16/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 47.5	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 47.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 17.5	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 7
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-2

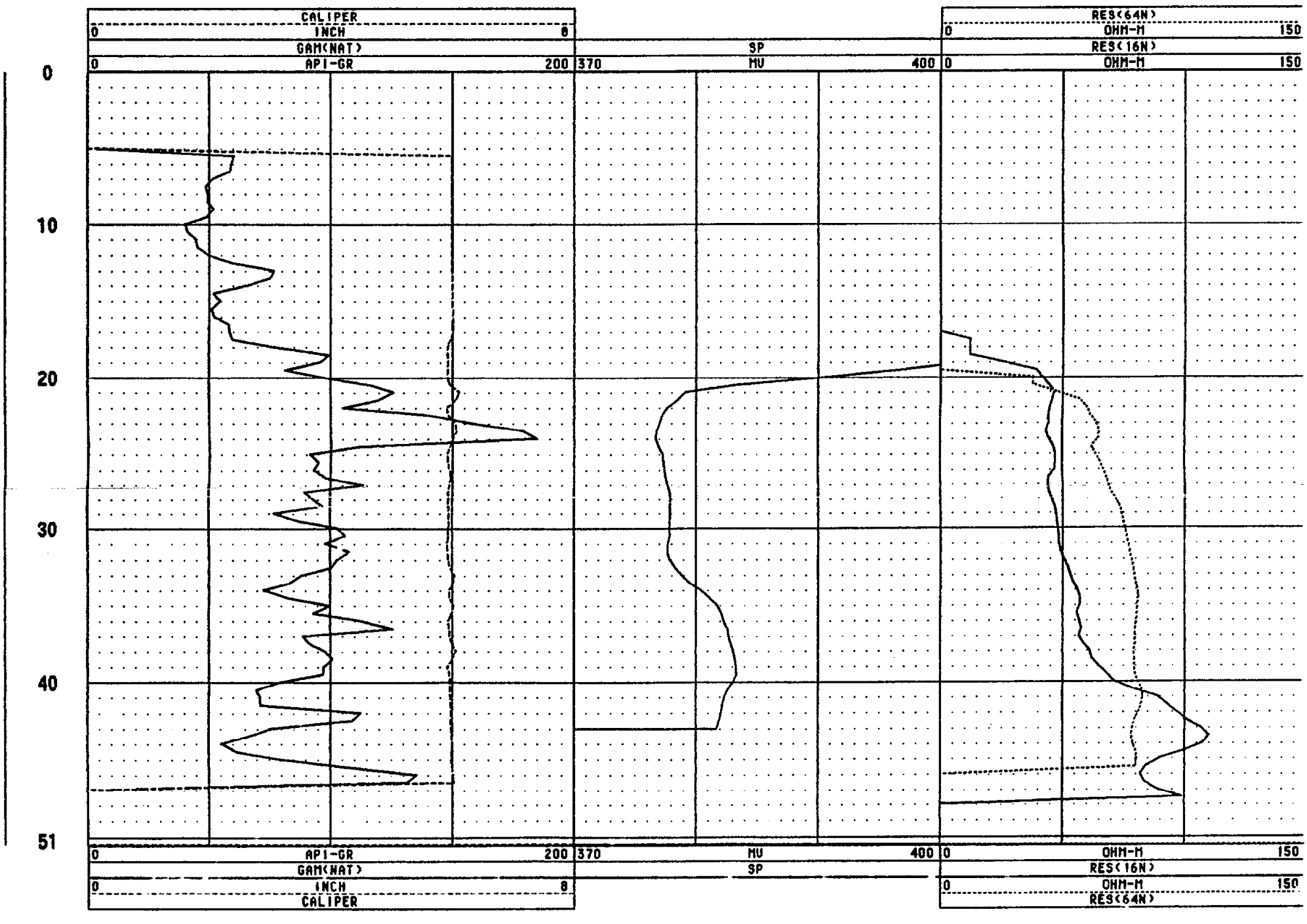
COMPANY : STEPAN
WELL : BRMW-2
LOCATION/FIELD : MAYWOOD/STEPAN
COUNTY : BERGEN
STATE : NEW JERSEY

OTHER SERVICES:
TEMP
FLUIDRES

SECTION :
TOWNSHIP :
RANGE :

DATE	: 05/11/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 54	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 51.00	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.50	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 18	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 1
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-2

COMPANY : STEPAN
WELL : BRMW-2
LOCATION/FIELD : MAYWOOD/STEPAN
COUNTY : BERGEN
STATE : NEW JERSEY
SECTION :

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

TOWNSHIP :
RANGE :

DATE : 05/11/92
DEPTH DRILLER : 54
LOG BOTTOM : 49.50
LOG TOP : 0.00

PERMANENT DATUM : GL
ELEV. PERM. DATUM:
LOG MEASURED FROM: GL
DRL MEASURED FROM: GL

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 18
CASING TYPE : STEEL
CASING THICKNESS: .25

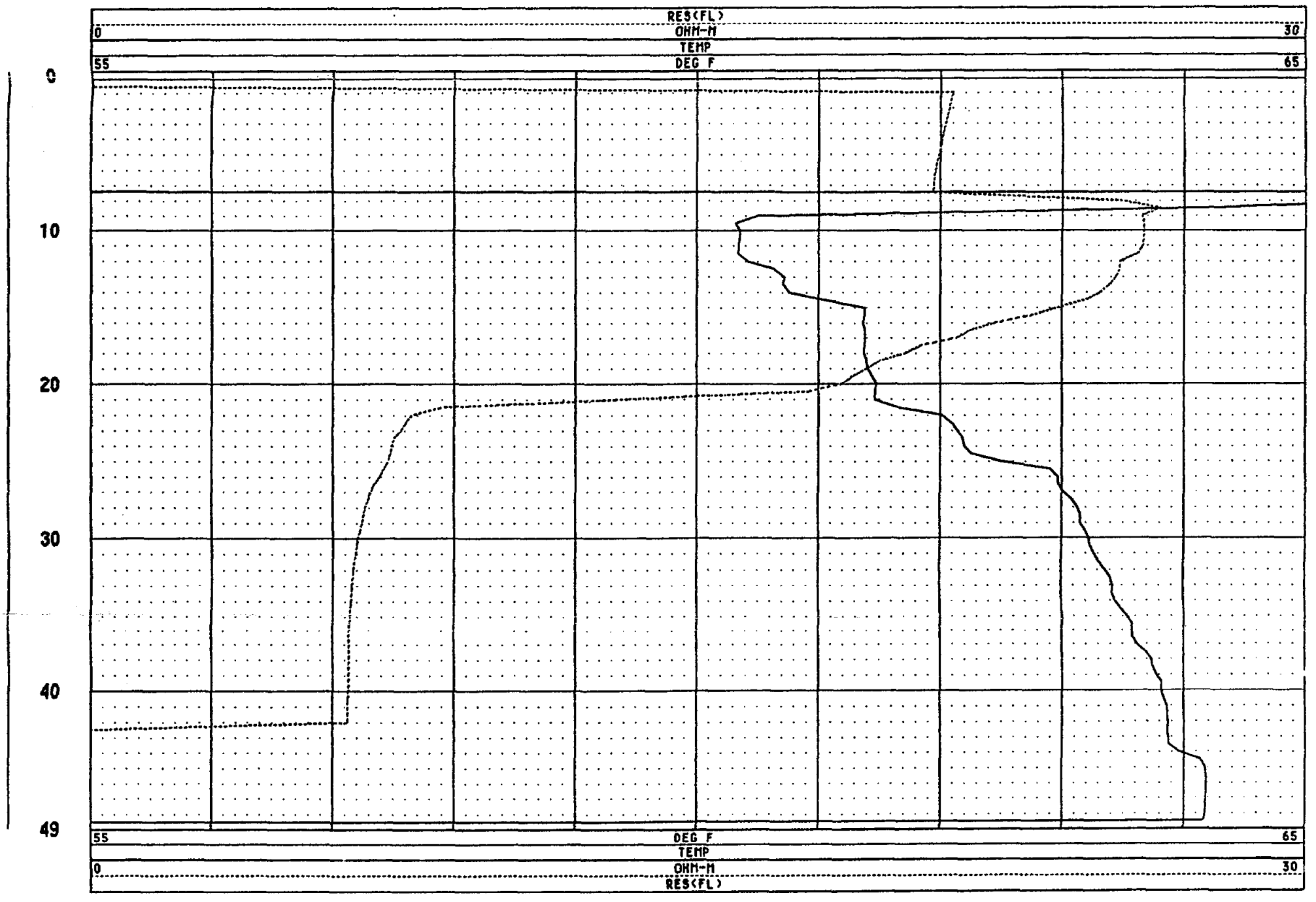
LOGGING UNIT : 1
FIELD OFFICE : DFB
RECORDED BY : M. SCHILLING

BIT SIZE : 5.875
MAGNETIC DECL. : 7.5
MATRIX DENSITY : 2.68
FLUID DENSITY : 1.0
NEUTRON MATRIX : BEDROCK
REMARKS :

BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 57
FLUID DELTA T : 210

FILE : PROCESSED
TYPE : 9040A
LOG : 2
PLOT : STEPAN 2
THRESH: 2500

OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



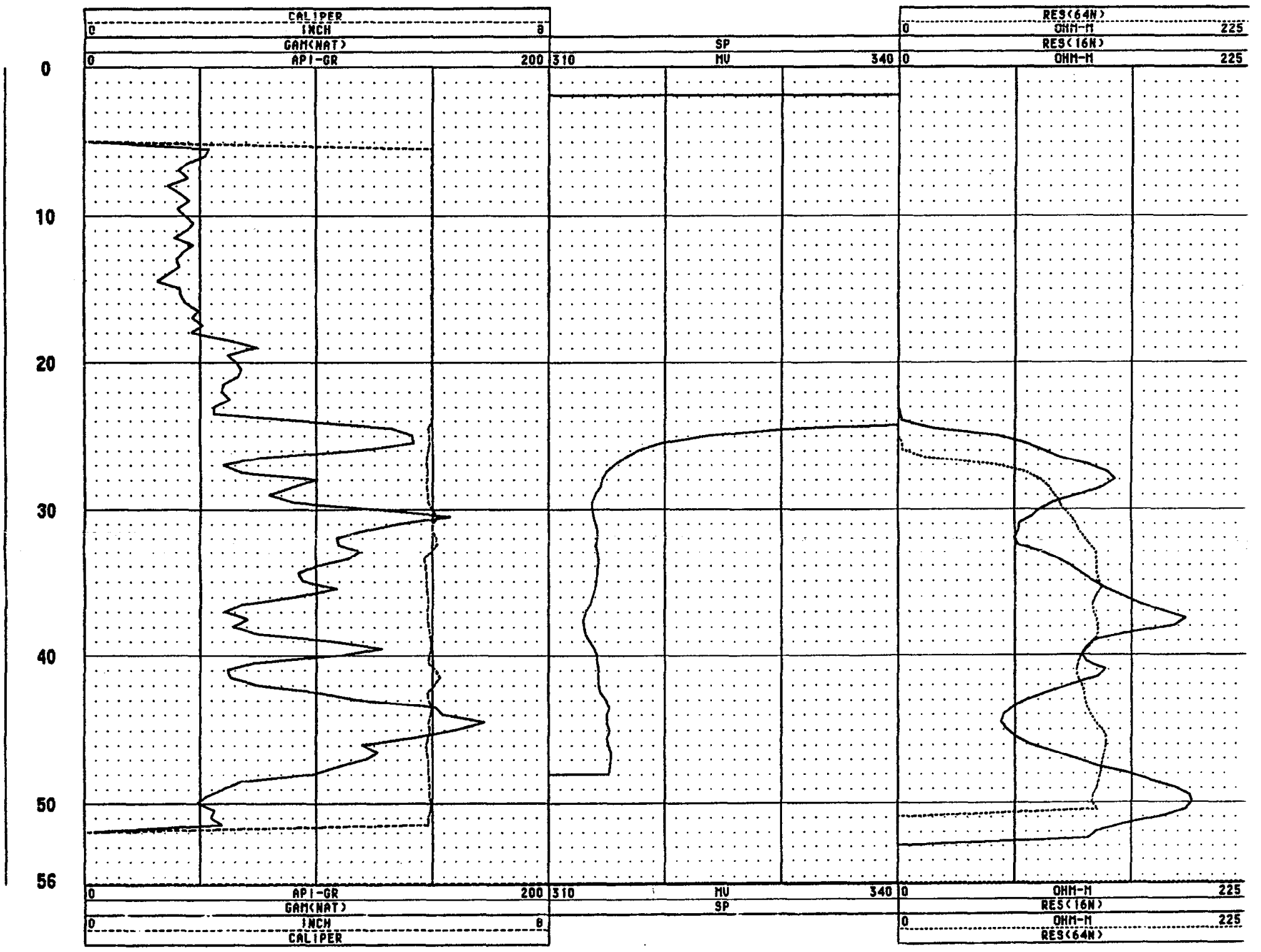
BRMW-4

COMPANY	: STEPAN		
WELL	: BRMW-4		
LOCATION/FIELD	: MAYWOOD/SEARS		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/16/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 54	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 56.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.50	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 24	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 5
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 1
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T : 210	THRESH: 2500
REMARKS	:		

OTHER SERVICES:
TEMP
FLUIDRES

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

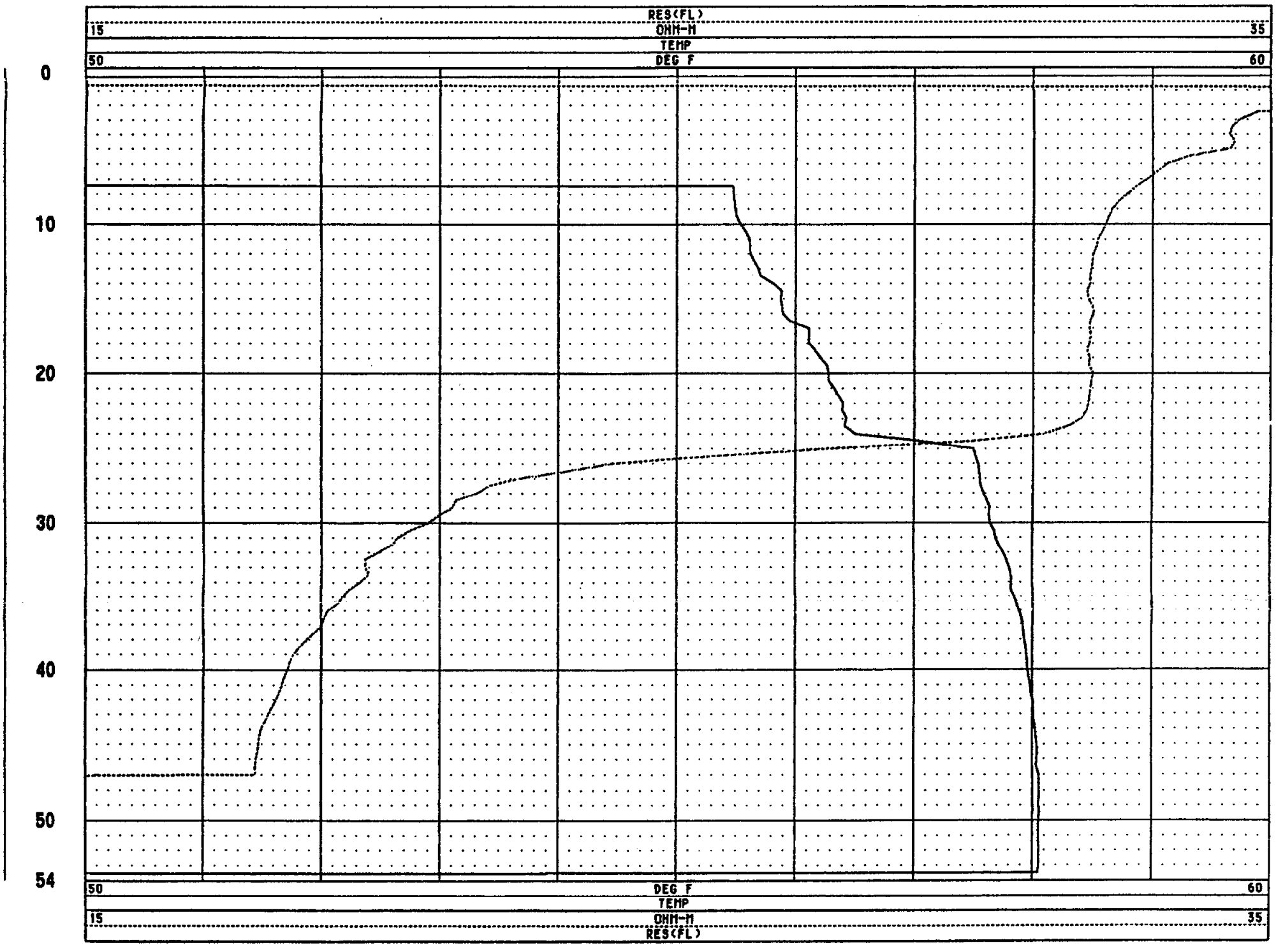


BRMW-4

COMPANY	: STEPAN		
WELL	: BRMW-4		
LOCATION/FIELD	: MAYWOOD/SEARS		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/16/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 54	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 54.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 24	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 7
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T : 210	THRESH: 2500
REMARKS	:		

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



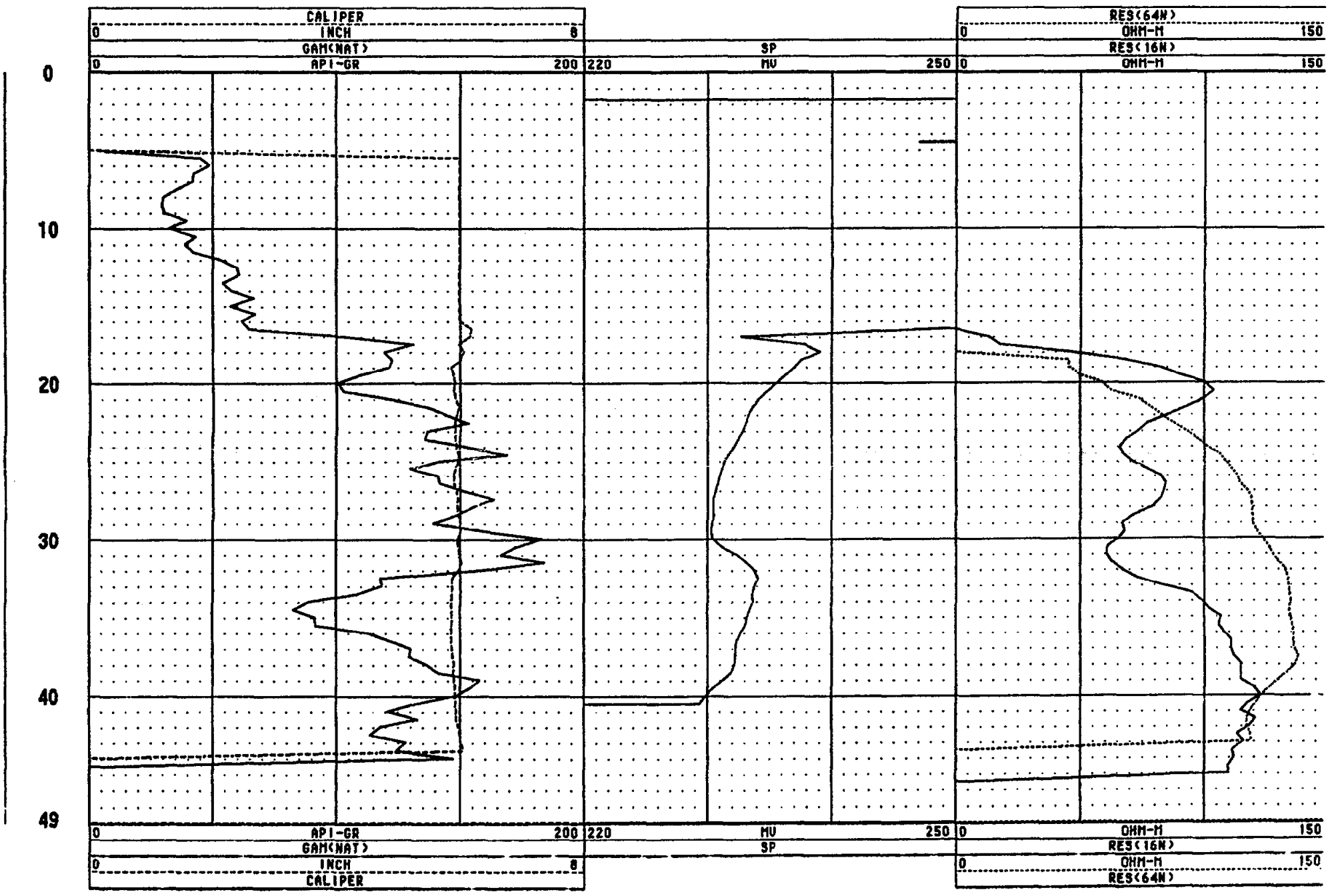
BRMW-5

COMPANY	: STEPAN		
WELL	: BRMW-5		
LOCATION/FIELD	: MAYWOOD/SUNOCO		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :

OTHER SERVICES:
TEMP
FLUIDRES

DATE	: 05/12/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 47	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 48.50	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.50	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 17	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 1
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 1
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

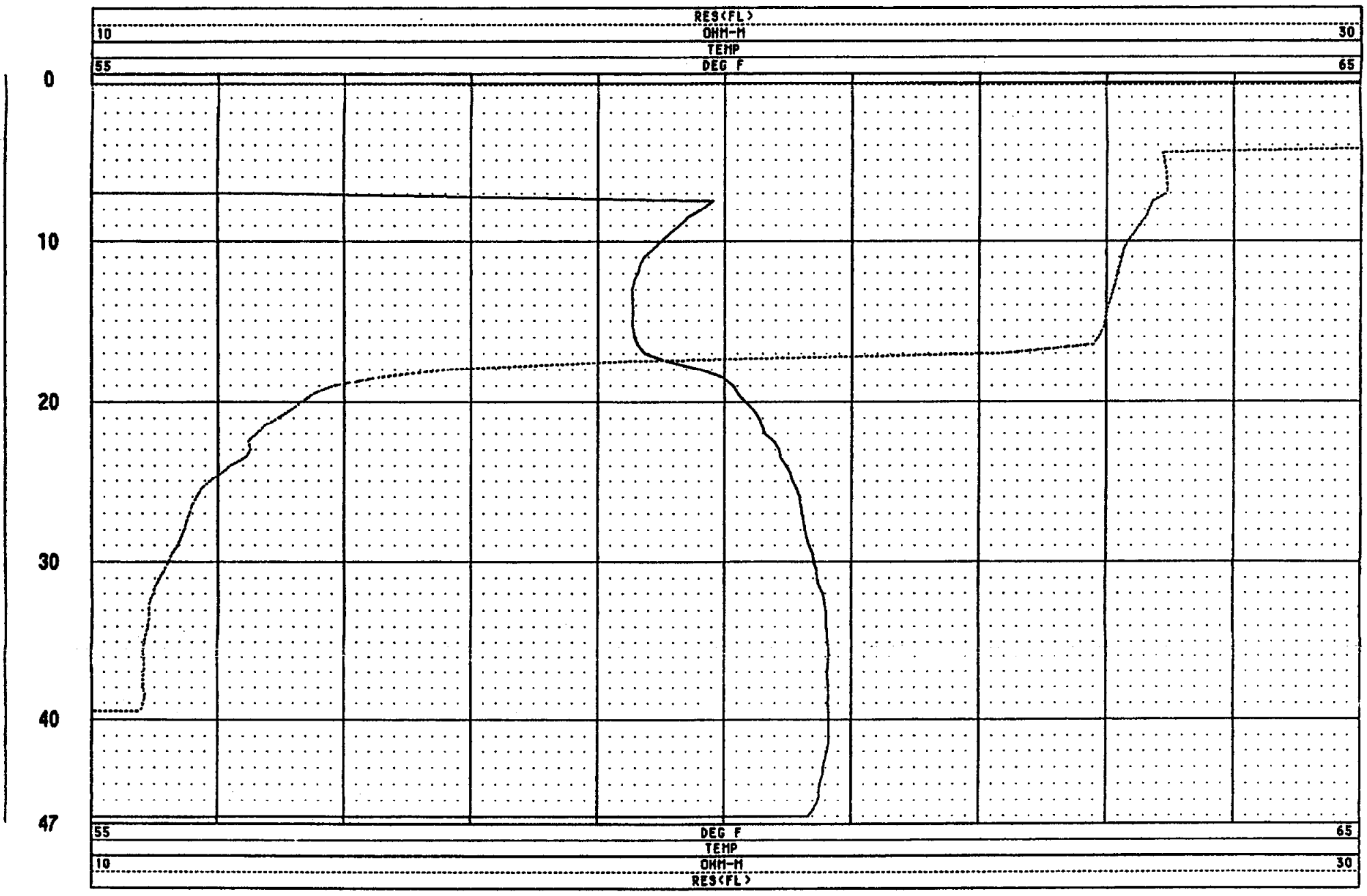


BRMW-5

COMPANY	: STEPAN		
WELL	: BRMW-5		
LOCATION/FIELD	: MAYWOOD/SUNOCO		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/12/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 47	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 47.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 17	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 2
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-6

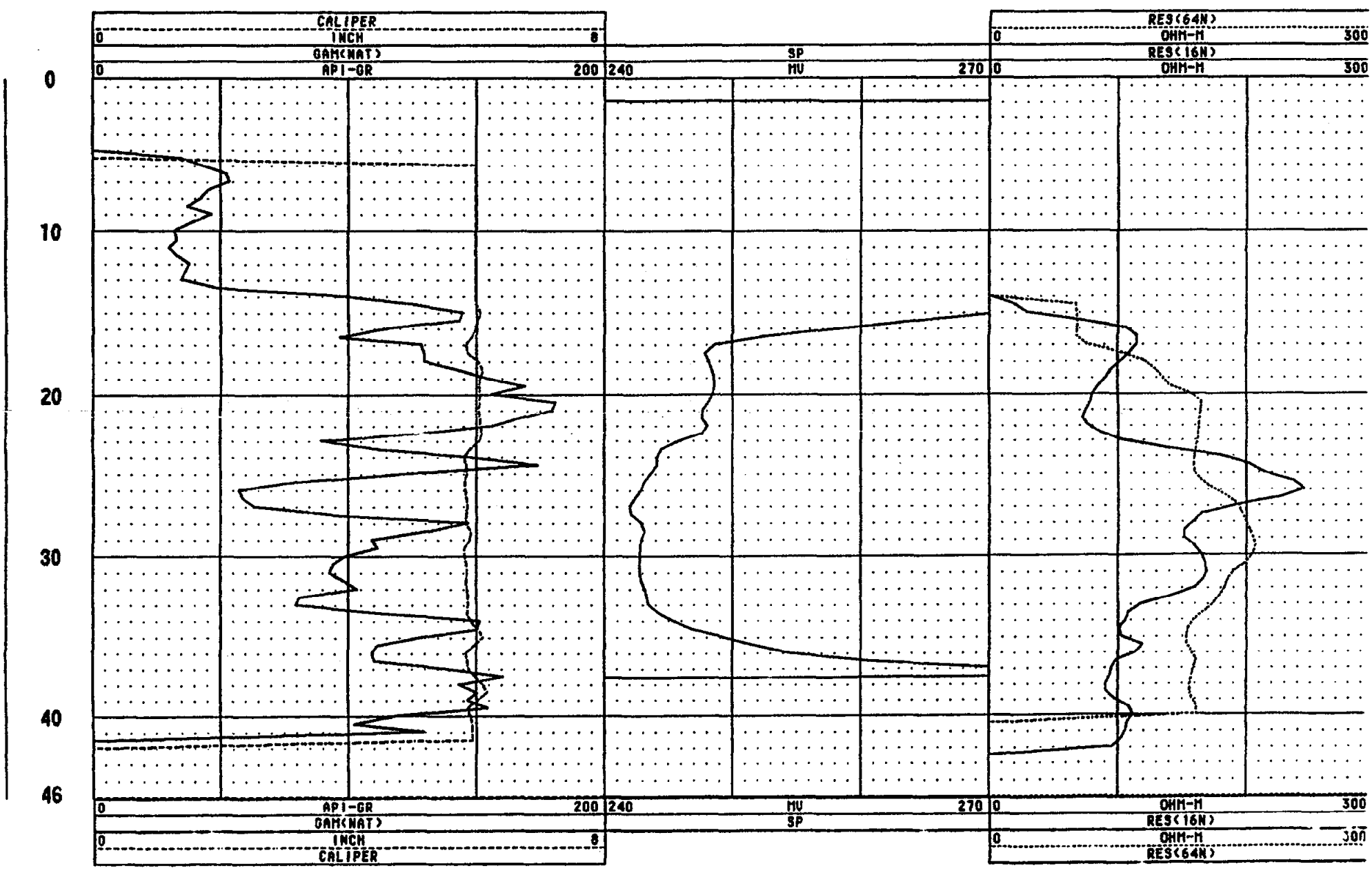
COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-6			TEMP	
LOCATION/FIELD	: MAYWOOD/SEARS			FLUIDRES	
COUNTY	: BERGEN				
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/16/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 45	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 45.50	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 1.00	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 15	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 1
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 1
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



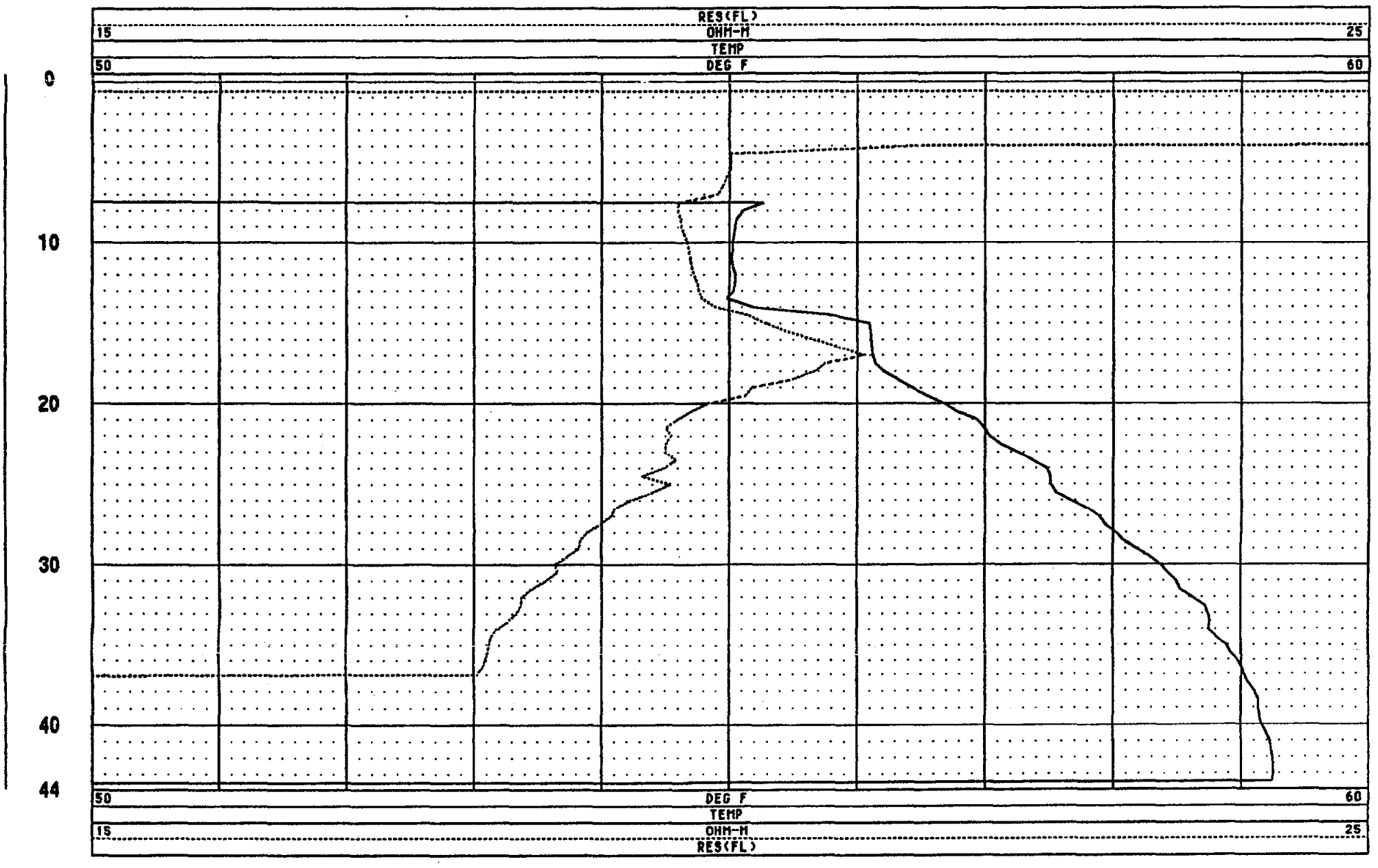
BRMW-6

COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-6			CALIPER	
LOCATION/FIELD	: MAYWOOD/SEARS			LSN ELEC	
COUNTY	: BERGEN			GAMMA,SP	
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/16/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 45	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 44.50	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.00	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 15	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9048A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 2
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-7

COMPANY : STEPAN
WELL : BRMW-7
LOCATION/FIELD : MAYWOOD/SEARS
COUNTY : BERGEN
STATE : NEW JERSEY
SECTION :

OTHER SERVICES:
TEMP
FLUIDRES

TOWNSHIP :
RANGE :

DATE : 05/15/92
DEPTH DRILLER : 56
LOG BOTTOM : 57.50
LOG TOP : 0.50

PERMANENT DATUM : GL
ELEV. PERM. DATUM:
LOG MEASURED FROM: GL
DRL MEASURED FROM: GL

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 26
CASING TYPE : STEEL
CASING THICKNESS: .25

LOGGING UNIT : 1
FIELD OFFICE : DFB
RECORDED BY : M. SCHILLING

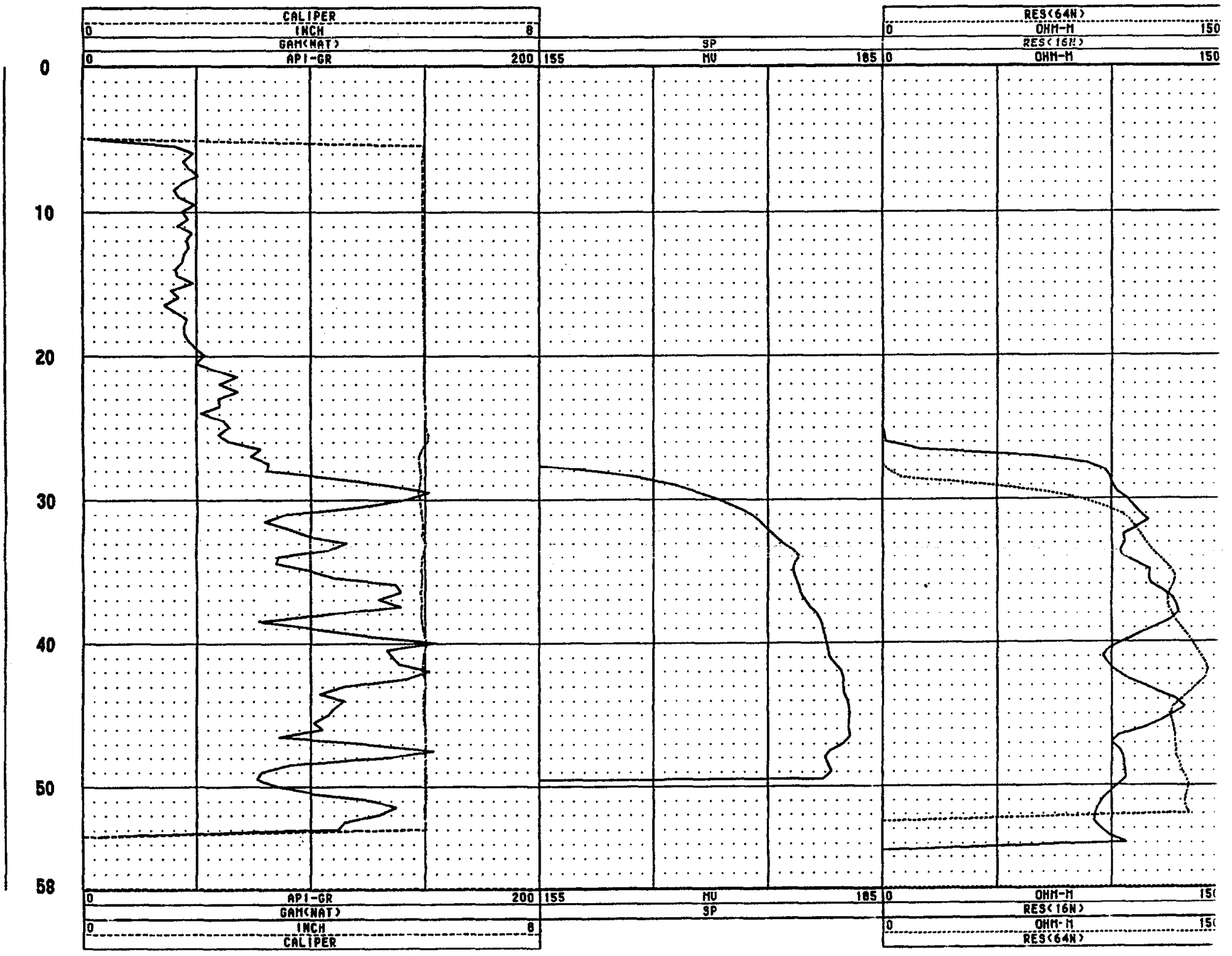
BIT SIZE : 5.875
MAGNETIC DECL. : 7.5
MATRIX DENSITY : 2.68
FLUID DENSITY : 1.0
NEUTRON MATRIX : LIMESTONE

BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 57
FLUID DELTA T : 210

FILE : PROCESSED
TYPE : 9040A
LOG : 5
PLOT : STEPAN 1
THRESH: 2500

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-7

COMPANY : STEPAN
WELL : BRMW-7
LOCATION/FIELD : MAYWOOD/SEARS
COUNTY : BERGEN
STATE : NEW JERSEY
SECTION :

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

TOWNSHIP :
RANGE :

DATE : 05/15/92
DEPTH DRILLER : 56
LOG BOTTOM : 56.00
LOG TOP : 0.00

PERMANENT DATUM : GL
ELEV. PERM. DATUM:
LOG MEASURED FROM: GL
DRL MEASURED FROM: GL

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 26
CASING TYPE : STEEL
CASING THICKNESS: .25

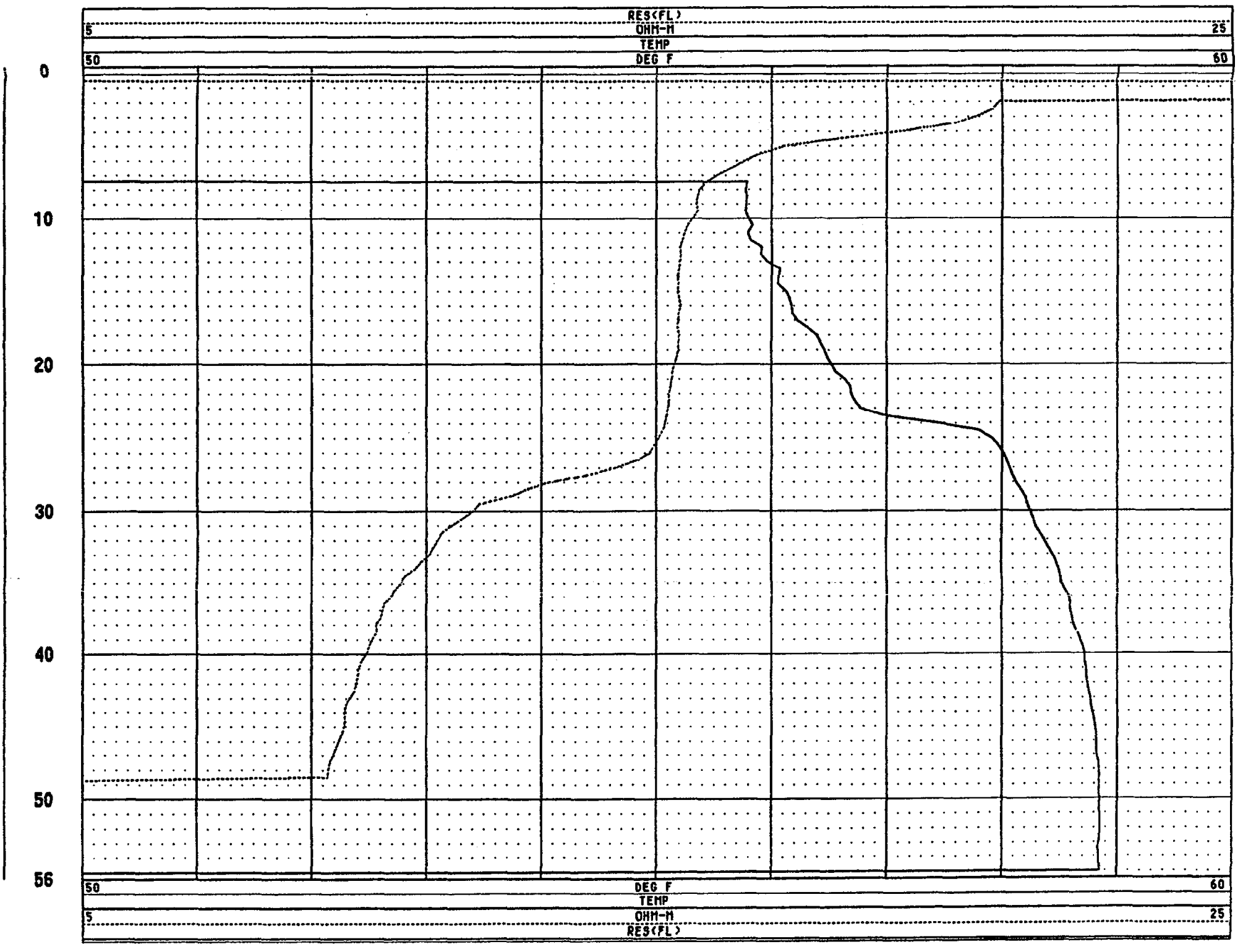
LOGGING UNIT : 1
FIELD OFFICE : DFB
RECORDED BY : M. SCHILLING

BIT SIZE : 5.875
MAGNETIC DECL. : 7.5
MATRIX DENSITY : 2.68
FLUID DENSITY : 1.0
NEUTRON MATRIX : LIMESTONE
REMARKS :

BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 57
FLUID DELTA T : 210

FILE : PROCESSED
TYPE : 9040A
LOG : 7
PLOT : STEPAN 2
THRESH: 2500

OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-8

COMPANY : STEPAN
WELL : BRMW-8
LOCATION/FIELD : MAYWOOD/S.W.S.
COUNTY : BERGEN
STATE : NEW JERSEY
SECTION :

OTHER SERVICES:
TEMP
FLUIDRES

TOWNSHIP :
RANGE :

DATE : 05/12/92
DEPTH DRILLER : 60
LOG BOTTOM : 61.50
LOG TOP : 1.00

PERMANENT DATUM : GL
ELEV. PERM. DATUM:
LOG MEASURED FROM: GL
DRL MEASURED FROM: GL

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 30
CASING TYPE : STEEL
CASING THICKNESS: .25

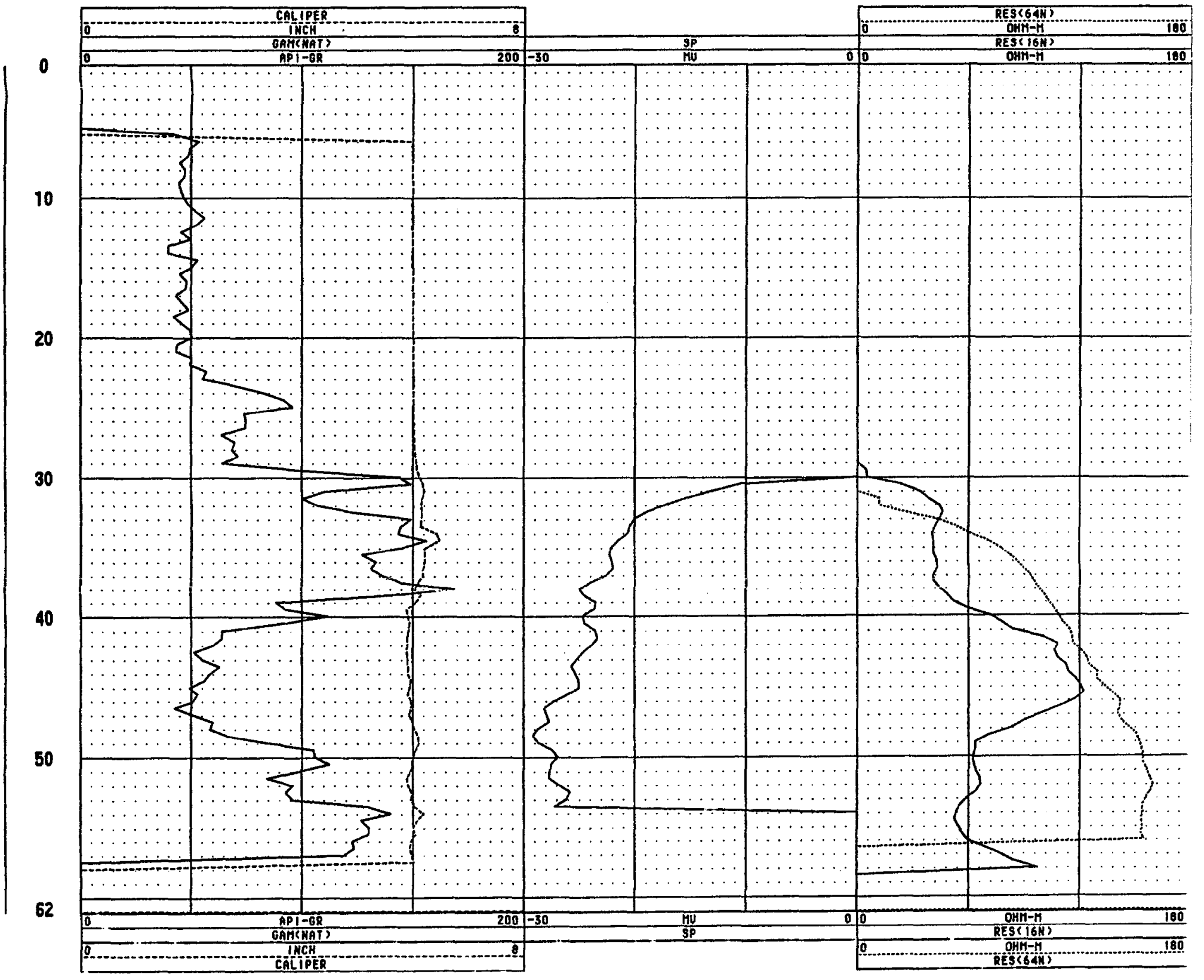
LOGGING UNIT : 1
FIELD OFFICE : DFB
RECORDED BY : M. SCHILLING

BIT SIZE : 5.875
MAGNETIC DECL. : 7.5
MATRIX DENSITY : 2.68
FLUID DENSITY : 1.0
NEUTRON MATRIX : BEDROCK
REMARKS :

BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 57
FLUID DELTA T : 210

FILE : PROCESSED
TYPE : 9040A
LOG : 5
PLOT : STEPAN 1
THRESH: 2500

OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-8

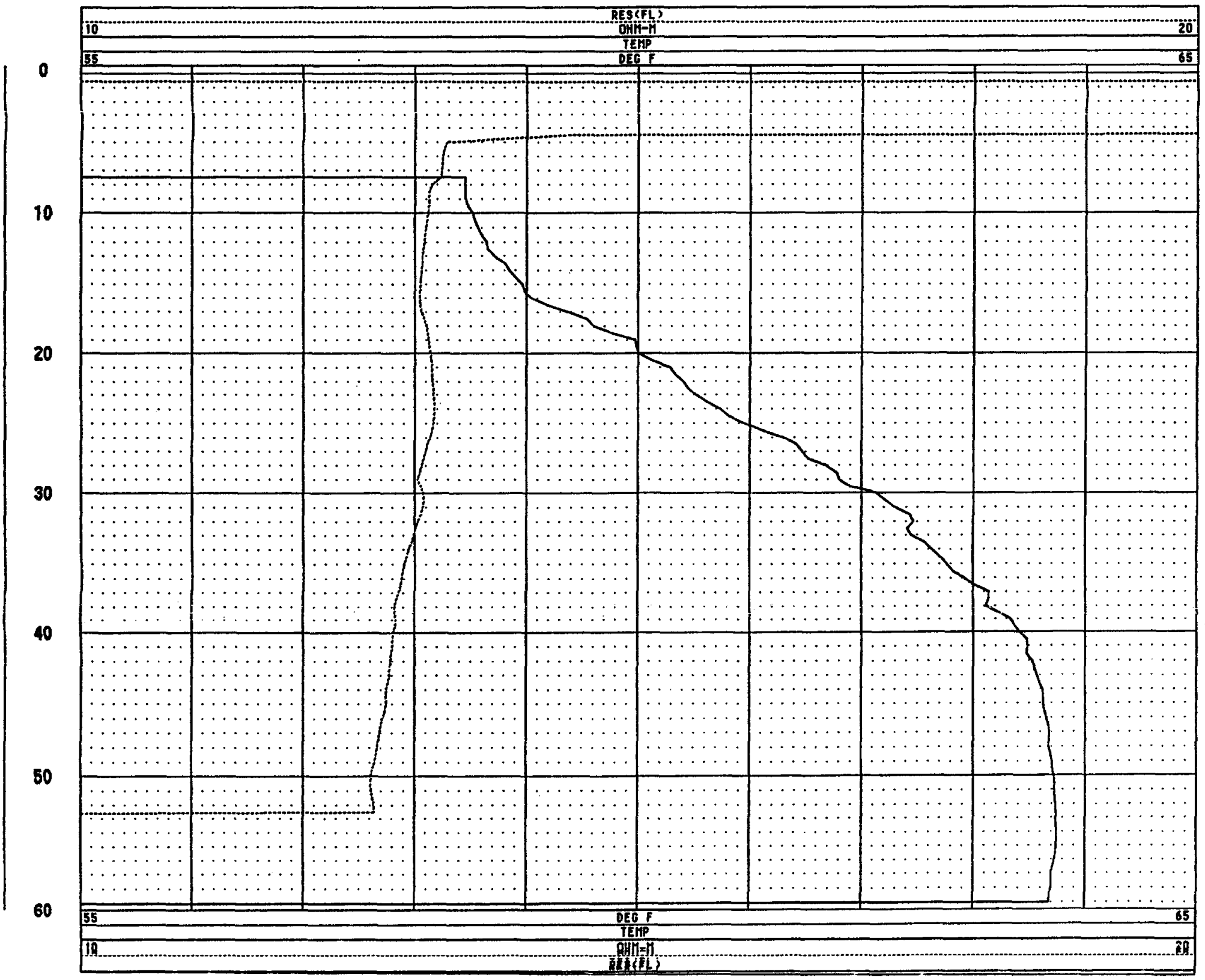
COMPANY	: STEPAN		OTHER SERVICES:
WELL	: BRMW-8		CALIPER
LOCATION/FIELD	: MAYWOOD/S.W.S.		LSN ELEC
COUNTY	: BERGEN		GAMMA,SP
STATE	: NEW JERSEY		
SECTION :	TOWNSHIP :	RANGE :	
DATE	: 05/12/92	PERMANENT DATUM	: GL
DEPTH DRILLER	: 60	ELEV. PERM. DATUM:	
LOG BOTTOM	: 60.00	LOG MEASURED FROM:	GL
LOG TOP	: 0.00	DRL MEASURED FROM:	GL
CASING DRILLER	: 30	LOGGING UNIT	: 1
CASING TYPE	: STEEL	FIELD OFFICE	: DFB
CASING THICKNESS:	.25	RECORDED BY	: M. SCHILLING
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER
MAGNETIC DECL.	: 7.5	RM	: 0
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210
REMARKS :			

ELEVATIONS		
KB	:	
DF	:	
GL	:	
FILE	: PROCESSED	
TYPE	: 9040A	
LOG	: 7	
PLOT	: STEPAN 2	
THRESH:	2500	

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-9

COMPANY	: STEPAN		
WELL	: BRMW-9		
LOCATION/FIELD	: MAYWOOD/FEDEX		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :

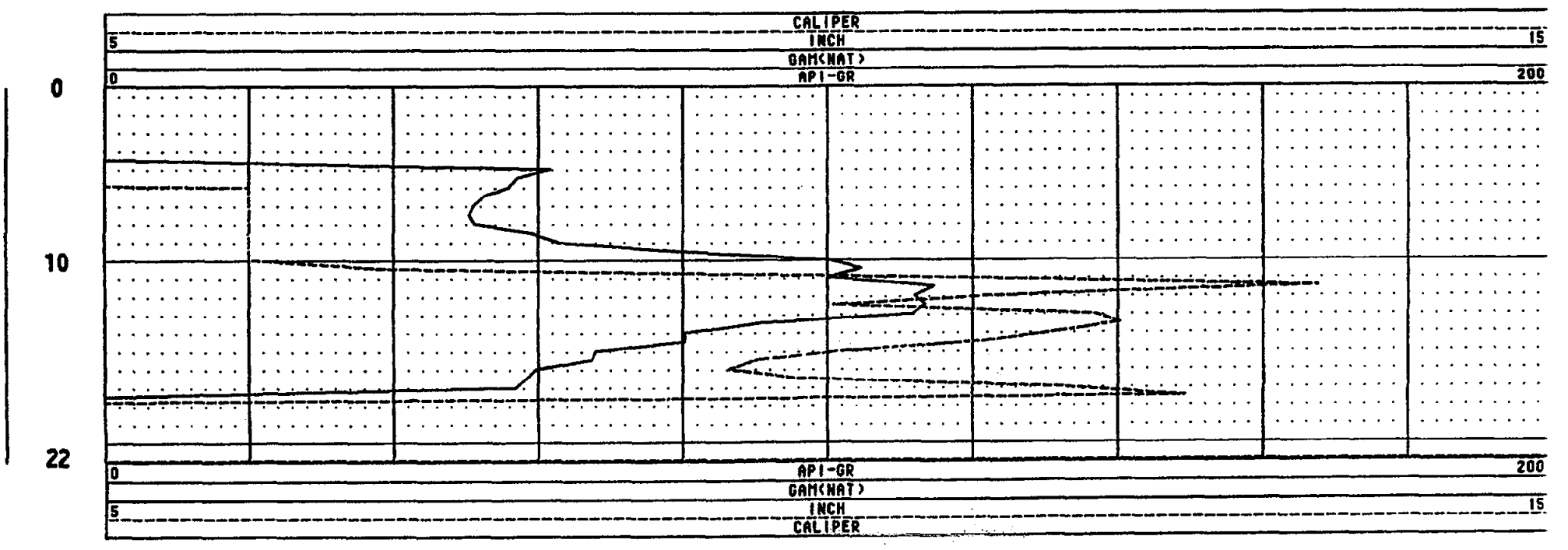
OTHER SERVICES:

DATE	: 05/15/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 30	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 21.50	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 1.00	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 10	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 0
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 218	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED ON BEDROCK MONITOR WELL THAT HAD COLLAPSED. NO WATER PRESENT IN WELL.



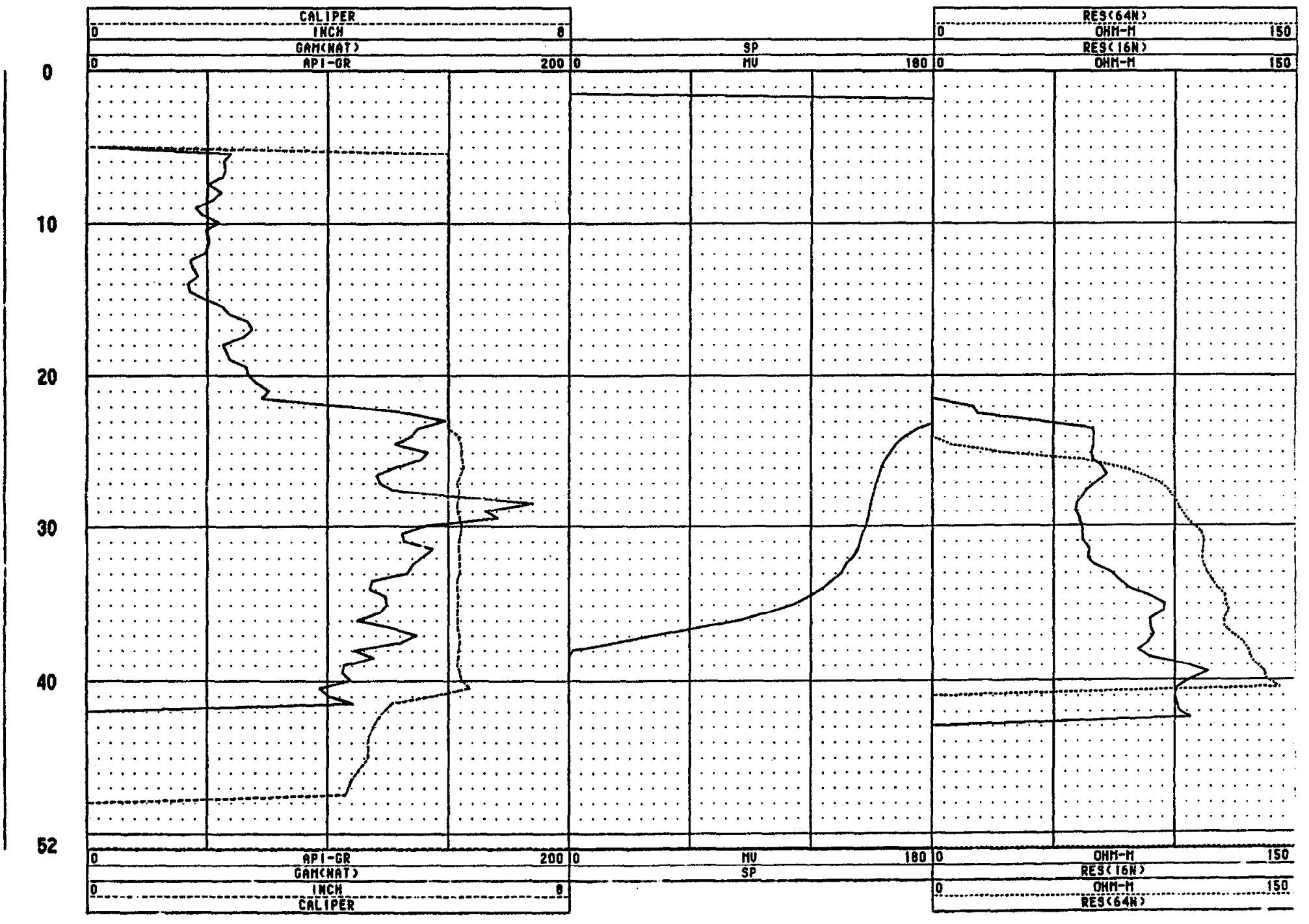
BRMW-10

COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-10			TEMP	
LOCATION/FIELD	: MAYWOOD/STEPAN			FLUIDRES	
COUNTY	: BERGEN				
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/15/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 53	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 51.50	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.50	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 23	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 1
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



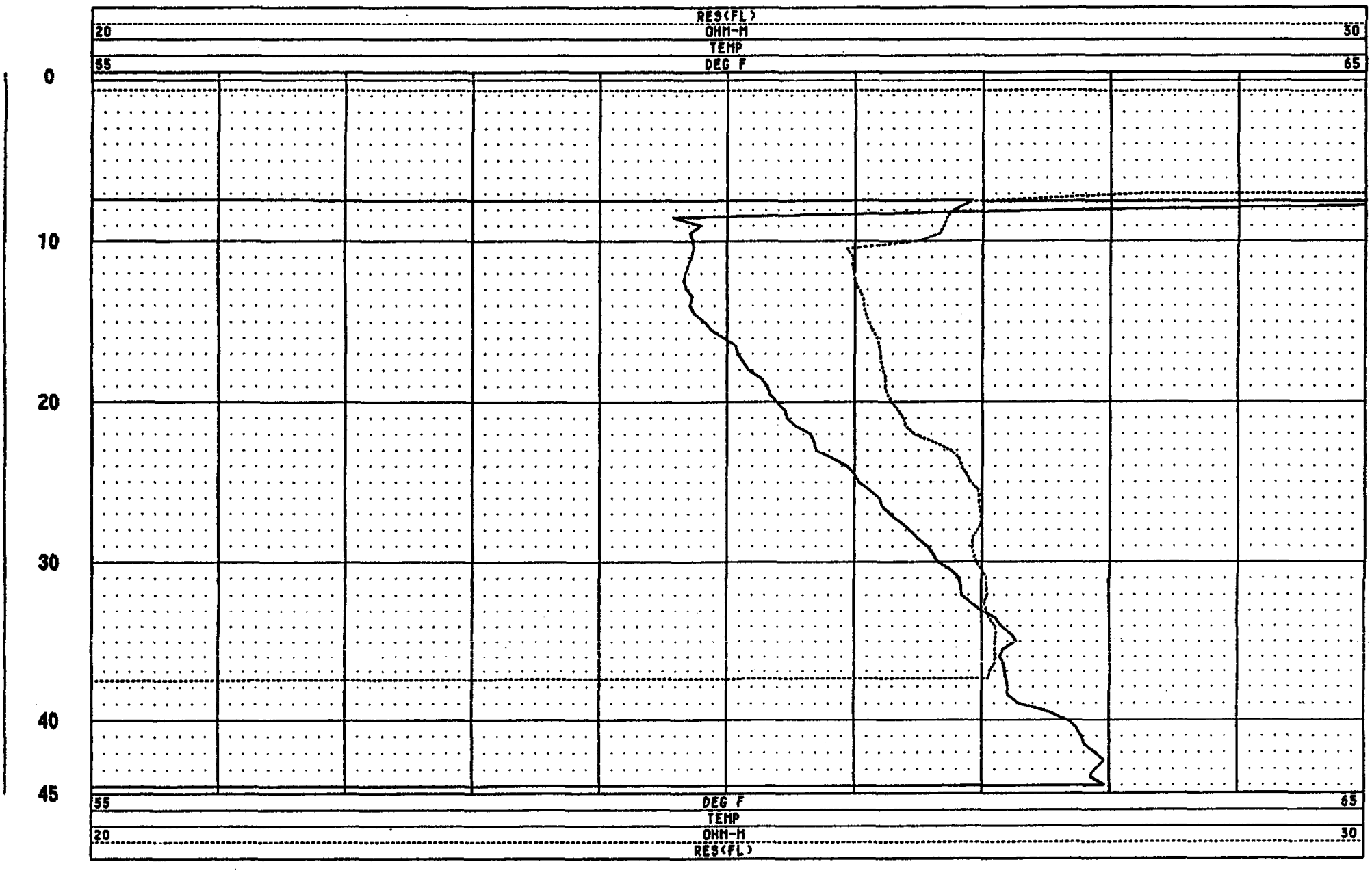
BRMW-10

COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-10			CALIPER	
LOCATION/FIELD	: MAYWOOD/STEPAN			LSN ELEC	
COUNTY	: BERGEN			GAMMA,SP	
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/15/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 53	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 45.00	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.00	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 23	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 7
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



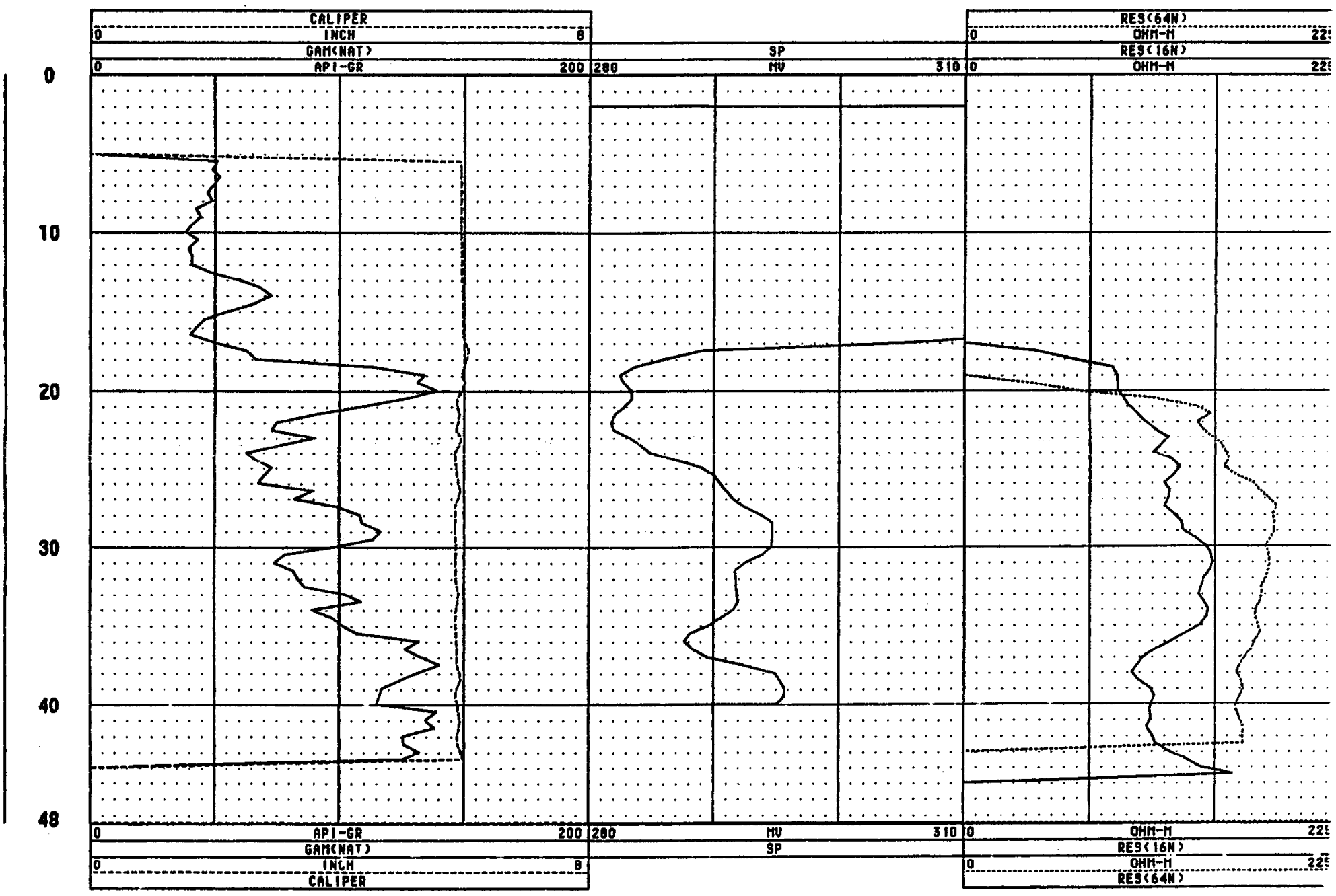
BRMW-11

COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-11			TEMP	
LOCATION/FIELD	: MAYWOOD/SEARS			FLUIDRES	
COUNTY	: BERGEN				
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/14/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 47	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 48.00	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.50	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 17	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS:	.25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 1
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210	THRESH:	2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-11

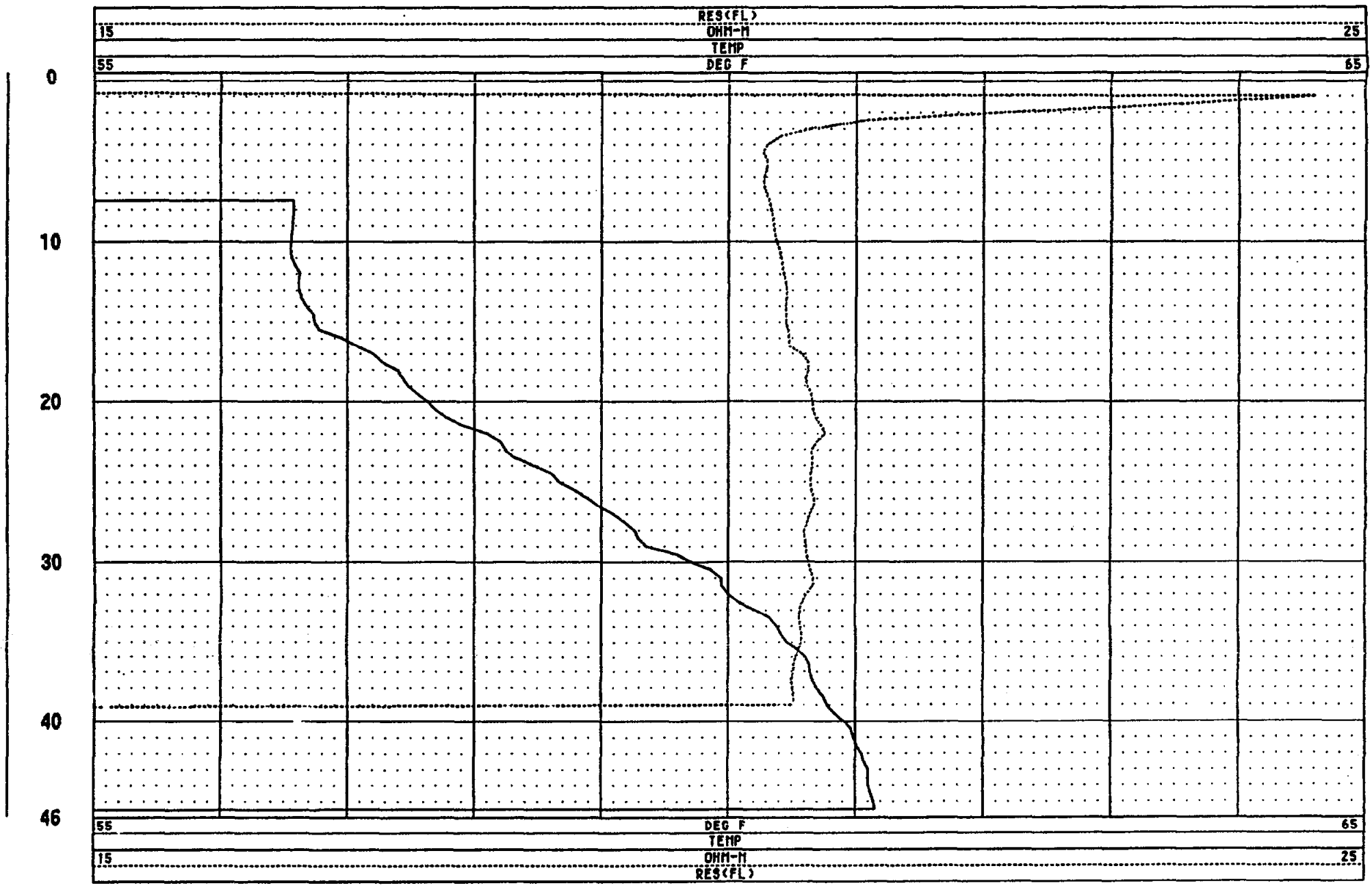
COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-11			CALIPER	
LOCATION/FIELD	: MAYWOOD/SEARS			LSN ELEC	
COUNTY	: BERGEN			GAMMA,SP	
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/14/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 47	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 46.50	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.00	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 17	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 7
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-12

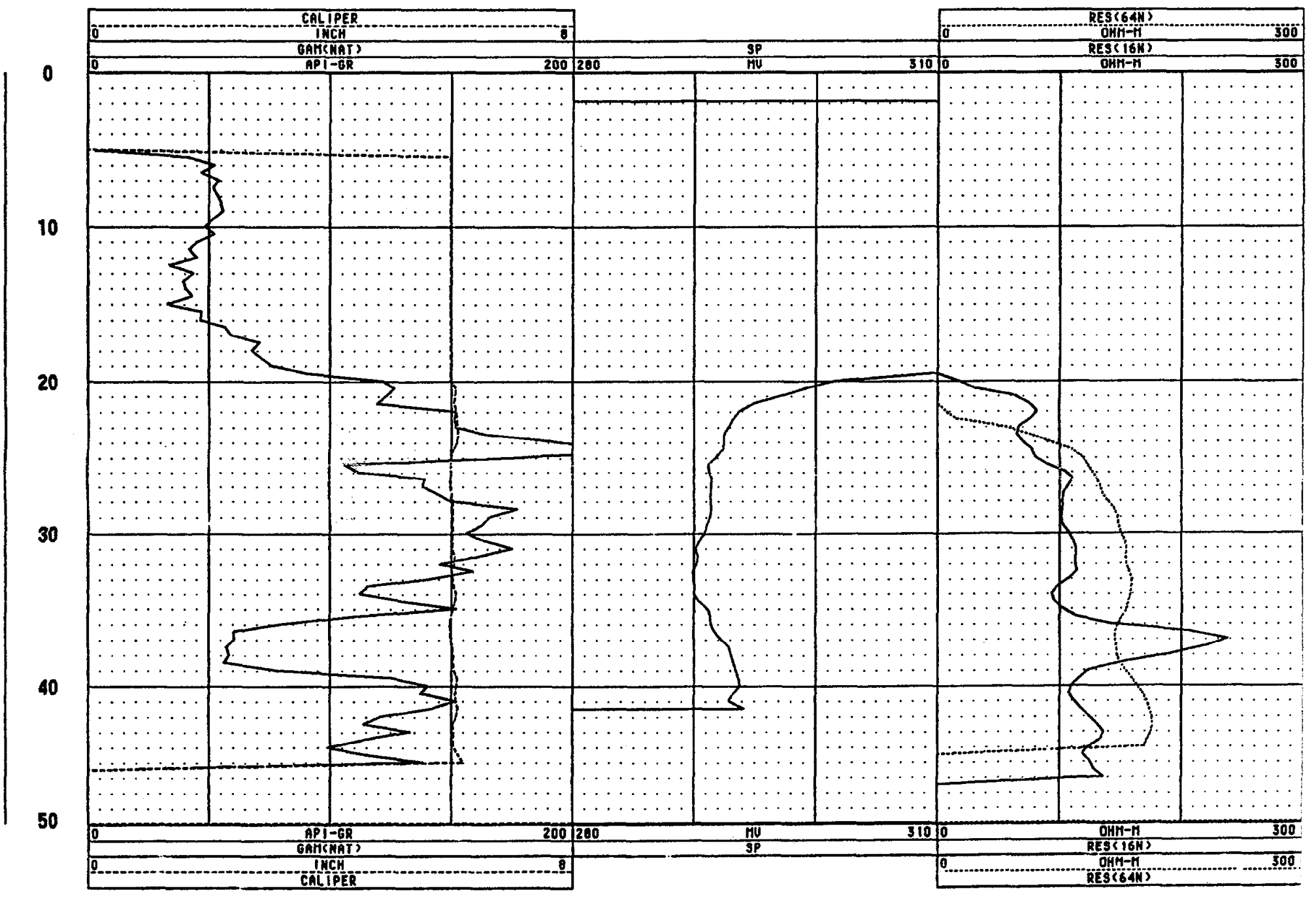
COMPANY	: STEPAN		
WELL	: BRMW-12		
LOCATION/FIELD	: MAYWOOD/FEDEX		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/16/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 50	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 49.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.50	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 20	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 1
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 1
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
TEMP
FLUIDRES

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



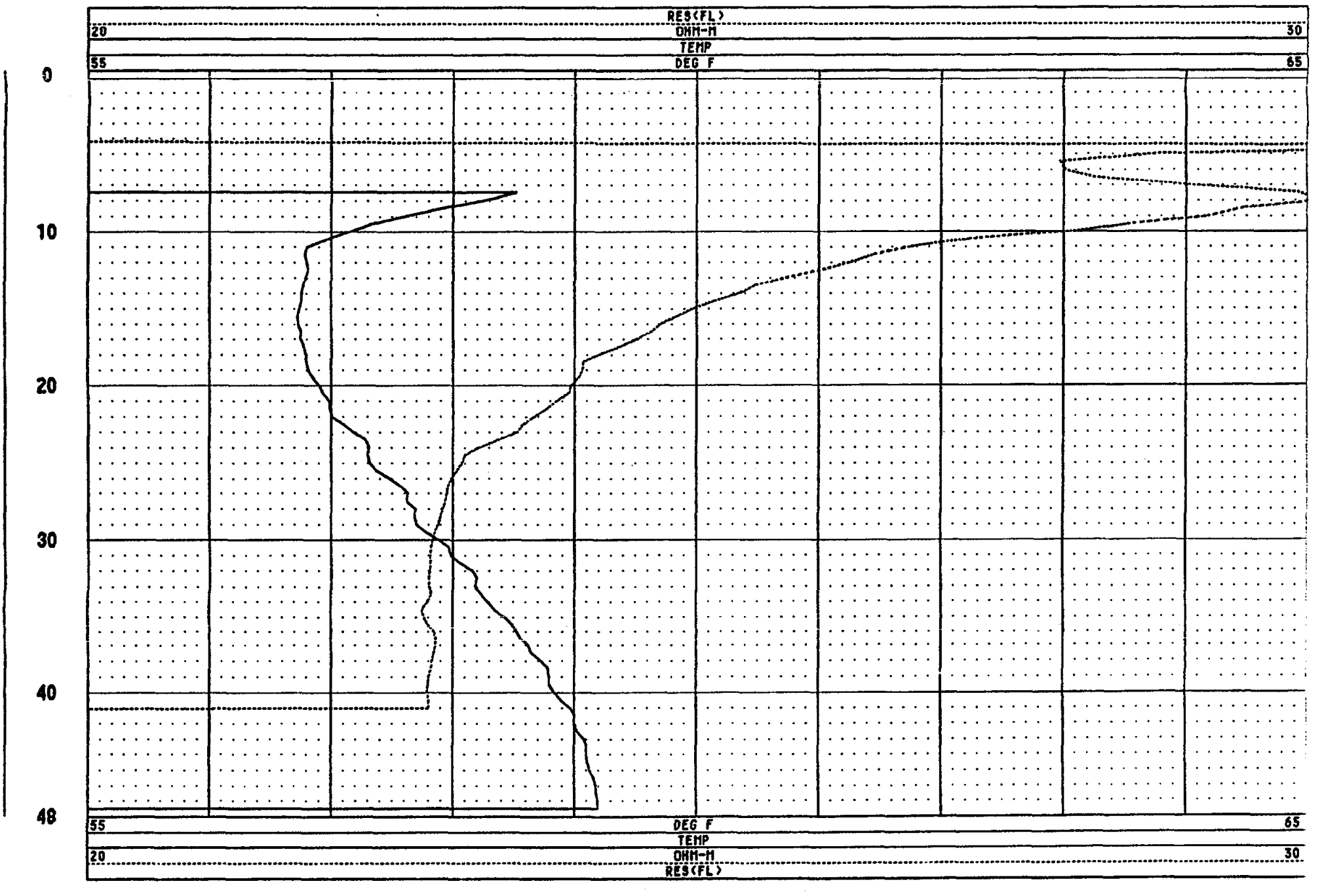
BRMW-12

COMPANY	: STEPAN		
WELL	: BRMW-12		
LOCATION/FIELD	: MAYWOOD/FEDEX		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/16/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 50	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 48.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 20	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 2
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-13

COMPANY : STEPAN
WELL : BRMW-13
LOCATION/FIELD : MAYWOOD/SEARS
COUNTY : BERGEN
STATE : NEW JERSEY

OTHER SERVICES:
TEMP
FLUIDRES

SECTION :
TOWNSHIP :
RANGE :

DATE : 05/12/92
DEPTH DRILLER : 51
LOG BOTTOM : 52.00
LOG TOP : 0.50

PERMANENT DATUM : GL
ELEV. PERM. DATUM:
LOG MEASURED FROM: GL
DRL MEASURED FROM: GL

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 21
CASING TYPE : STEEL
CASING THICKNESS: .25

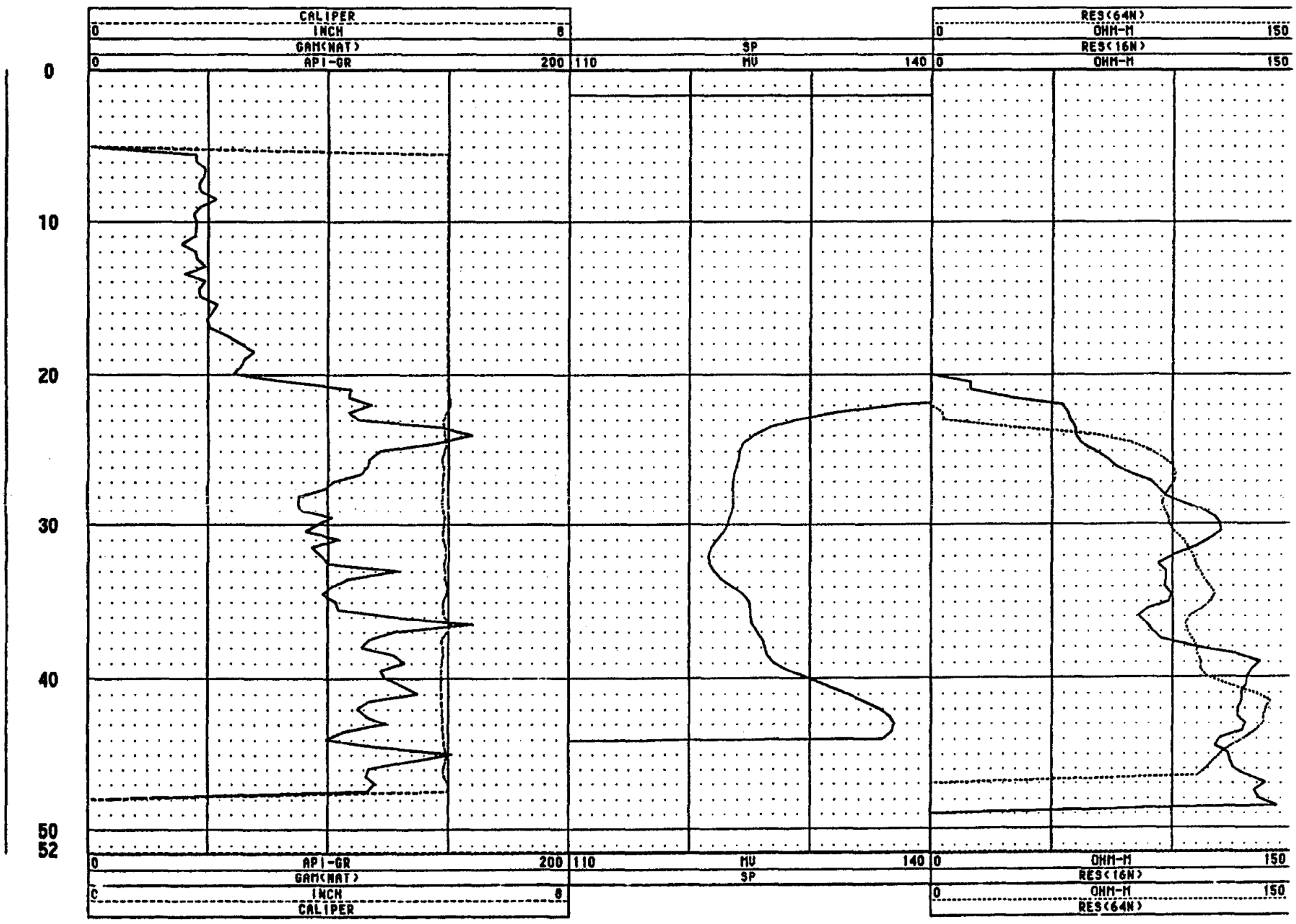
LOGGING UNIT : 1
FIELD OFFICE : DFB
RECORDED BY : M. SCHILLING

BIT SIZE : 5.875
MAGNETIC DECL. : 7.5
MATRIX DENSITY : 2.68
FLUID DENSITY : 1.0
NEUTRON MATRIX : BEDROCK
REMARKS :

BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 57
FLUID DELTA T : 210

FILE : PROCESSED
TYPE : 9040A
LOG : 5
PLOT : STEPAN 1
THRESH: 2500

OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-13

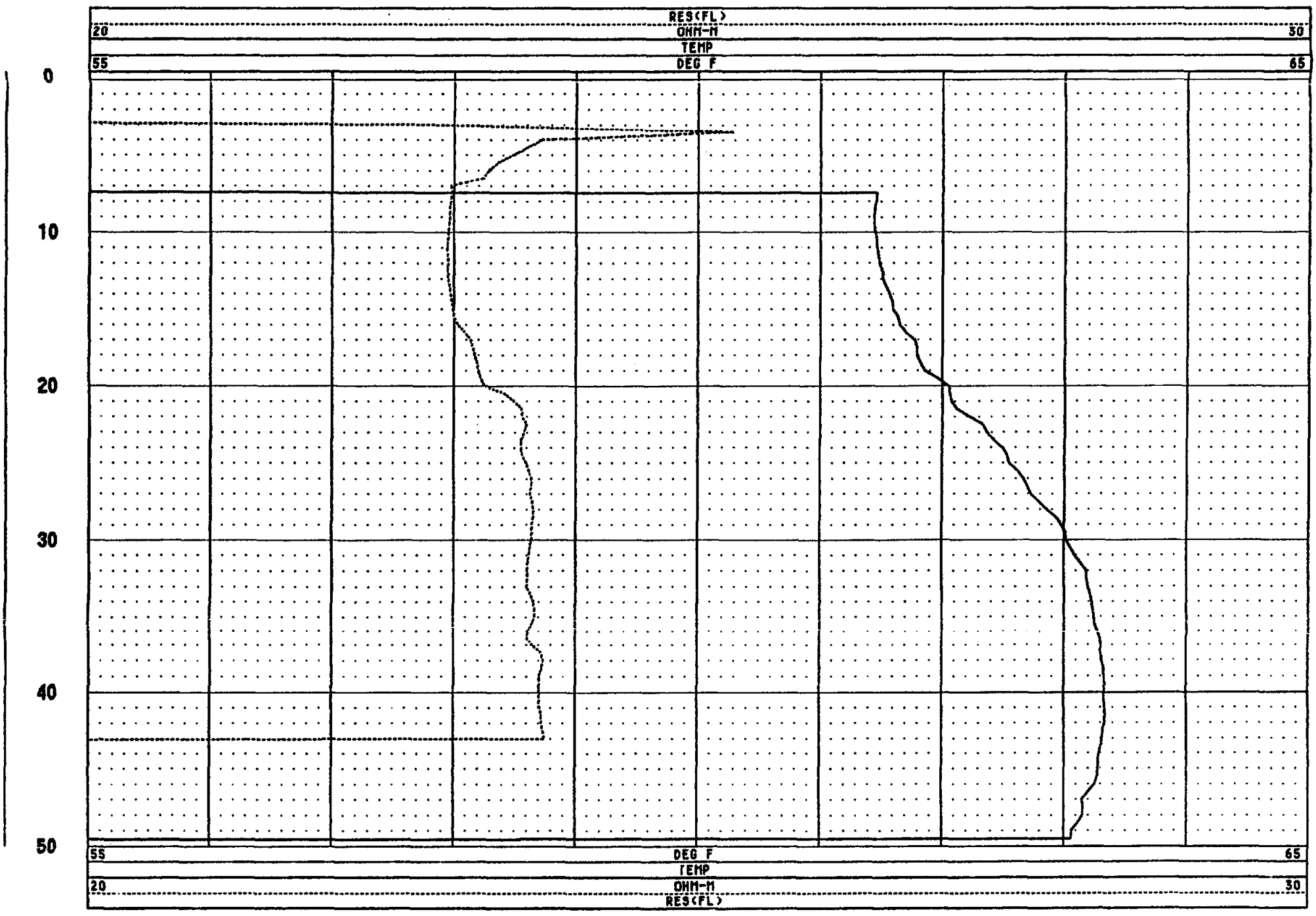
COMPANY	: STEPAN		
WELL	: BRMW-13		
LOCATION/FIELD	: MAYWOOD/SEARS		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/12/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 51	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 50.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 21	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 7
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500
REMARKS	:		

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

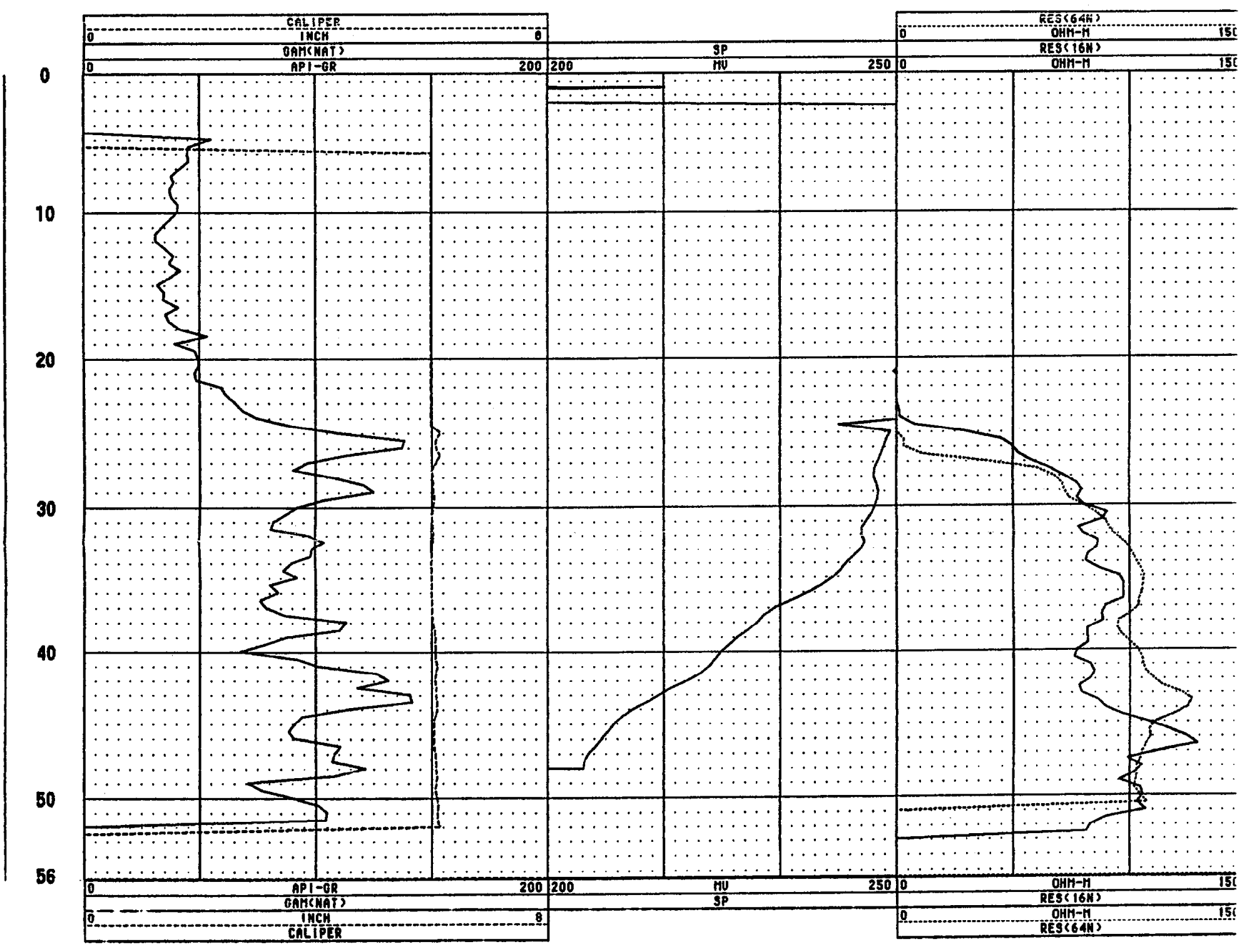


BRMW-14

COMPANY	: STEPAN		
WELL	: BRMW-14		
LOCATION/FIELD	: MAYWOOD/SEARS		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/12/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 55	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 56.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 1.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 25	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 1
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 1
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
TEMP
FLUIDRES

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



BRMW-14

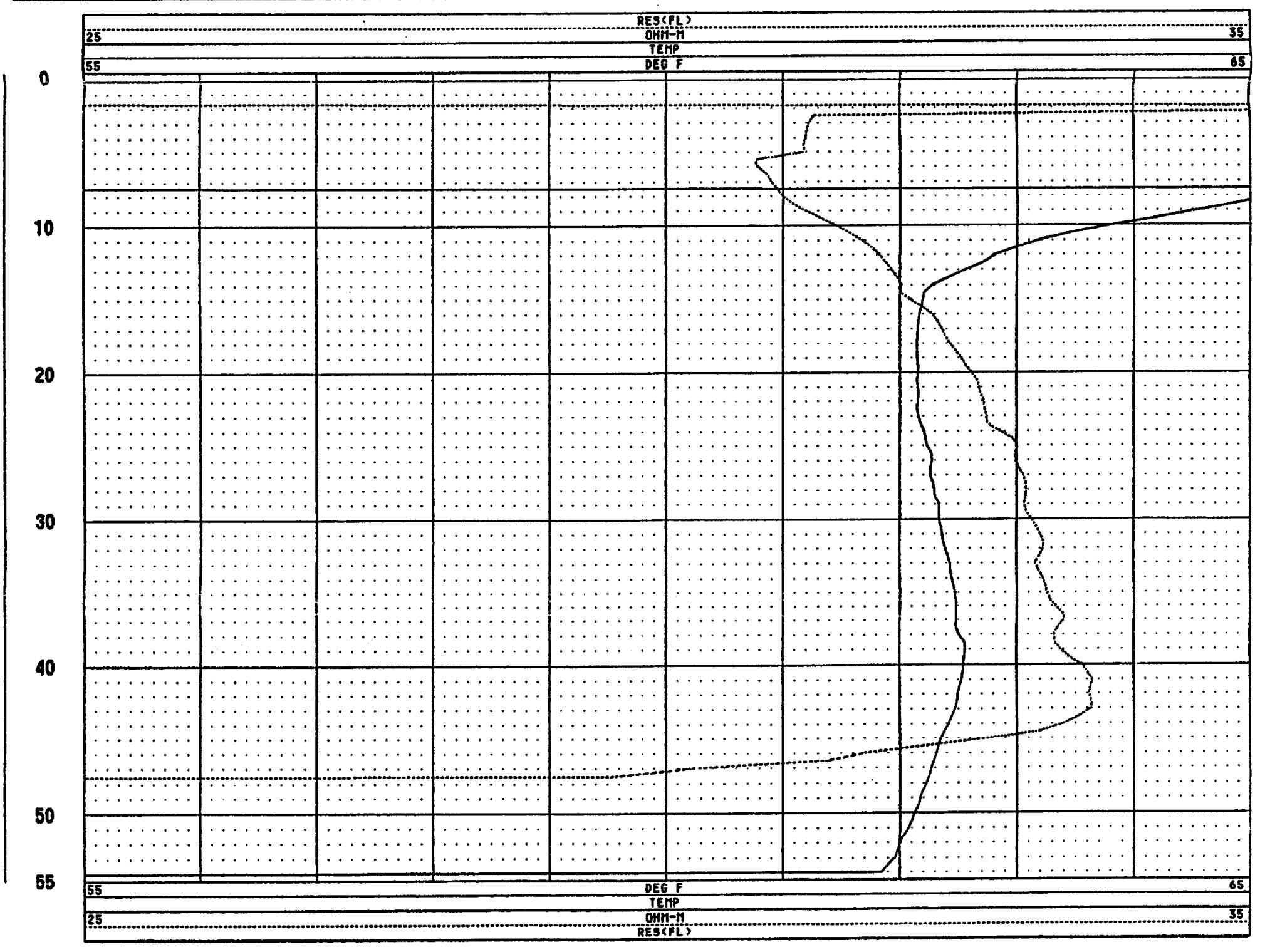
COMPANY	: STEPAN		
WELL	: BRMW-14		
LOCATION/FIELD	: MAYWOOD/SEARS		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/12/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 55	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 55.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 25	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 2
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

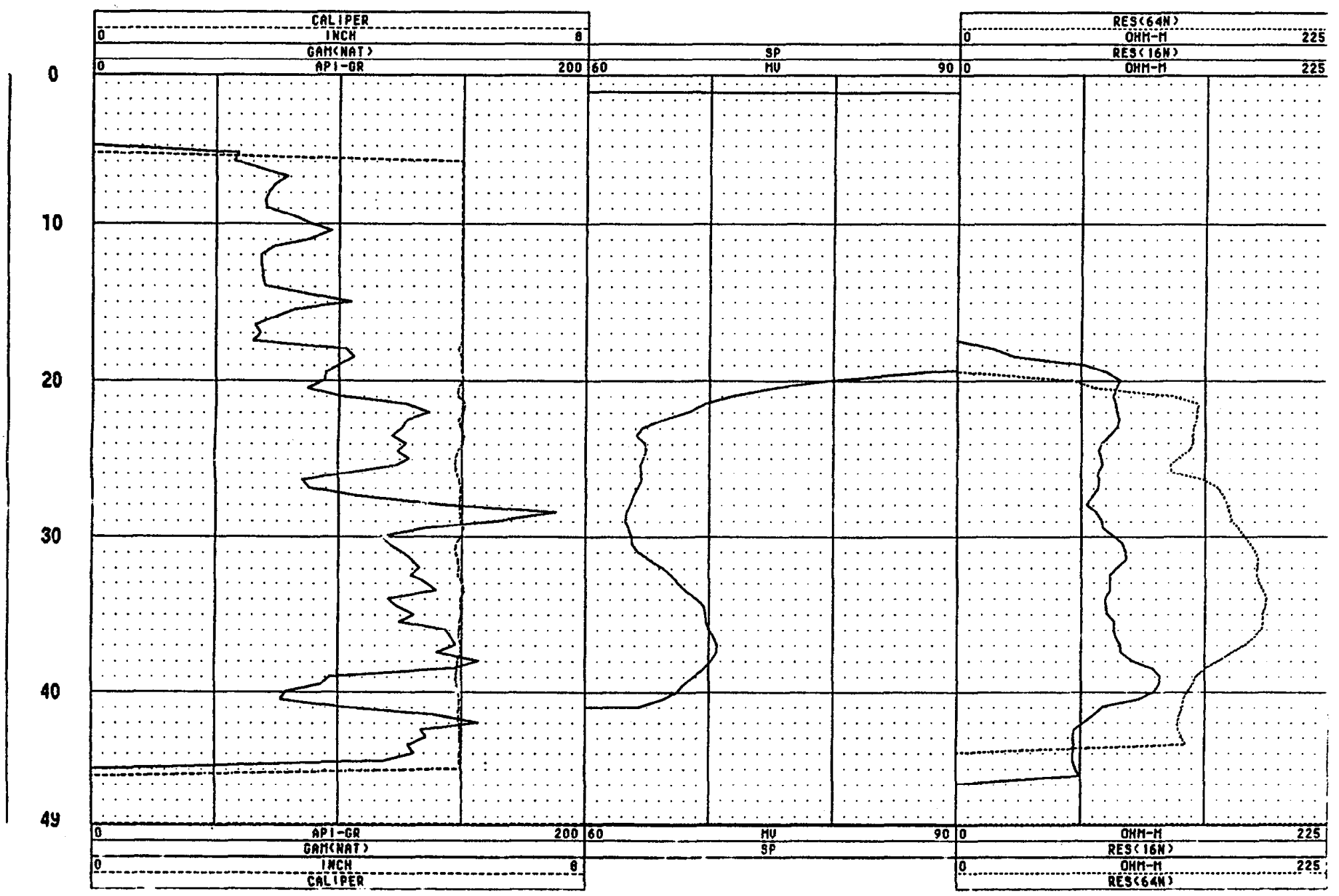


BRMW-15

COMPANY	: STEPAN		
WELL	: BRMW-15		
LOCATION/FIELD	: MAYWOOD/STEPAN		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/11/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 50	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 49.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 1.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 18	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 90400
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 1
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 1
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
TEMP
FLUIDRES

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



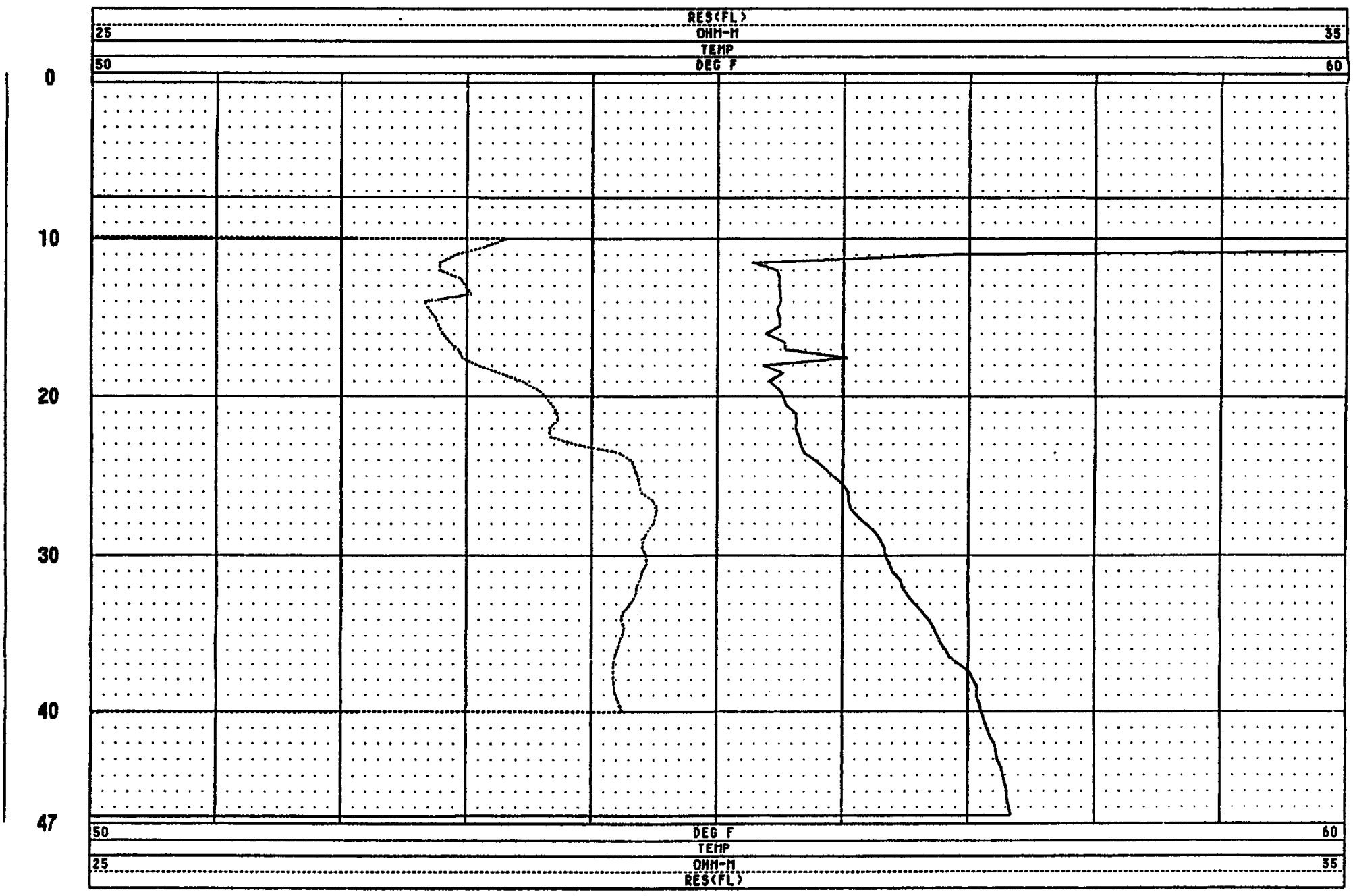
BRMW-15

COMPANY	: STEPAN		
WELL	: BRMW-15		
LOCATION/FIELD	: MAYWOOD/STEPAN		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/11/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 50	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 47.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 18	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 2
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-16

COMPANY : STEPAN
WELL : BRMW-16
LOCATION/FIELD : MAYWOOD/STEPAN
COUNTY : BERGEN
STATE : NEW JERSEY

OTHER SERVICES:
TEMP
FLUIDRES

SECTION : TOWNSHIP : RANGE :

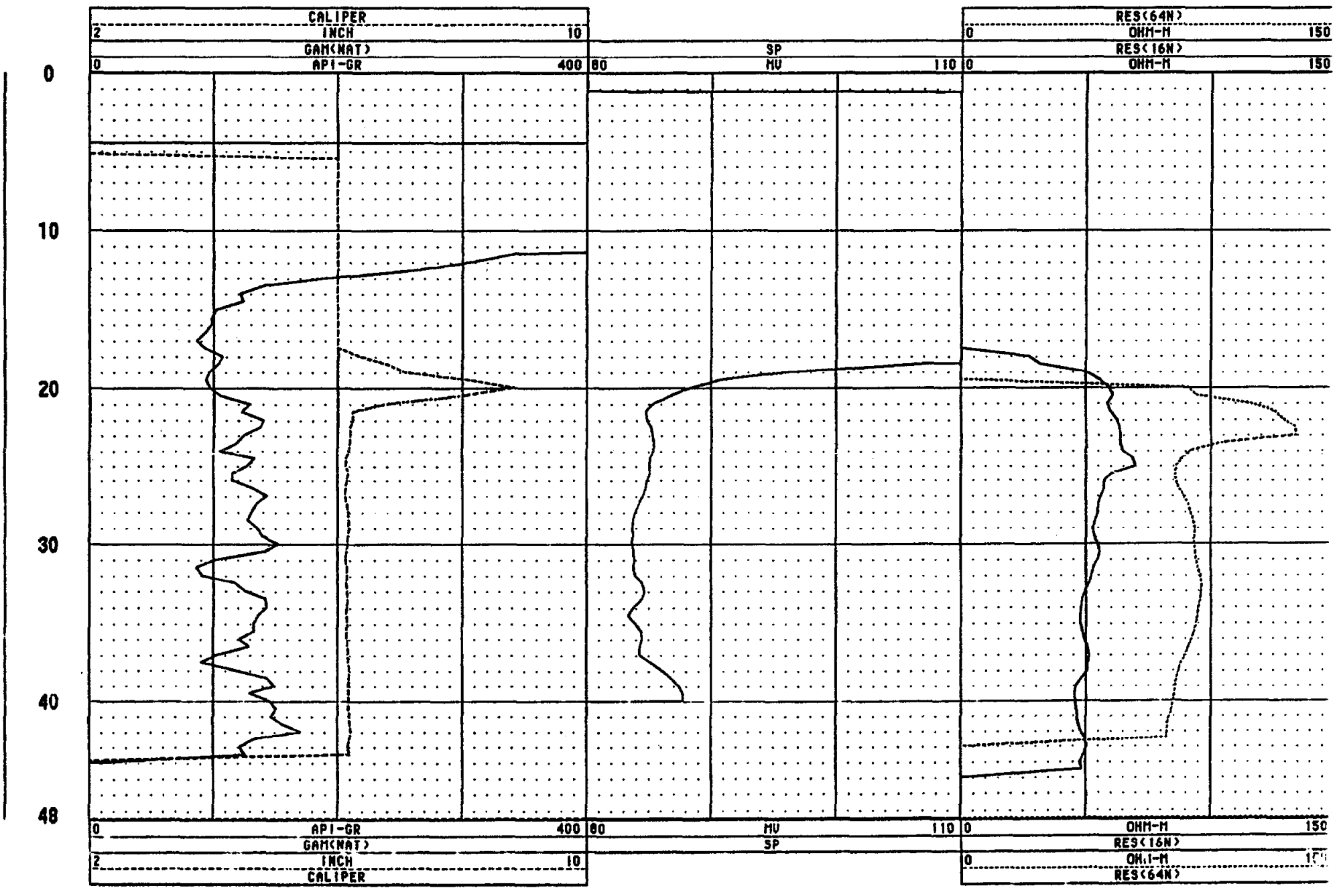
DATE	: 05/15/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 48	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 48.00	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.50	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 18	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS:	.25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 90400
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 1
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 1
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T	: 210	THRESH:	2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-16

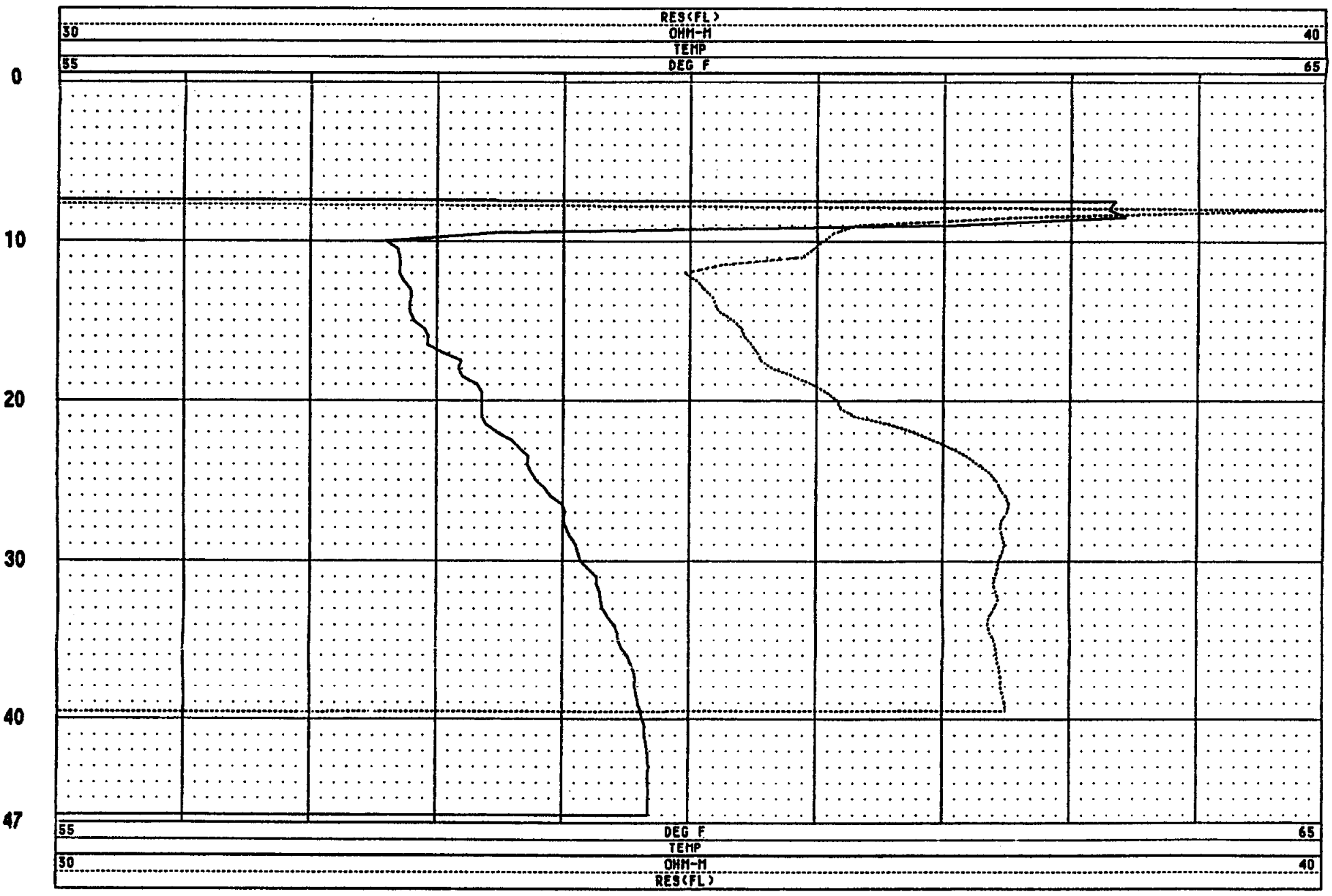
COMPANY	: STEPAN			OTHER SERVICES:	
WELL	: BRMW-16			CALIPER	
LOCATION/FIELD	: MAYWOOD/STEPAN			LSN ELEC	
COUNTY	: BERGEN			GAMMA,SP	
STATE	: NEW JERSEY				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 05/15/92	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 48	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 47.00	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.00	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 18	LOGGING UNIT	: 1		
CASING TYPE	: STEEL	FIELD OFFICE	: DFB		
CASING THICKNESS	: .25	RECORDED BY	: M. SCHILLING		
BIT SIZE	: 5.875	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 7.5	RM	: 0	TYPE	: 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 57	PLOT	: STEPAN 2
NEUTRON MATRIX	: LIMESTONE	FLUID DELTA T	: 210	THRESH	: 2500

REMARKS :

OBSERVER: L. VOGEL - CH2M HILL (PHL)

LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



BRMW-17

COMPANY : STEPAN
WELL : BRMW-17
LOCATION/FIELD : MAYWOOD/STEPAN
COUNTY : BERGEN
STATE : NEW JERSEY
SECTION :
TOWNSHIP :
RANGE :

OTHER SERVICES:
TEMP
FLUIDRES

DATE : 05/11/92
DEPTH DRILLER : 50
LOG BOTTOM : 50.50
LOG TOP : 0.50

PERMANENT DATUM : GL
ELEV. PERM. DATUM:
LOG MEASURED FROM: GL
DRL MEASURED FROM: GL

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 20
CASING TYPE : STEEL
CASING THICKNESS: .25

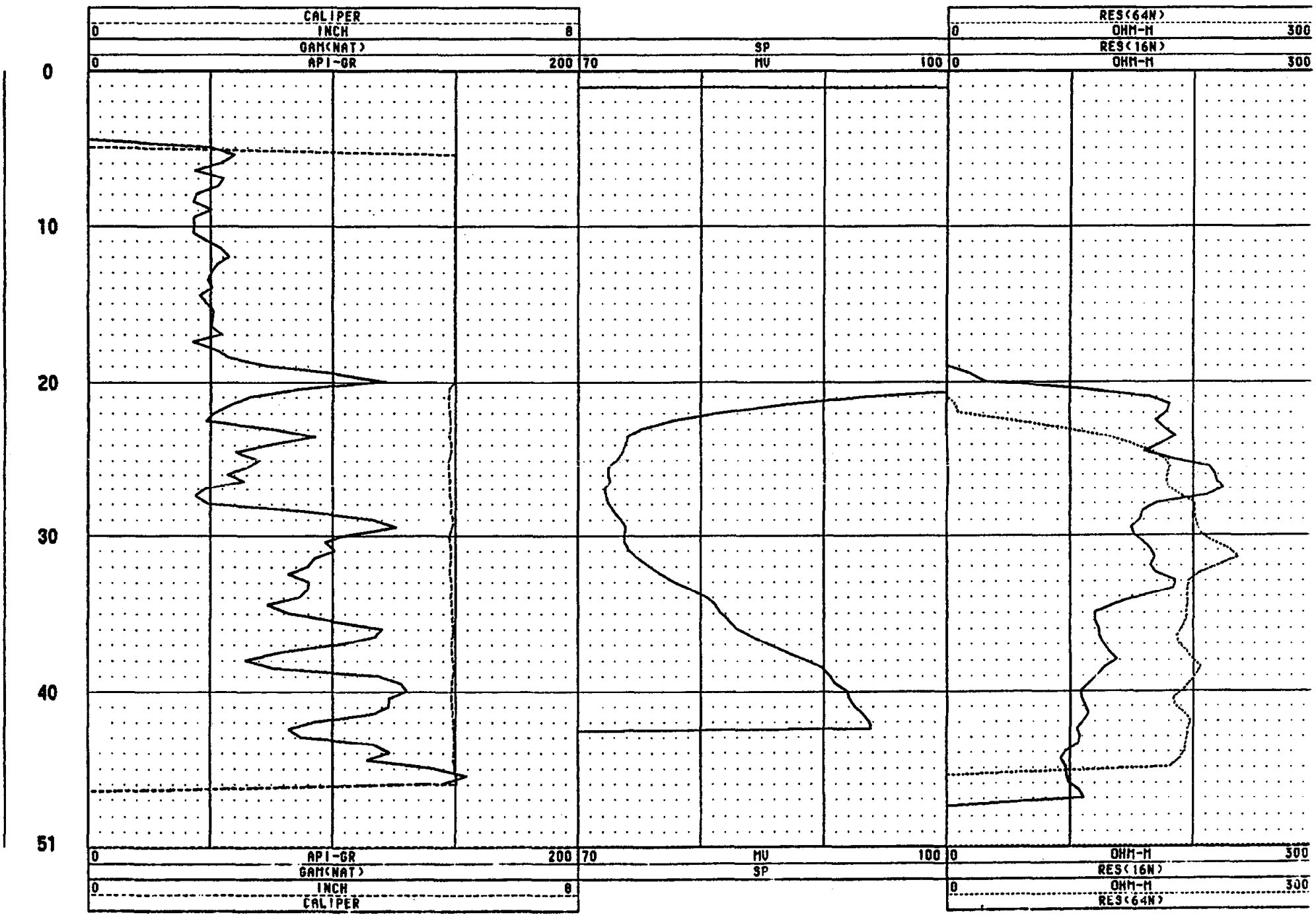
LOGGING UNIT : 1
FIELD OFFICE : DFB
RECORDED BY : M. SCHILLING

BIT SIZE : 5.875
MAGNETIC DECL. : 7.5
MATRIX DENSITY : 2.68
FLUID DENSITY : 1.0
NEUTRON MATRIX : BEDROCK
REMARKS :

BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 57
FLUID DELTA T : 210

FILE : PROCESSED
TYPE : 9040A
LOG : 8
PLOT : STEPAN 1
THRESH: 2500

OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL

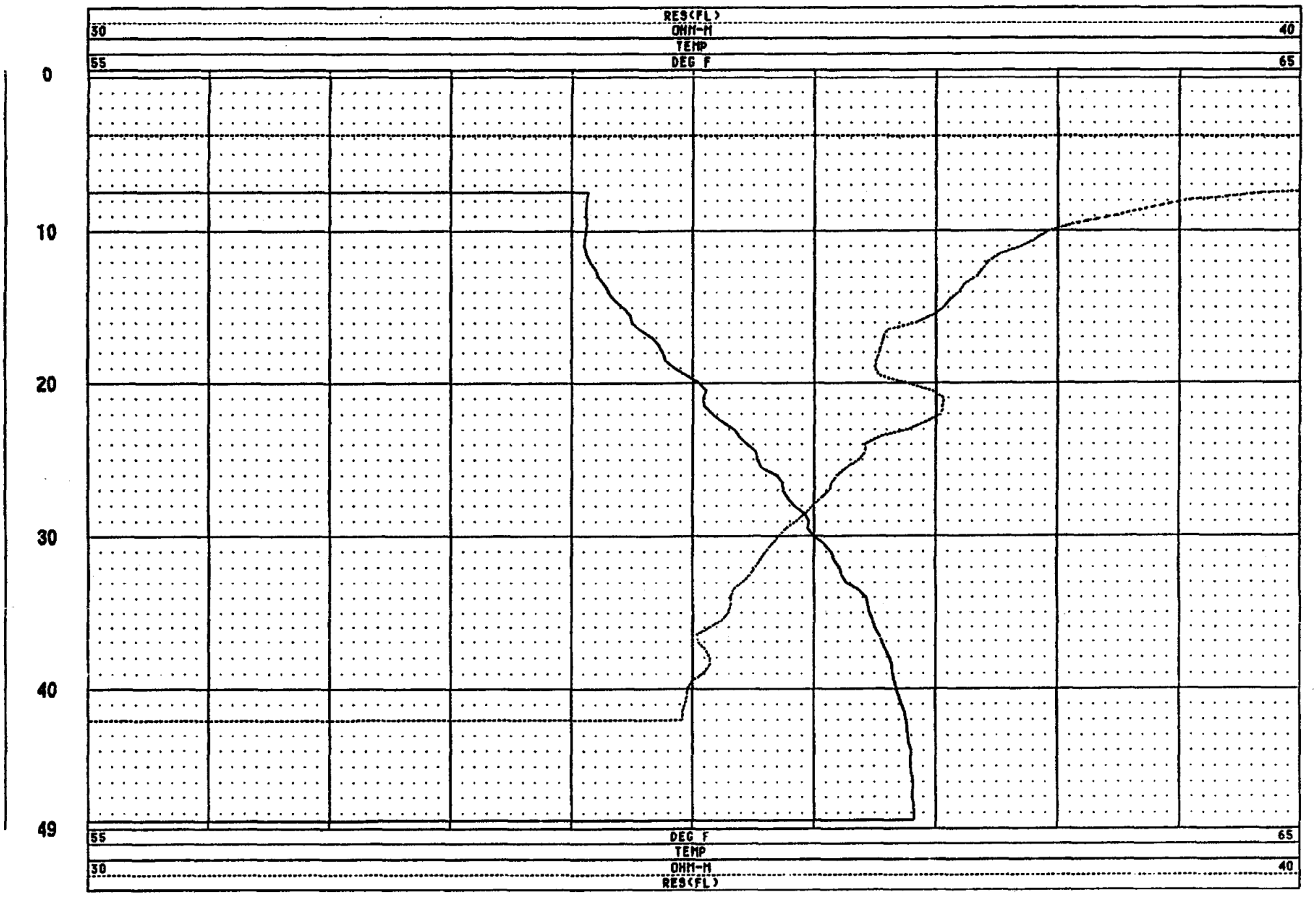


BRMW-17

COMPANY	: STEPAN		
WELL	: BRMW-17		
LOCATION/FIELD	: MAYWOOD/STEPAN		
COUNTY	: BERGEN		
STATE	: NEW JERSEY		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 05/11/92	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 50	ELEV. PERM. DATUM:	KB :
LOG BOTTOM	: 49.50	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.00	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 20	LOGGING UNIT : 1	
CASING TYPE	: STEEL	FIELD OFFICE : DFB	
CASING THICKNESS	: .25	RECORDED BY : M. SCHILLING	
BIT SIZE	: 5.875	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 7.5	RM : 0	TYPE : 9040A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 6
FLUID DENSITY	: 1.0	MATRIX DELTA T : 57	PLOT : STEPAN 2
NEUTRON MATRIX	: BEDROCK	FLUID DELTA T : 210	THRESH: 2500

OTHER SERVICES:
CALIPER
LSN ELEC
GAMMA,SP

REMARKS :
OBSERVER: L. VOGEL - CH2M HILL (PHL)
LOGGED UNDER STATIC CONDITIONS ON BEDROCK MONITOR WELL



Appendix L
Slug Test Technical Memorandum

TECHNICAL MEMORANDUM CH2MHILL

PREPARED FOR: Mary Manto/NJO
Scott Vozza/NJO
Cliff Bell/NJO

PREPARED BY: Mary Kate Dwyer/NJO

DATE: February 4, 1993

SUBJECT: Stepan and Sears and Adjacent Properties RI; Aquifer Recovery Slug Testing

PROJECT: NJO22948.ST.WL

1.0 Introduction

Aquifer recovery (slug) tests were performed on the Stepan and Sears and Adjacent Properties during the period from August 12 to 27, 1992. Tests were performed on the wells installed during the remedial investigation to characterize the hydraulic properties of the overburden and bedrock zones beneath the study area. Results of the slug tests provide order-of-magnitude estimates of in situ hydraulic conductivity for a small aquifer volume in the area immediately surrounding the test well. Sets of tests were performed in well couplets screened in intervals within the overburden and fractured bedrock units. From these tests, the hydraulic conductivities and transmissivities of the test units were determined.

This technical memorandum (TM) presents the results of the aquifer testing, including a description of the hydrogeologic units tested and the procedures used. Calculated hydraulic conductivities and transmissivity of the overburden aquifer are also presented.

Geologic Units

The overburden stratigraphy at the site consists of fill, recent deposits, Pleistocene stratified and unstratified glacial deposits, and soil residual. This unit ranges in thickness from 2 to 18 feet. It consists predominantly of brown, very fine sand and silts, but also contains layers of clay and coarser-grained sediments. Groundwater occurred at 2.6 to 16.2 feet below grade in the overburden aquifer at the time the tests were performed.

The overburden unit overlies the fractured bedrock of the Passaic Group. Generally, bedrock occurs from 4 to 11 feet below grade. Beneath the site, the unit is comprised primarily of fine sandstone, with some shale units. Based on the results of the

injection-packer testing conducted in September, the unit exhibits zones of variable hydraulic conductivity and transmissivity. More highly fractured zones within the bedrock were identified through injection-packer testing. The zone with the highest conductivity was screened in the bedrock wells. This zone occurred from as shallow as 14 feet to 48 feet below grade, the maximum depth tested. Groundwater occurred at 2.9 to 22 feet below grade in the bedrock aquifer at the time the tests were performed.

Well Descriptions

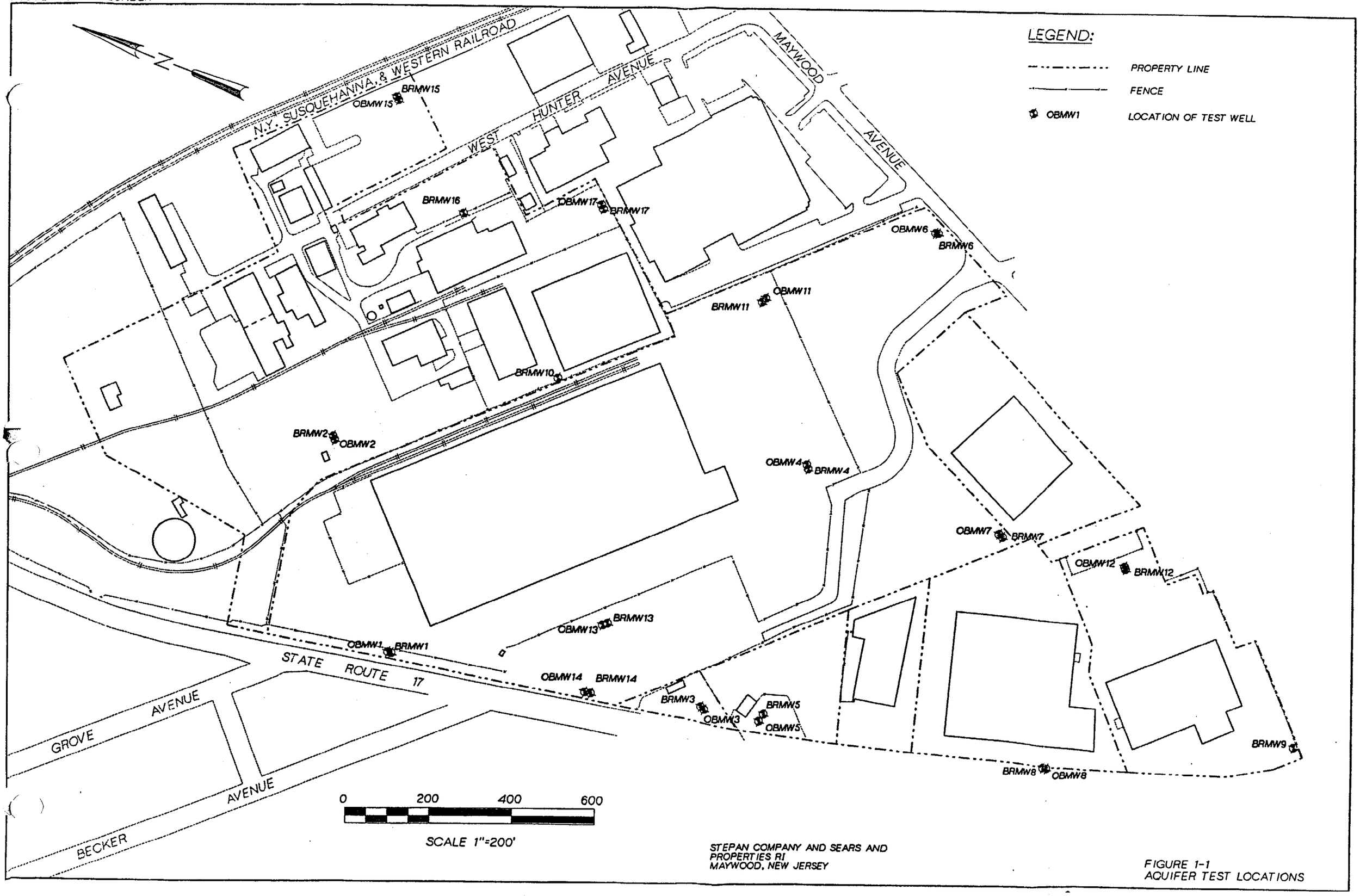
Fourteen wells screened in the overburden and seventeen wells screened in bedrock were tested. Aquifer tests were performed on wells located on the Stepan, Sears, Federal Express, SWS Realty, Sunoco, and Gulf properties (Figure 1-1). Table 1-1 presents the pertinent well construction information. Well construction details are important since well and sandpack diameter, screen length, and the height of the water column in the well determine the test method chosen and are used during the data analysis.

The wells are screened over a very small area of the unit. Hydraulic conductivities determined within these wells may not be representative of conditions occurring in other portions of this zone. The wells are screened in sandy layers within the overburden unit, which may not be continuous or hydraulically connected to other portions of the unit.

Hydraulic Conductivity Testing Methodologies

Field Testing Methods

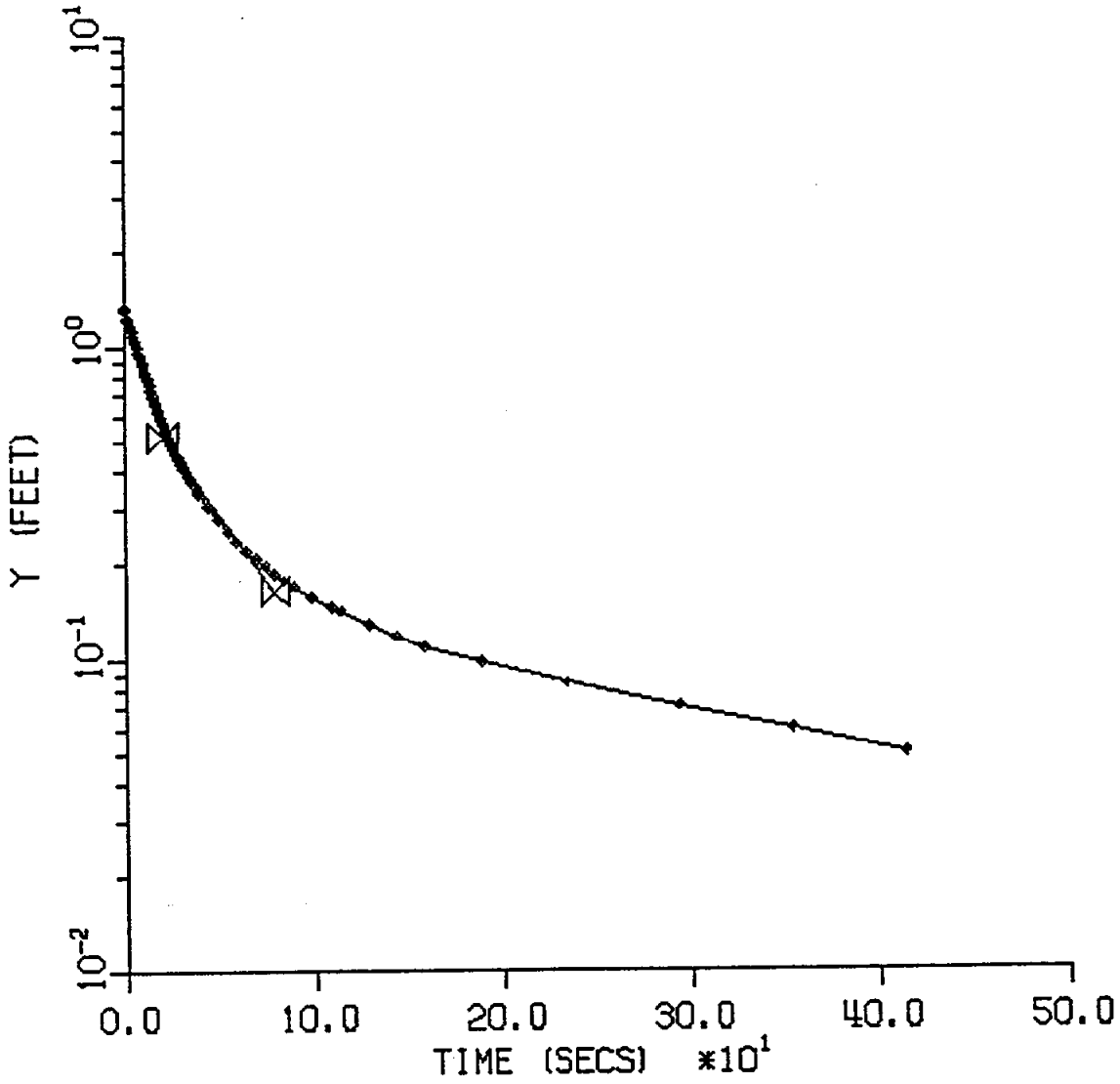
Slug tests were performed on all wells installed during the remedial investigation (Figure 1-1). Rising head recovery tests were performed using one of two methods: a pneumatic displacement method, or a displacement cylinder method. The pneumatic displacement device was used in wells where the screened interval was fully submerged with water. In wells where the water table occurred within the screened interval, the displacement cylinder was used to conduct the test. All wells screened within the unconsolidated aquifer were tested with the displacement cylinder method. Only one well, OBMW10, could not be tested since the well never recovered from the displacement caused by the insertion of the cylinder. Of the 17 wells screened in the bedrock aquifer, 15 were tested with the pneumatic displacement device and two were tested using the displacement cylinder method (BRMW9 and BRMW14). In the majority of the bedrock wells, the screen was located well below the water table, so the pneumatic displacement device could be used. In BRMW9, the water table was only 3.5 feet above the top of the screen, so the displacement cylinder was used to test the well. The displacement cylinder was used to test BRMW14, since the water level could not be suppressed with air pressure. Table 1-1 indicates which test was used on each well.



STEPAN COMPANY AND SEARS AND PROPERTIES RI
MAYWOOD, NEW JERSEY

FIGURE 1-1
AQUIFER TEST LOCATIONS

SEARS LØGISTICAL SERVICES
ØBMW1-TEST 1



K (CM/S) = 0.006635

WELL SPECS. (FEET)

SCREEN LENGTH = 3.8

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 5.0

H (FEET) = 3.84

COEFFICIENTS

A = 0.00

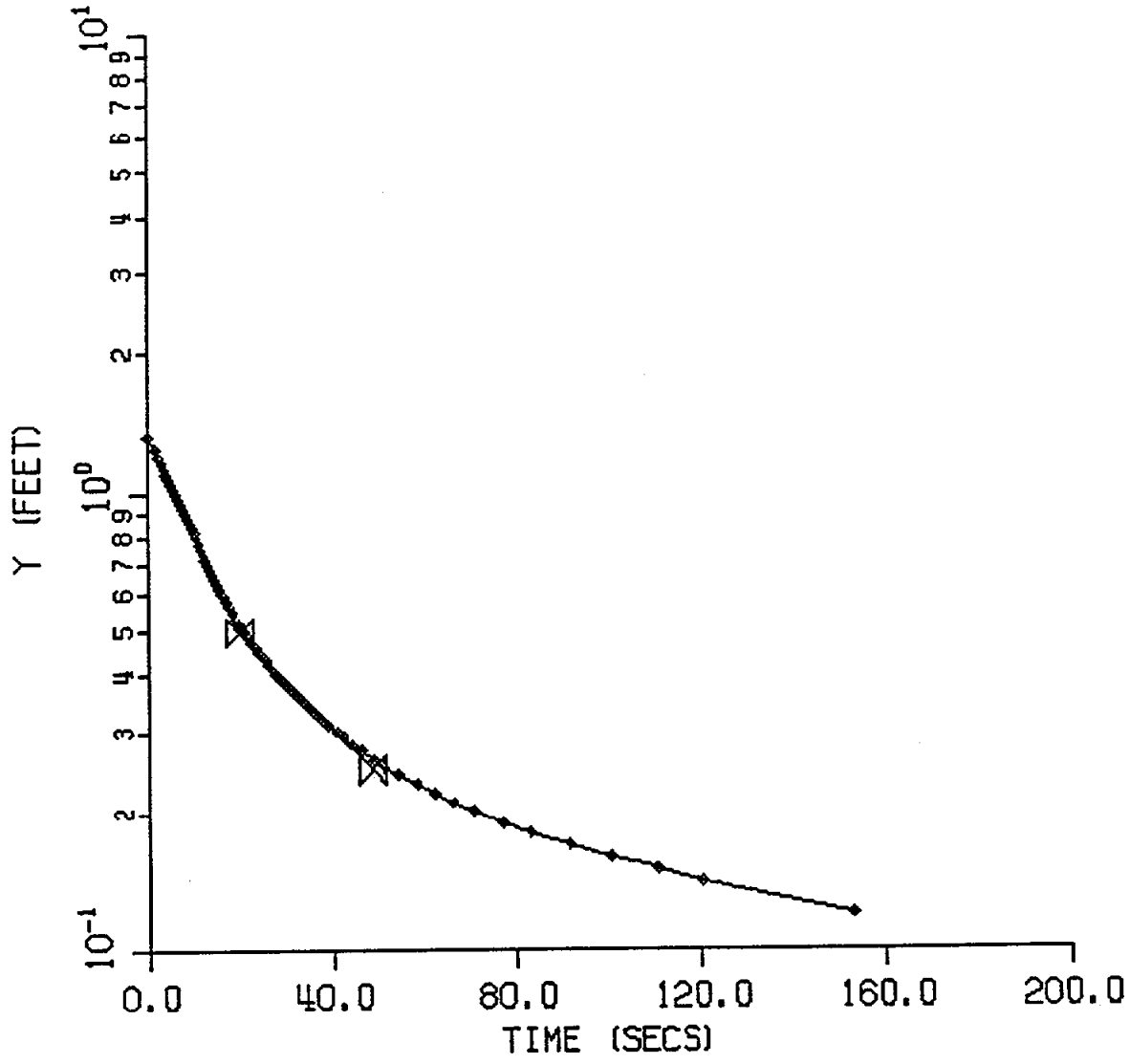
B = 0.00

C = 1.27

Y-INTERCEPT = 0.76

SLØPE = -0.0084

SEARS LØGISTICAL SERVICES
ØBMW1-TEST 2



K (CM/S) = 0.008194

WELL SPECS. (FEET)

SCREEN LENGTH = 3.8

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 5.0

H (FEET) = 3.84

COEFFICIENTS

A = 0.00

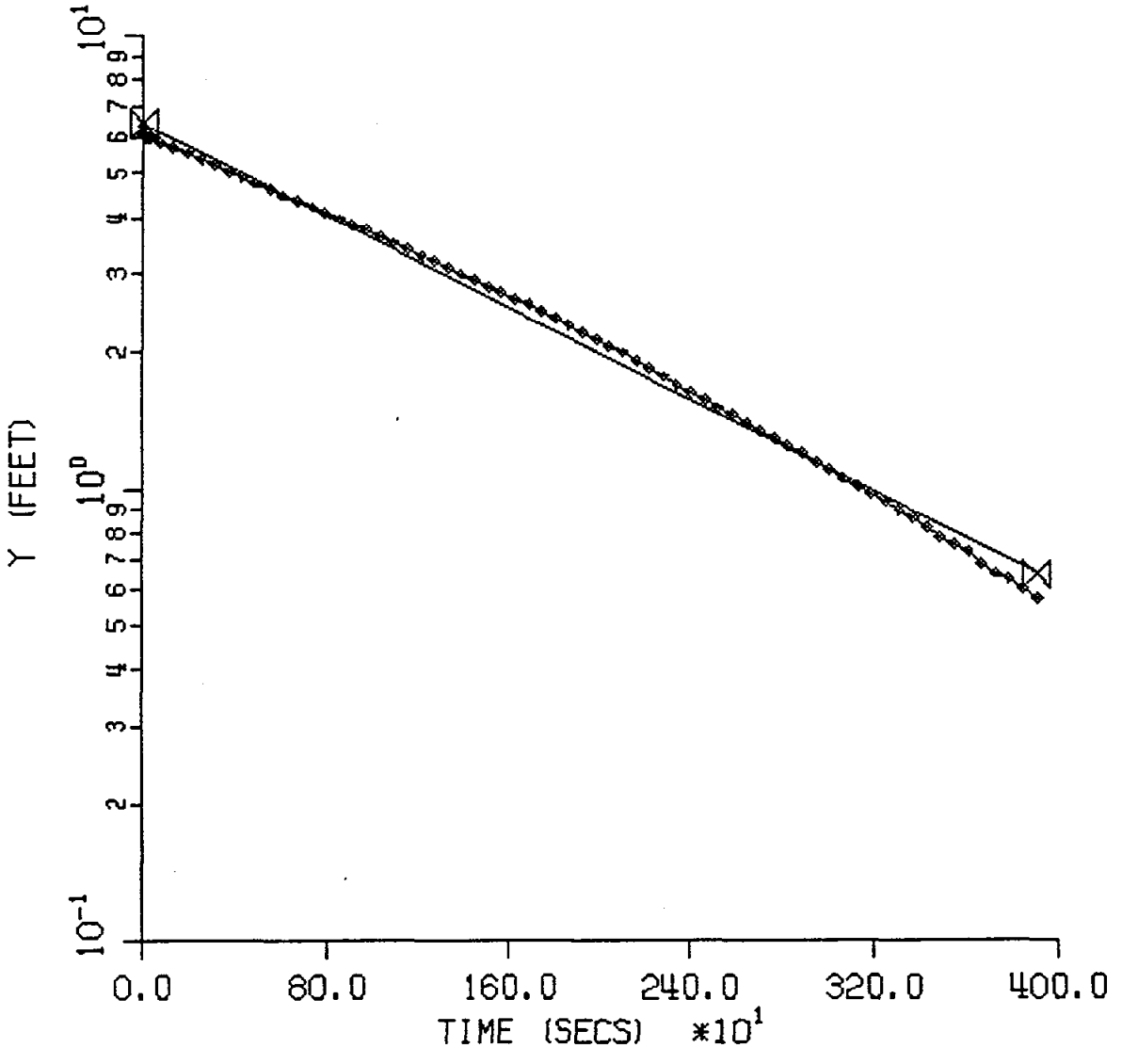
B = 0.00

C = 1.27

Y-INTERCEPT = 0.79

SLØPE = -0.0103

SEARS LØGISTICAL SERVICES
BRMW1-TEST 1



K (CM/S) = 0.000020

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 42.0

H (FEET) = 41.50

COEFFICIENTS

A = 2.41

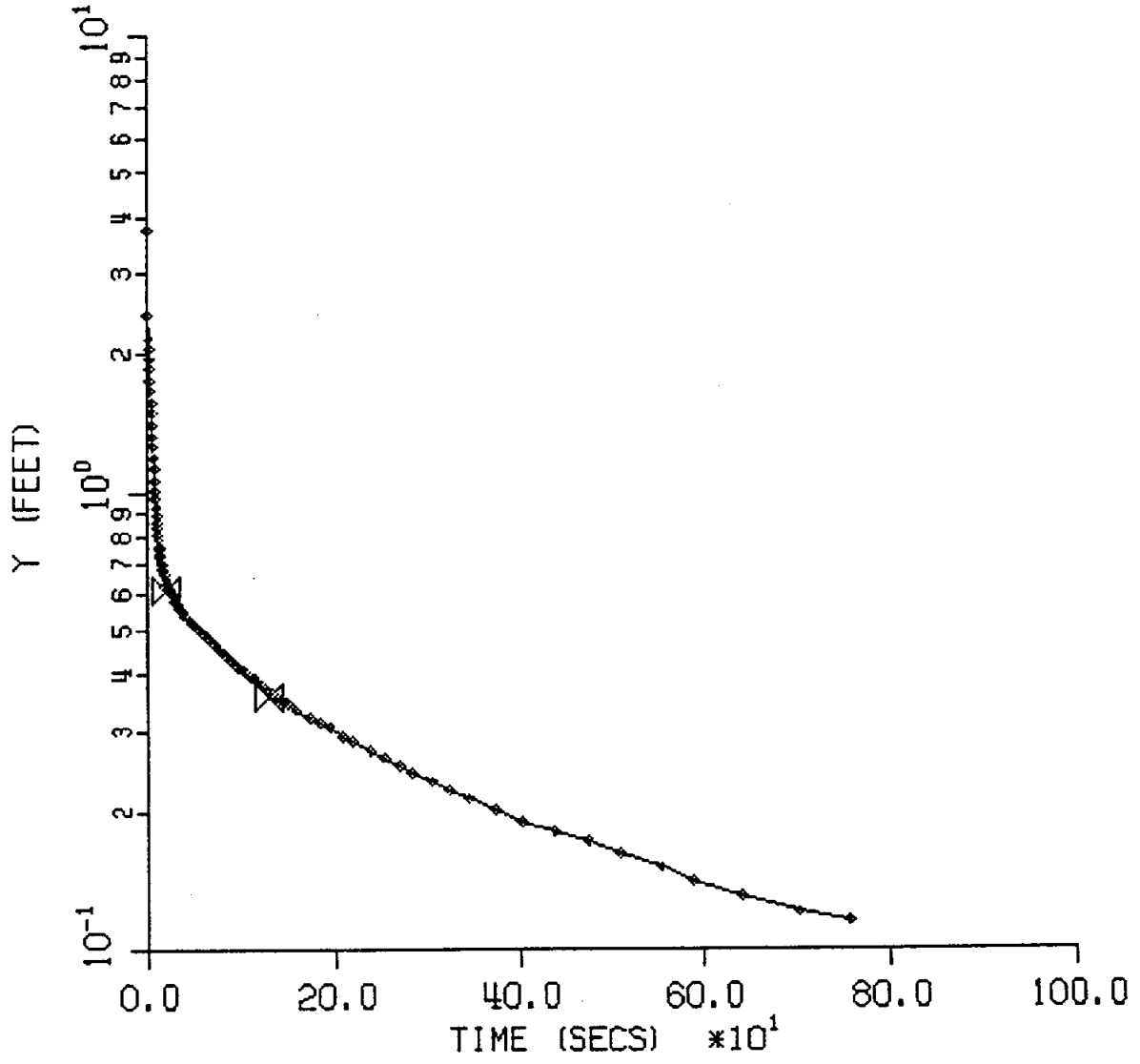
B = 0.38

C = 0.00

Y-INTERCEPT = 6.43

SLØPE = -0.0003

STEPAN COMPANY
OBMW2-TEST 1



K (CM/S) = 0.001163

WELL SPECS. (FEET)

SCREEN LENGTH = 7.1

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.0

H (FEET) = 7.14

COEFFICIENTS

A = 0.00

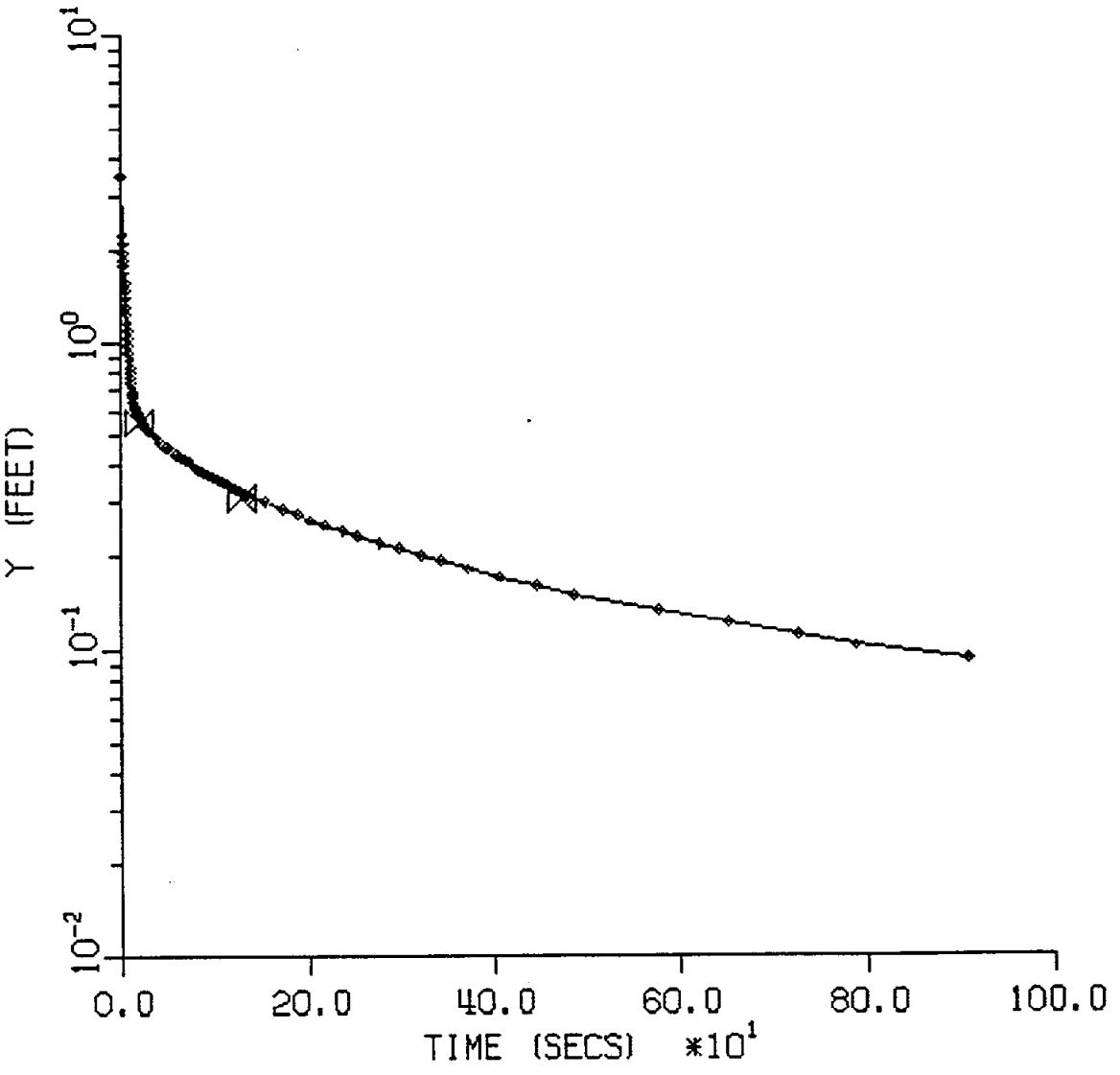
B = 0.00

C = 1.76

Y-INTERCEPT = 0.67

SLOPE = -0.0021

STEPAN COMPANY
OBMW2-TEST 2



K (CM/S) = 0.001233

WELL SPECS. (FEET)

SCREEN LENGTH = 7.1

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.0

H (FEET) = 7.14

COEFFICIENTS

A = 0.00

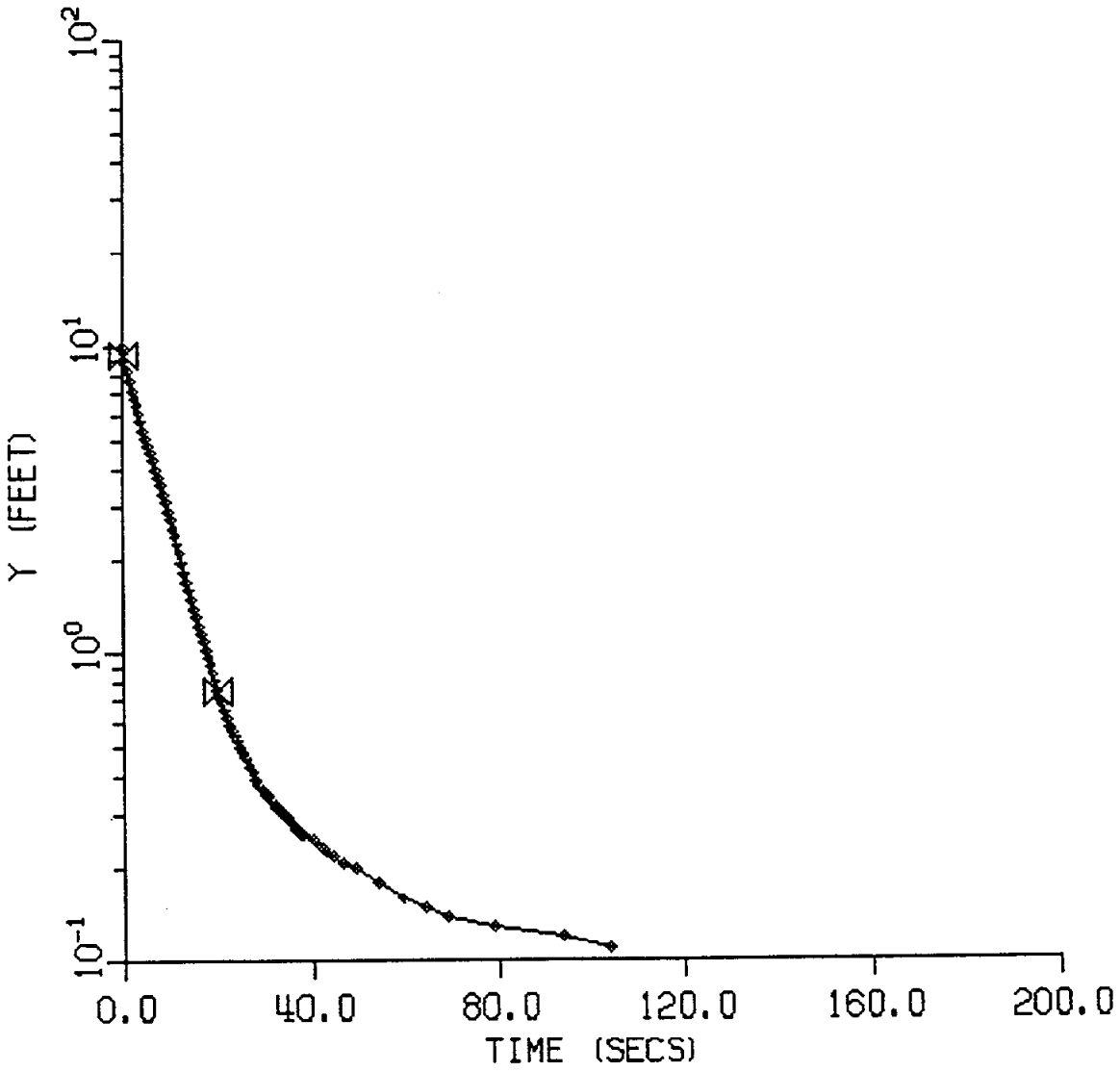
B = 0.00

C = 1.76

Y-INTERCEPT = 0.61

SLOPE = -0.0023

STEPAN COMPANY
BRMW2-TEST 1



K (CM/S) = 0.004041

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 34.0

H (FEET) = 33.00

COEFFICIENTS

A = 2.41

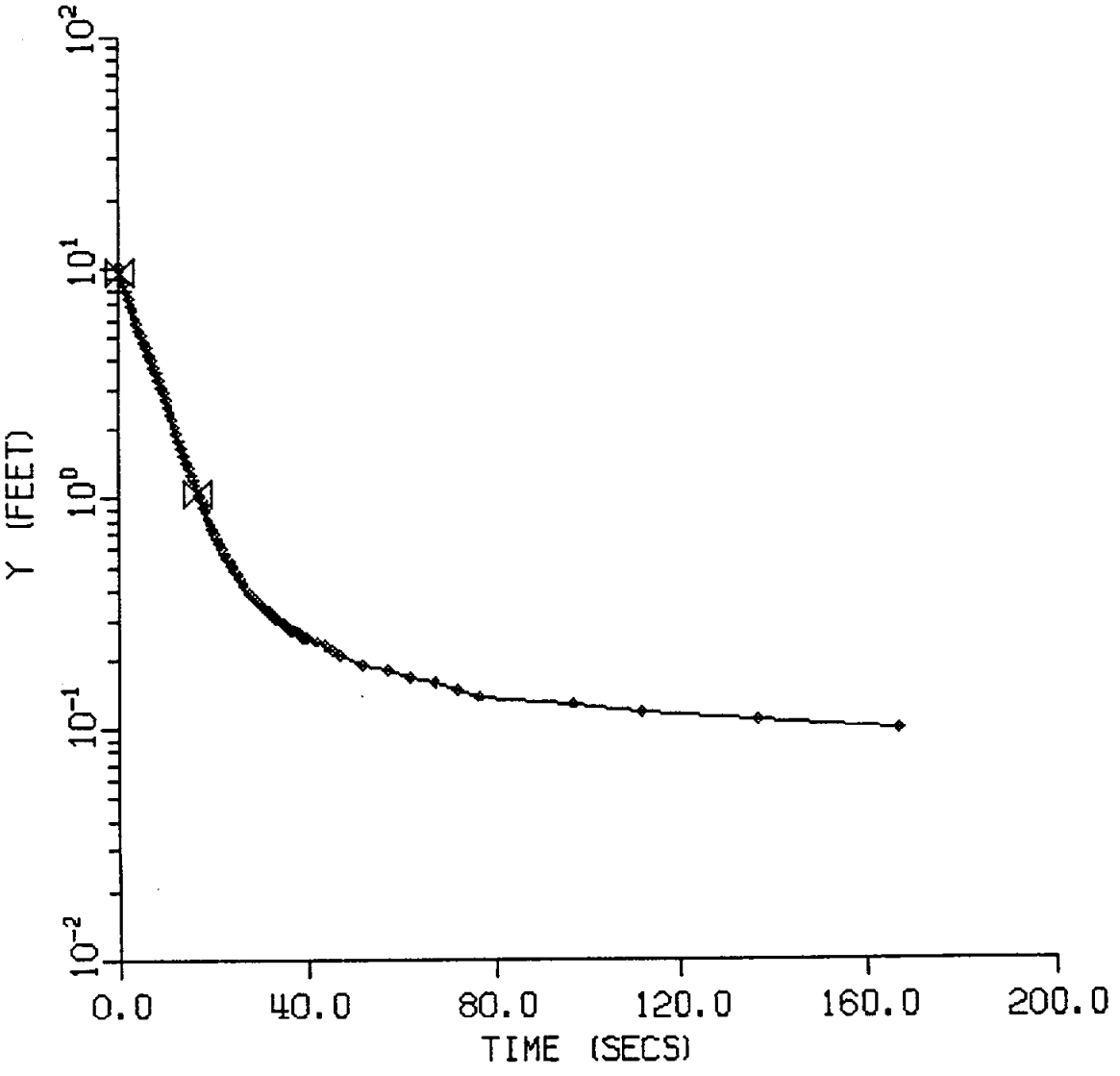
B = 0.38

C = 0.00

Y-INTERCEPT = 9.38

SLOPE = -0.0553

STEPAN COMPANY
BRMW2-TEST 2



K (CM/S) = 0.004189

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 34.0

H (FEET) = 33.00

COEFFICIENTS

A = 2.41

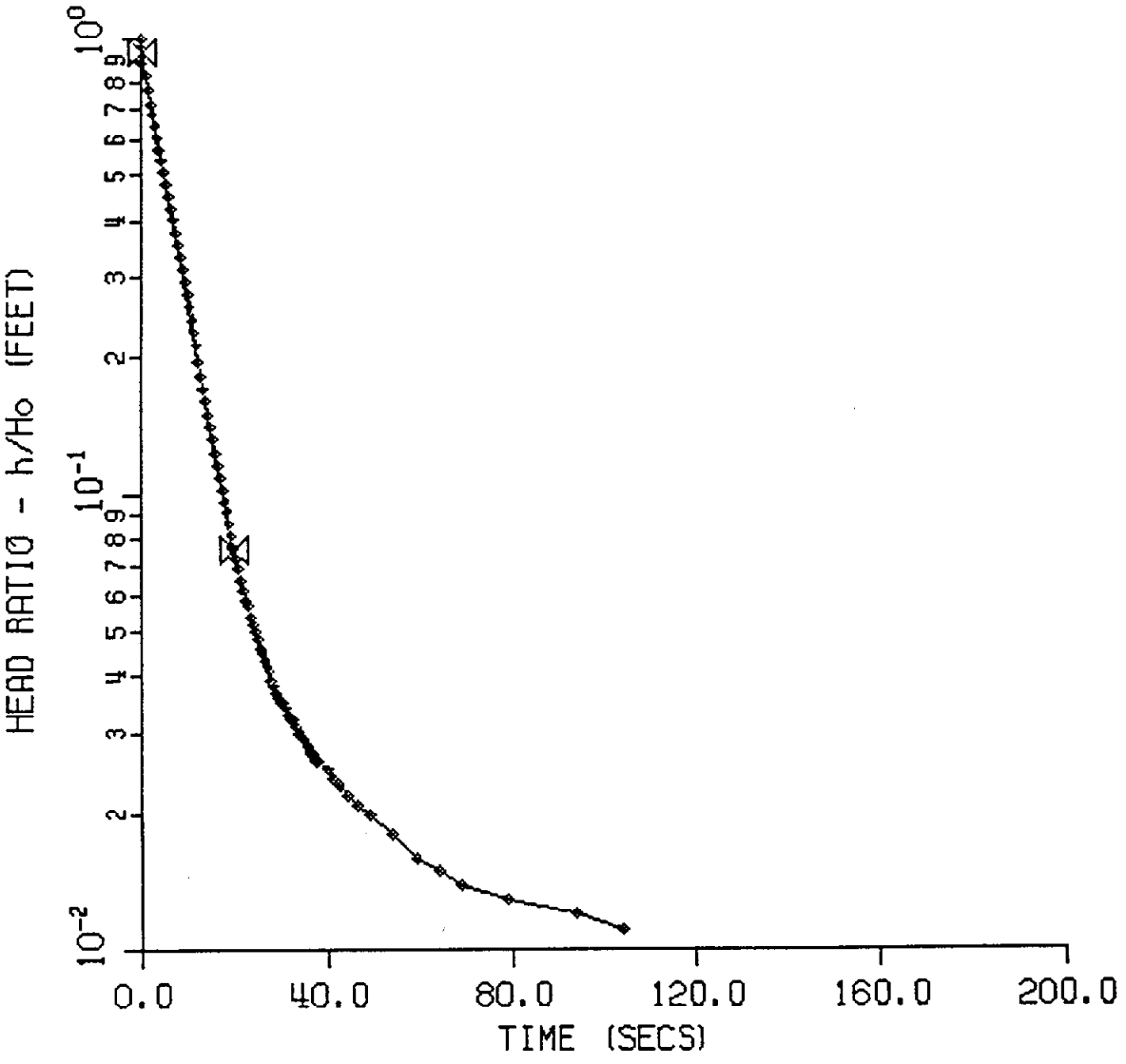
B = 0.38

C = 0.00

Y-INTERCEPT = 9.65

SLOPE = -0.0573

STEPAN COMPANY
BRMW2-TEST 1



K (CM/S) = 0.007143

WELL SPECS. (FEET)

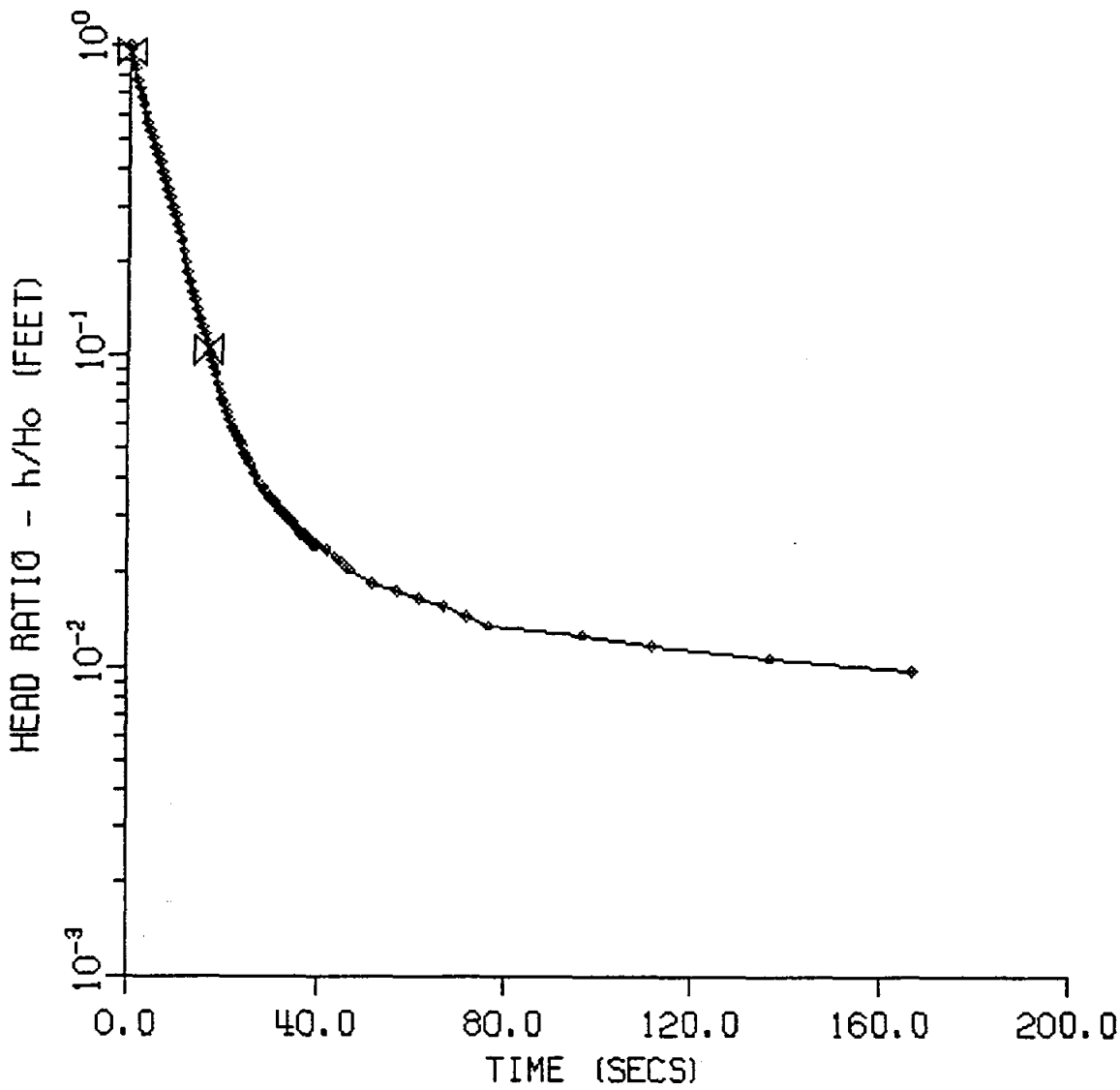
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0553

STEPAN COMPANY
BRMW2-TEST 2



K (CM/S) = 0.007403

WELL SPECS. (FEET)

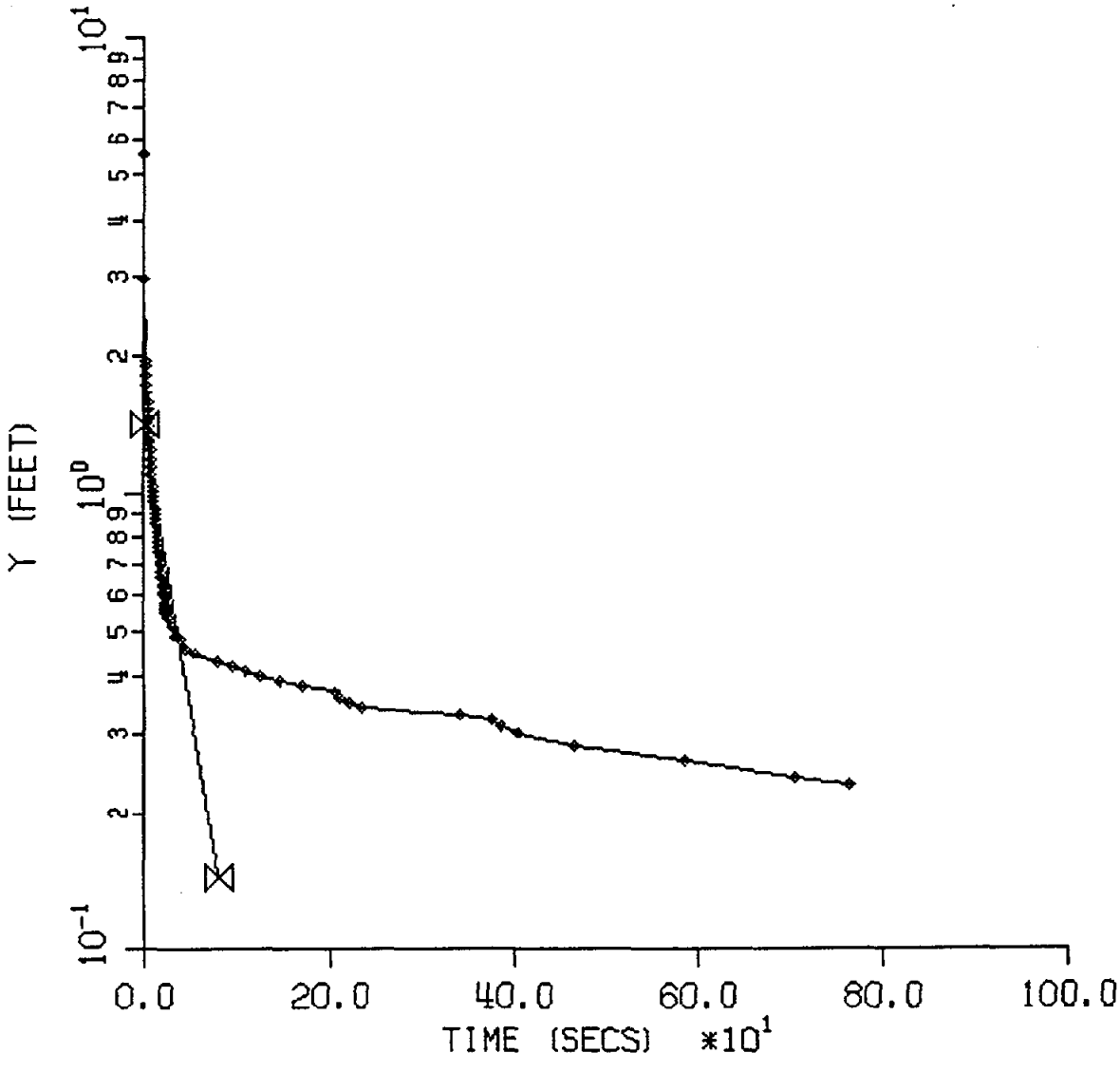
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0573

GULF PRØPERTY
ØBMW3-TEST 1



K (CM/S) = 0.000980

WELL SPECS. (FEET)

SCREEN LENGTH = 7.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 7.0

H (FEET) = 7.17

COEFFICIENTS

A = 0.00

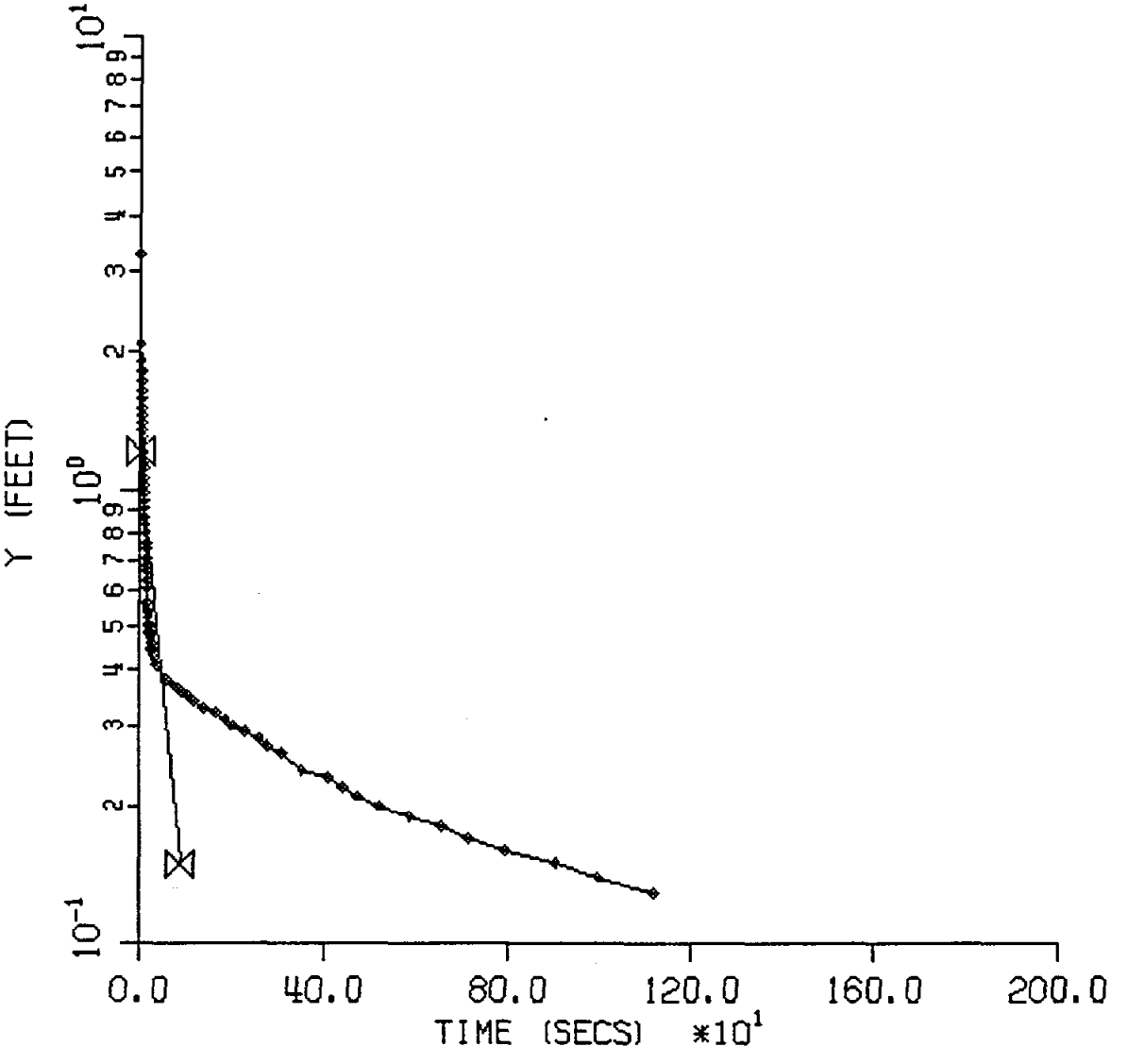
B = 0.00

C = 1.74

Y-INTERCEPT = 1.41

SLOPE = -0.0124

GULF PROPERTY
OBMW3-TEST 2



K (CM/S) = 0.000817

WELL SPECS. (FEET)

SCREEN LENGTH = 7.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 7.0

H (FEET) = 7.17

COEFFICIENTS

A = 0.00

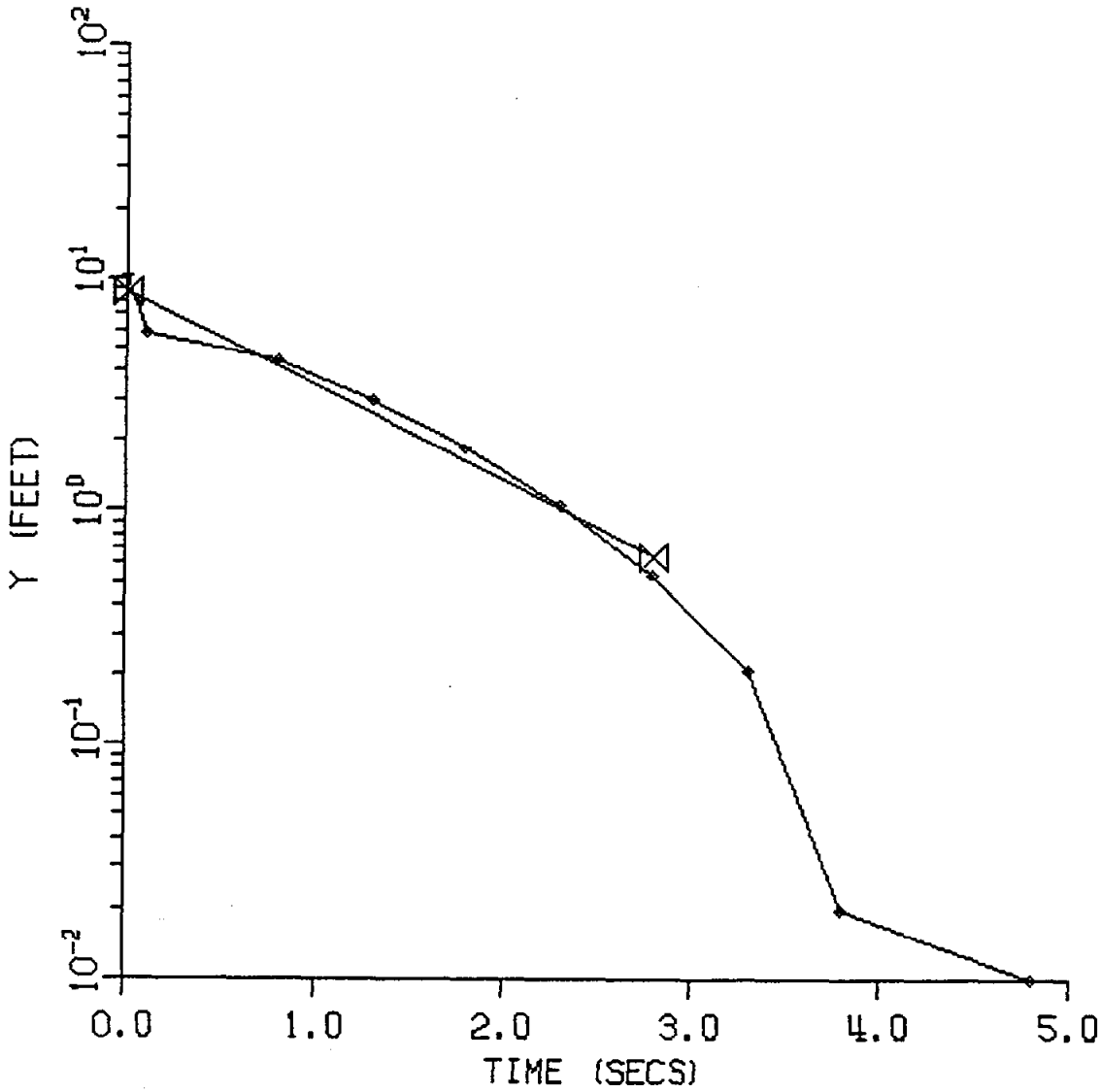
B = 0.00

C = 1.74

Y-INTERCEPT = 1.21

SLOPE = -0.0104

GULF PROPERTY
BRMW3-TEST 1



K (CM/S) = 0.028559

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 26.5

H (FEET) = 25.70

COEFFICIENTS

A = 2.41

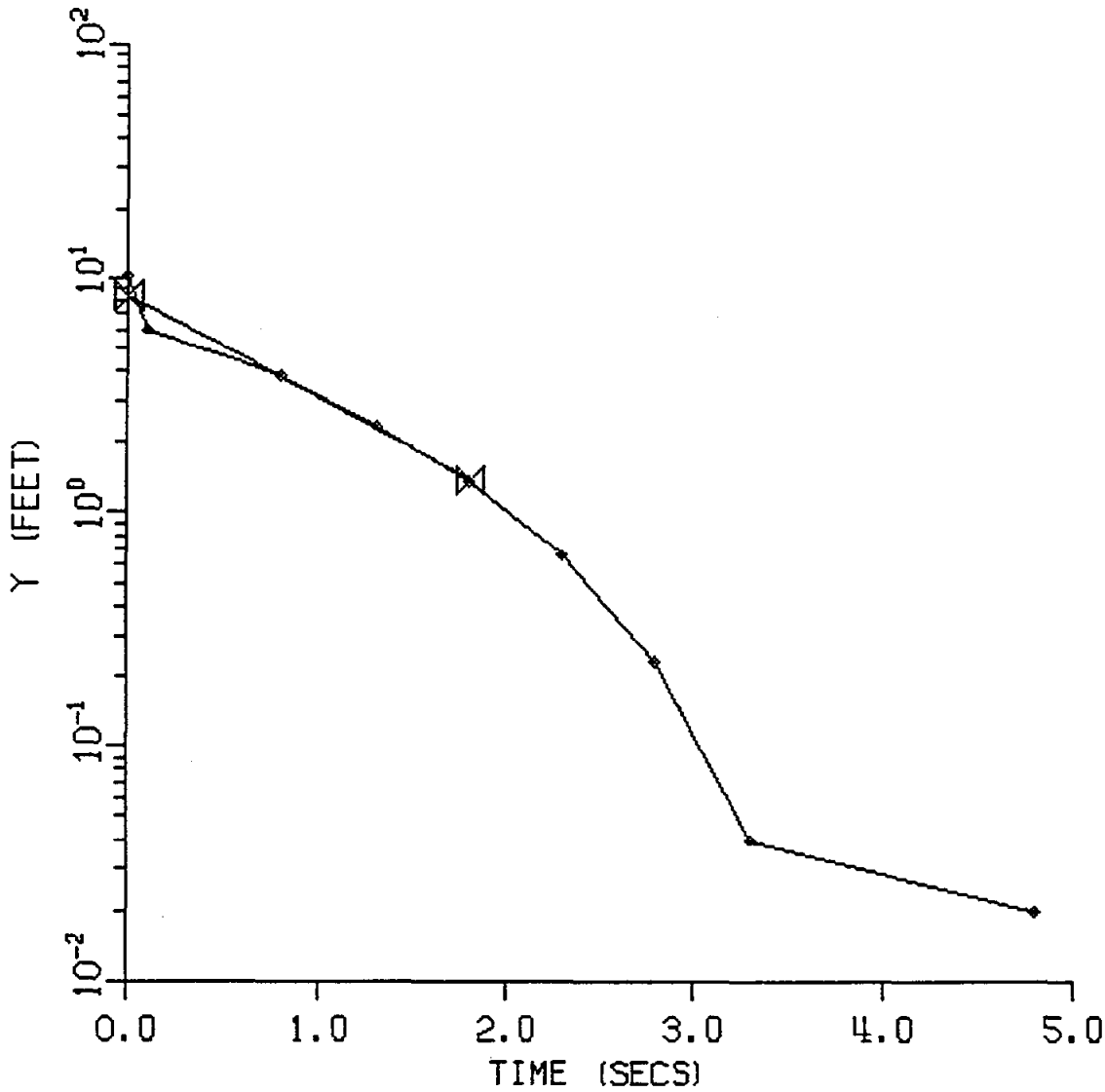
B = 0.38

C = 0.00

Y-INTERCEPT = 8.73

SLOPE = -0.4038

GULF PRØPERTY
BRMW3-TEST 2



K (CM/S) = 0.030665

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 26.5

H (FEET) = 25.70

COEFFICIENTS

A = 2.41

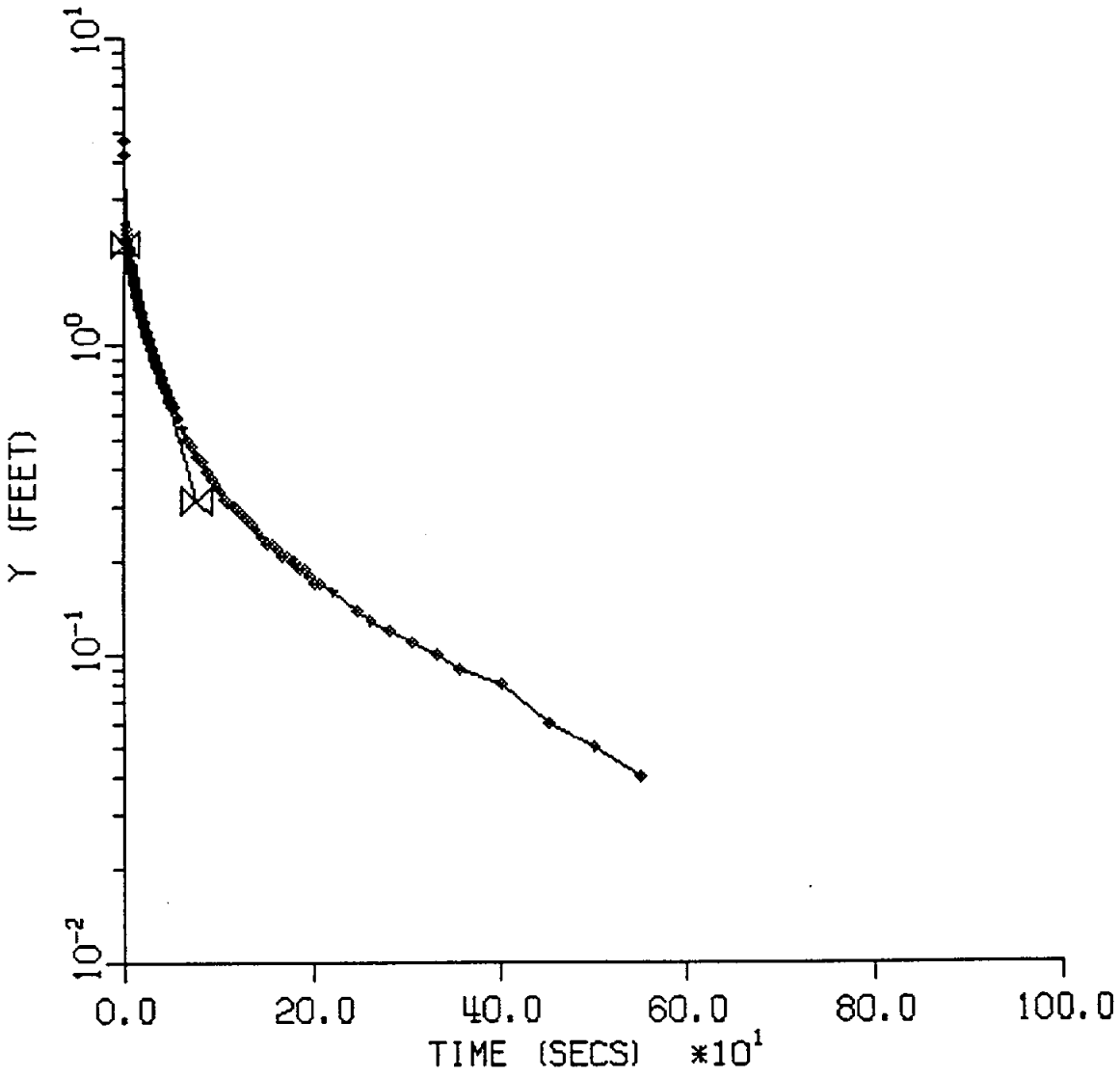
B = 0.38

C = 0.00

Y-INTERCEPT = 8.36

SLØPE = -0.4336

SEARS LØGISTICAL SERVICES
ØBMW4-TEST 1



K (CM/S) = 0.000699

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.6

H (FEET) = 11.60

CØEFFICIENTS

A = 0.00

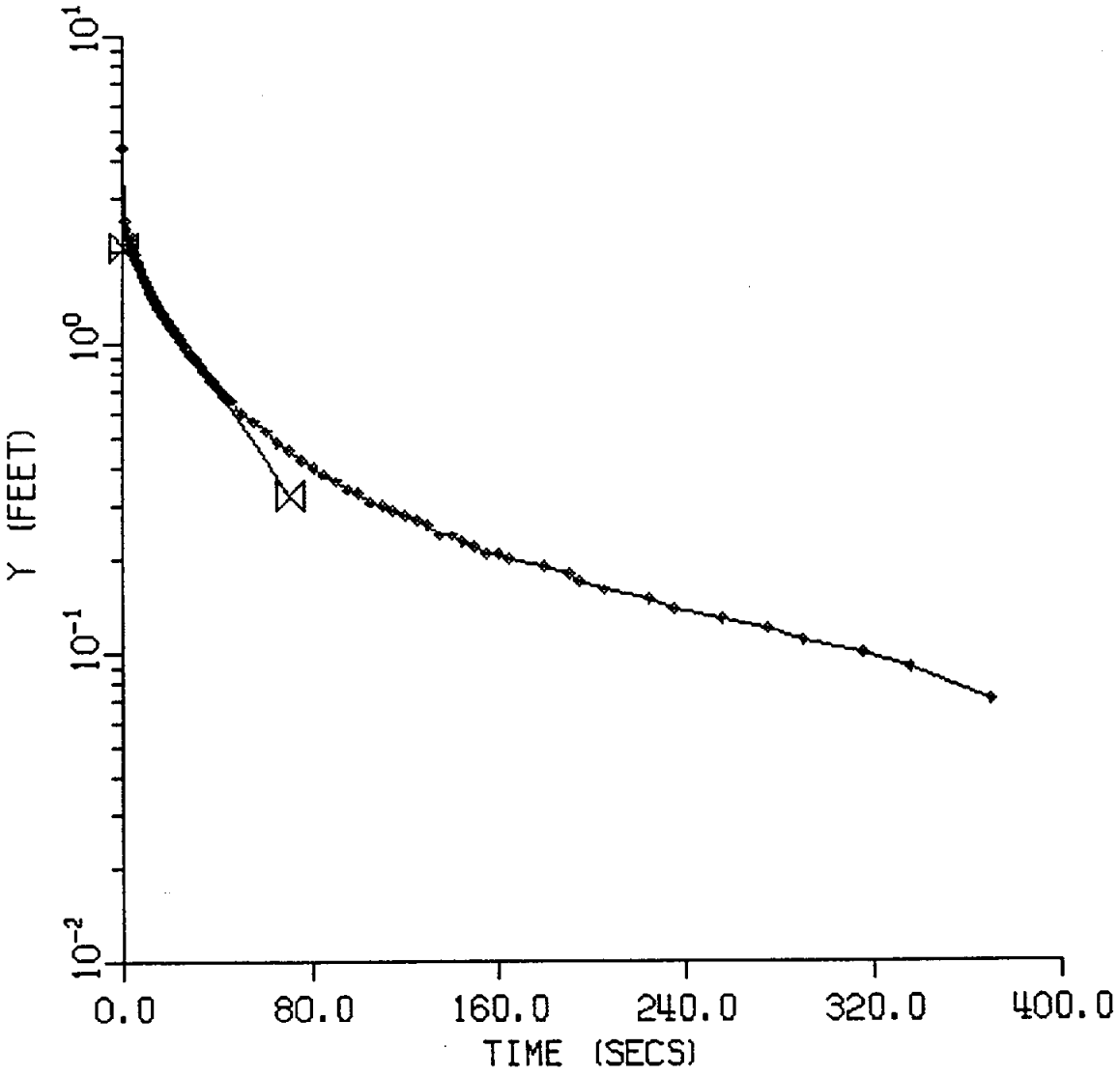
B = 0.00

C = 2.05

Y-INTERCEPT = 2.15

SLØPE = -0.0109

SEARS LØGISTICAL SERVICES
ØBMW4-TEST 2



K (CM/S) = 0.000741

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.6

H (FEET) = 11.60

COEFFICIENTS

A = 0.00

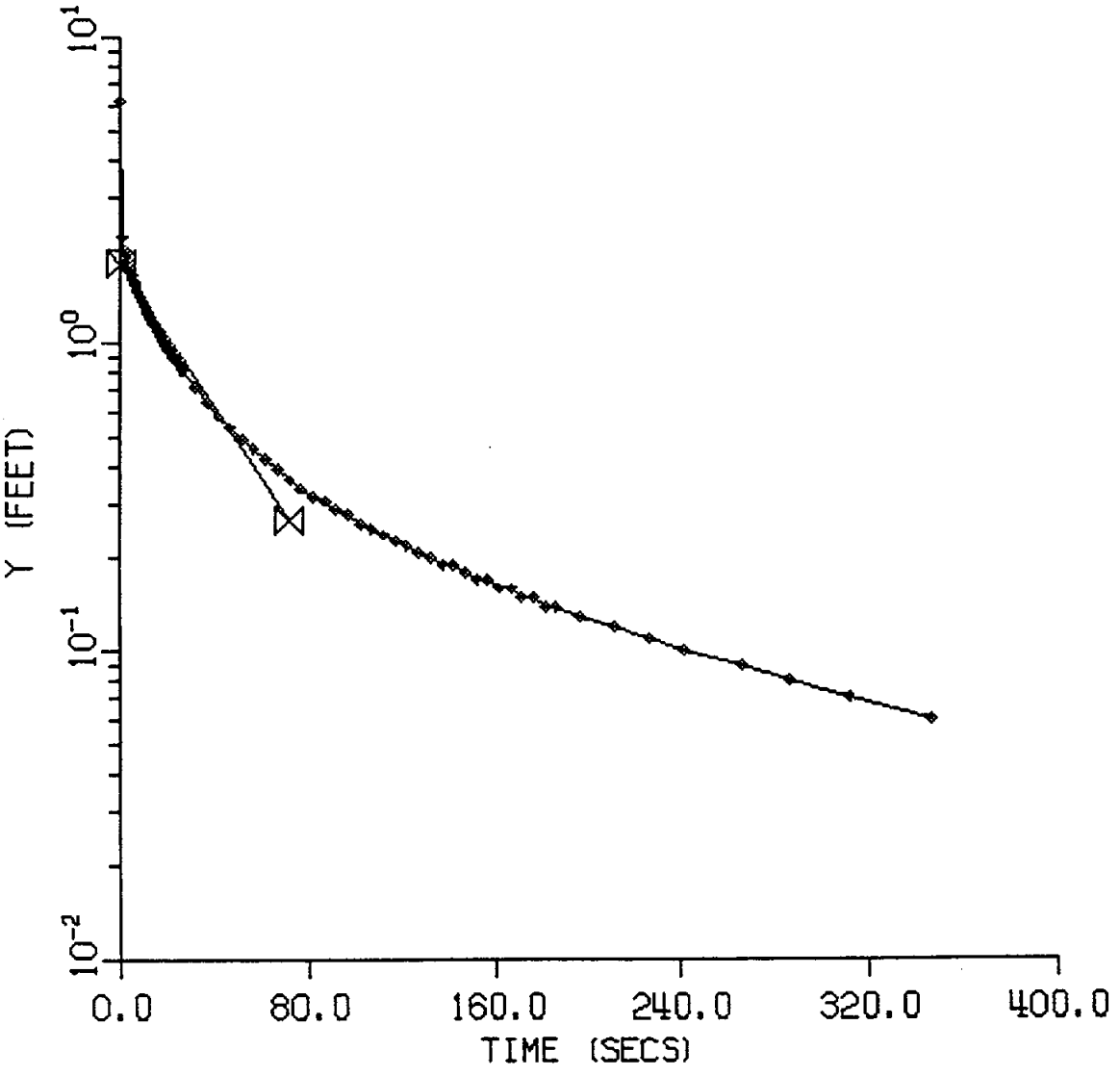
B = 0.00

C = 2.05

Y-INTERCEPT = 2.09

SLØPE = -0.0115

SEARS LØGISTICAL SERVICES
ØBMW4-TEST 3



K (CM/S) = 0.000745

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.6

H (FEET) = 11.60

COEFFICIENTS

A = 0.00

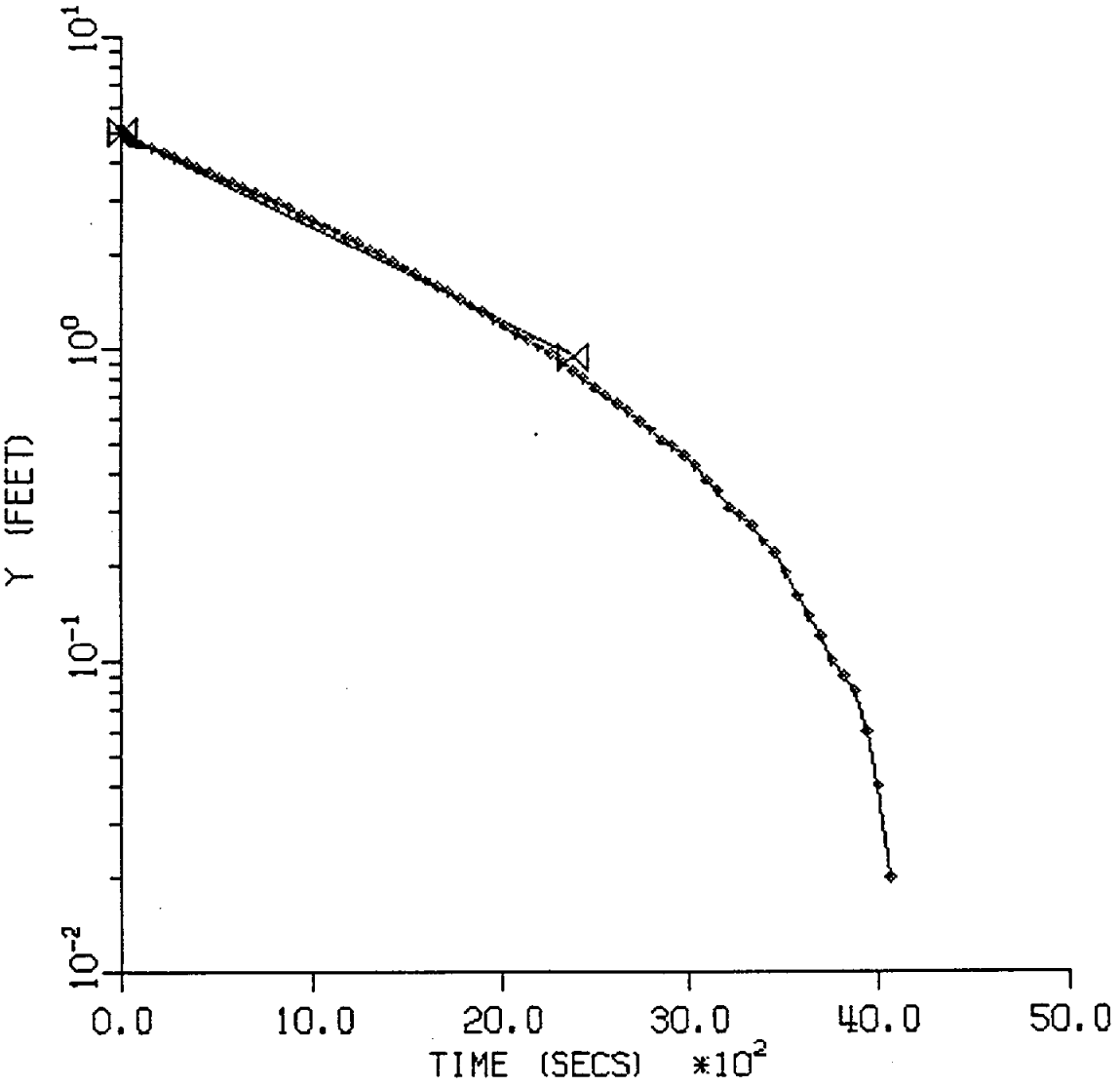
B = 0.00

C = 2.05

Y-INTERCEPT = 1.81

SLØPE = -0.0116

SEARS LØGISTICAL SERVICES
BRMW4-TEST 1



K (CM/S) = 0.000022

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 31.5

H (FEET) = 30.80

CØEFFICIENTS

A = 2.41

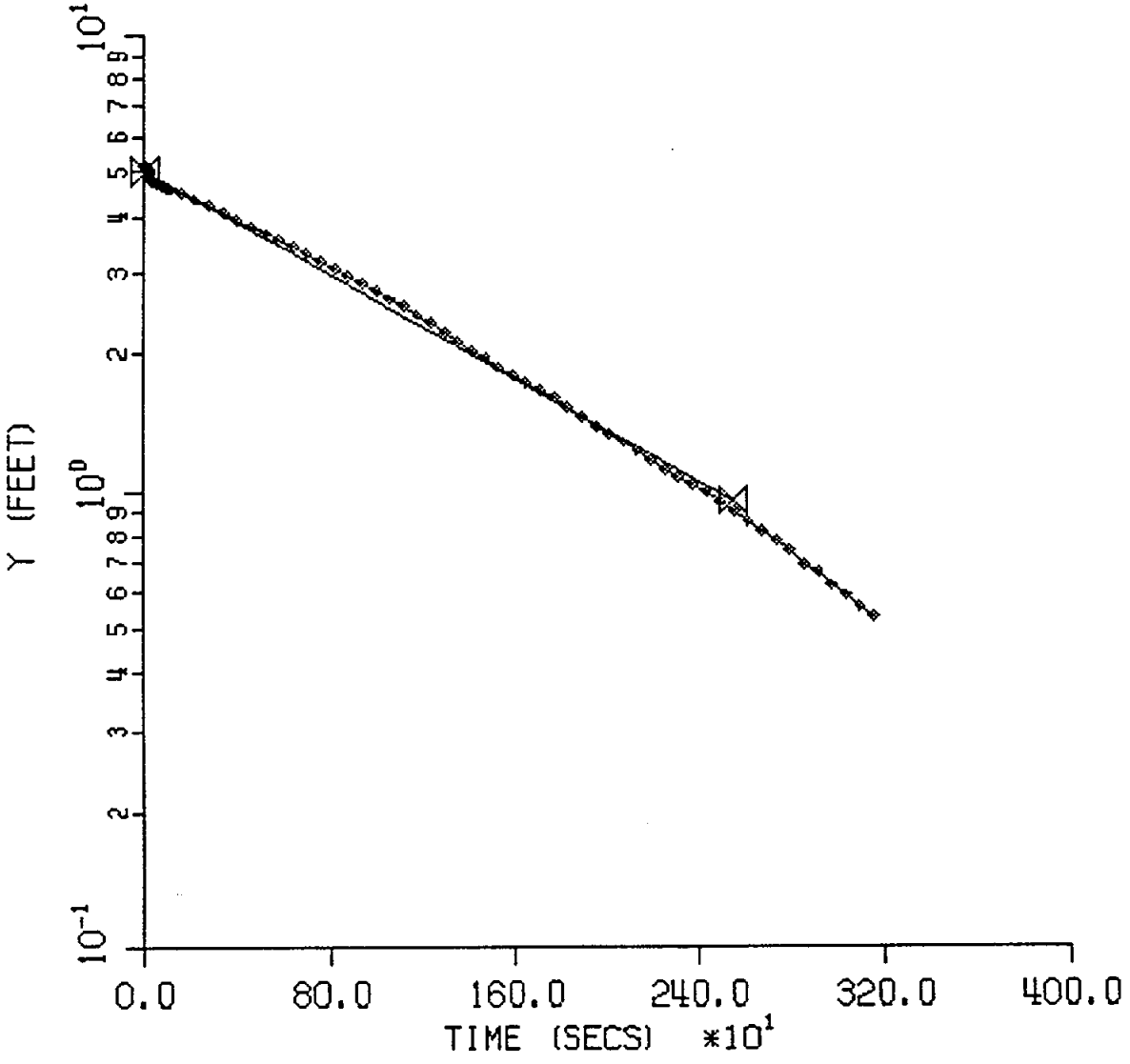
B = 0.38

C = 0.00

Y-INTERCEPT = 4.99

SLØPE = -0.0003

SEARS LØGISTICAL SERVICES
BRMW4-TEST 2



K (CM/S) = 0.000021

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 31.5

H (FEET) = 30.80

COEFFICIENTS

A = 2.41

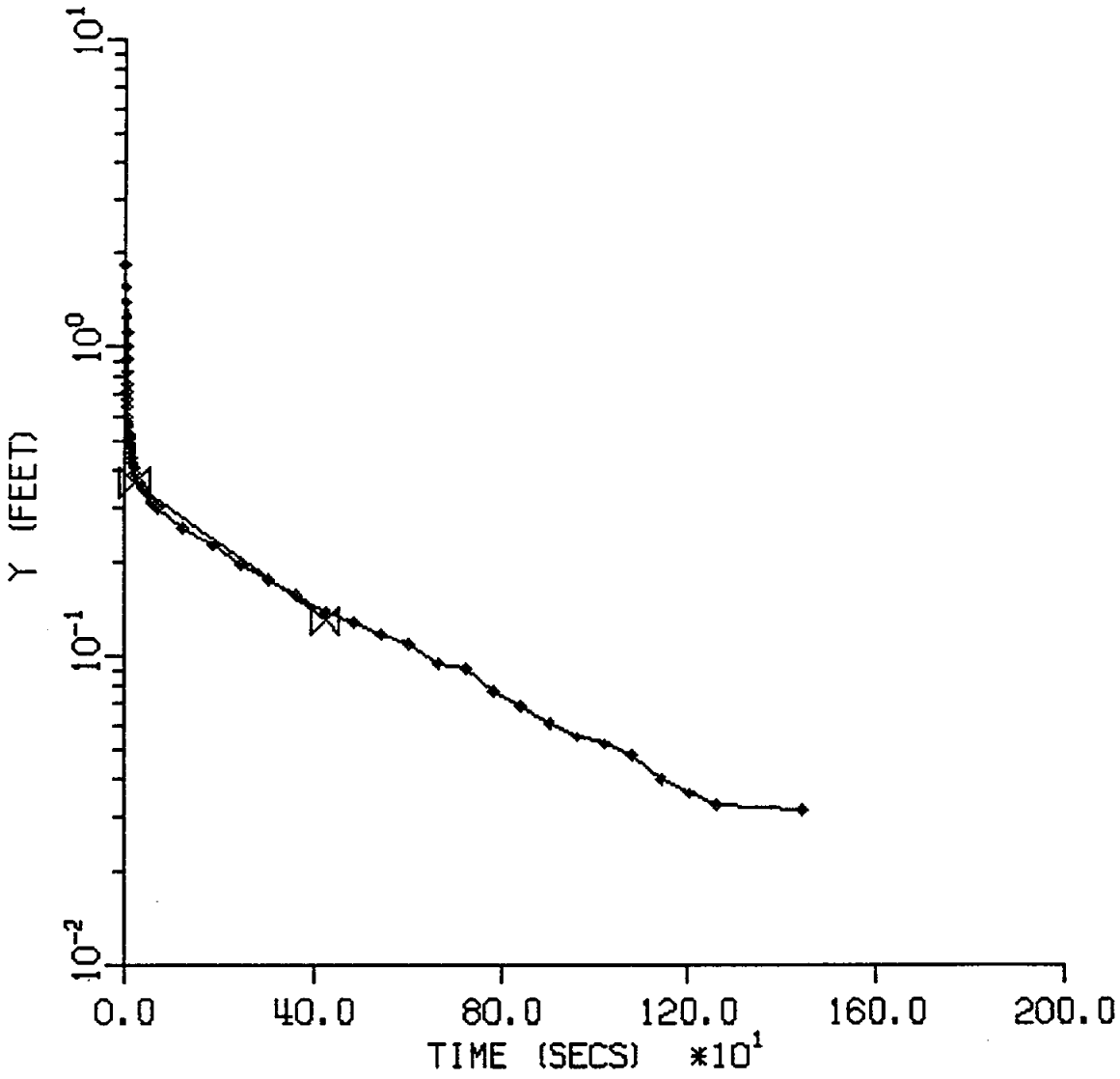
B = 0.38

C = 0.00

Y-INTERCEPT = 5.03

SLØPE = -0.0003

SUNOCO PROPERTY
OBMW5-TEST 1



K (CM/S) = 0.000687

WELL SPECS. (FEET)

SCREEN LENGTH = 5.7

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 5.7

H (FEET) = 5.70

COEFFICIENTS

A = 0.00

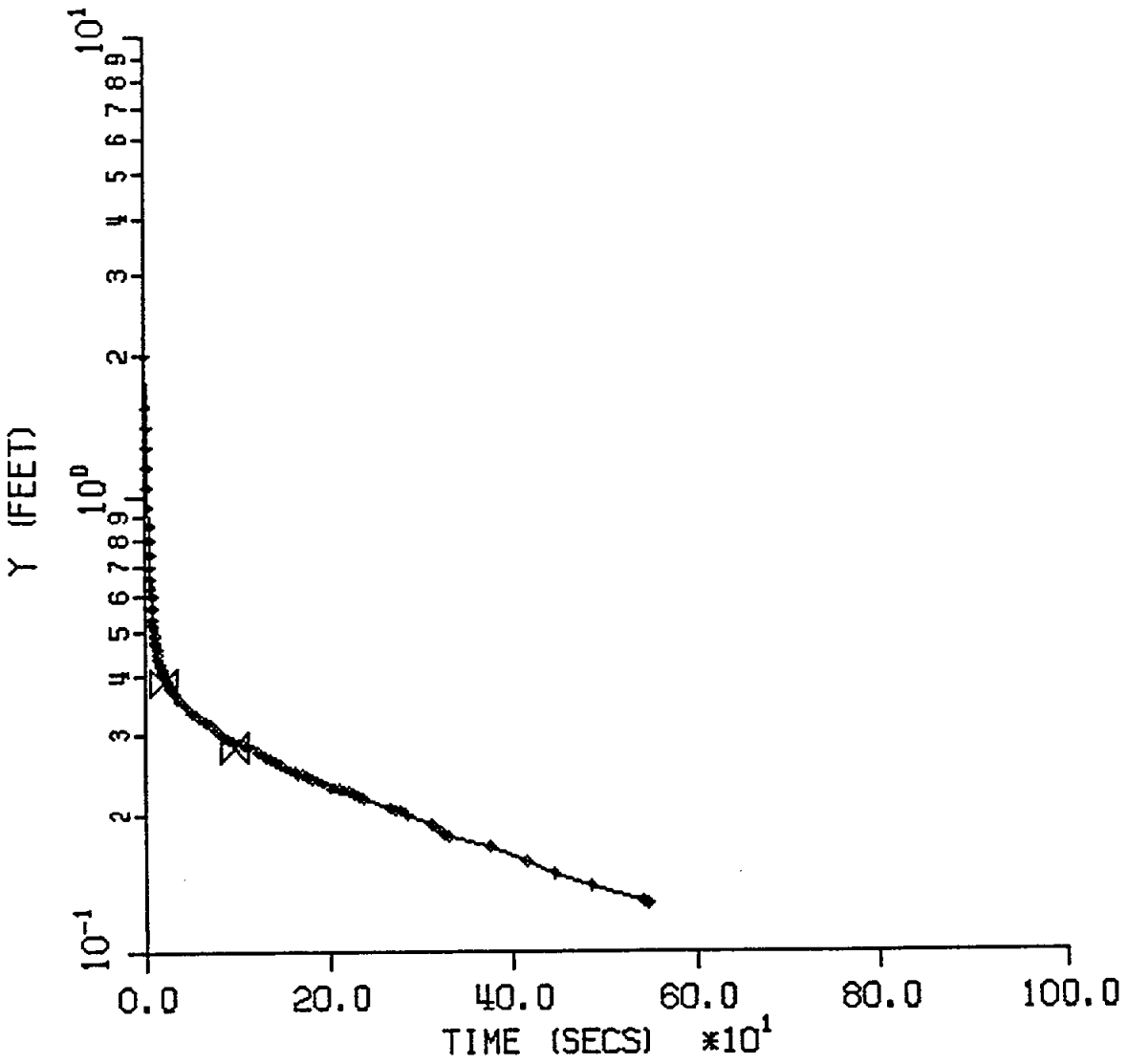
B = 0.00

C = 1.57

Y-INTERCEPT = 0.38

SLOPE = -0.0011

SUNOCO PROPERTY
OBMW5-TEST 2



K (CM/S) = 0.001175

WELL SPECS. (FEET)

SCREEN LENGTH = 5.7

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 5.7

H (FEET) = 5.70

COEFFICIENTS

A = 0.00

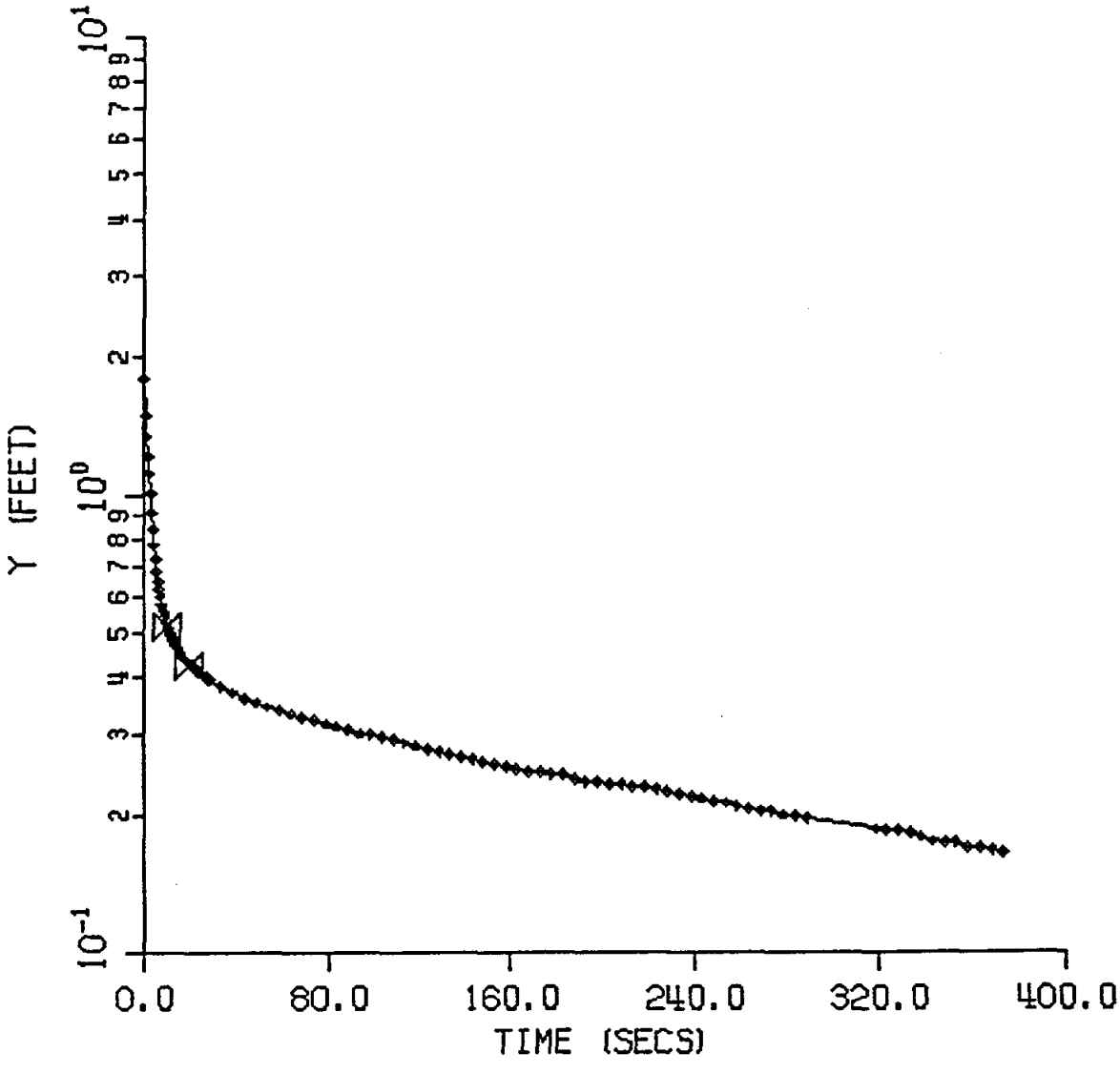
B = 0.00

C = 1.57

Y-INTERCEPT = 0.42

SLOPE = -0.0019

SUNOCO PROPERTY
OBMW5-TEST 3



K (CM/S) = 0.005293

WELL SPECS. (FEET)

SCREEN LENGTH = 5.7

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 5.7

H (FEET) = 5.70

COEFFICIENTS

A = 0.00

B = 0.00

C = 1.57

Y-INTERCEPT = 0.62

SLOPE = -0.0085

Table 1-1
Well Construction Details
Stepan, Sears, and Vicinity Properties

Well	Location	Well Riser I.D.	Estimated Aquifer Thickness	Screen Length	Depth of Top of Screen	Water Depth*	Test Method
OB MW1	Sears	2 in.	5 ft.	7 ft.	3 ft.	5.31 ft.	DC
BR MW1	Sears	2 in.	42 ft.	10 ft.	37 ft.	5.51 ft.	PDD
OB MW2	Stepan	2 in.	7 ft.	10 ft.	3 ft.	5.86 ft.	DC
BR MW2	Stepan	2 in.	34 ft.	10 ft.	32 ft.	9.24 ft.	PDD
OB MW3	Gulf	2 in.	7 ft.	7 ft.	5 ft.	4.83 ft.	DC
BR MW3	Gulf	2 in.	26.5 ft.	10 ft.	20 ft.	4.32 ft.	PDD
OB MW4	Sears	2 in.	12 ft.	10 ft.	4 ft.	2.60 ft.	DC
BR MW4	Sears	2 in.	31.5 ft.	10 ft.	26 ft.	5.20 ft.	PDD
OB MW5	Sunoco	2 in.	22.7 ft.	7 ft.	3 ft.	4.34 ft.	DC
BR MW5	Sunoco	2 in.	26 ft.	10 ft.	19 ft.	4.33 ft.	PDD
OB MW6	Sears	2 in.	16.8 ft.	5 ft.	3 ft.	4.25 ft.	DC
BR MW6	Sears	2 in.	23.5 ft.	10 ft.	17 ft.	4.57 ft.	PDD
OB MW7	Sears	2 in.	26.8 ft.	10 ft.	5 ft.	3.23 ft.	DC
BR MW7	Sears	2 in.	25.5 ft.	10 ft.	28 ft.	13.34 ft.	PDD
OB MW8	SWS Realty	2 in.	6.9 ft.	7 ft.	5.5 ft.	5.31 ft.	DC
BR MW8	SWS Realty	2 in.	40 ft.	10 ft.	32 ft.	5.31 ft.	PDD
BR MW9	Federal Express	2 in.	7.2 ft.	10 ft.	13.5 ft.	16.35 ft.	DC
BR MW10	Stepan	2 in.	32 ft.	10 ft.	30 ft.	8.95 ft.	PDD
OB MW11	Sears	2 in.	9.5 ft.	5 ft.	5 ft.	3.40 ft.	DC

More detailed description of the two test methods are provided in the following sections. In both cases, the test data were collected in digital form using a Campbell Scientific Inc. 21X datalogger connected to Druck pressure transducers.

Pneumatic Displacement Method

The pneumatic displacement method consists of an apparatus inserted into the well which contains a packer that allows the well to be sealed off and pressurized with a bottled air supply. The pneumatic displacement apparatus was developed to suppress the water column in a well and consisted of a packer assembly, fittings for the transducers and a pressure regulating valve, and a pressure-release valve. When the packer was lowered into the upper portion of the monitoring well, clamped in place and inflated, it provided a seal between the apparatus and the inside of the well. Two fittings were provided for inserting transducers. One transducer was lowered down through the packer and placed approximately 20 feet below the water surface in the well, and remained at that depth throughout the test. The other transducer was inserted into the side of the packer to measure the induced gas pressure (above the water surface during the test). A third compression fitting allowed gas to be introduced to pressurize the well. Bottled nitrogen was delivered through a regulator into the apparatus. The pressure was released quickly through a ball valve to start each test.

Fifteen bedrock wells were tested using the pneumatic displacement method. The test was generally repeated a second time in each well to evaluate the repeatability of the data. Each test was performed as follows:

- After the test apparatus was installed in the well, the packer was inflated and the well pressurized.

- The datalogger was programmed to display the pressure measured by the submerged transducer (T1) (ft of water), the gas pressure measured by the transducer (T2), and the difference between the two (T1-T2). The difference equalled the height of the water column (ft) above the submerged transducer. The gas pressure was regulated at a constant value.

- The water levels were routinely suppressed approximately 10 ft for both tests. Wells with a slow response were suppressed as far as possible (typically 3 to 5 ft). Only one test was performed on extremely slow wells (BRMW 1). As the gas pressure was applied, the water level in the well declined to the desired level, displacing a slug of water from the well.

- Tests were begun after allowing for equilibration between the well and the geologic formation. The length of time allowed for equilibrium was variable, but the test was ready to start when the absolute change in

assembly. The rapid change in water level triggered the datalogger, which recorded elapsed time and corresponding water levels. Tests continued until the water level recovered to within 80 to 90 percent of the initial static water level measurements.

Data Analysis Methods

Each set of test data was analyzed using methods developed by Bouwer and Rice (1976) for partially penetrating and partially screened wells in unconfined aquifers. The method can also be used in confined aquifers if the well screen is some distance below the confining unit.

Test data from wells that may have been semi-confined based on packer-testing results were analyzed using methods developed by Hvorslev (1951) for confined or semi-confined aquifers. This was done to compare hydraulic conductivities obtained by this method to Bouwer and Rice.

Bouwer and Rice Method

Water level recordings and elapsed time were transferred from raw data sets into files adjusted for use with a computer program. A utility computer program especially adapted for unconfined aquifers using the Bouwer and Rice equation and appropriate shape factors was used for the analysis of all the wells. The method is applicable to any diameter and depth of borehole, provided that the dimensions of the system were covered by the range for which the geometry factor R_e has been derived. Bouwer and Rice used analog analyses to evaluate R_e for various geometries. The results were expressed in terms of a dimensionless ratio $\ln(R_e/r_w)$

Where: R_e is the effective radial distance over which the vertical distance, y, between water level inside the well and static water table outside the well is dissipated.

r_w is the radial distance of the undisturbed portion of aquifer from the centerline

Bouwer and Rice developed a governing equation for the rise of water levels in a well after a slug of water was suddenly removed. They integrated the equations and obtained the following expression for K (hydraulic conductivity):

$$K = r_c^2/2L_e \ln(R_e/r_w)\, 1/t\, \ln(y_o/y_t)$$

Where: y = the vertical distance between water level inside the well and static water table outside the well

h = the head of water at time t (ft)

A linear regression, best-fit analysis was performed on each data set, and the resulting best-fit line was also plotted. The hydraulic conductivity was then calculated using the equation:

$$K = \pi r^2 C1/T_o F$$

where:

K = hydraulic conductivity (cm/sec)

r = well radius (in)

C1 = conversion factor (2.54cm/in x 1/12 ft/in)

T_o = basic lag time (sec)

F = shape factor (ft)

The shape factor (F) for tested wells where screen penetration was 20 to 85% of aquifer thickness was calculated by:

$$F = 2\pi L/1n\ (L/R))$$

where:

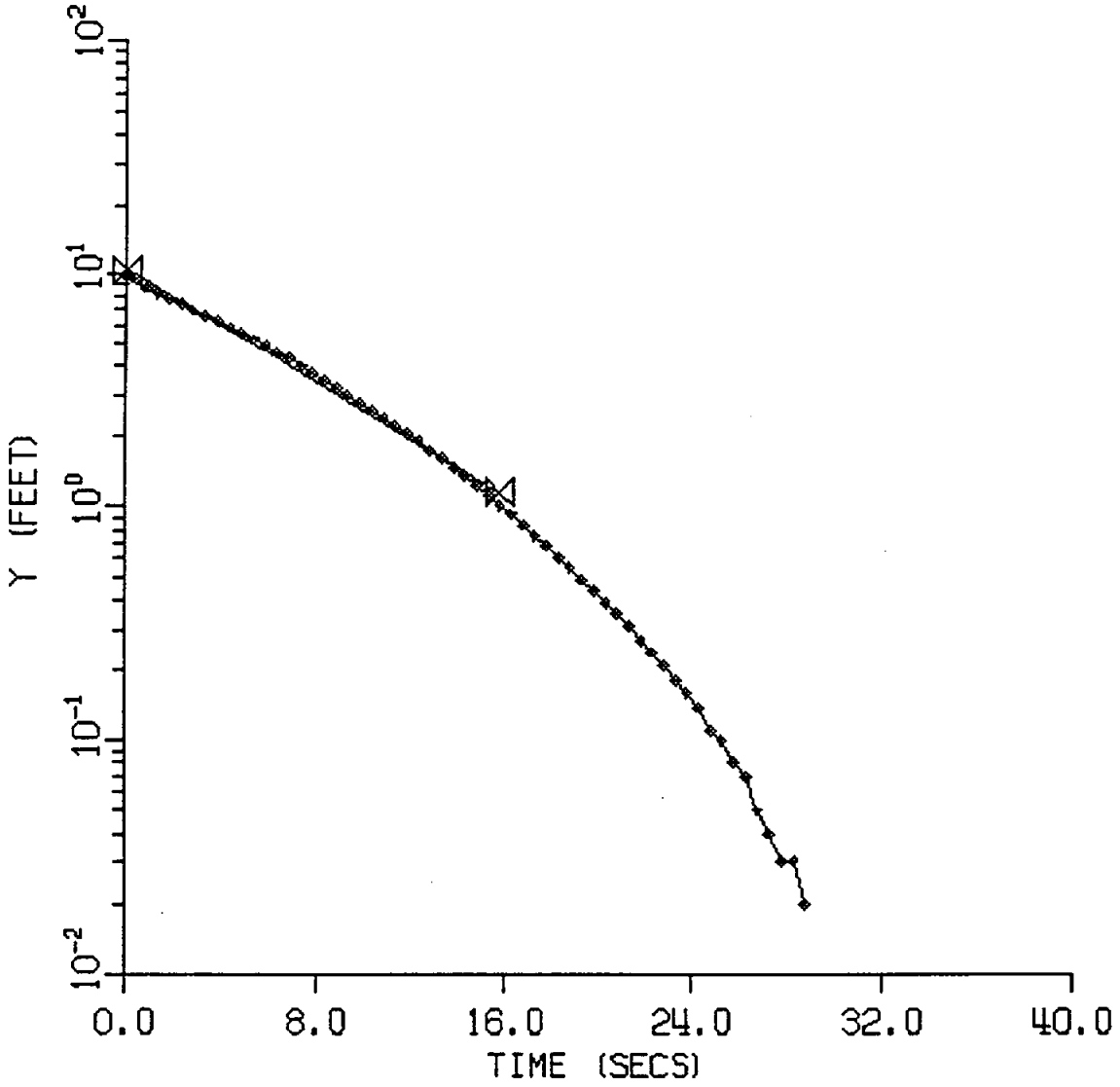
L = screen length (ft)

R = screen radius (ft)

Initially, calculation of hydraulic conductivity was based on the linear regression best-fit line for the entire data set. If the best-fit line did not appear to represent a substantial range of the data set, a subset was created and evaluated over a shorter duration of the test. For wells exhibiting high K values, most of the data points fell on or near the best-fit line (Attachment A). In general, the subset of data evaluated occurred between 0 and 90 percent of static water level recovery. This range eliminated the noise in the data set due to the tailing off of the data as the water level asymptotically approaches static water level. The selected subset is indicated by notches at each end of the best-fit line. The value of hydraulic conductivity and the slope of the best-fit line are at the bottom of each graph. Slopes of the graphs may appear different based on the length of the test, the recovery response of the aquifer, and the degree to which the well recovered.

Attachment A
Graphs

SUNØCØ PRØPERTY
BRMW5-TEST 1



K (CM/S) = 0.004177

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 26.0

H (FEET) = 24.70

COEFFICIENTS

A = 2.41

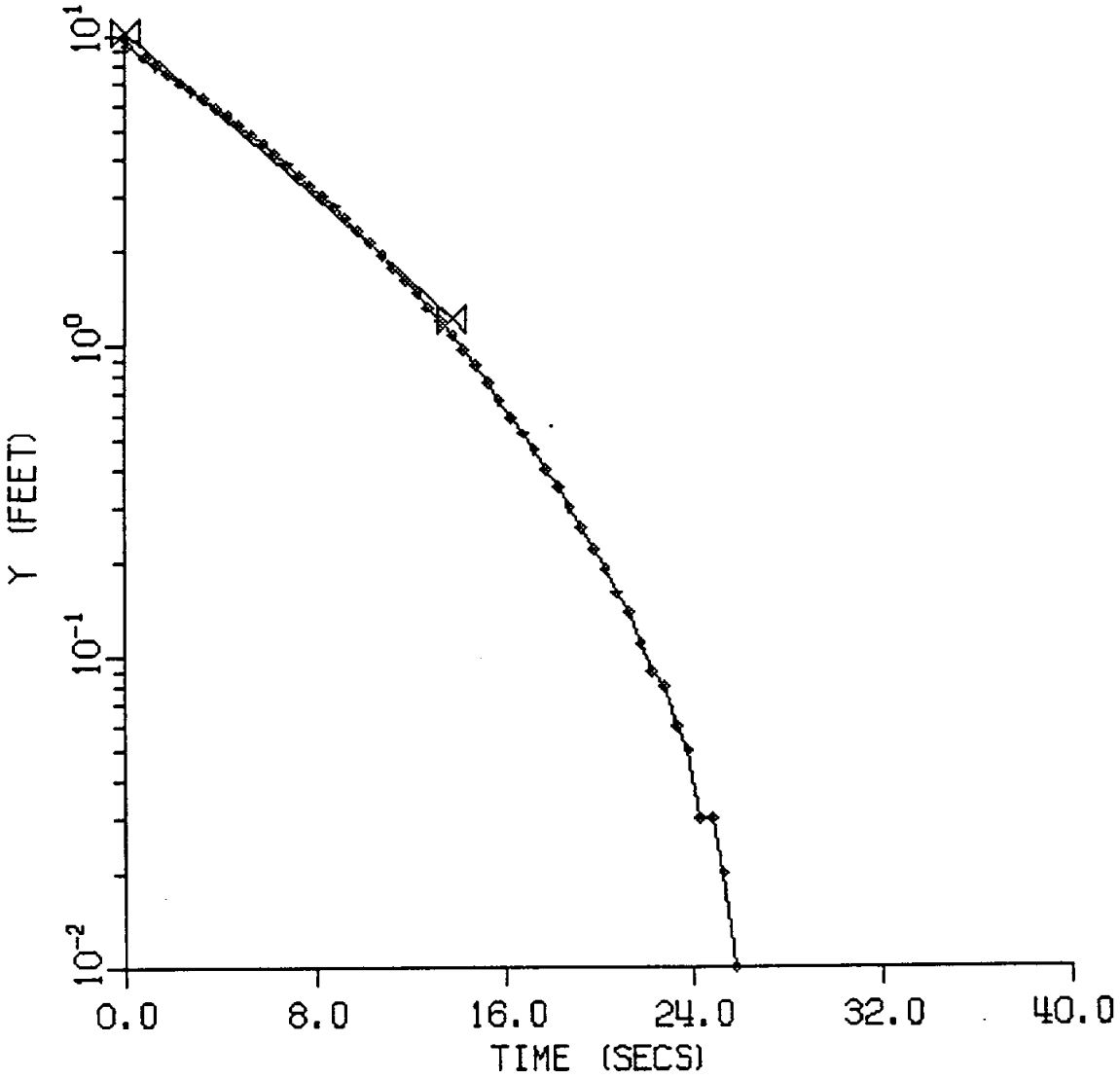
B = 0.38

C = 0.00

Y-INTERCEPT = 10.40

SLØPE = -0.0605

SUNOCO PROPERTY
BRMW5-TEST 2



K (CM/S) = 0.004652

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 26.0

H (FEET) = 24.70

COEFFICIENTS

A = 2.41

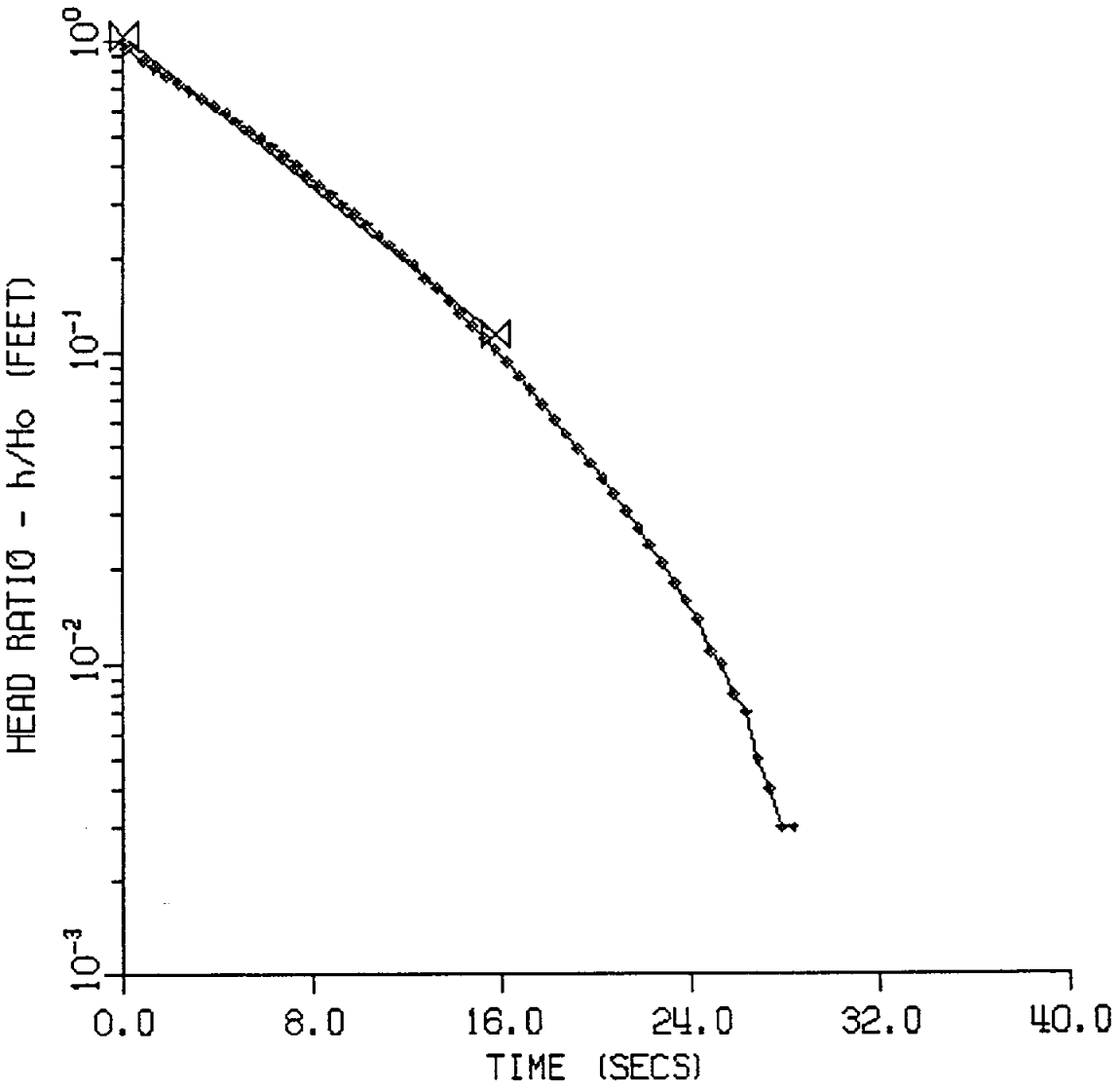
B = 0.38

C = 0.00

Y-INTERCEPT = 10.34

SLOPE = -0.0674

SUNOCO PROPERTY
BRMW5-TEST 1



K (CM/S) = 0.007812

WELL SPECS. (FEET)

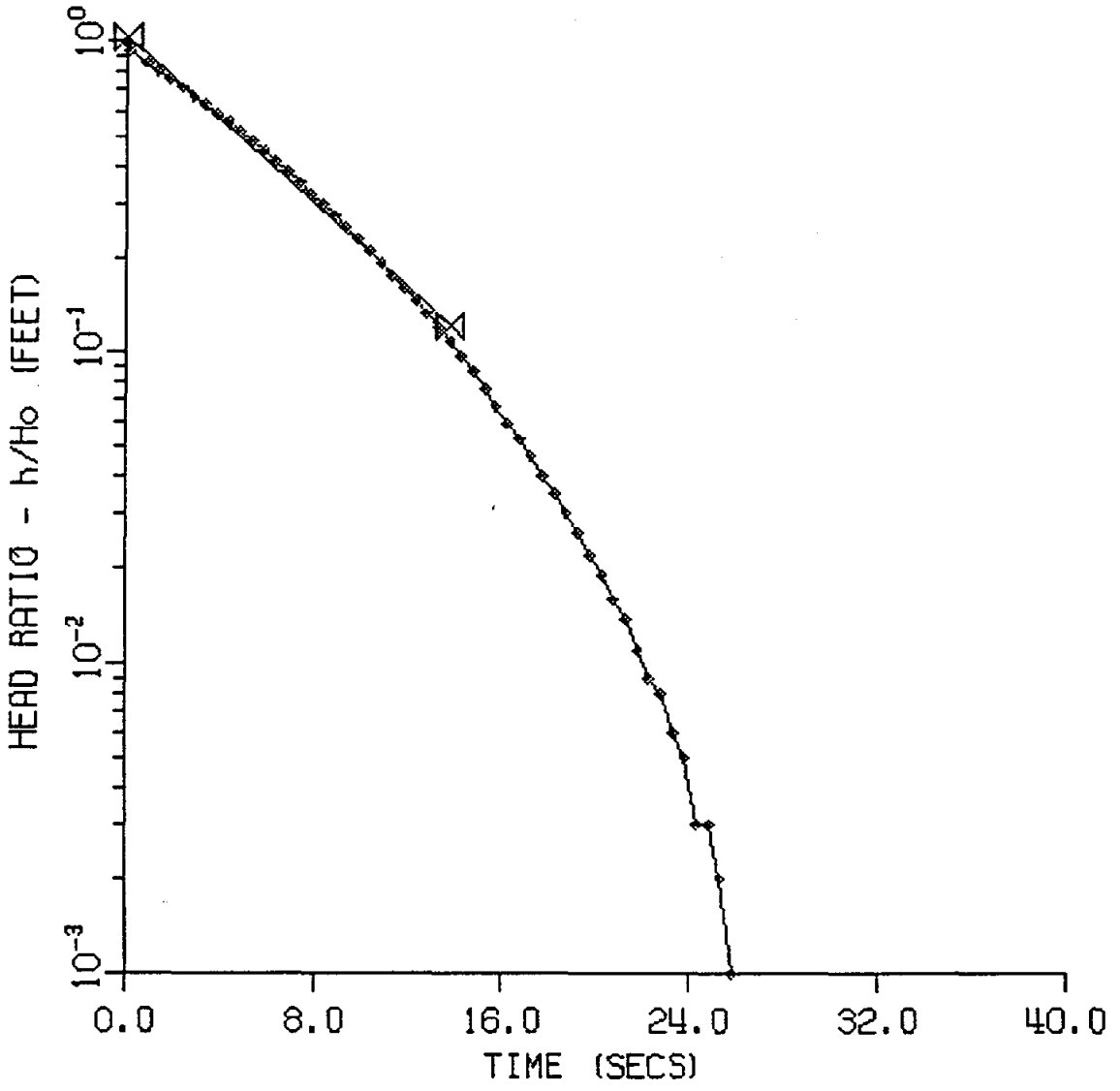
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0605

SUNOCO PROPERTY
BRMW5-TEST 2



K (CM/S) = 0.008700

WELL SPECS. (FEET)

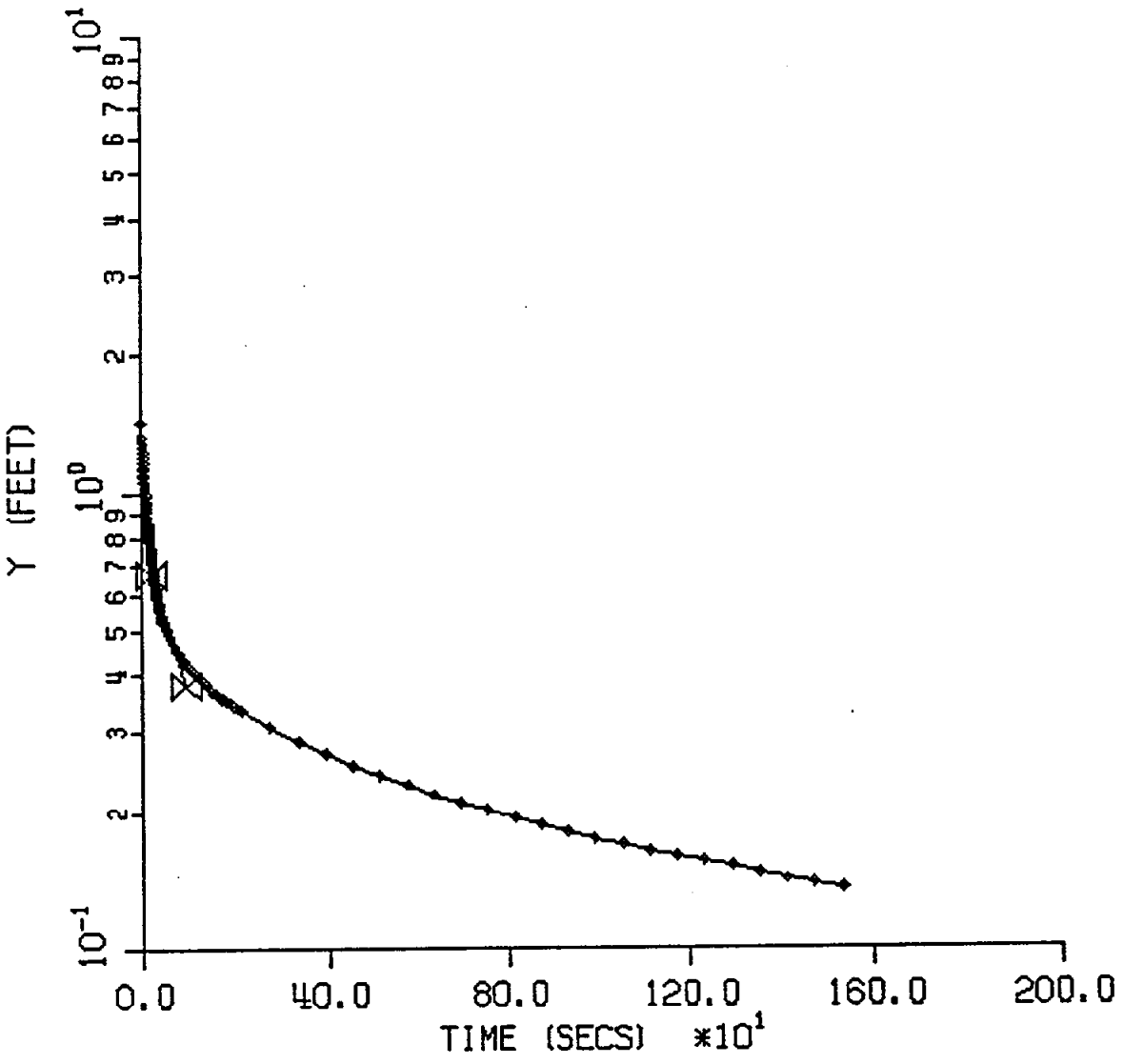
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0674

SEARS LØGISTICAL SERVICES
ØBMW6-TEST 1



K (CM/S) = 0.002587

WELL SPECS. (FEET)

SCREEN LENGTH = 3.8

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 3.8

H (FEET) = 3.80

COEFFICIENTS

A = 0.00

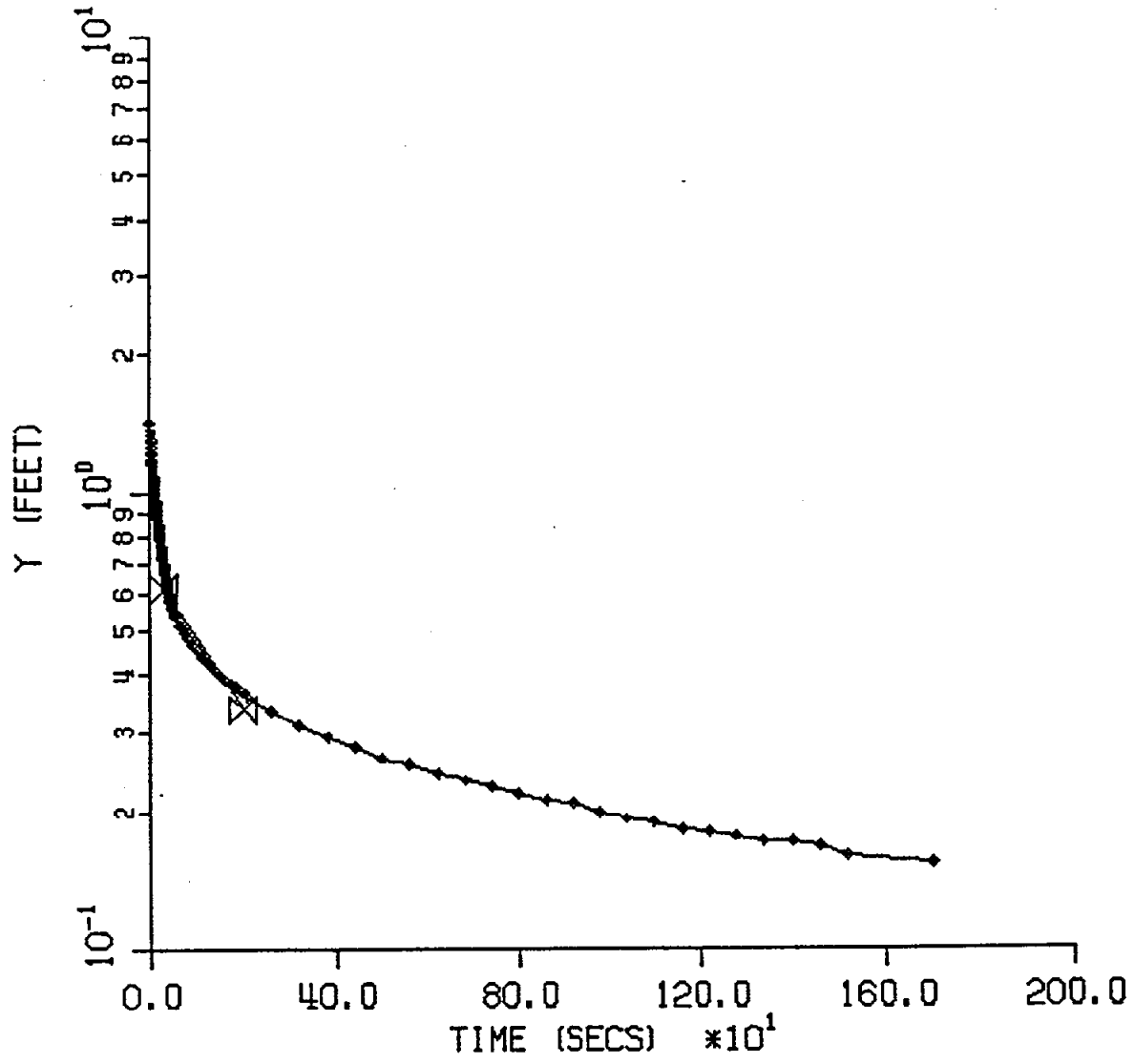
B = 0.00

C = 1.26

Y-INTERCEPT = 0.77

SLOPE = -0.0032

SEARS LØGISTICAL SERVICES
ØBMW6-TEST 2



K (CM/S) = 0.001242

WELL SPECS. (FEET)

SCREEN LENGTH = 3.8

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 3.8

H (FEET) = 3.80

COEFFICIENTS

A = 0.00

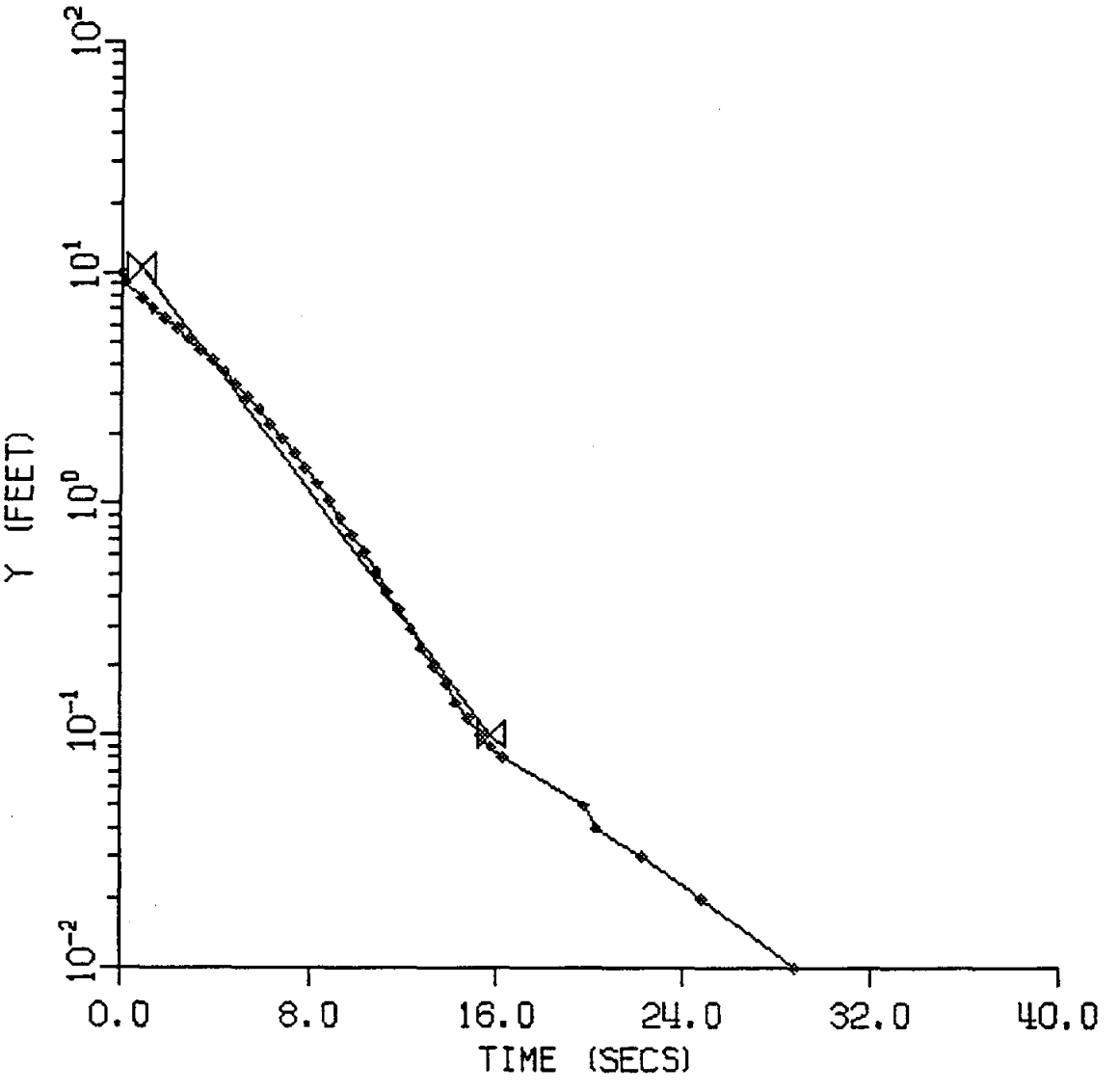
B = 0.00

C = 1.26

Y-INTERCEPT = 0.69

SLØPE = -0.0016

SEARS LØGISTICAL SERVICES
BRMW6-TEST 1



K (CM/S) = 0.009154

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 23.5

H (FEET) = 22.40

COEFFICIENTS

A = 2.41

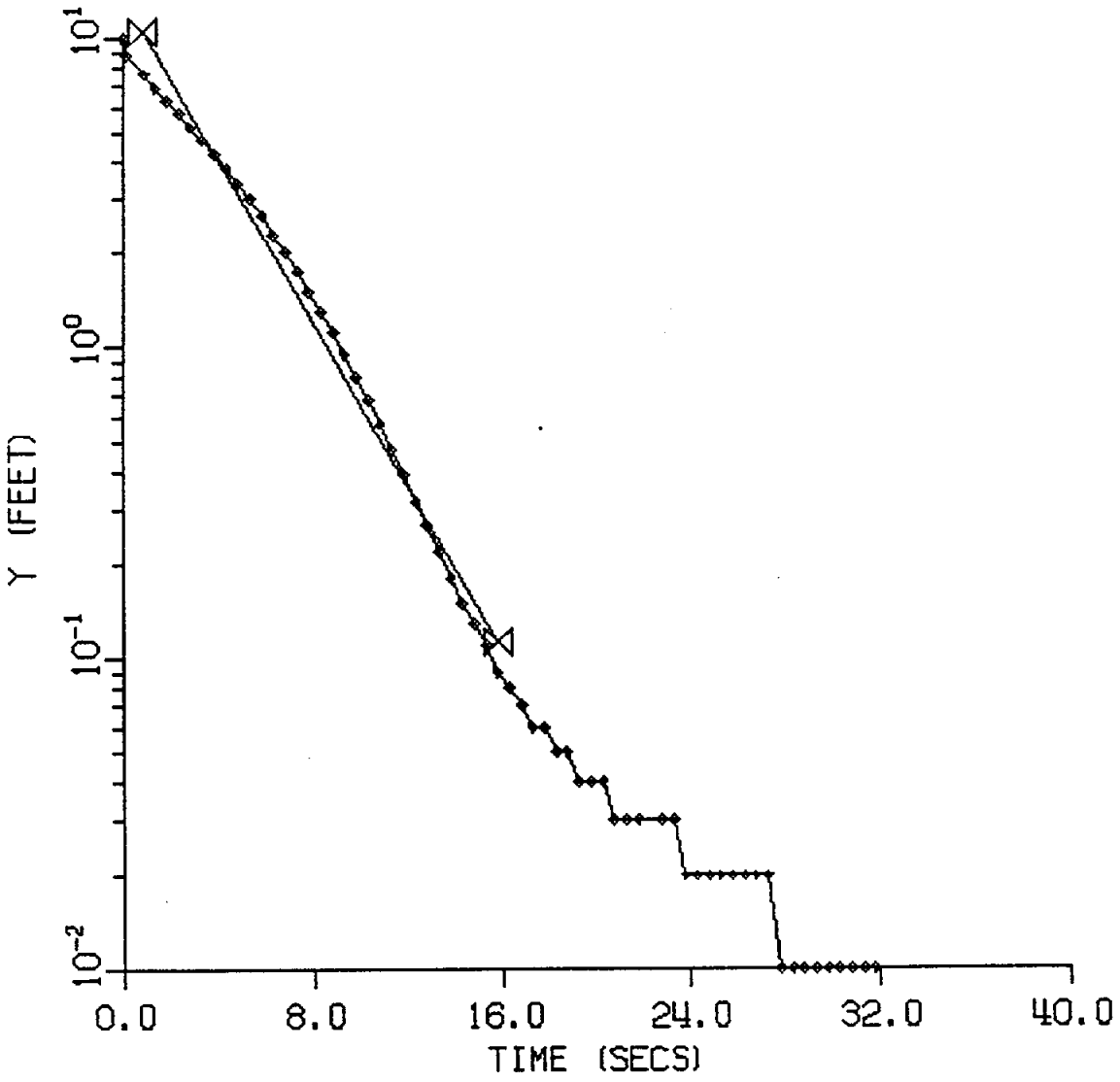
B = 0.38

C = 0.00

Y-INTERCEPT = 13.36

SLØPE = -0.1340

SEARS LØGISTICAL SERVICES
BRMW6-TEST 2



K (CM/S) = 0.008947

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 23.5

H (FEET) = 22.40

COEFFICIENTS

A = 2.41

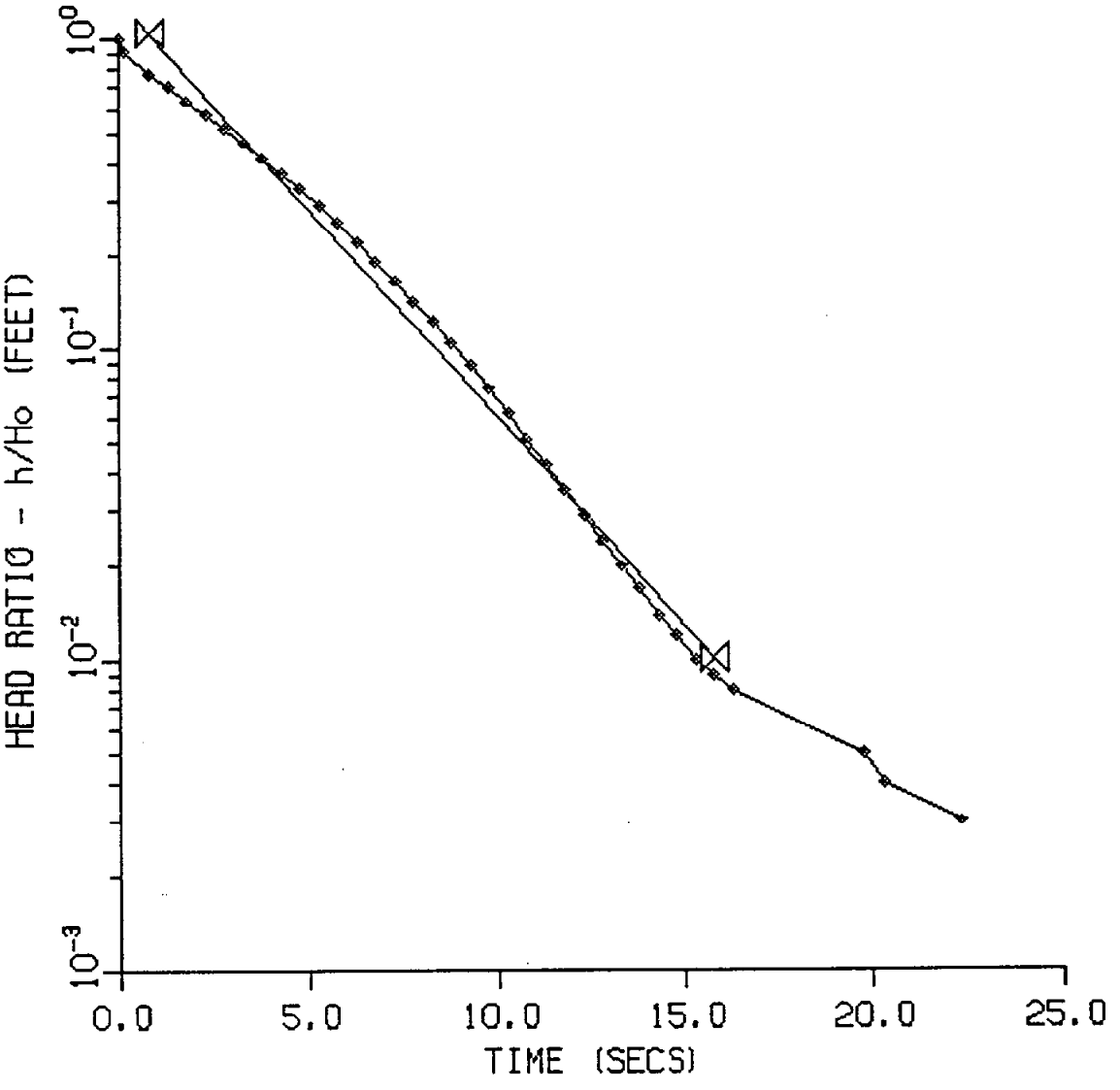
B = 0.38

C = 0.00

Y-INTERCEPT = 13.27

SLOPE = -0.1310

SEARS LØGISTICAL SERVICES
BRMW6-TEST 1



K (CM/S) = 0.017307

WELL SPECS. (FEET)

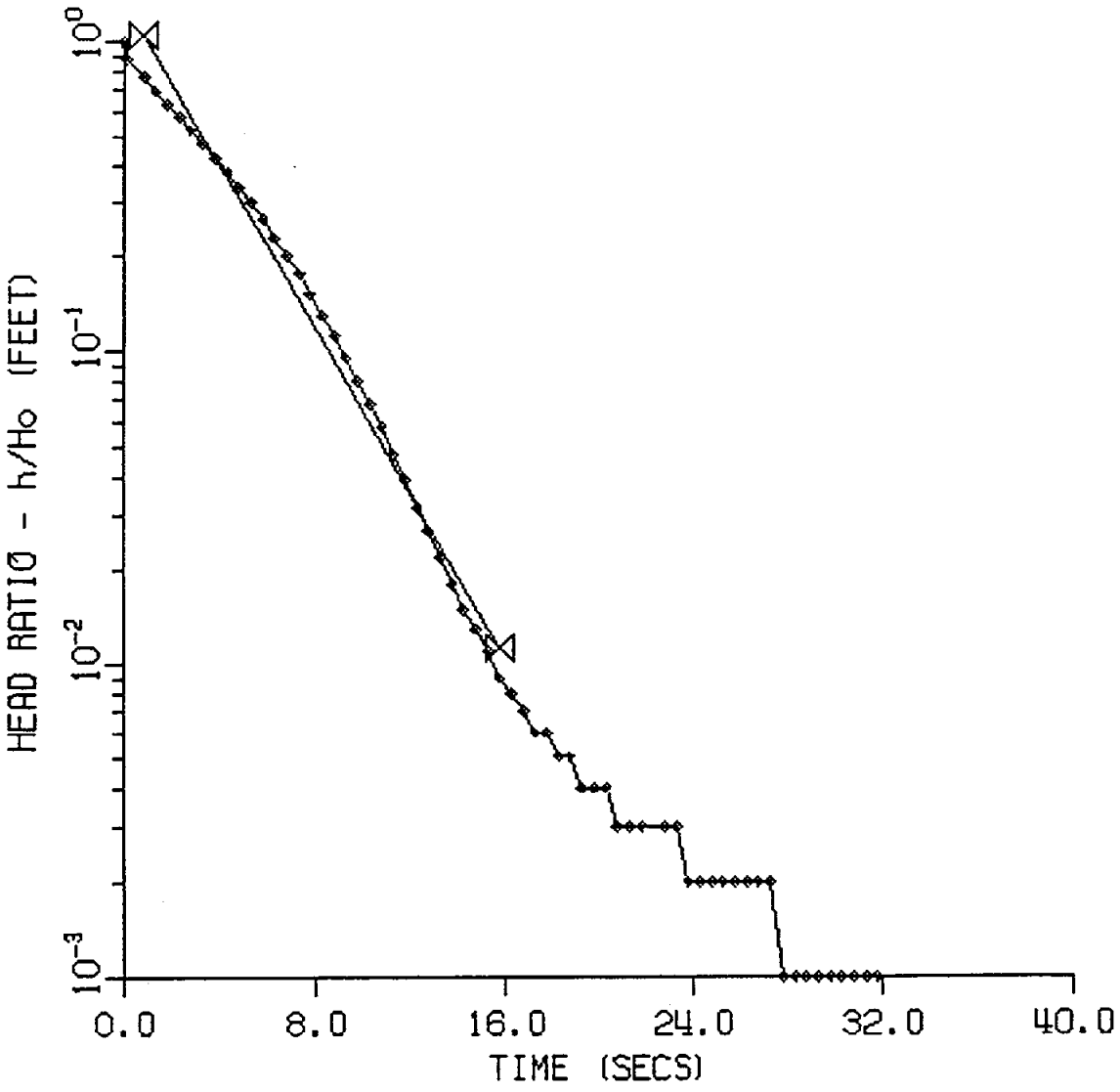
SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.1340

SEARS LØGISTICAL SERVICES
BRMW6-TEST 2



K (CM/S) = 0.016915

WELL SPECS. (FEET)

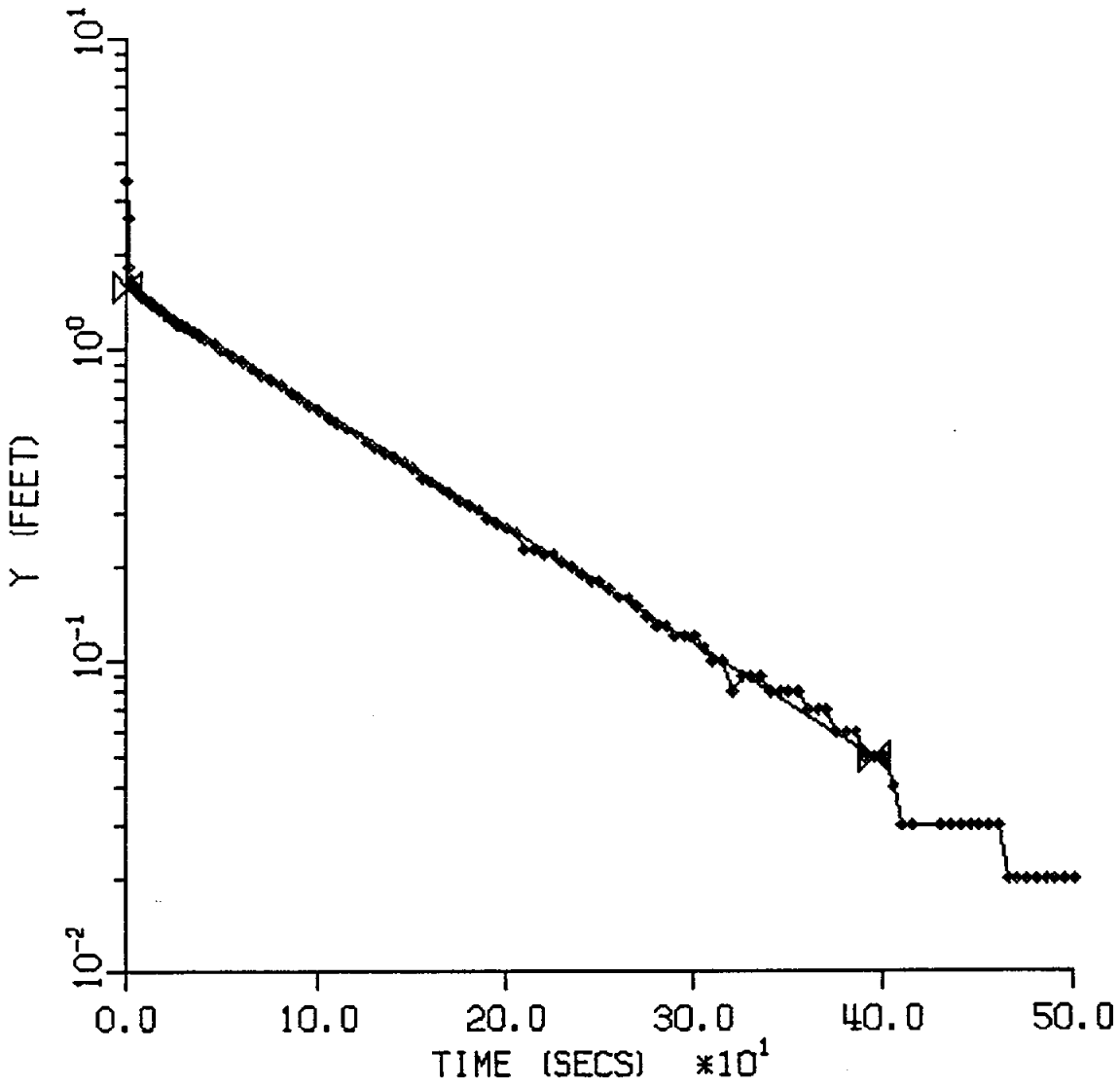
SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.1310

SEARS LØGISTICAL SERVICES
ØBMW7-TEST 1



K (CM/S) = 0.000246

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.8

H (FEET) = 11.80

CØEFFICIENTS

A = 0.00

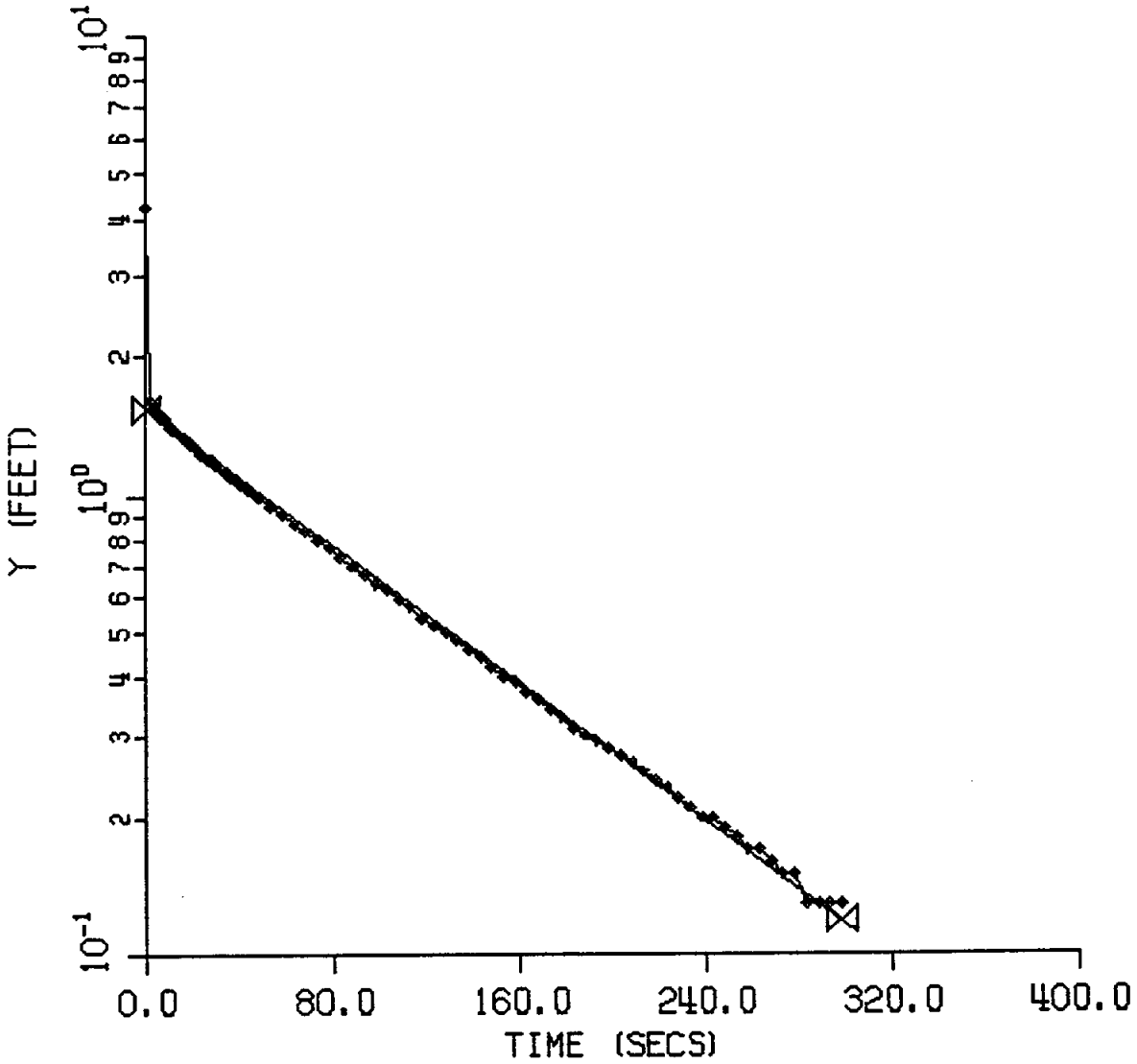
B = 0.00

C = 2.05

Y-INTERCEPT = 1.59

SLØPE = -0.0038

SEARS LØGISTICAL SERVICES
ØBMW7-TEST 2



K (CM/S) = 0.000241

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.8

H (FEET) = 11.80

COEFFICIENTS

A = 0.00

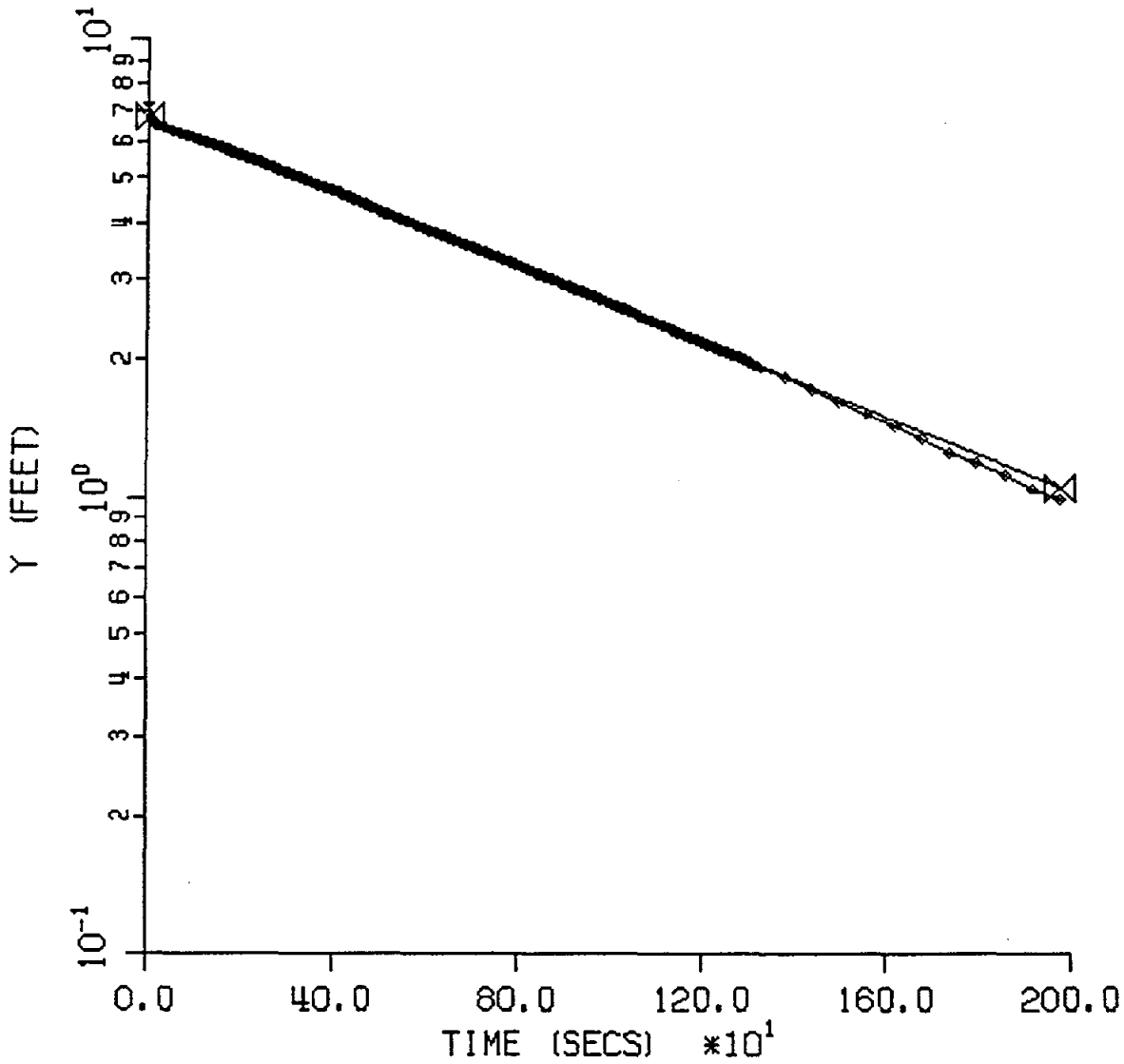
B = 0.00

C = 2.05

Y-INTERCEPT = 1.54

SLØPE = -0.0037

SEARS LØGISTICAL SERVICES
BRMW7-TEST 1



K (CM/S) = 0.000029

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 25.5

H (FEET) = 24.70

COEFFICIENTS

A = 2.41

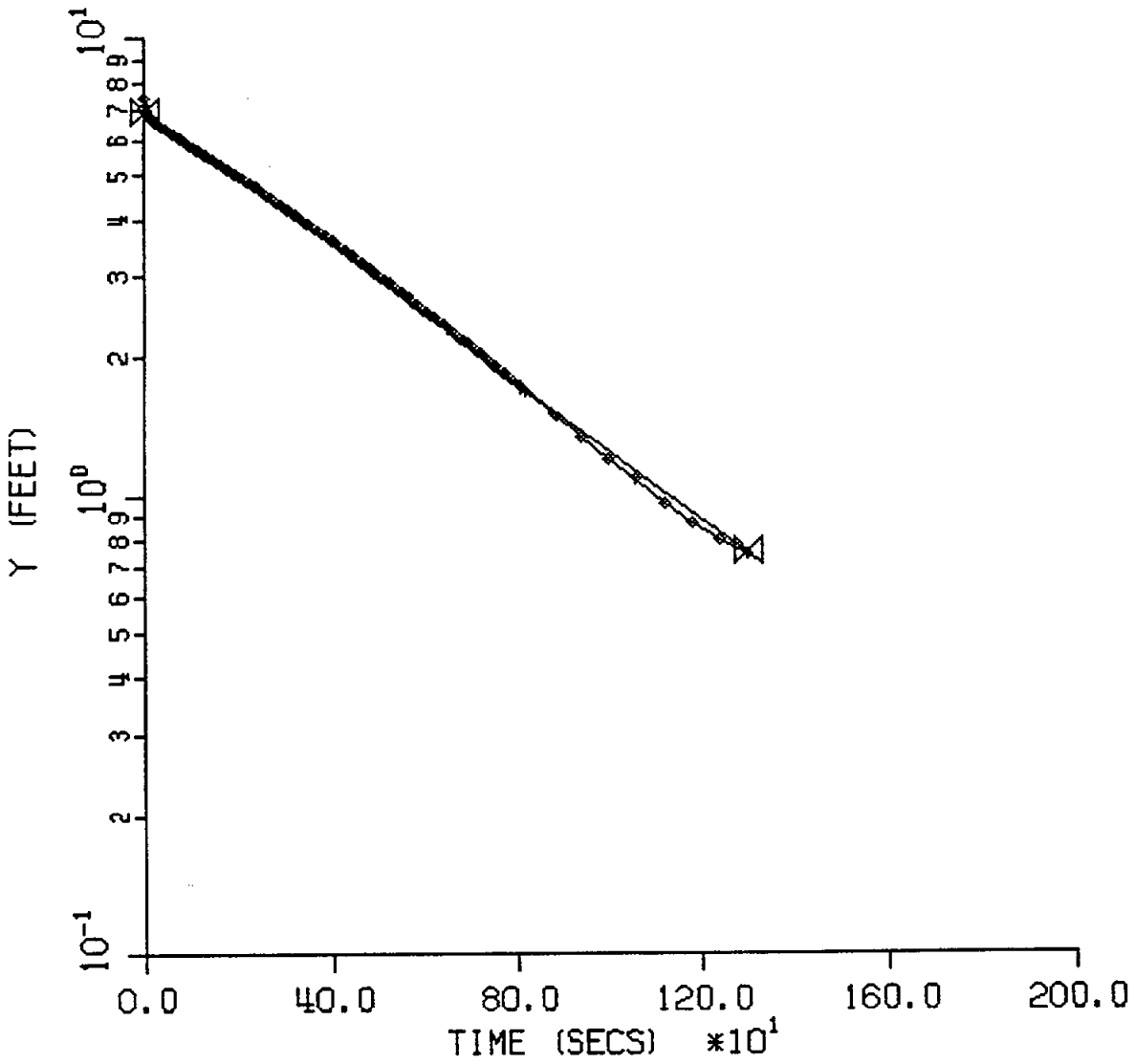
B = 0.38

C = 0.00

Y-INTERCEPT = 6.77

SLØPE = -0.0004

SEARS LØGISTICAL SERVICES
BRMW7-TEST 2



K (CM/S) = 0.000052

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 25.5

H (FEET) = 24.70

COEFFICIENTS

A = 2.41

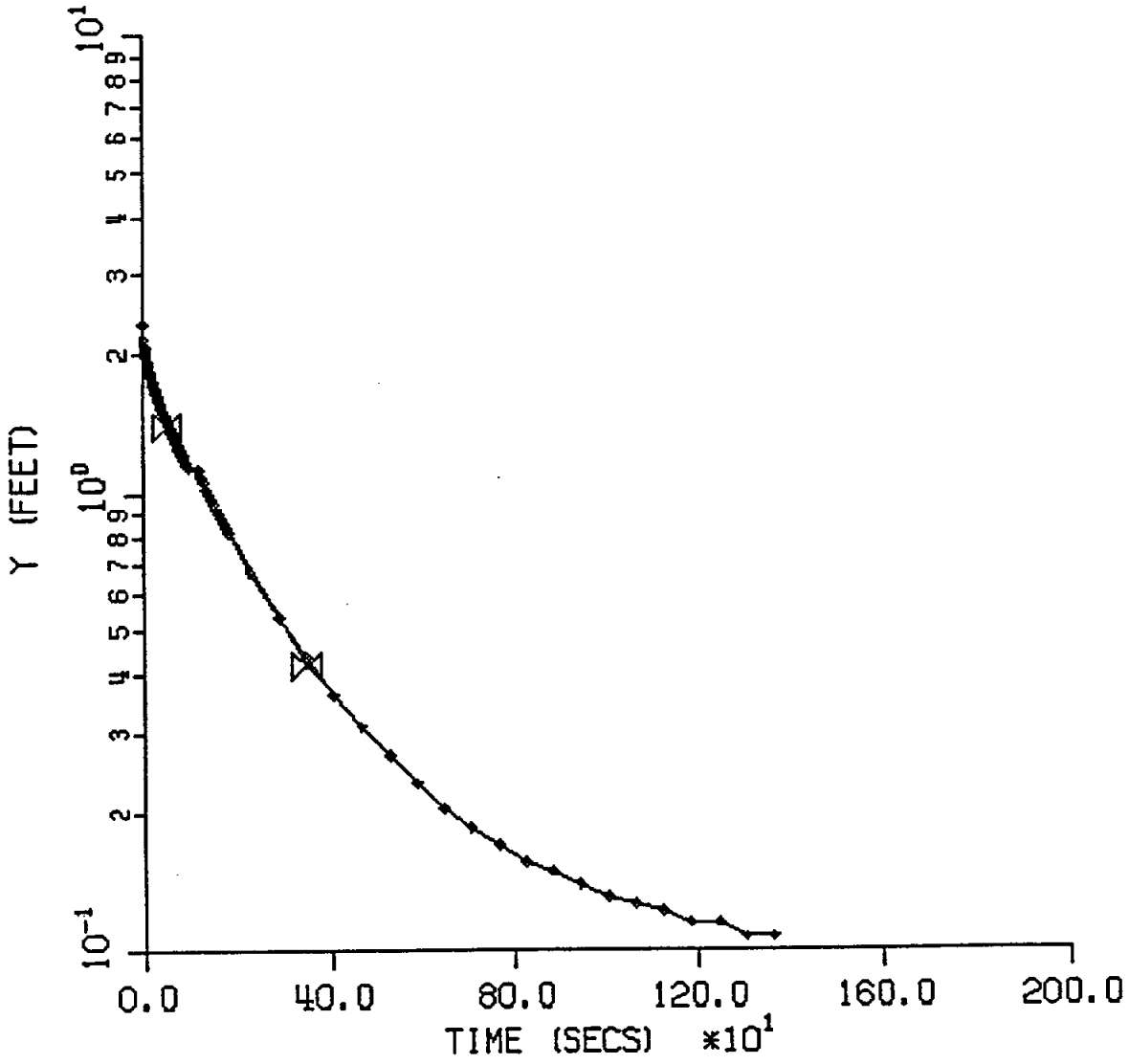
B = 0.38

C = 0.00

Y-INTERCEPT = 6.96

SLØPE = -0.0007

SWS REALTY
OBMW8-TEST 1



K (CM/S) = 0.000979

WELL SPECS. (FEET)

SCREEN LENGTH = 6.9

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 6.9

H (FEET) = 6.90

COEFFICIENTS

A = 0.00

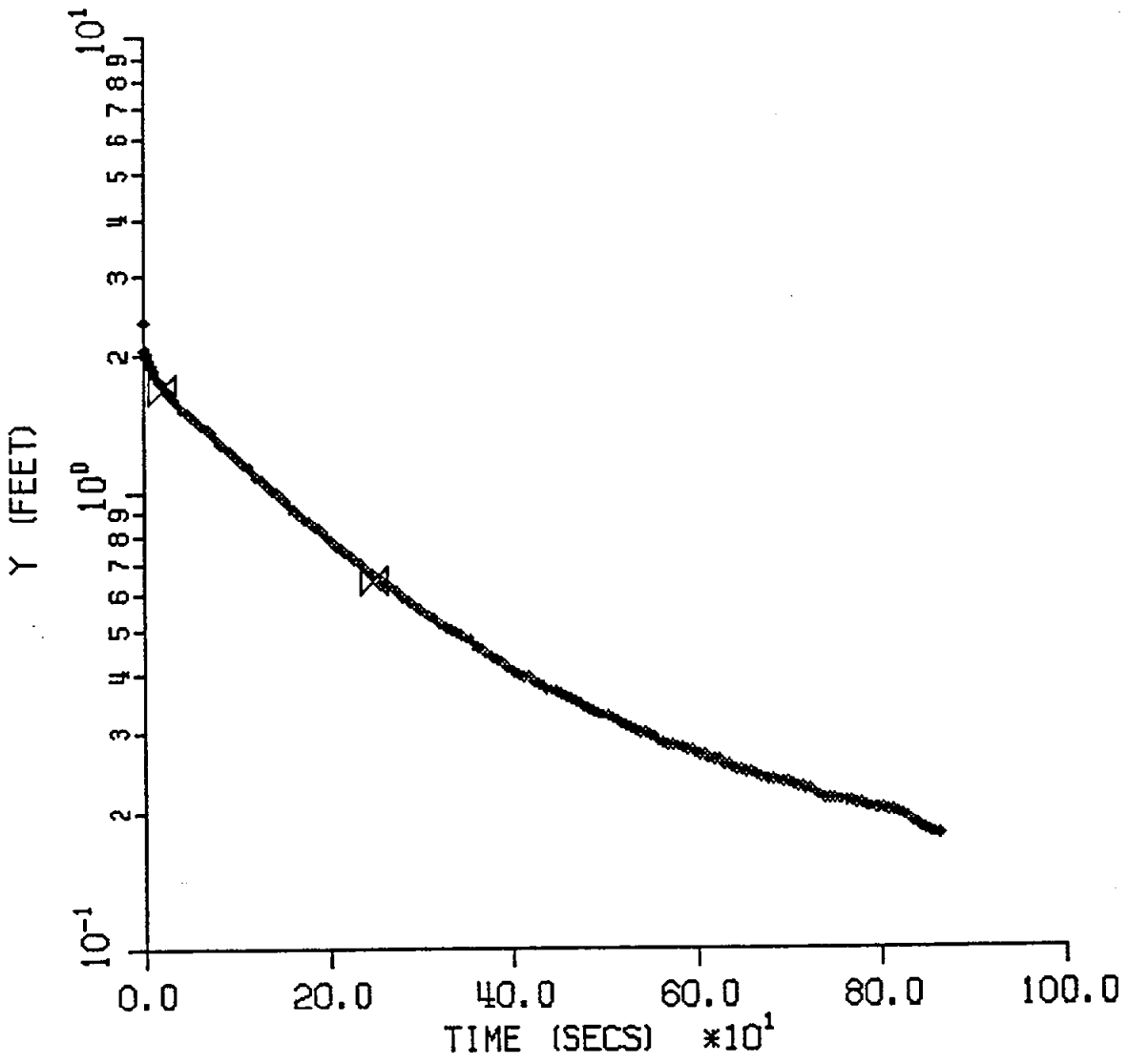
B = 0.00

C = 1.73

Y-INTERCEPT = 1.71

SLOPE = -0.0018

SWS REALTY
0BMW8-TEST 2



K (CM/S) = 0.001016

WELL SPECS. (FEET)

SCREEN LENGTH = 6.9

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 6.9

H (FEET) = 6.90

COEFFICIENTS

A = 0.00

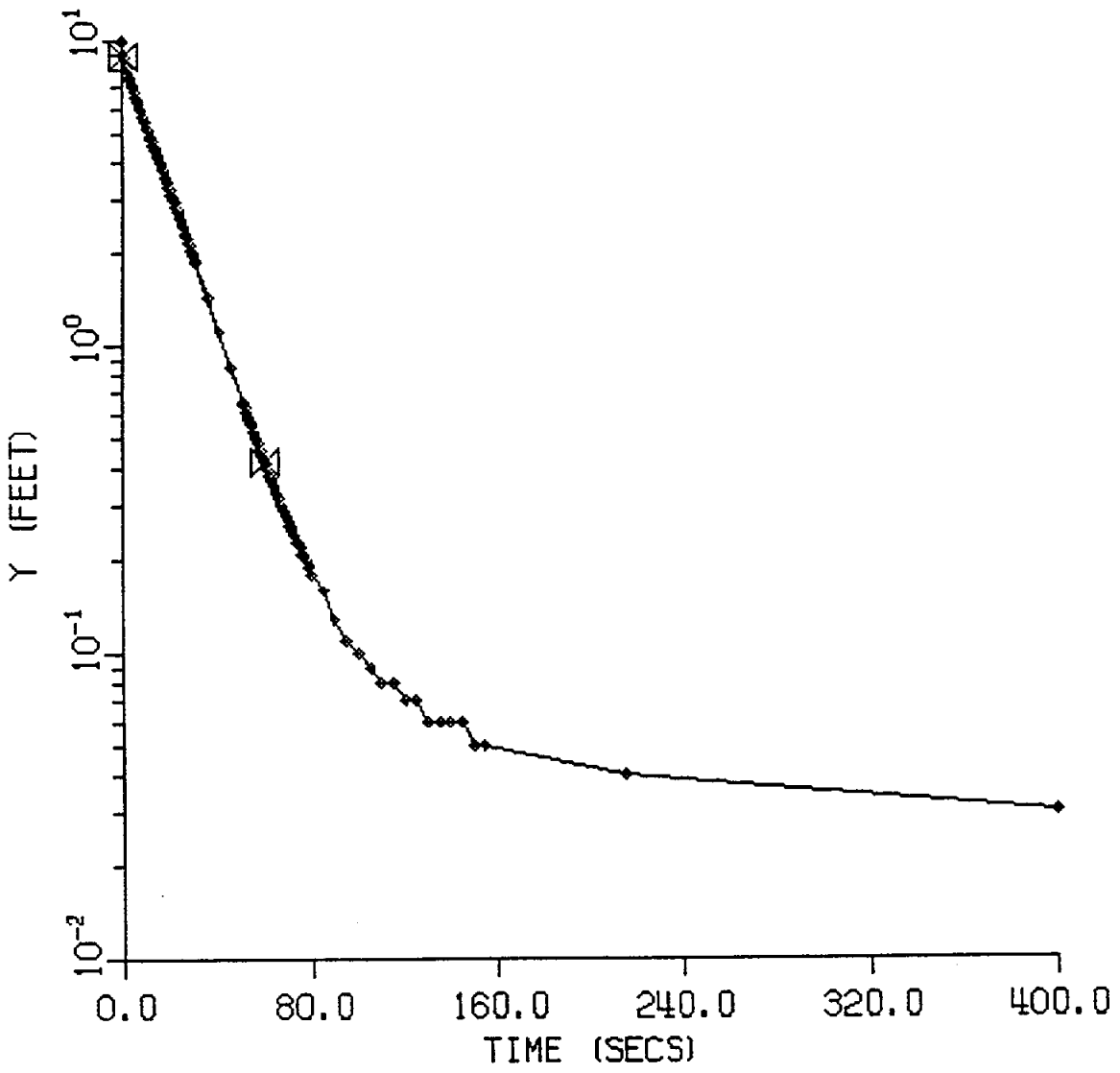
B = 0.00

C = 1.73

Y-INTERCEPT = 1.83

SLOPE = -0.0018

SWS REALTY
BRMW8-TEST 1



K (CM/S) = 0.001576

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 40.0

H (FEET) = 36.70

COEFFICIENTS

A = 2.41

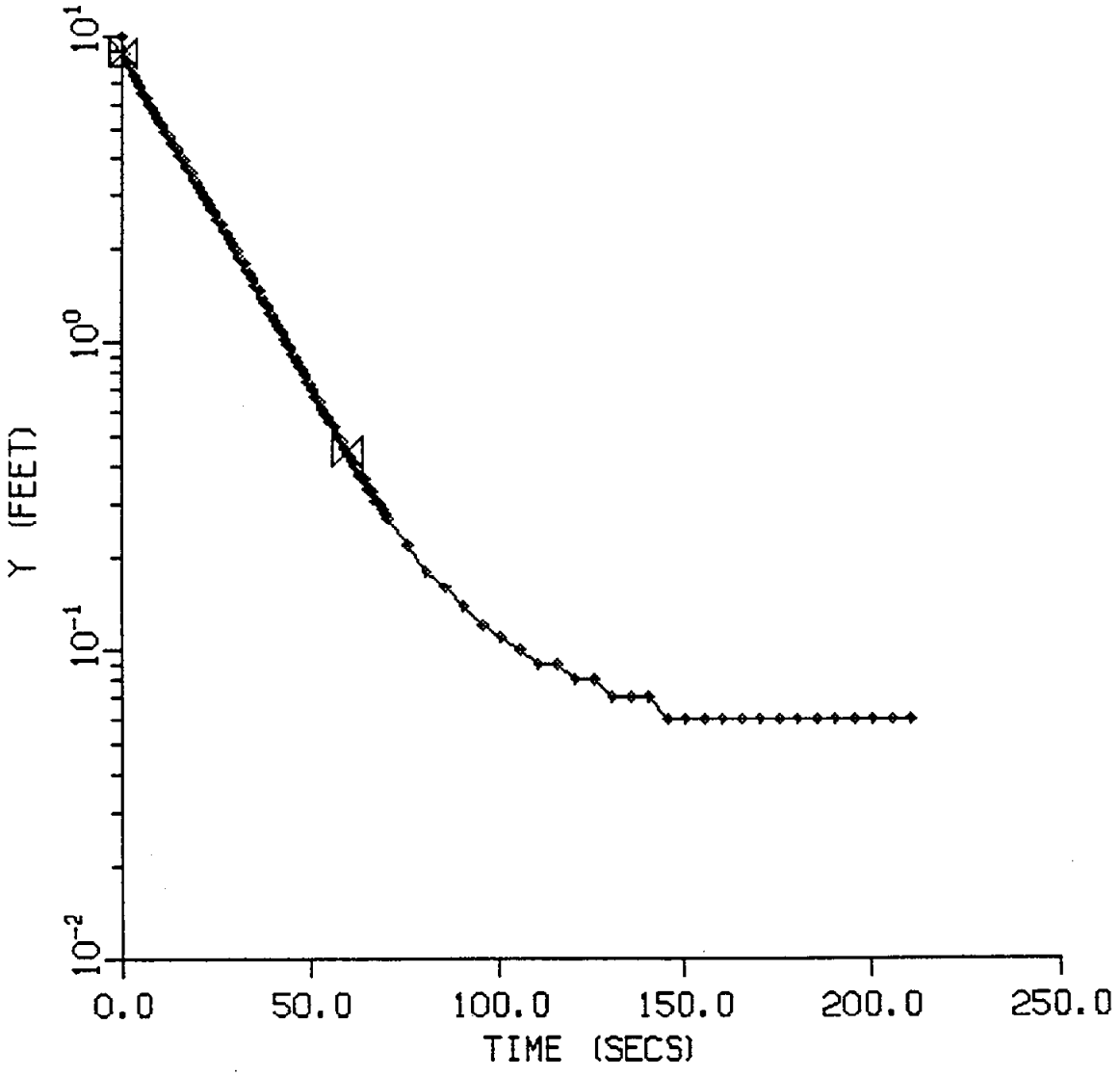
B = 0.38

C = 0.00

Y-INTERCEPT = 8.89

SLOPE = -0.0222

SWS REALTY
BRMW8-TEST 2



K (CM/S) = 0.001541

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 40.0

H (FEET) = 36.70

COEFFICIENTS

A = 2.41

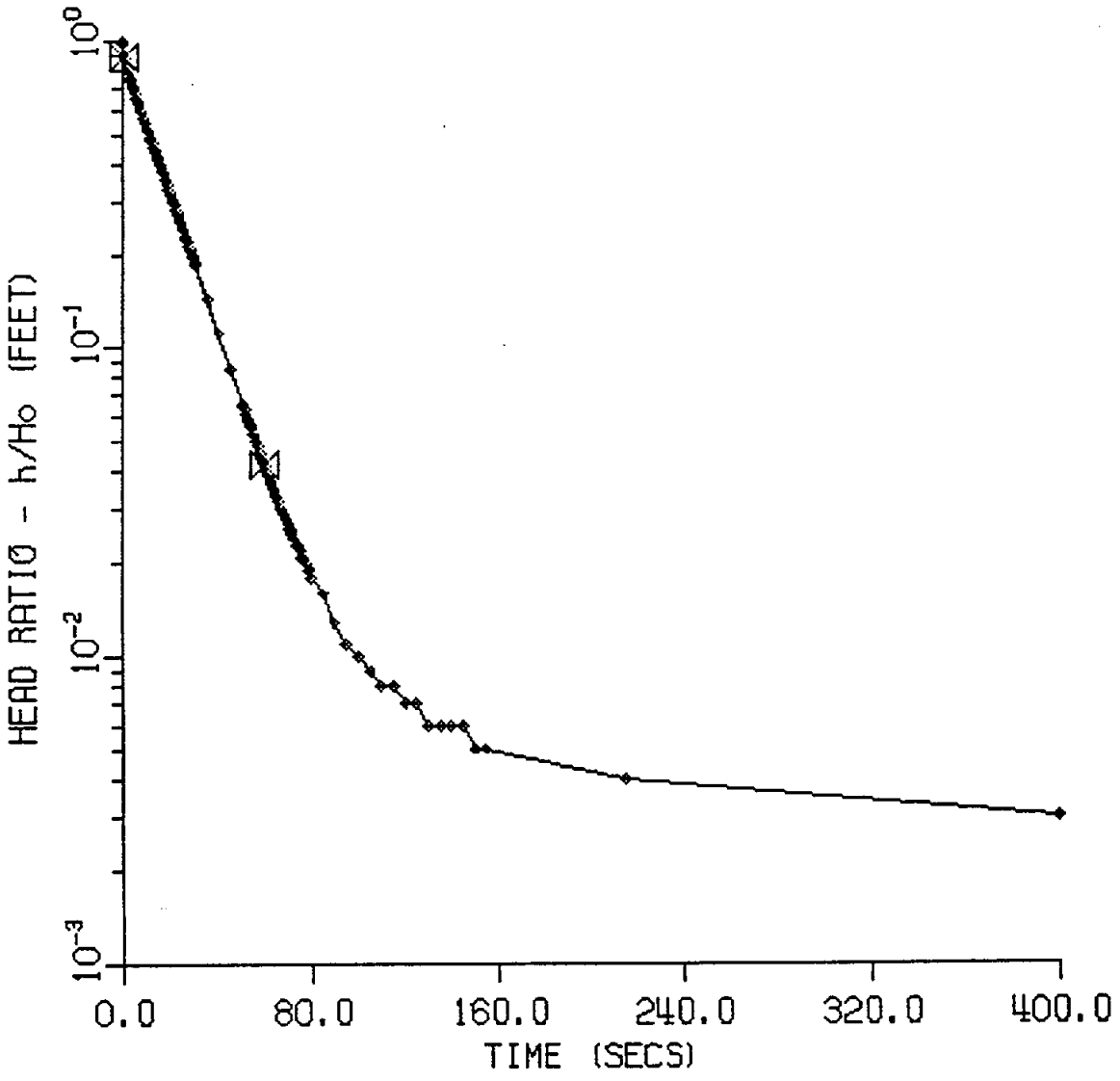
B = 0.38

C = 0.00

Y-INTERCEPT = 8.84

SLOPE = -0.0217

SWS REALTY PROPERTY
BRMW8-TEST 1



K (CM/S) = 0.002866

WELL SPECS. (FEET)

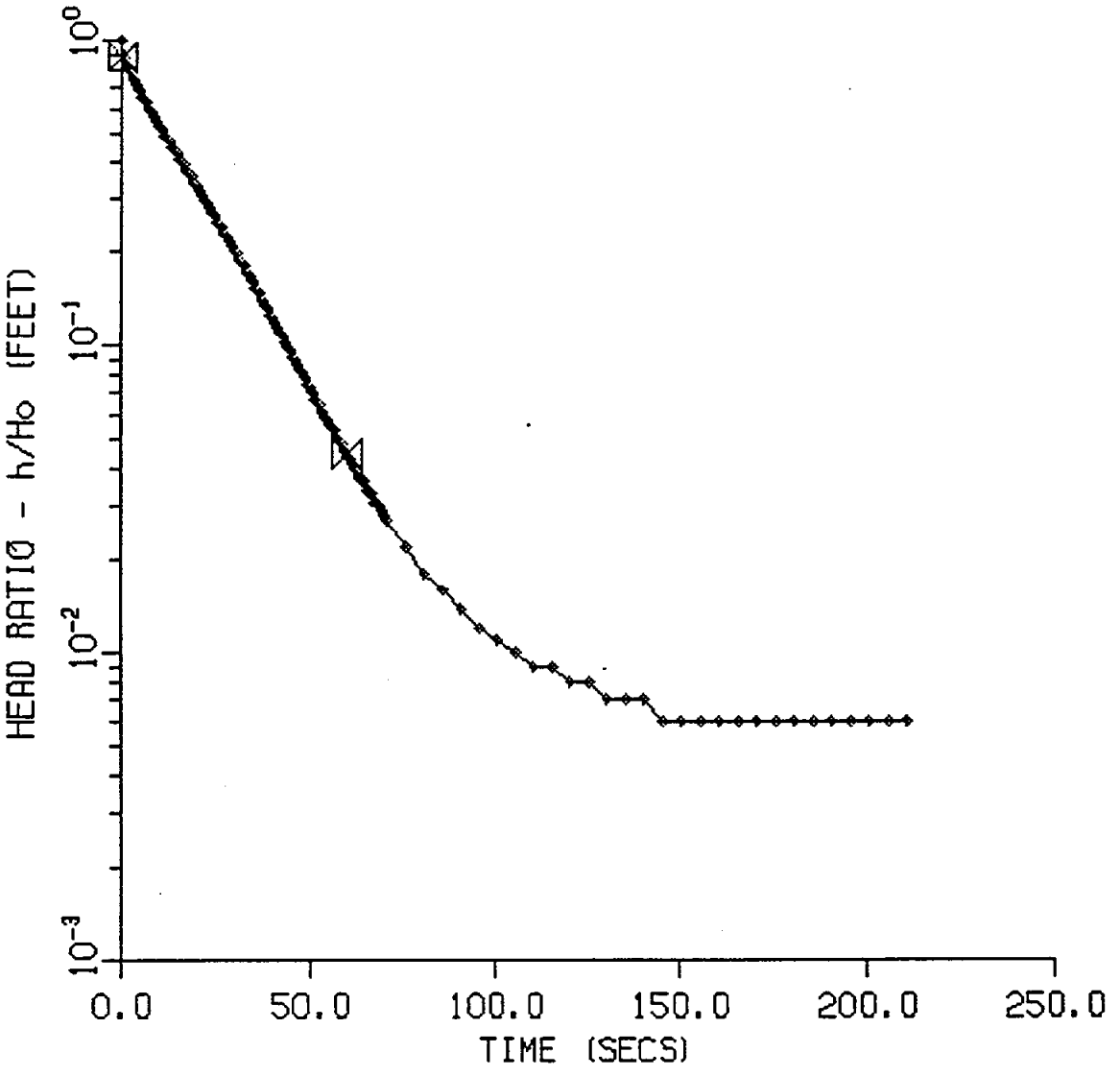
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0222

SWS REALTY PROPERTY
BRMW8-TEST 2



K (CM/S) = 0.002802

WELL SPECS. (FEET)

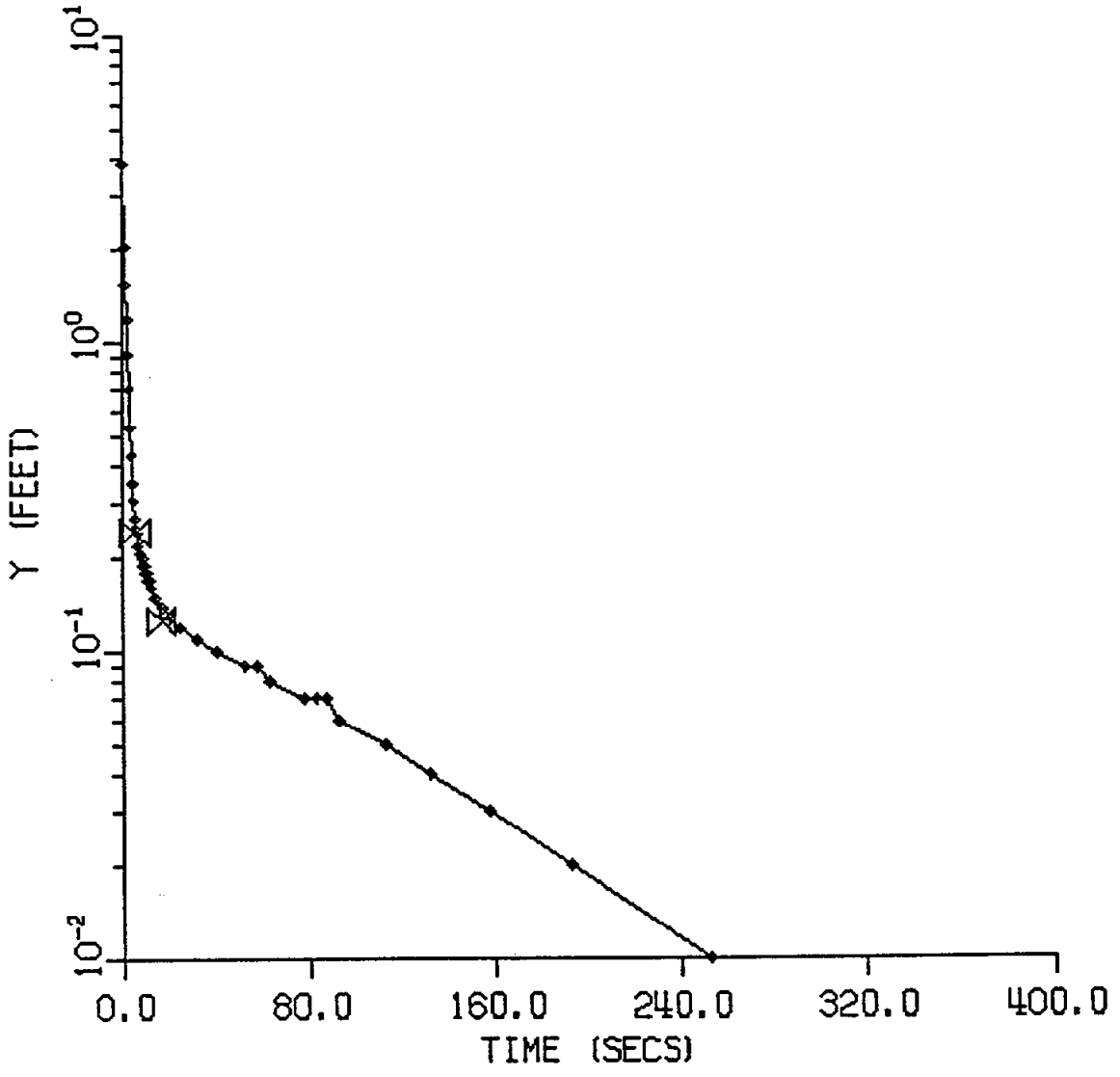
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0217

FEDERAL EXPRESS PROPERTY
BRMW9-TEST 1



K (CM/S) = 0.013371

WELL SPECS. (FEET)

SCREEN LENGTH = 7.2

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.2

H (FEET) = 7.15

COEFFICIENTS

A = 0.00

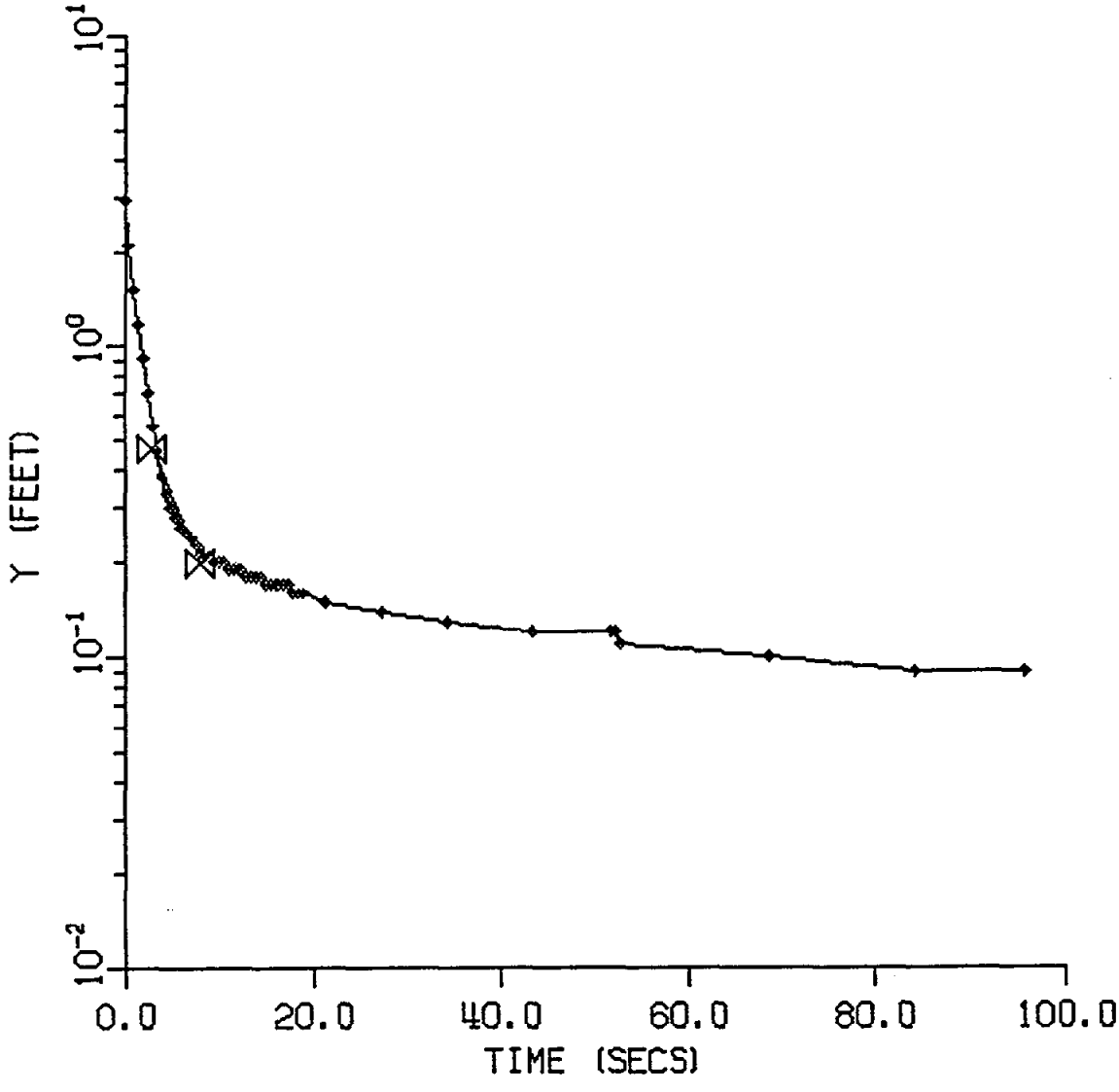
B = 0.00

C = 1.76

Y-INTERCEPT = 0.32

SLOPE = -0.0247

FEDERAL EXPRESS PRØPERTY
BRMW9-TEST 2



K (CM/S) = 0.039926

WELL SPECS. (FEET)

SCREEN LENGTH = 7.2

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.2

H (FEET) = 7.15

COEFFICIENTS

A = 0.00

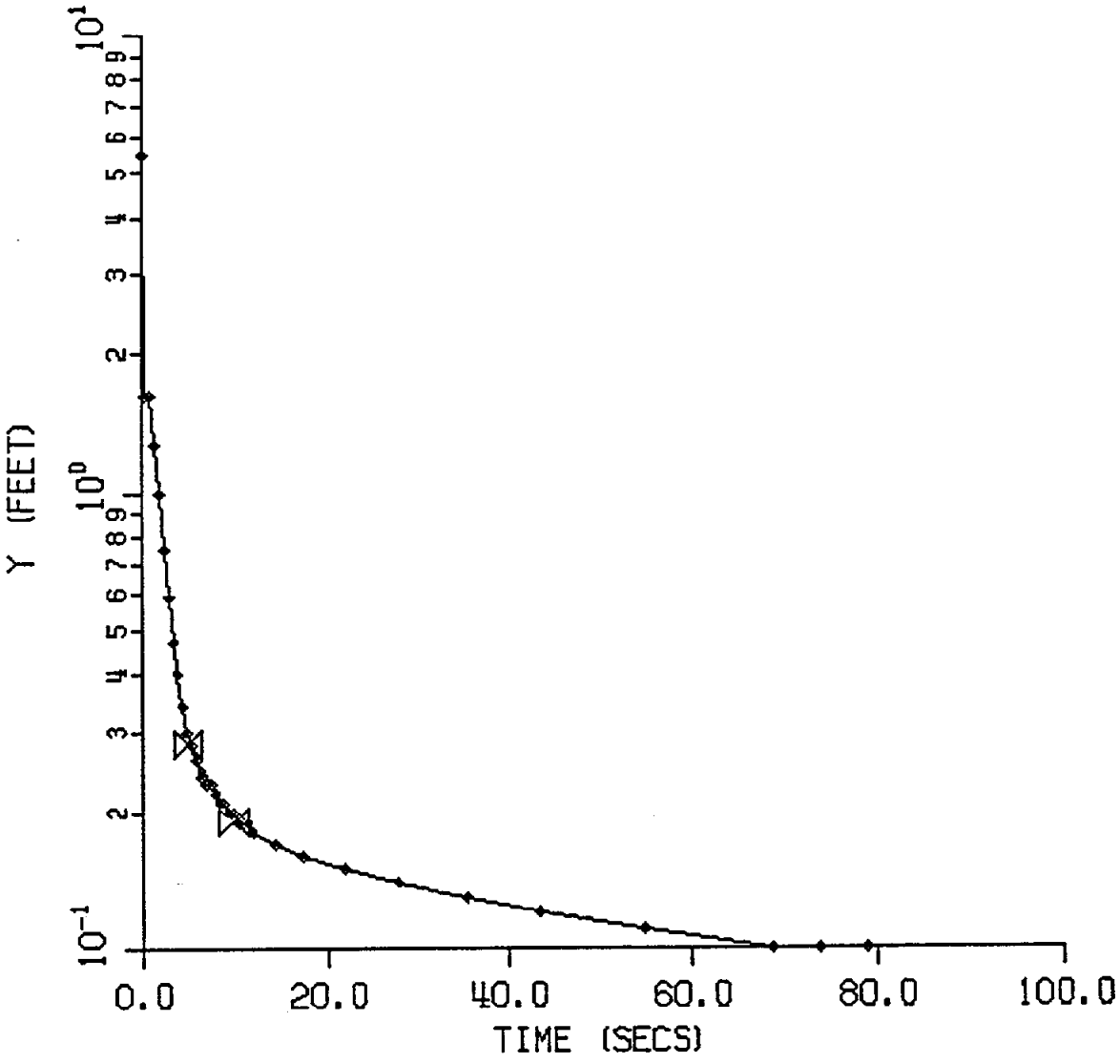
B = 0.00

C = 1.76

Y-INTERCEPT = 0.75

SLØPE = -0.0736

FEDERAL EXPRESS PROPERTY
BRMW9-TEST 3



K (CM/S) = 0.018484

WELL SPECS. (FEET)

SCREEN LENGTH = 7.2

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.2

H (FEET) = 7.15

COEFFICIENTS

A = 0.00

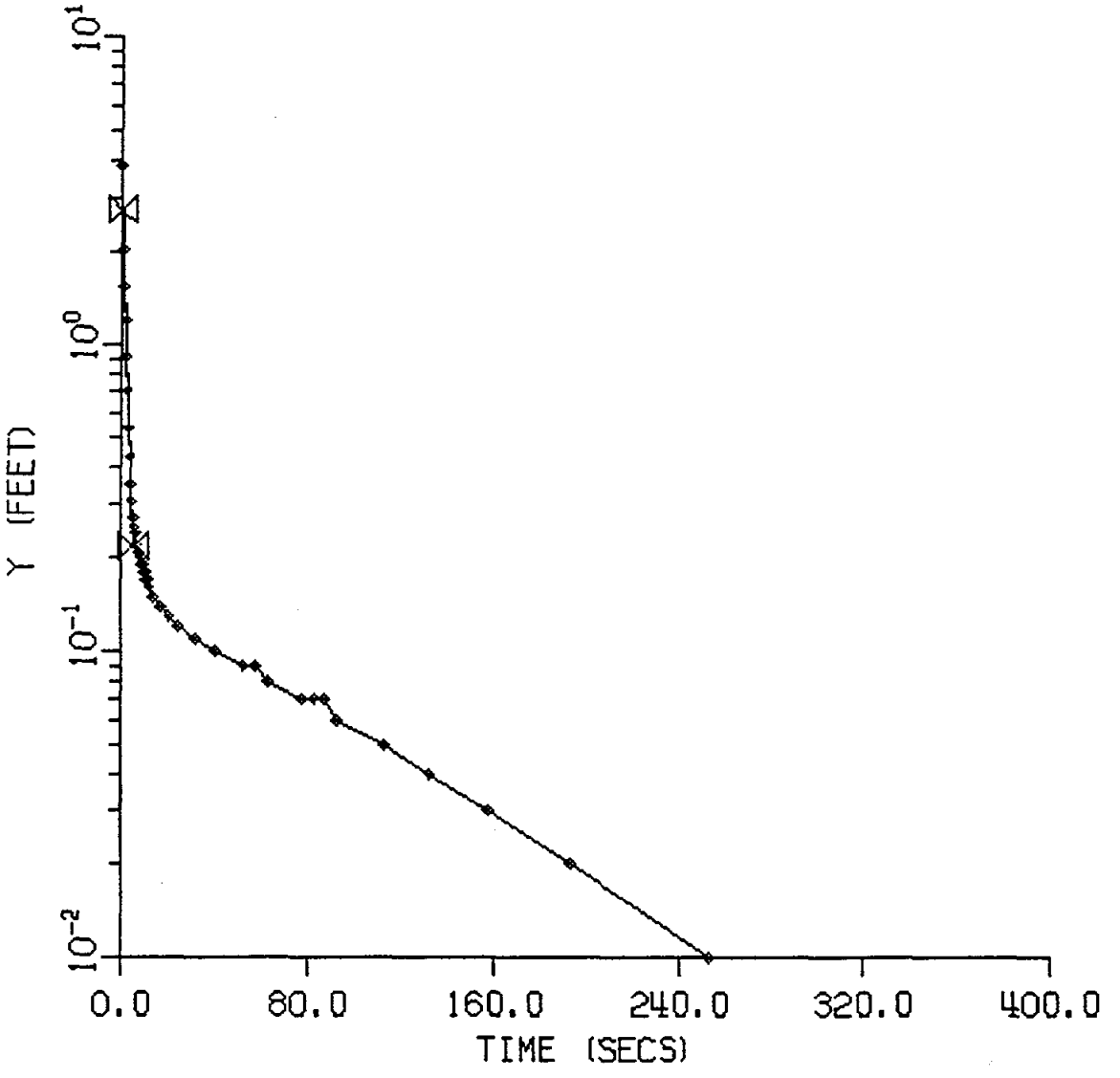
B = 0.00

C = 1.76

Y-INTERCEPT = 0.41

SLOPE = -0.0342

FEDERAL EXPRESS PRØPERTY
BRMW9-TEST 1



K (CM/S) = 0.015024

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 25.0

H (FEET) = 23.50

COEFFICIENTS

A = 2.41

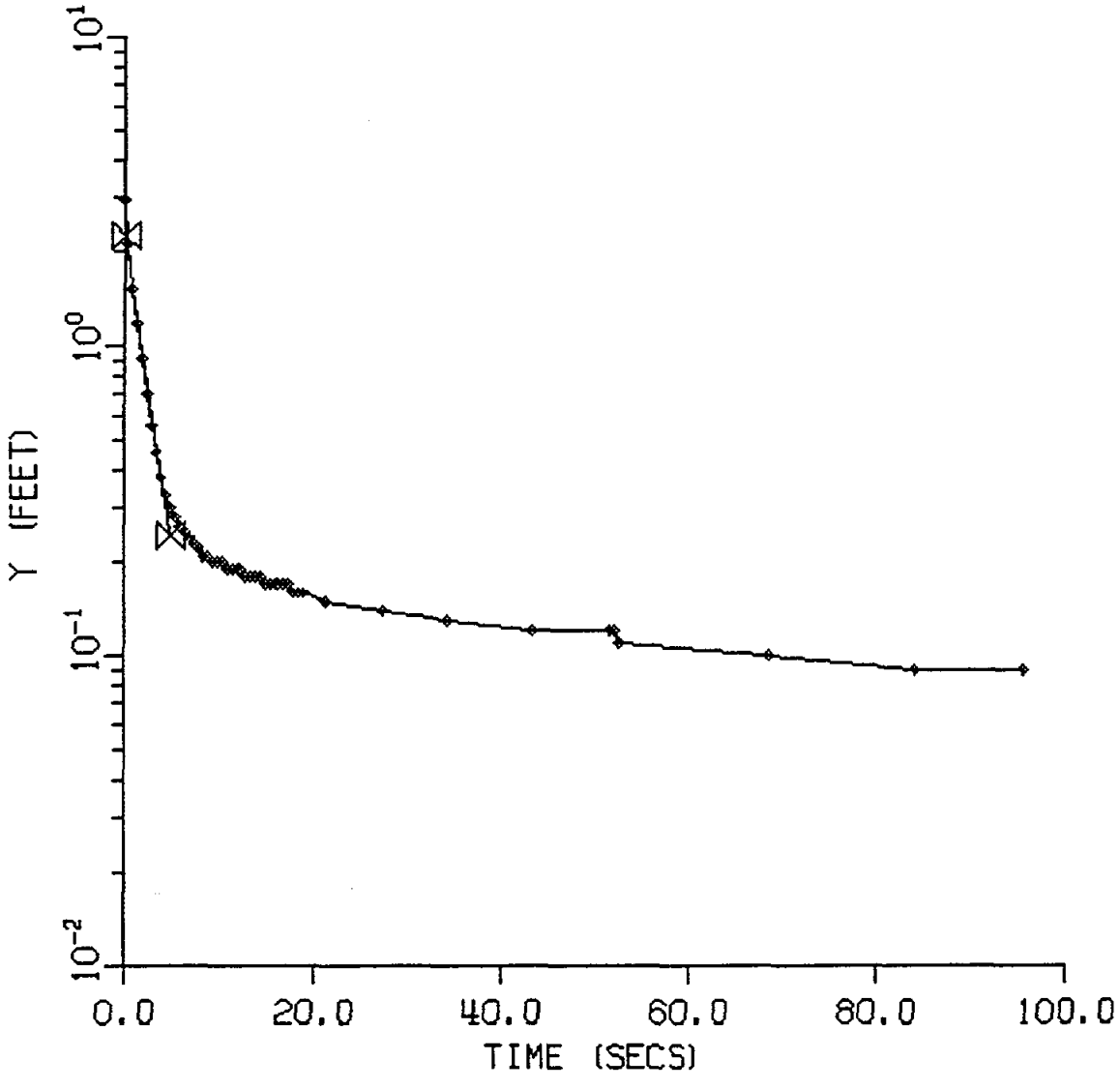
B = 0.38

C = 0.00

Y-INTERCEPT = 2.77

SLØPE = -0.2206

FEDERAL EXPRESS PROPERTY
BRMW9-TEST 2



K (CM/S) = 0.013683

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 25.0

H (FEET) = 23.50

COEFFICIENTS

A = 2.41

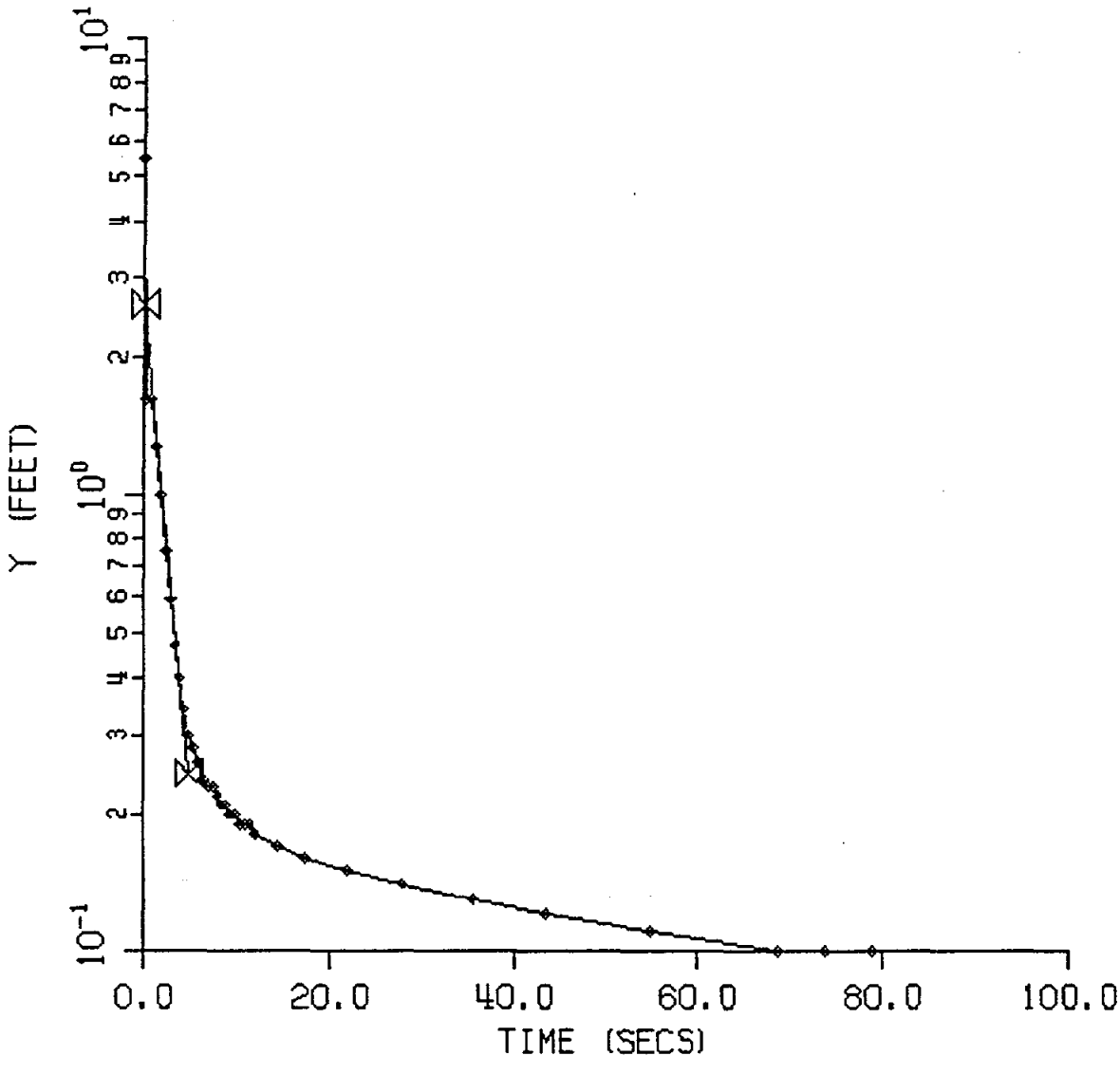
B = 0.38

C = 0.00

Y-INTERCEPT = 2.27

SLOPE = -0.2009

FEDERAL EXPRESS PRØPERTY
BRMW9-TEST 3



K (CM/S) = 0.014585

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 25.0

H (FEET) = 23.50

COEFFICIENTS

A = 2.41

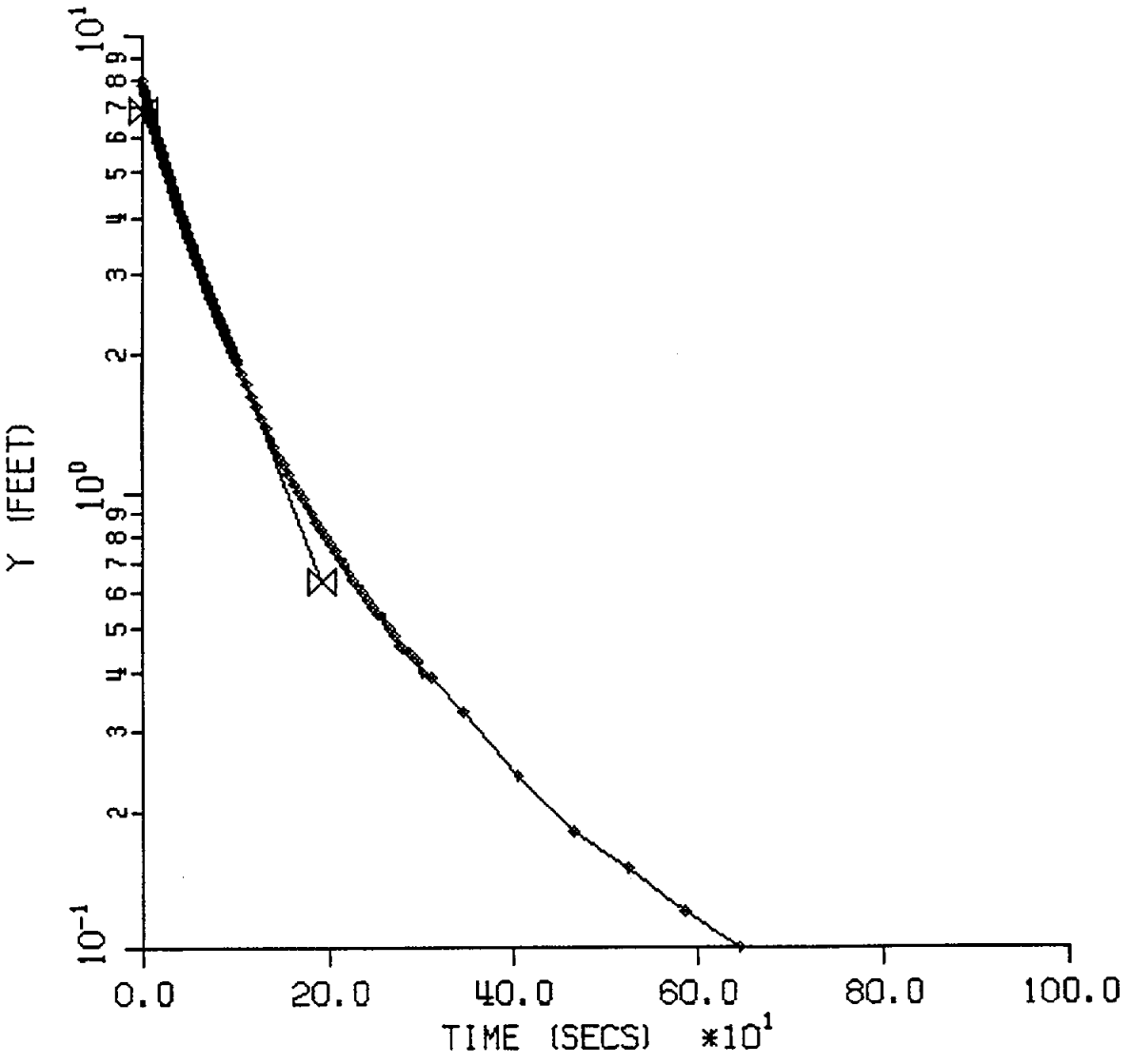
B = 0.38

C = 0.00

Y-INTERCEPT = 2.62

SLØPE = -0.2141

STEPAN PRØPERTY
BRMW10-TEST 1



K (CM/S) = 0.000391

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 32.0

H (FEET) = 31.05

COEFFICIENTS

A = 2.41

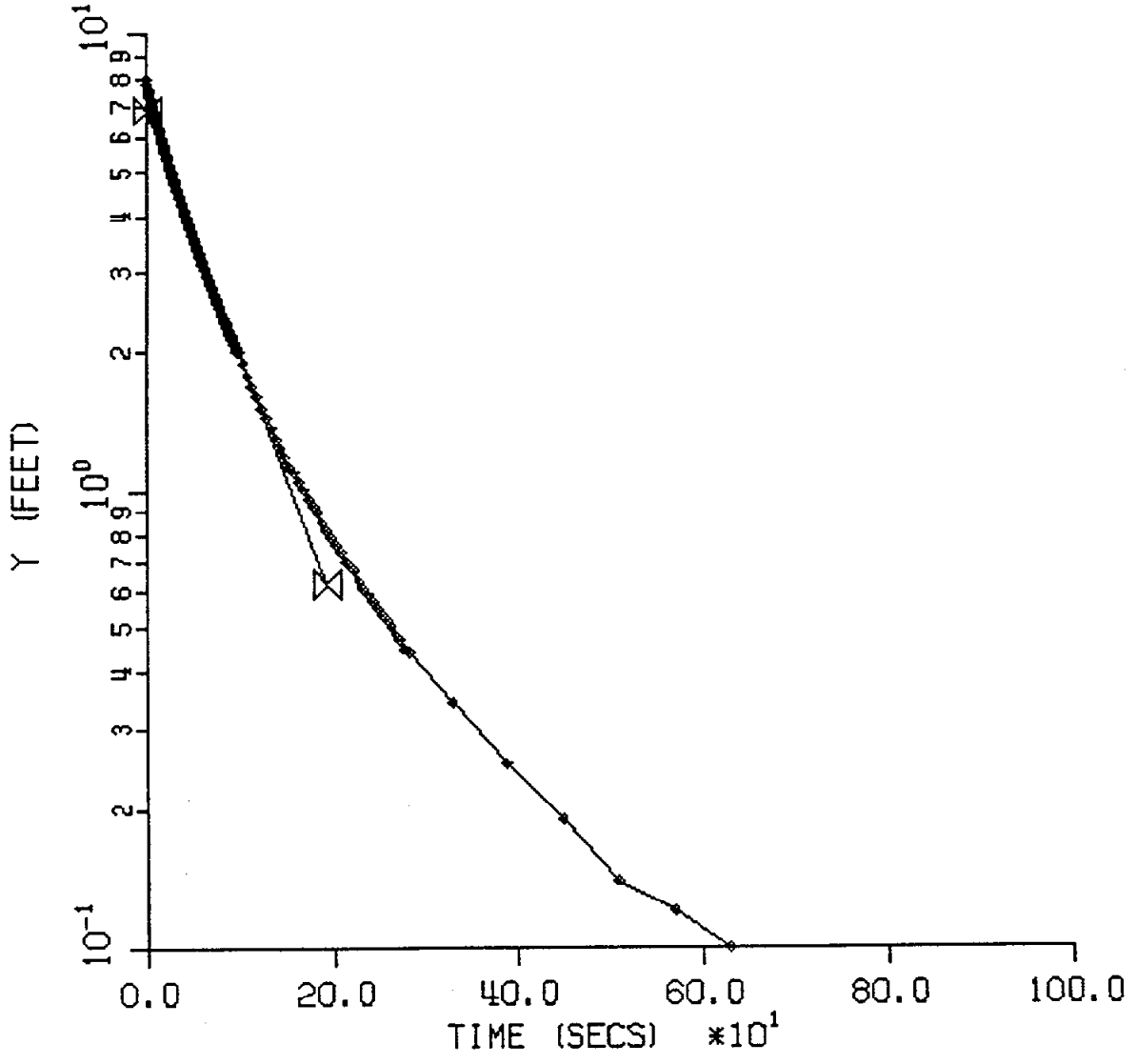
B = 0.38

C = 0.00

Y-INTERCEPT = 6.88

SLØPE = -0.0054

STEPAN PRØPERTY
BRMW10-TEST 2



K (CM/S) = 0.000392

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 32.0

H (FEET) = 31.05

COEFFICIENTS

A = 2.41

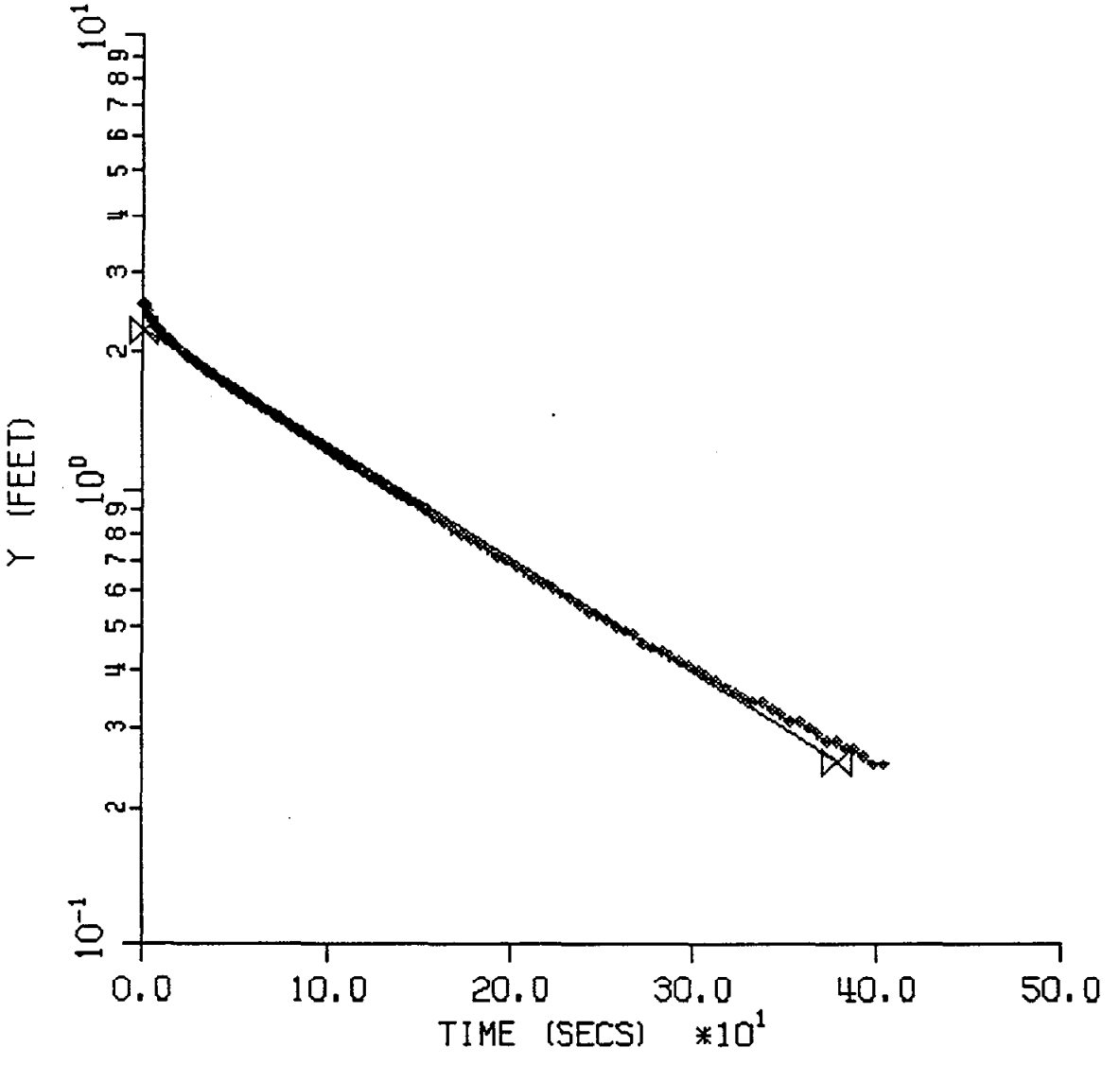
B = 0.38

C = 0.00

Y-INTERCEPT = 6.84

SLØPE = -0.0054

SEARS LØGISTICAL SERVICES
ØBMW11-TEST 1



K (CM/S) = 0.000285

WELL SPECS. (FEET)

SCREEN LENGTH = 5.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 9.5

H (FEET) = 9.50

CØEFFICIENTS

A = 0.00

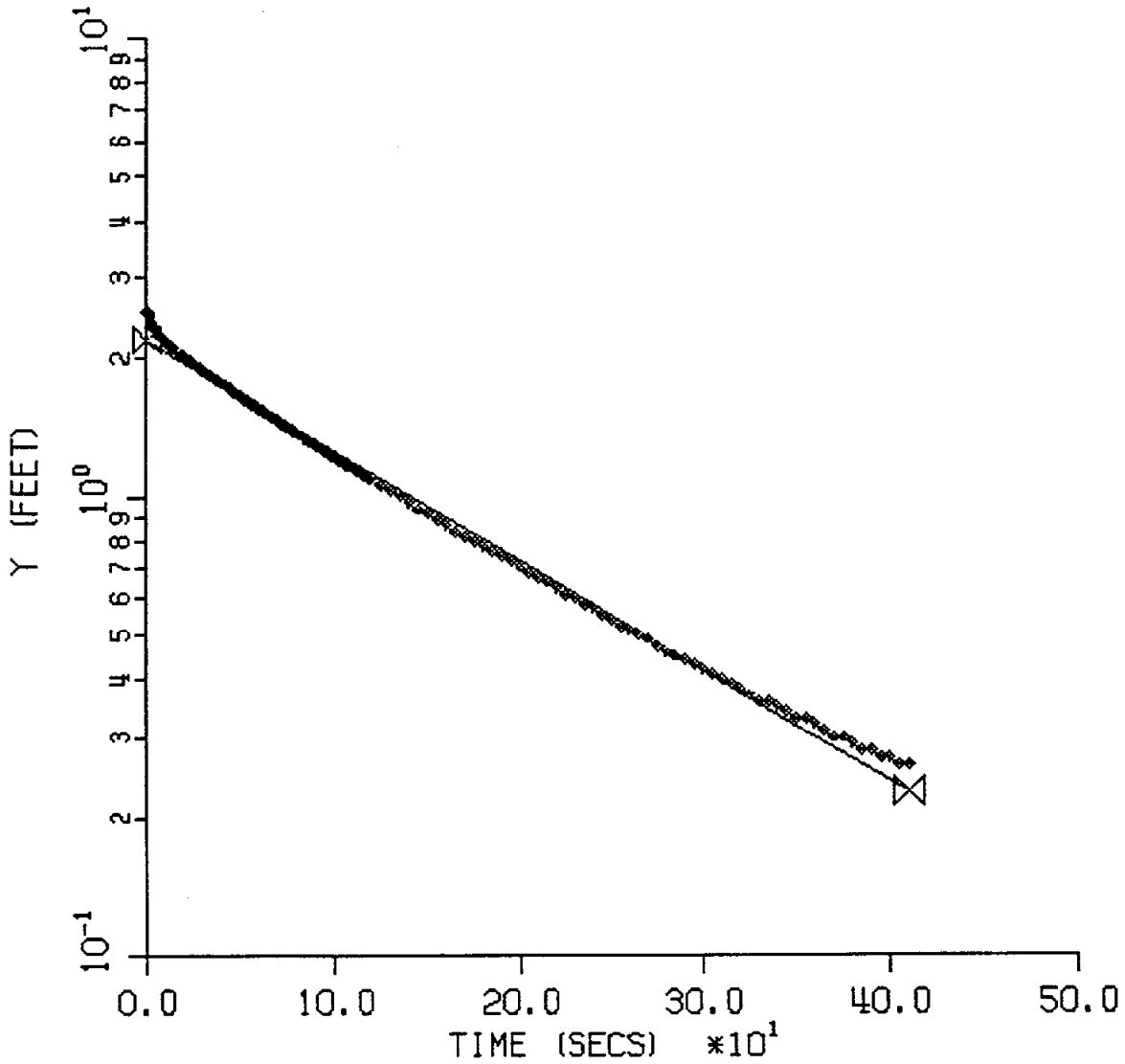
B = 0.00

C = 1.47

Y-INTERCEPT = 2.22

SLØPE = -0.0025

SEARS LØGISTICAL SERVICES
ØBMW11-TEST 2



K (CM/S) = 0.000274

WELL SPECS. (FEET)

SCREEN LENGTH = 5.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 9.5

H (FEET) = 9.50

COEFFICIENTS

A = 0.00

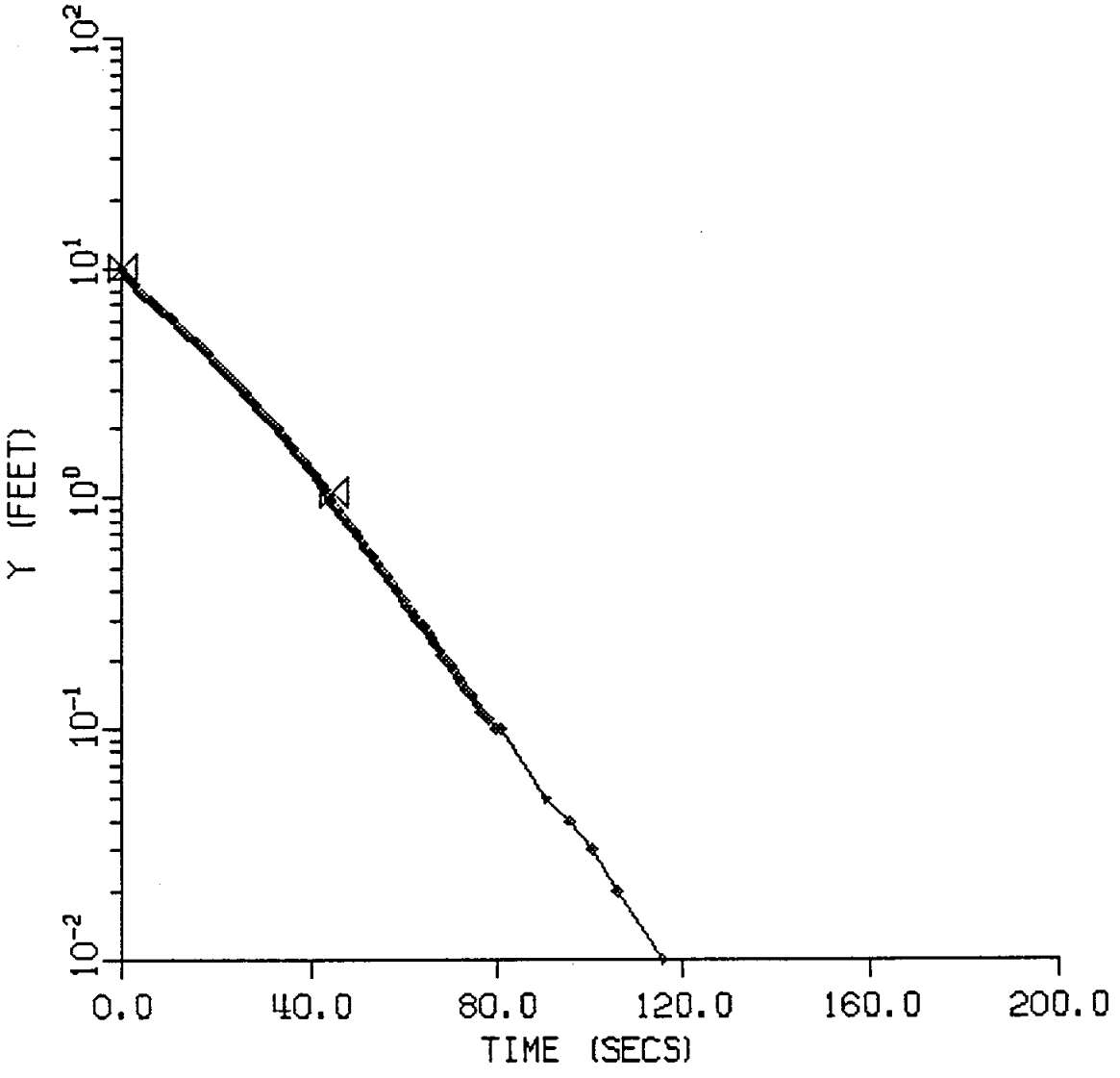
B = 0.00

C = 1.47

Y-INTERCEPT = 2.19

SLØPE = -0.0024

SEARS LØGISTICAL SERVICES
BRMW11-TEST 1



K (CM/S) = 0.001580

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 31.0

H (FEET) = 30.10

COEFFICIENTS

A = 2.41

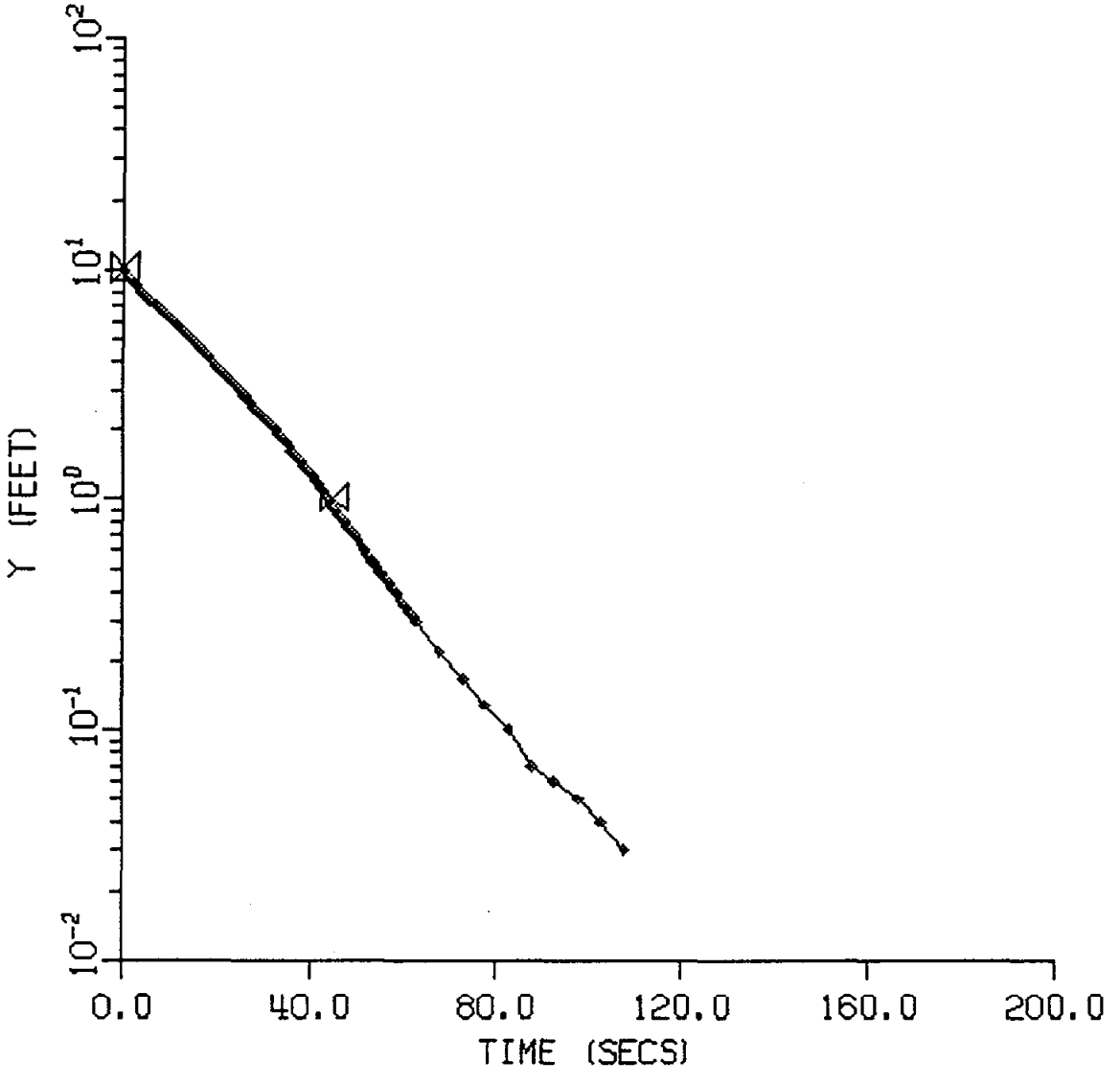
B = 0.38

C = 0.00

Y-INTERCEPT = 10.15

SLØPE = -0.0219

SEARS LOGISTICAL SERVICES
BRMW11-TEST 2



K (CM/S) = 0.001611

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 31.0

H (FEET) = 30.10

COEFFICIENTS

A = 2.41

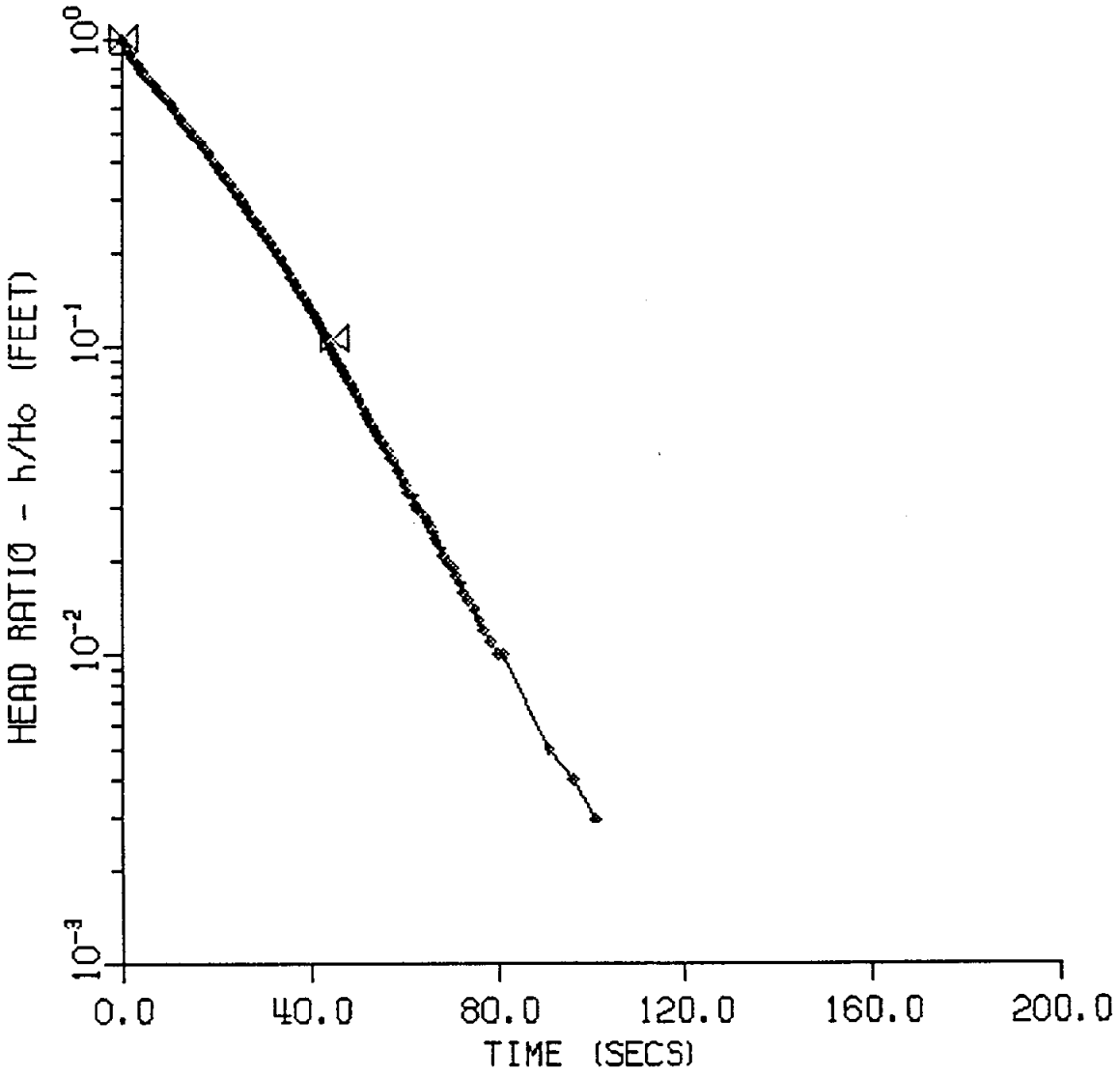
B = 0.38

C = 0.00

Y-INTERCEPT = 10.18

SLOPE = -0.0223

SEARS LØGISTICAL SERVICES
BRMW11-TEST 1



K (CM/S) = 0.002822

WELL SPECS. (FEET)

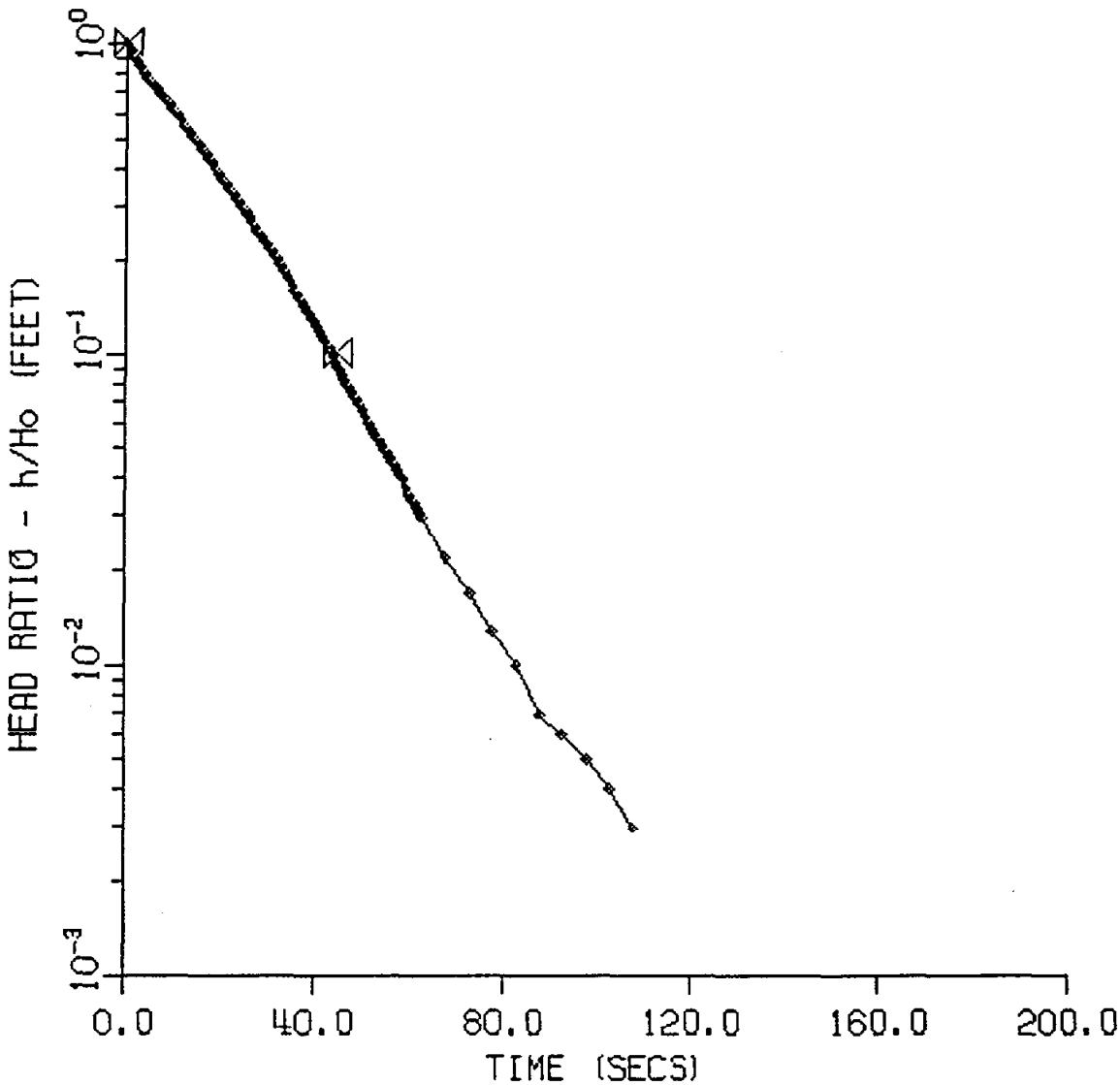
SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.0219

SEARS LØGISTICAL SERVICES
BRMW11-TEST 2



K (CM/S) = 0.002878

WELL SPECS. (FEET)

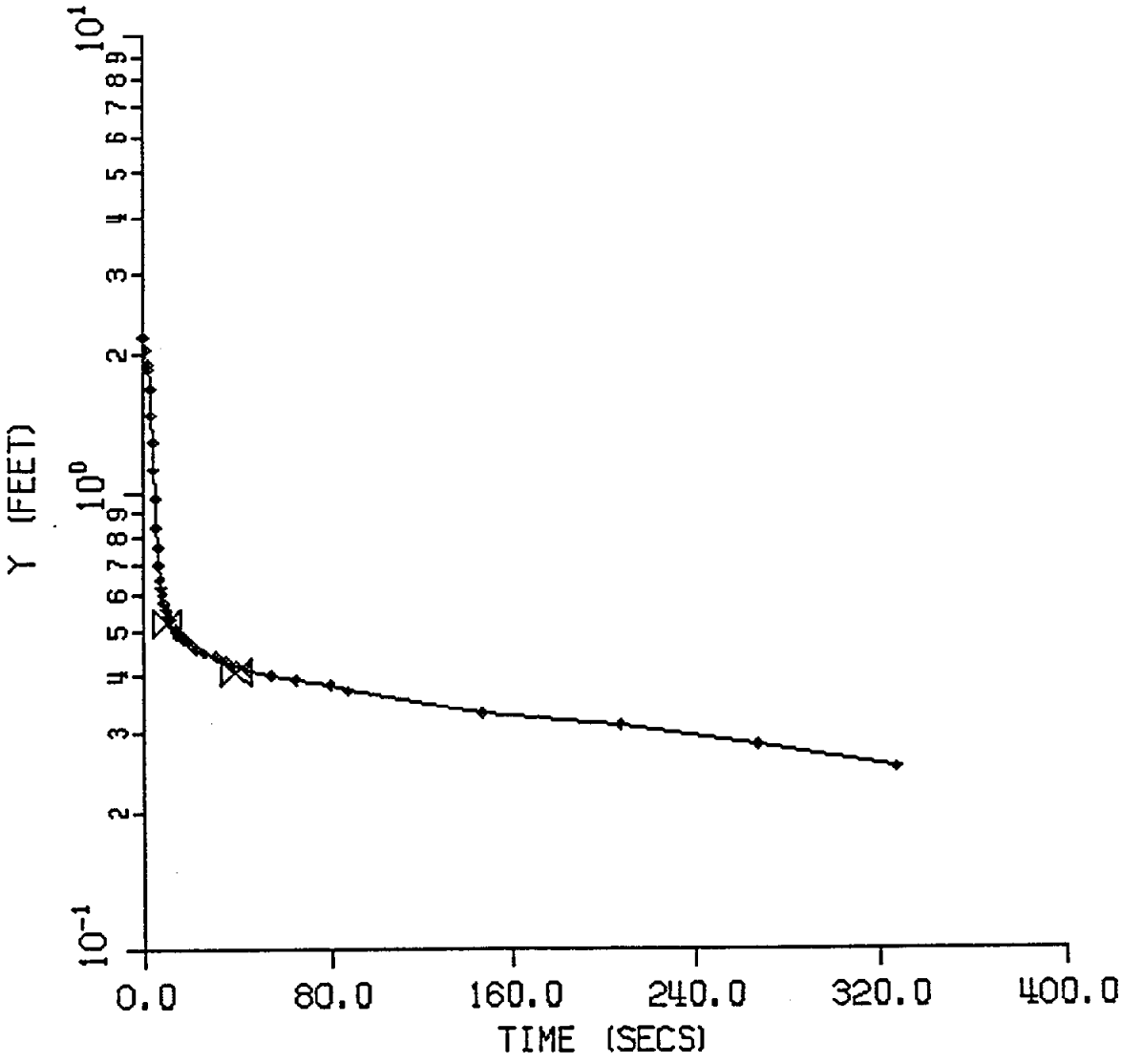
SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.0223

FEDERAL EXPRESS PROPERTY
OBMW12-TEST 1



K (CM/S) = 0.001869

WELL SPECS. (FEET)

SCREEN LENGTH = 7.9

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.9

H (FEET) = 7.90

COEFFICIENTS

A = 0.00

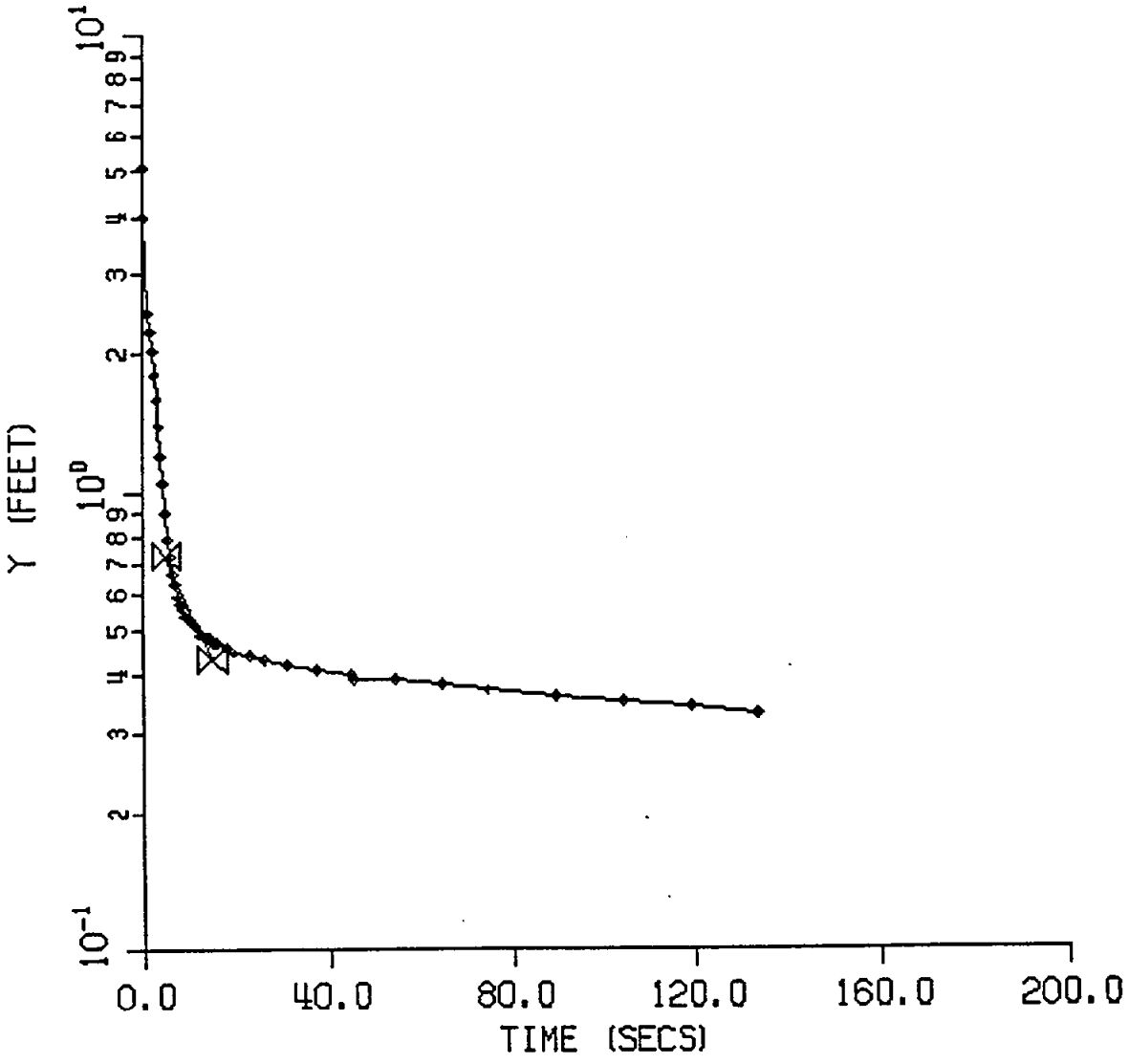
B = 0.00

C = 1.84

Y-INTERCEPT = 0.57

SLOPE = -0.0037

FEDERAL EXPRESS PROPERTY
OBMW12-TEST 2



K (CM/S) = 0.011356

WELL SPECS. (FEET)

SCREEN LENGTH = 7.9

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.9

H (FEET) = 7.90

COEFFICIENTS

A = 0.00

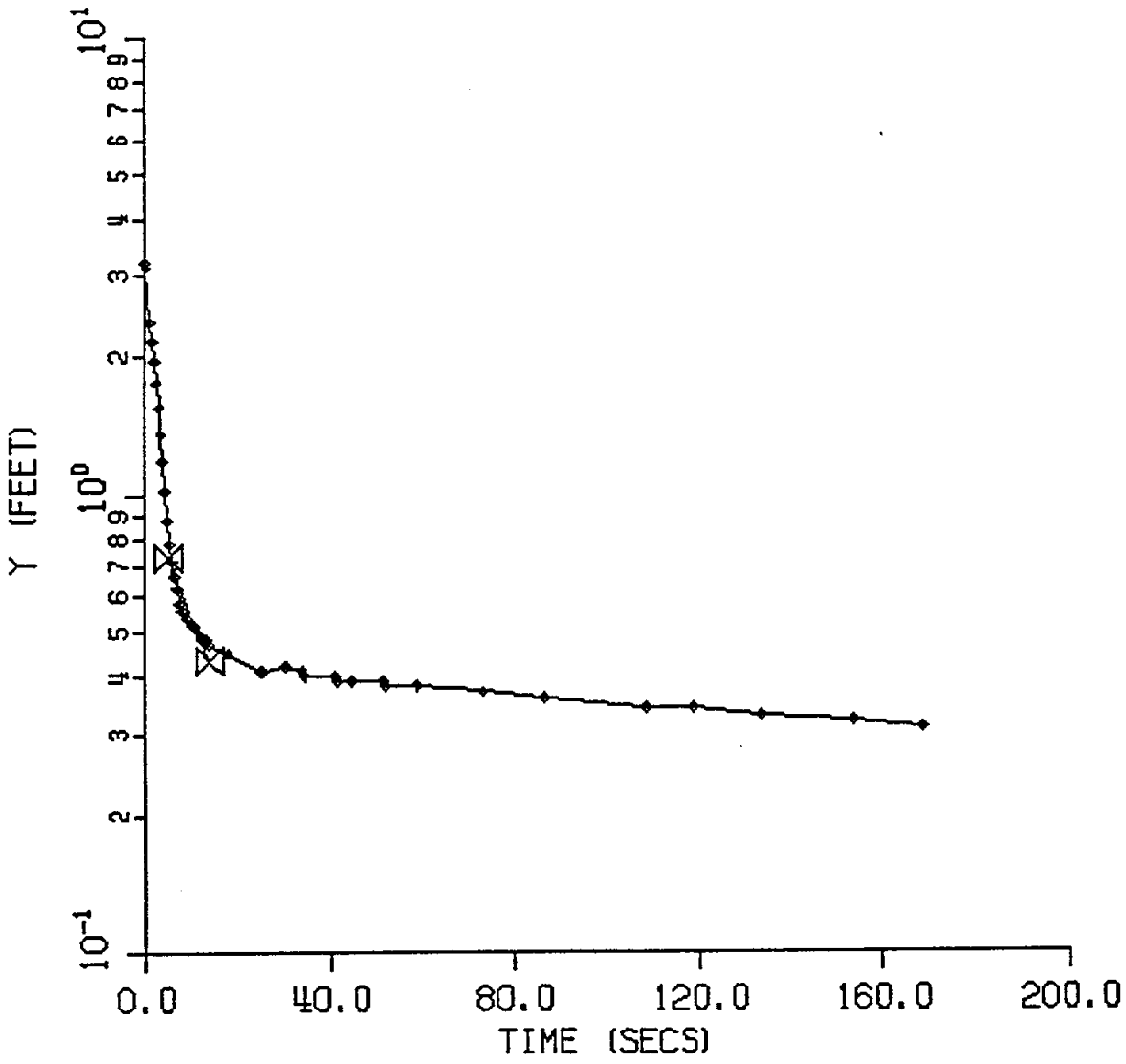
B = 0.00

C = 1.84

Y-INTERCEPT = 0.93

SLOPE = -0.0224

FEDERAL EXPRESS PROPERTY
OBMW12-TEST 3



K (CM/S) = 0.012703

WELL SPECS. (FEET)

SCREEN LENGTH = 7.9

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 7.9

H (FEET) = 7.90

COEFFICIENTS

A = 0.00

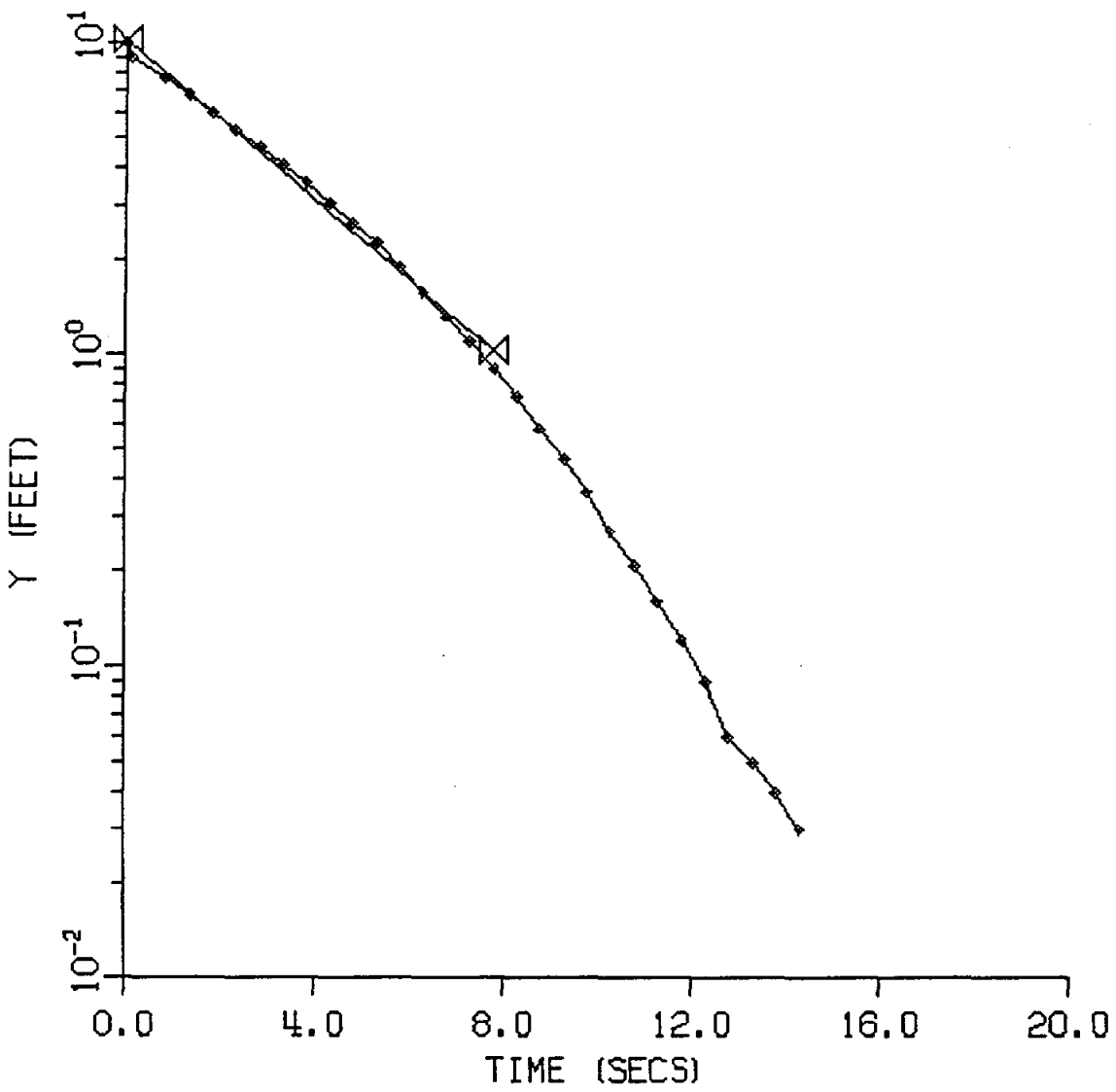
B = 0.00

C = 1.84

Y-INTERCEPT = 0.96

SLOPE = -0.0250

FEDERAL EXPRESS PROPERTY
BRMW12- TEST 1



K (CM/S) = 0.009966

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 42.0

H (FEET) = 41.50

COEFFICIENTS

A = 2.41

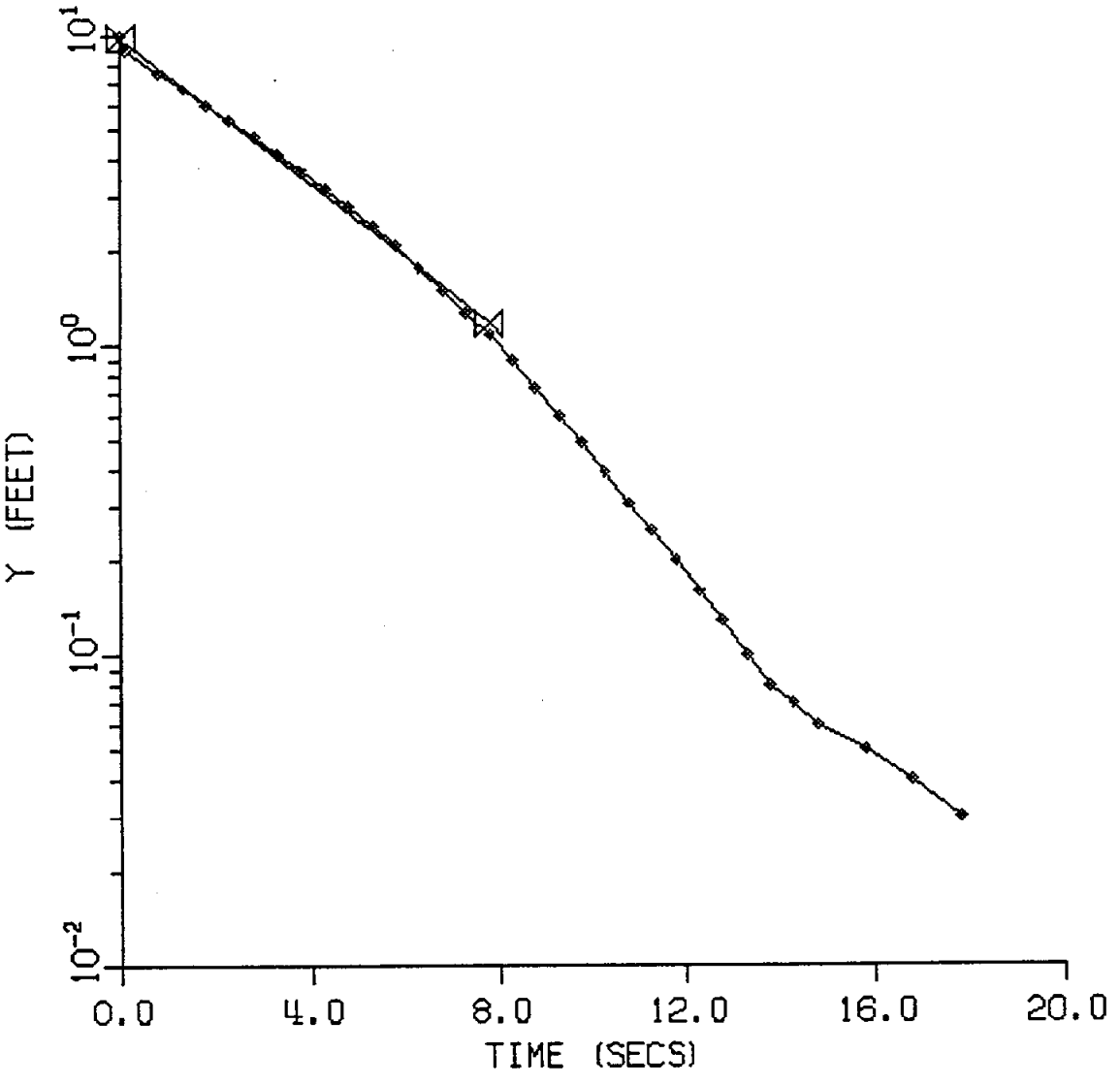
B = 0.38

C = 0.00

Y-INTERCEPT = 10.21

SLOPE = -0.1282

FEDERAL EXPRESS PROPERTY
BRMW12-TEST 2



K (CM/S) = 0.009227

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 42.0

H (FEET) = 41.50

COEFFICIENTS

A = 2.41

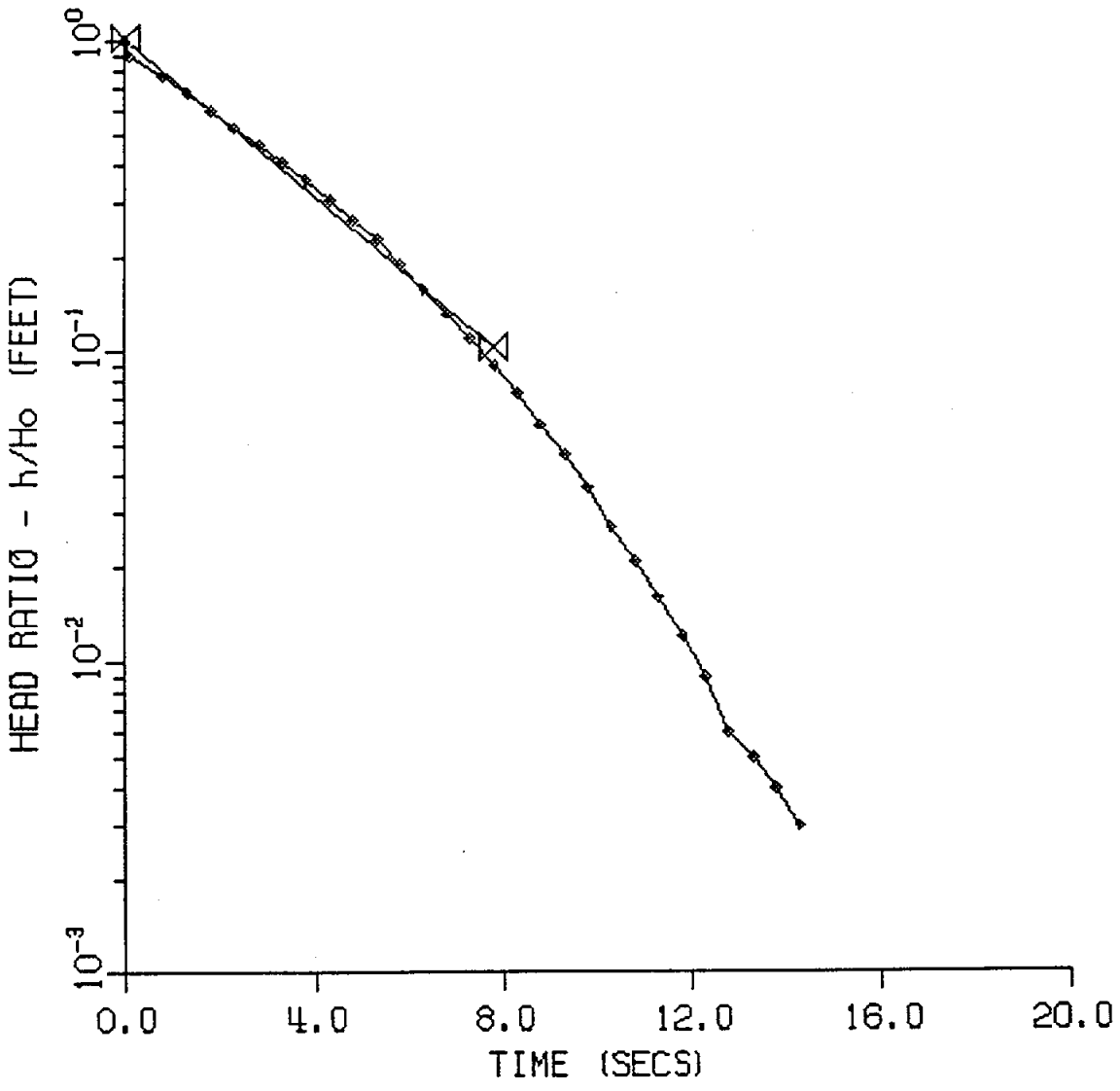
B = 0.38

C = 0.00

Y-INTERCEPT = 9.89

SLOPE = -0.1187

FEDERAL EXPRESS PROPERTY
BRMW12-TEST 1



K (CM/S) = 0.016554

WELL SPECS. (FEET)

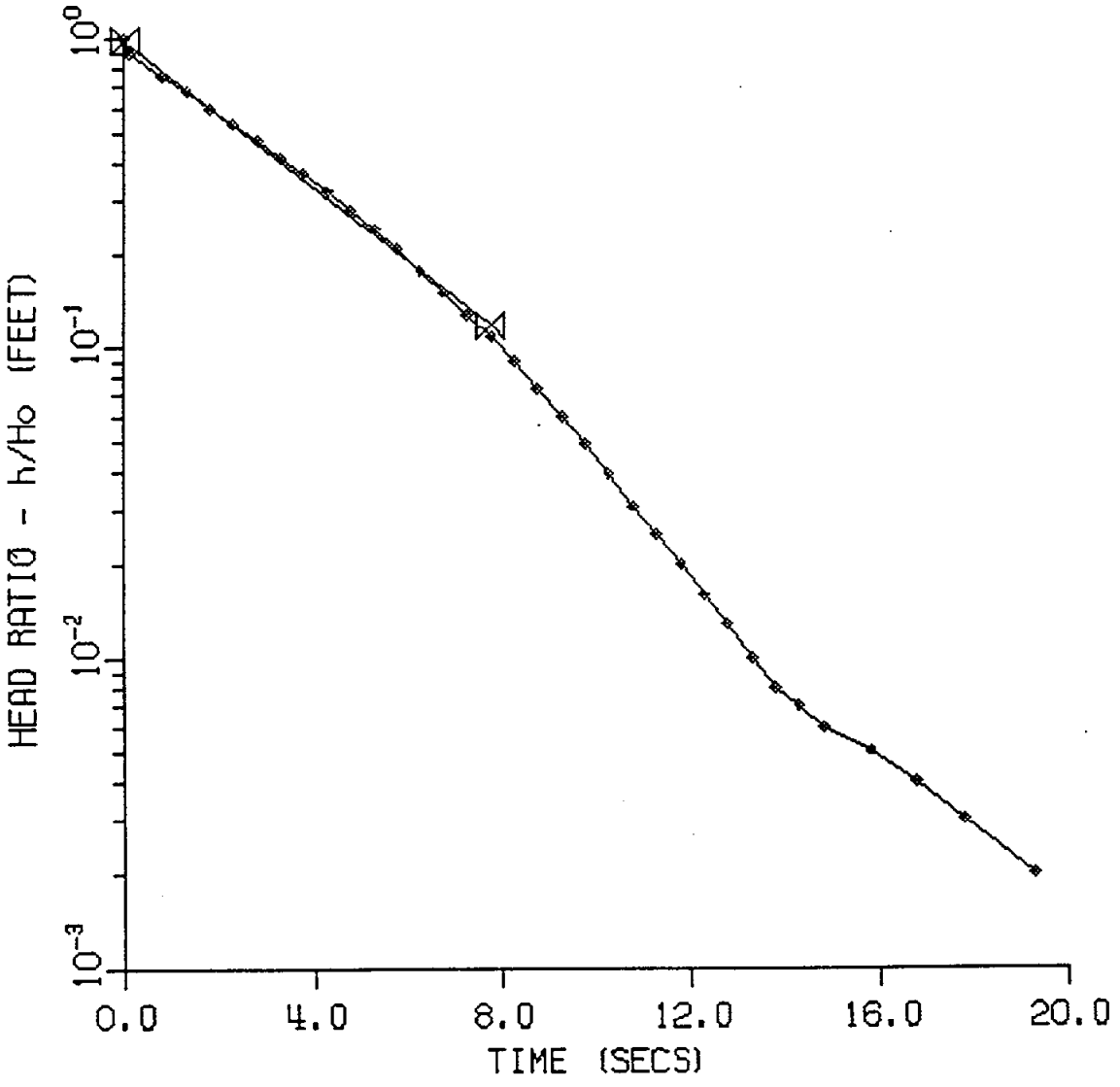
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.1282

FEDERAL EXPRESS PRØPERTY
BRMW12-TEST 2



K (CM/S) = 0.015327

WELL SPECS. (FEET)

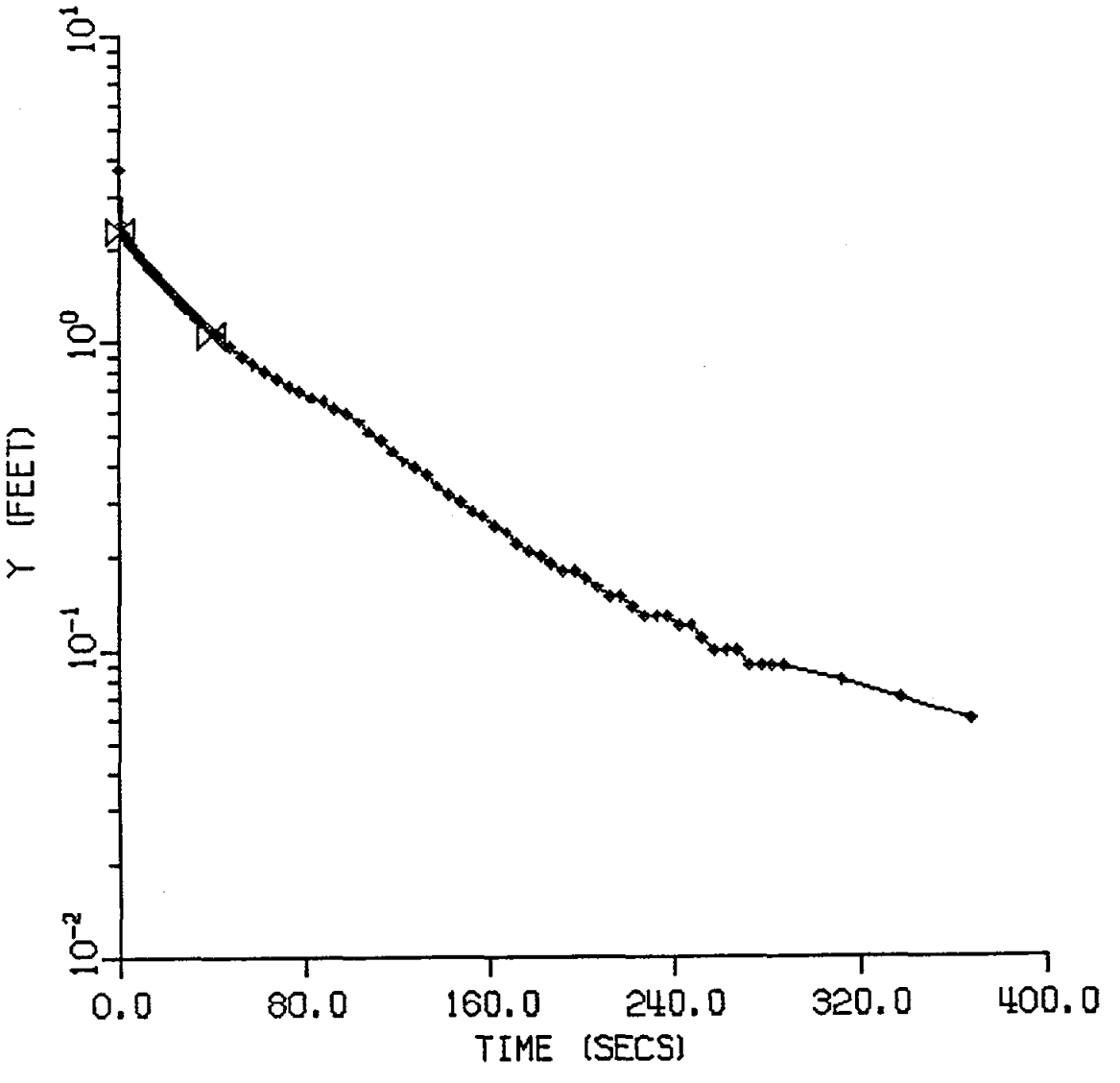
SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.1187

SEARS LØGISTICAL SERVICES
ØBMW13-TEST 1



K (CM/S) = 0.003847

WELL SPECS. (FEET)

SCREEN LENGTH = 9.8

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 9.8

H (FEET) = 9.80

COEFFICIENTS

A = 0.00

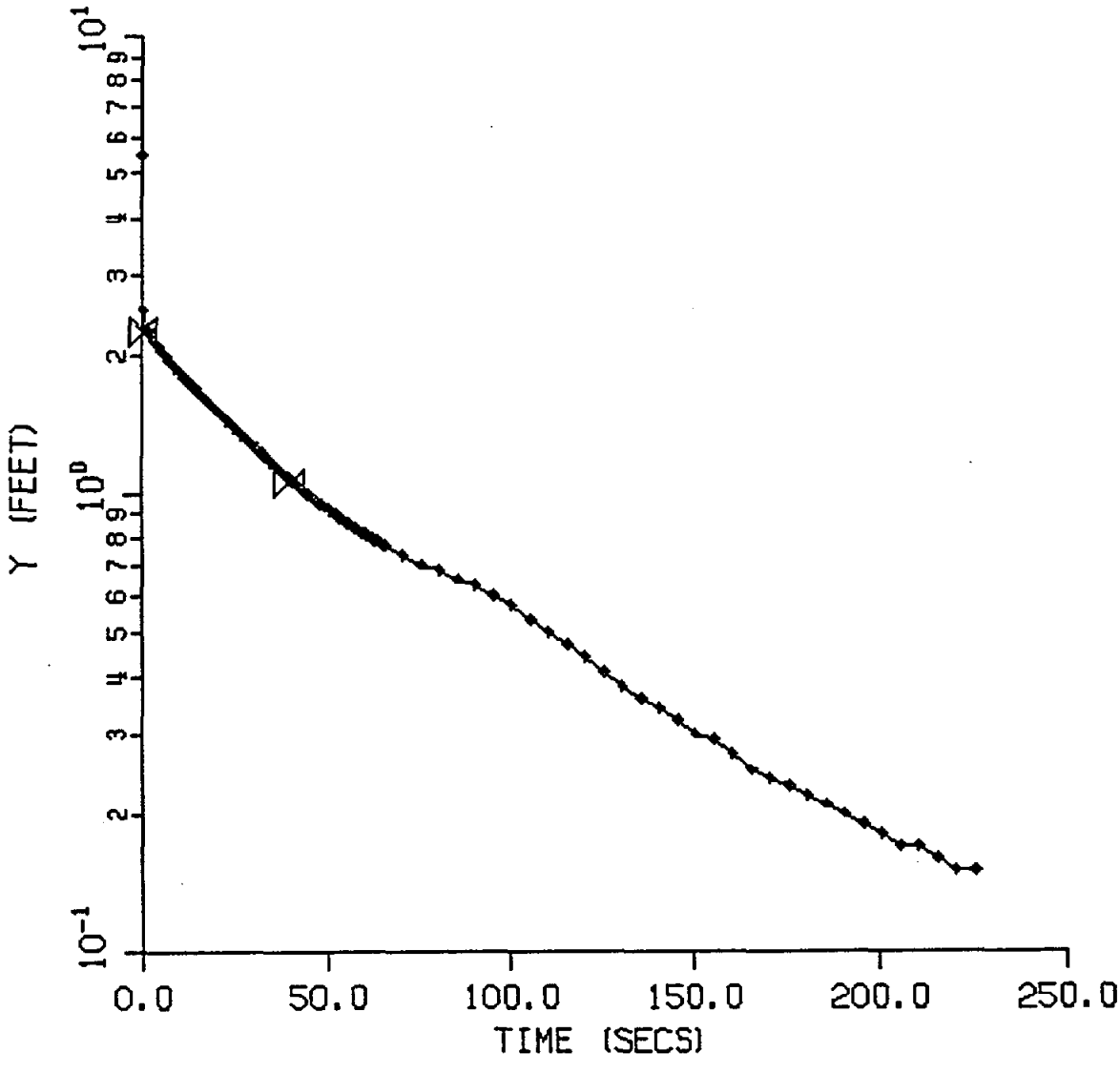
B = 0.00

C = 2.03

Y-INTERCEPT = 2.33

SLØPE = -0.0087

SEARS LØGISTICAL SERVICES
ØBMW13-TEST 2



K (CM/S) = 0.003697

WELL SPECS. (FEET)

SCREEN LENGTH = 9.8

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 9.8

H (FEET) = 9.80

COEFFICIENTS

A = 0.00

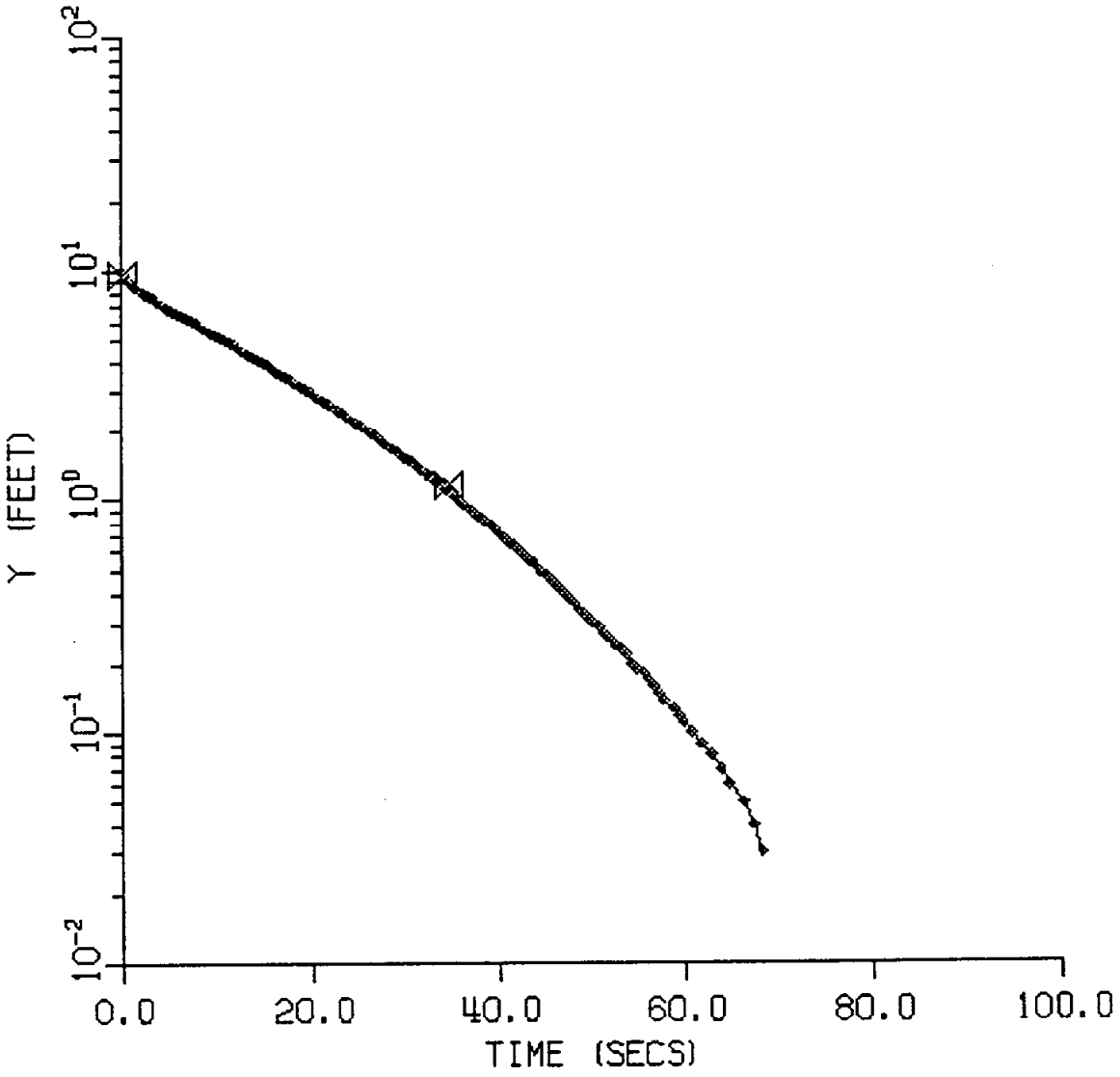
B = 0.00

C = 2.03

Y-INTERCEPT = 2.27

SLØPE = -0.0084

SEARS LØGISTICAL SERVICES
BRMW13-TEST 1



K (CM/S) = 0.001928

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 29.0

H (FEET) = 28.50

COEFFICIENTS

A = 2.41

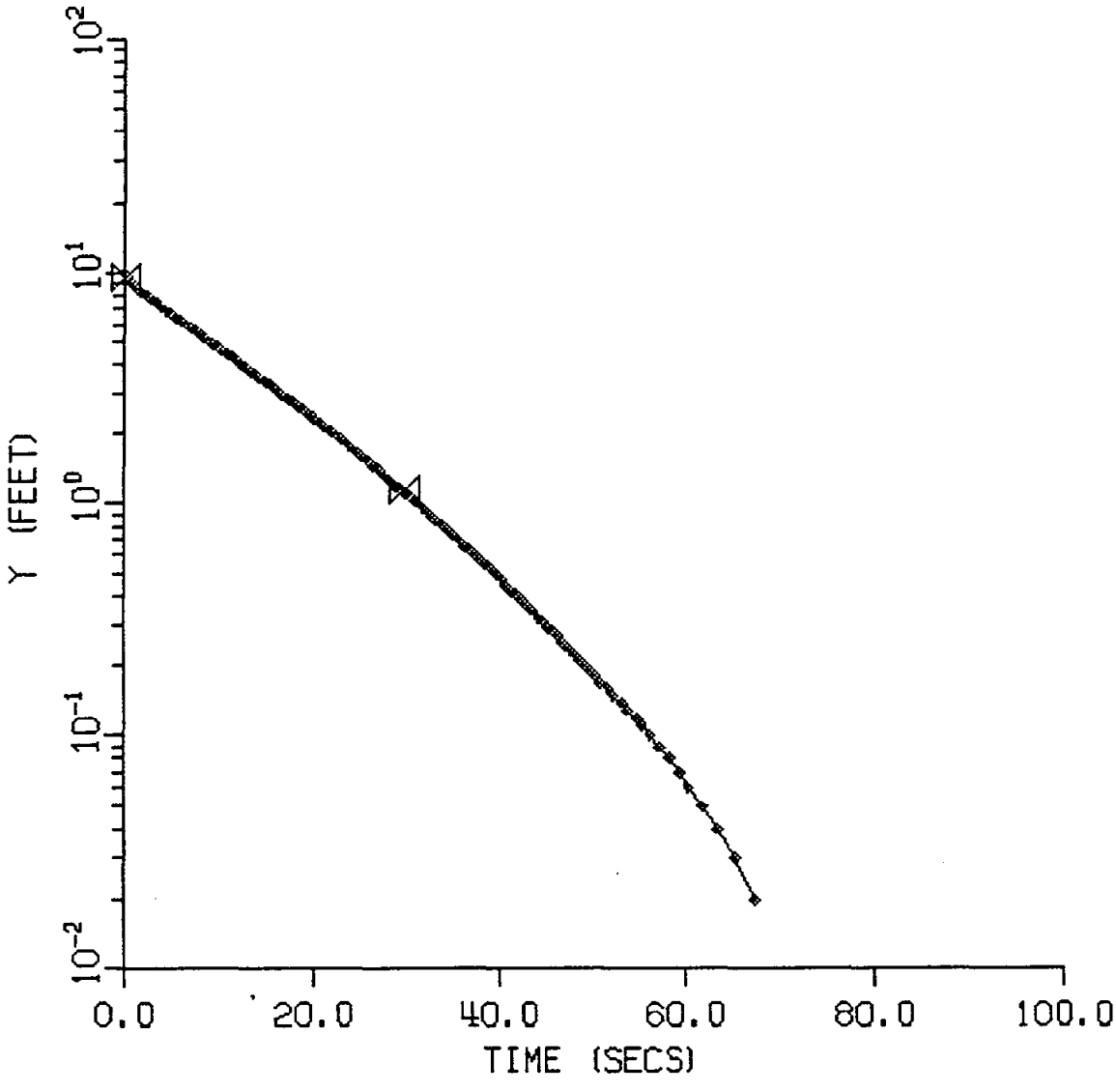
B = 0.38

C = 0.00

Y-INTERCEPT = 9.56

SLØPE = -0.0263

SEARS LØGISTICAL SERVICES
BRMW13-TEST 2



K (CM/S) = 0.002246

WELL SPECS. (FEET)

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WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 29.0

H (FEET) = 28.50

COEFFICIENTS

A = 2.41

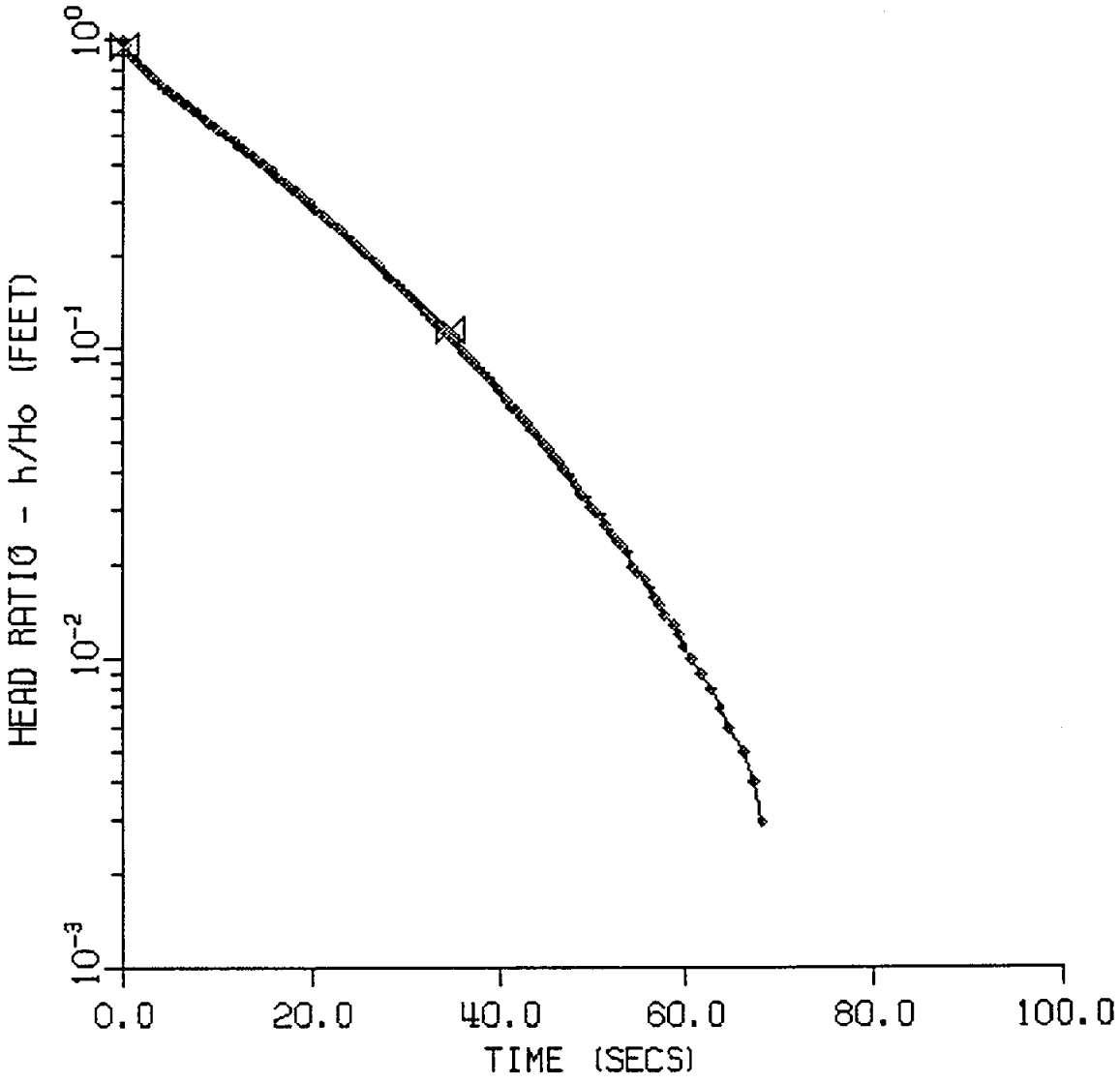
B = 0.38

C = 0.00

Y-INTERCEPT = 9.50

SLØPE = -0.0307

SEARS LØGISTICAL SERVICES
BRMW13-TEST 1



K (CM/S) = 0.003400

WELL SPECS. (FEET)

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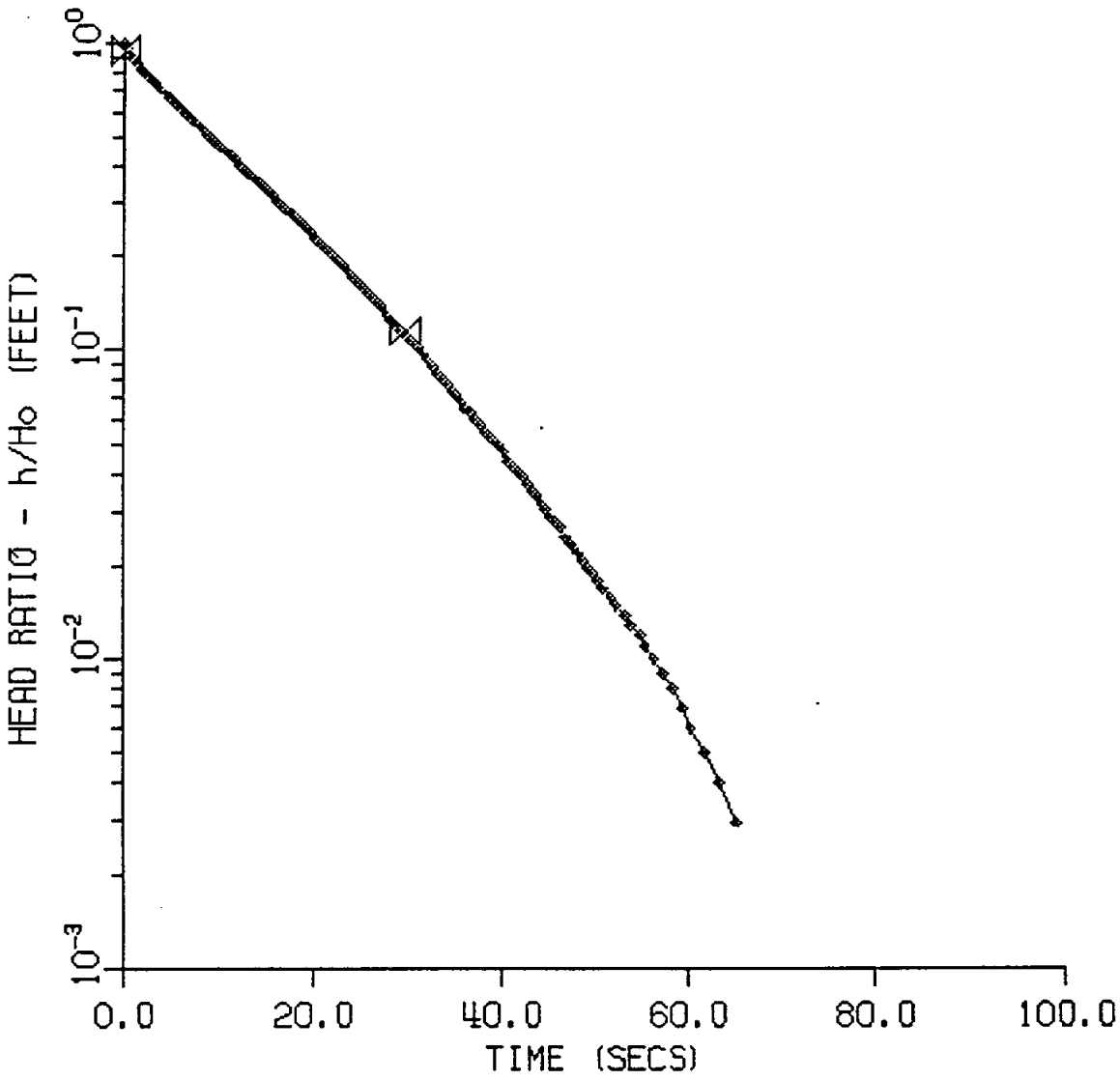
WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.0263

SEARS LØGISTICAL SERVICES
BRMW13-TEST 2



K (CM/S) = 0.003959

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLØPE = -0.0307

SEARS LØGISTICAL SERVICES
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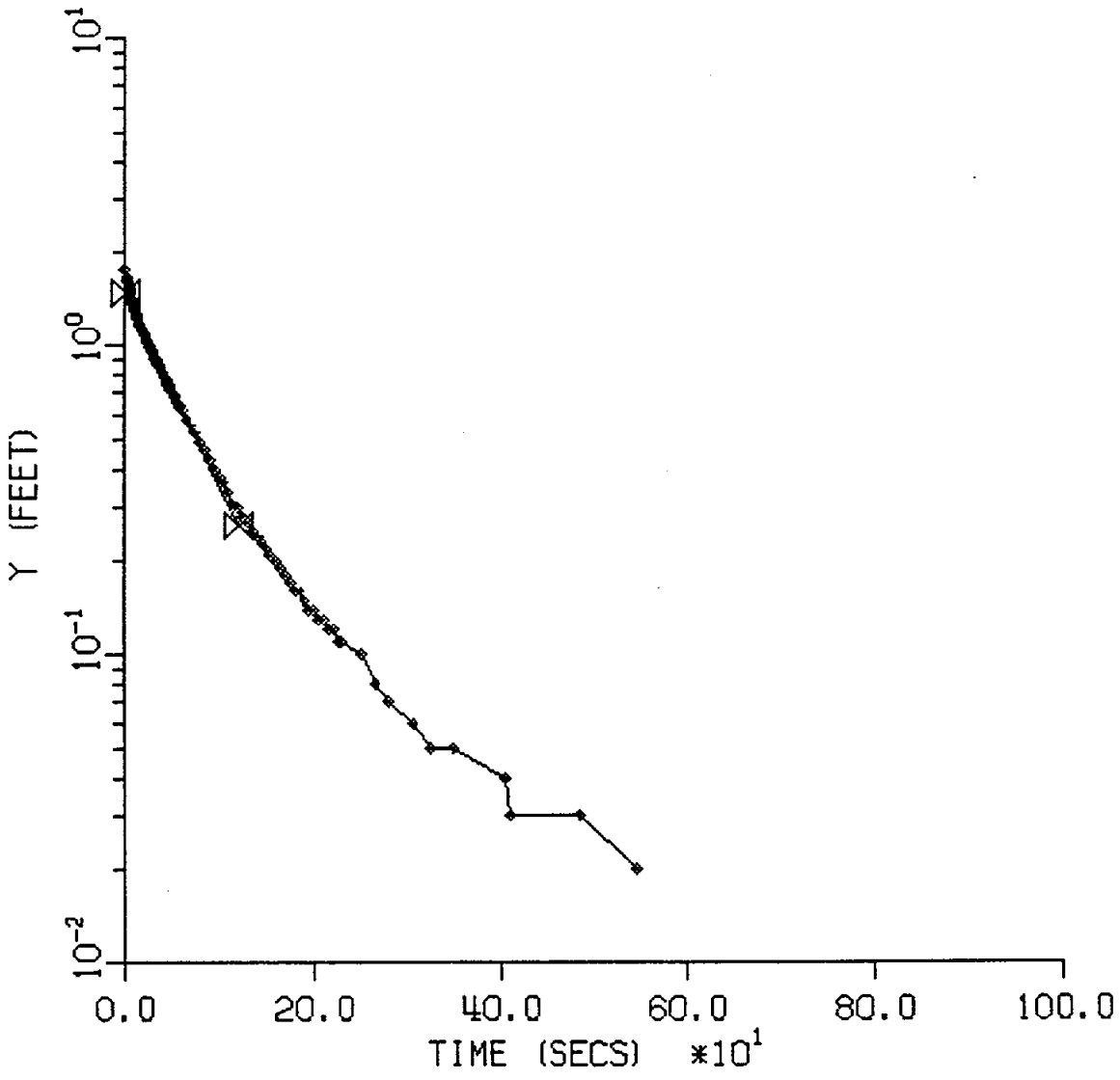


K (CM/S) = 0.000400

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.1

H (FEET) = 11.10

CØEFFICIENTS

A = 0.00

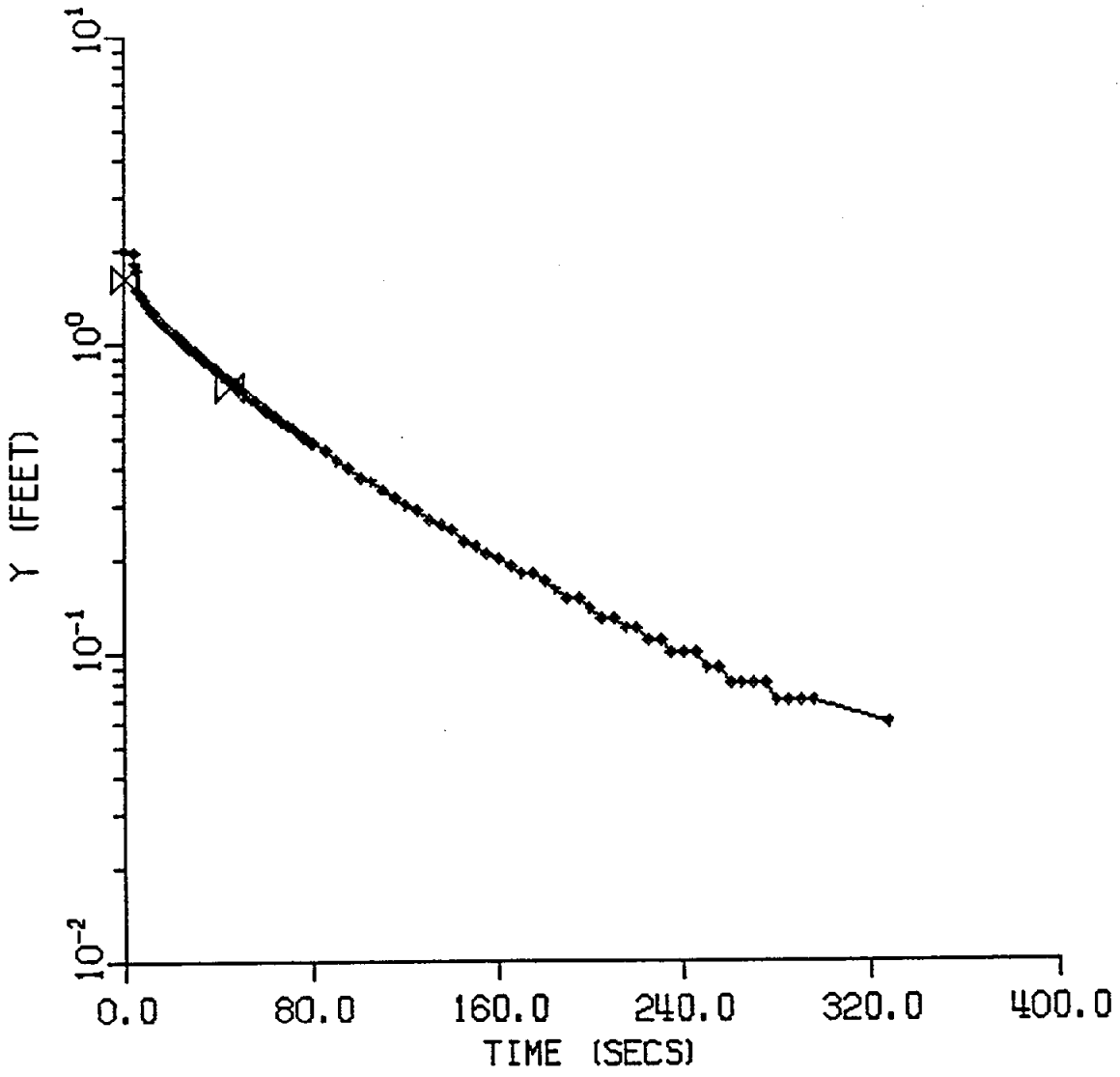
B = 0.00

C = 2.05

Y-INTERCEPT = 1.49

SLØPE = -0.0063

SEARS LØGISTICAL SERVICES
ØBMW14-TEST 2



K (CM/S) = 0.000499

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.1

H (FEET) = 11.10

COEFFICIENTS

A = 0.00

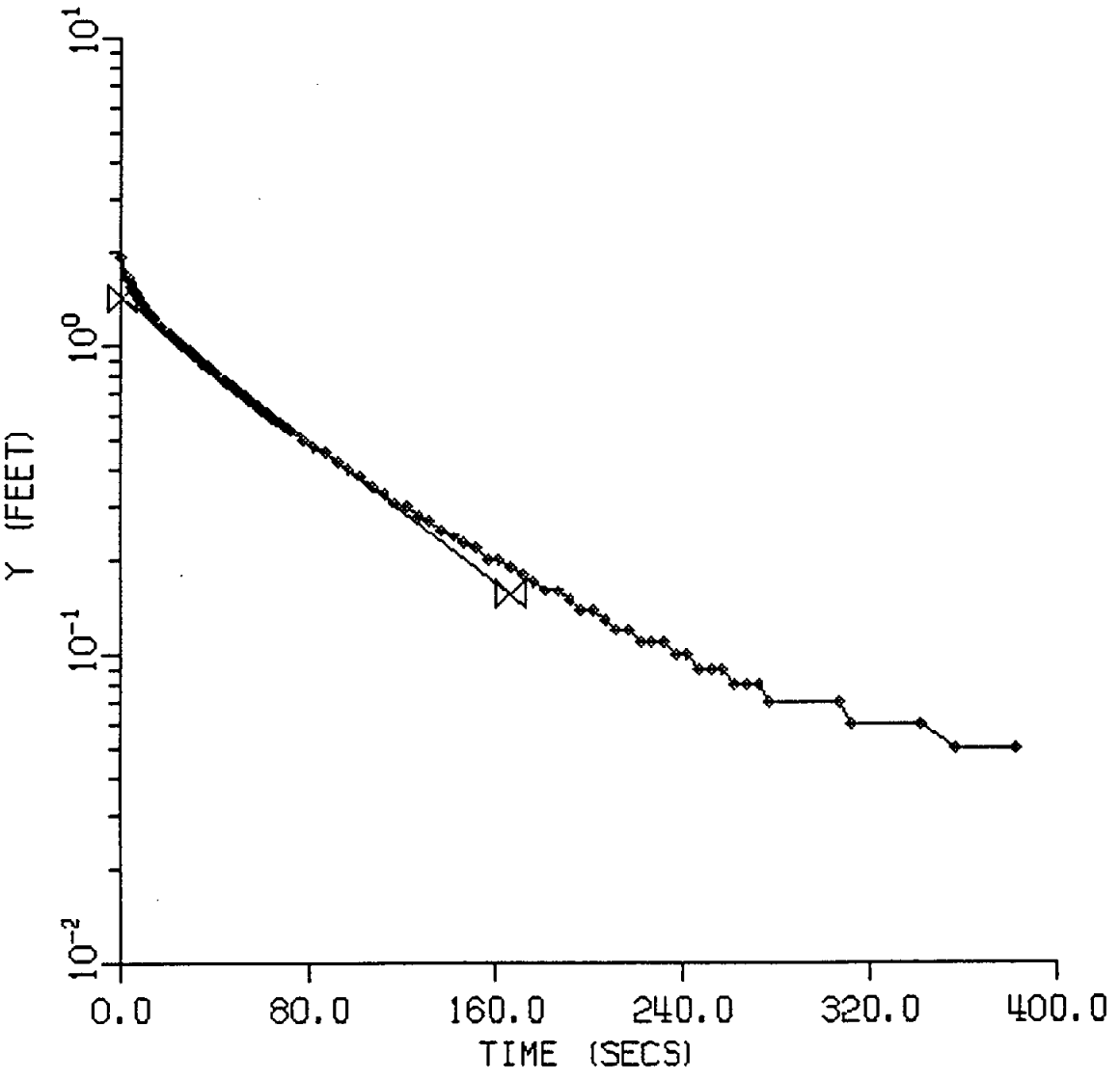
B = 0.00

C = 2.05

Y-INTERCEPT = 1.63

SLØPE = -0.0078

SEARS LØGISTICAL SERVICES
ØBMW14-TEST 3



K (CM/S) = 0.000367

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 11.1

H (FEET) = 11.10

CØEFFICIENTS

A = 0.00

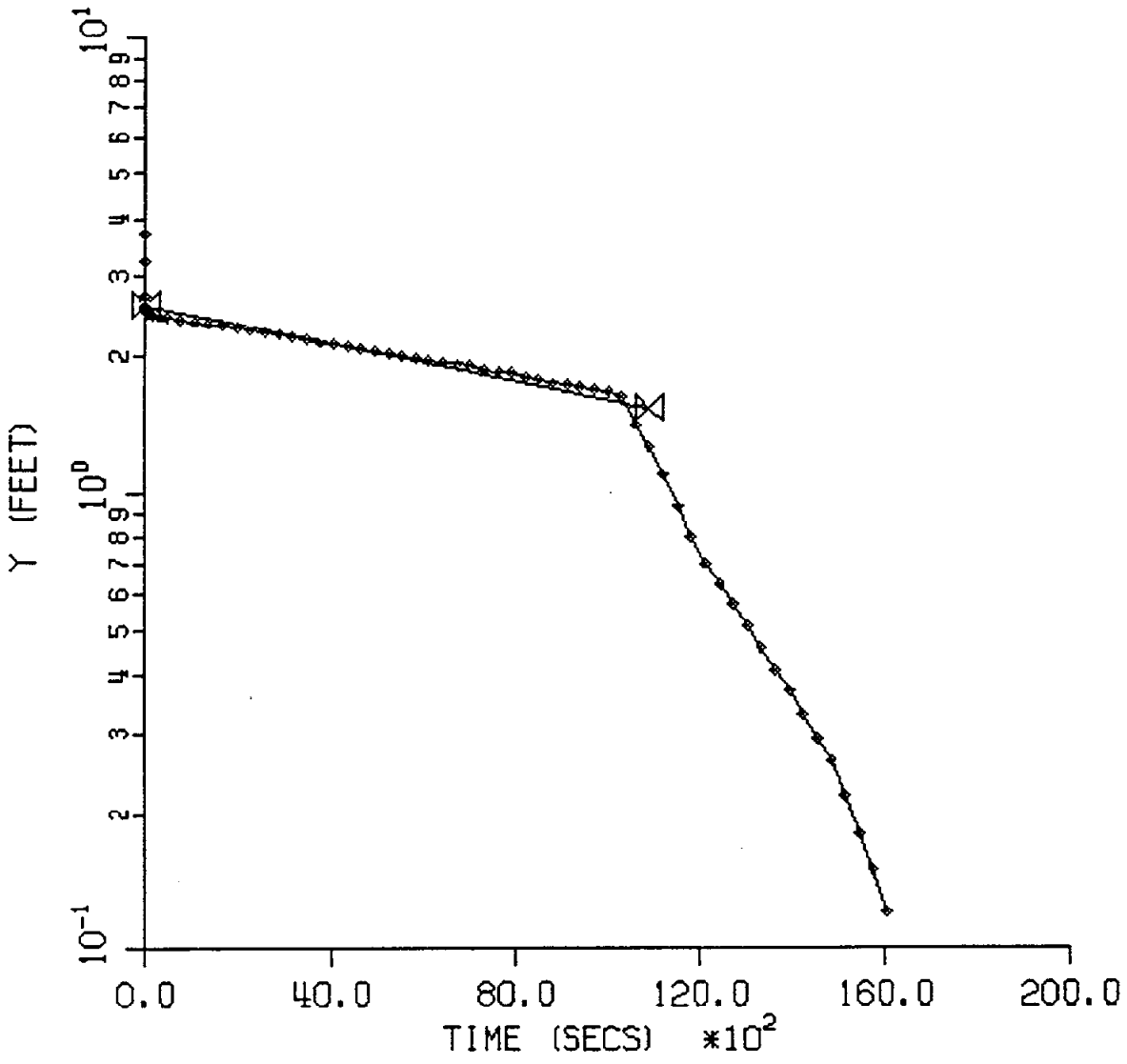
B = 0.00

C = 2.05

Y-INTERCEPT = 1.44

SLØPE = -0.0058

SEARS LØGISTICAL SERVICES
BRMW14-TEST 1



K (CM/S) = 0.000001

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 26.0

H (FEET) = 25.00

COEFFICIENTS

A = 2.41

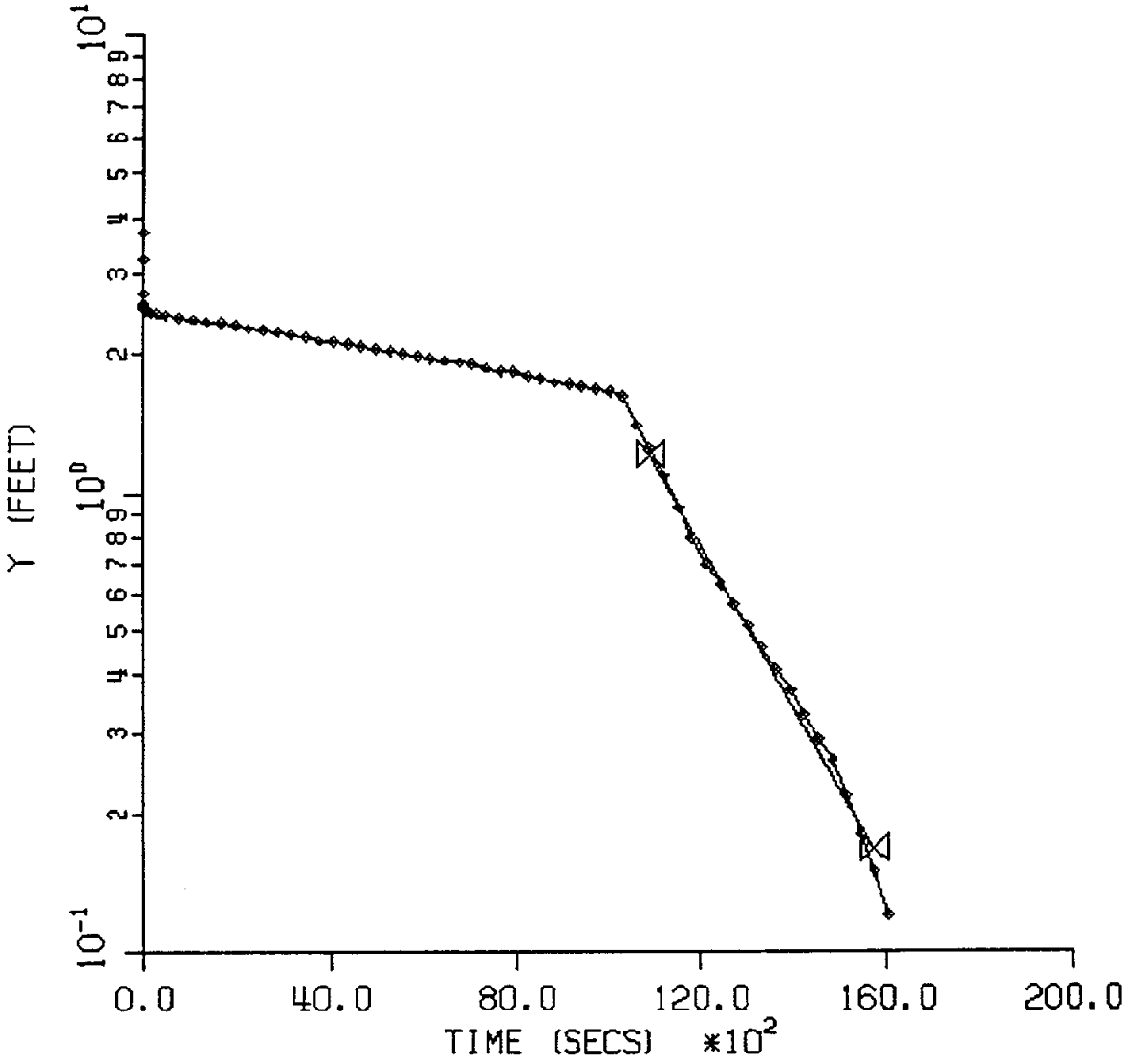
B = 0.38

C = 0.00

Y-INTERCEPT = 2.60

SLØPE = -0.0000

SEARS LØGISTICAL SERVICES
BRMW14-TEST 1



K (CM/S) = 0.000012

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BØRE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 26.0

H (FEET) = 25.00

COEFFICIENTS

A = 2.41

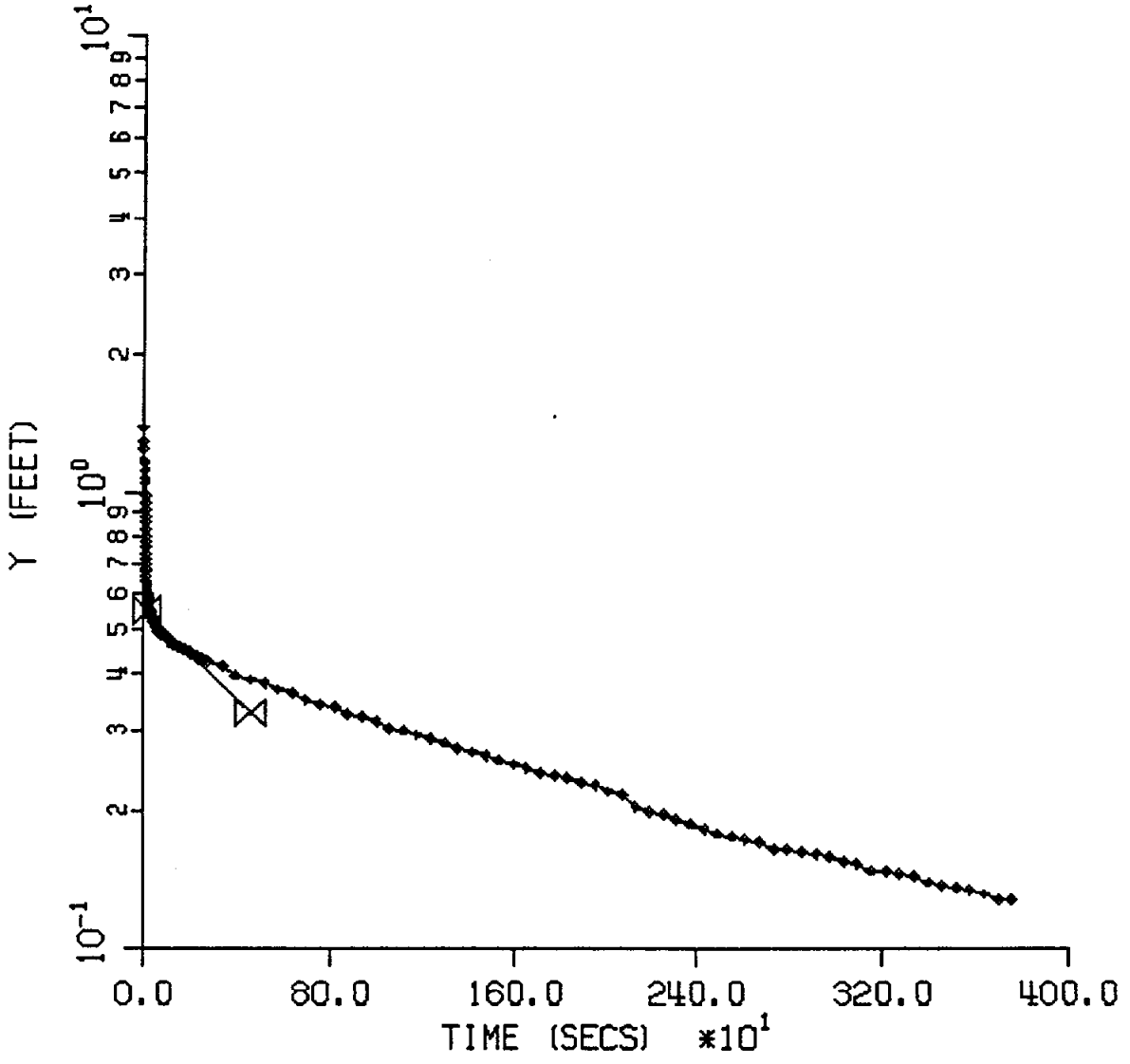
B = 0.38

C = 0.00

Y-INTERCEPT = 109.63

SLØPE = -0.0002

STEPAN COMPANY
OBMW15-TEST 1



K (CM/S) = 0.000392

WELL SPECS. (FEET)

SCREEN LENGTH = 4.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 4.0

H (FEET) = 4.00

COEFFICIENTS

A = 0.00

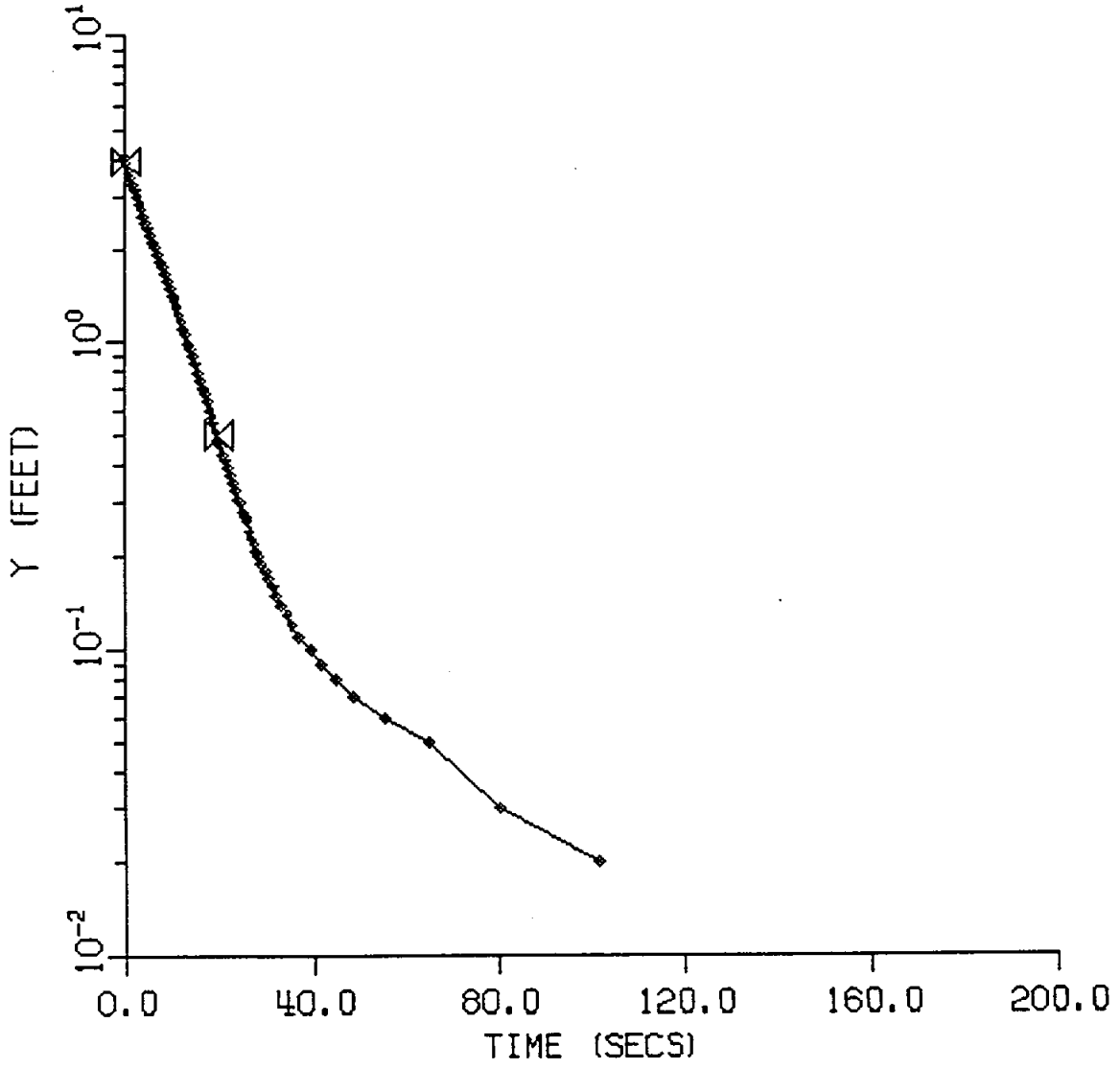
B = 0.00

C = 1.30

Y-INTERCEPT = 0.56

SLOPE = -0.0005

STEPAN COMPANY
BRMW15-TEST 1



K (CM/S) = 0.002903

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 17.0

H (FEET) = 15.85

COEFFICIENTS

A = 2.41

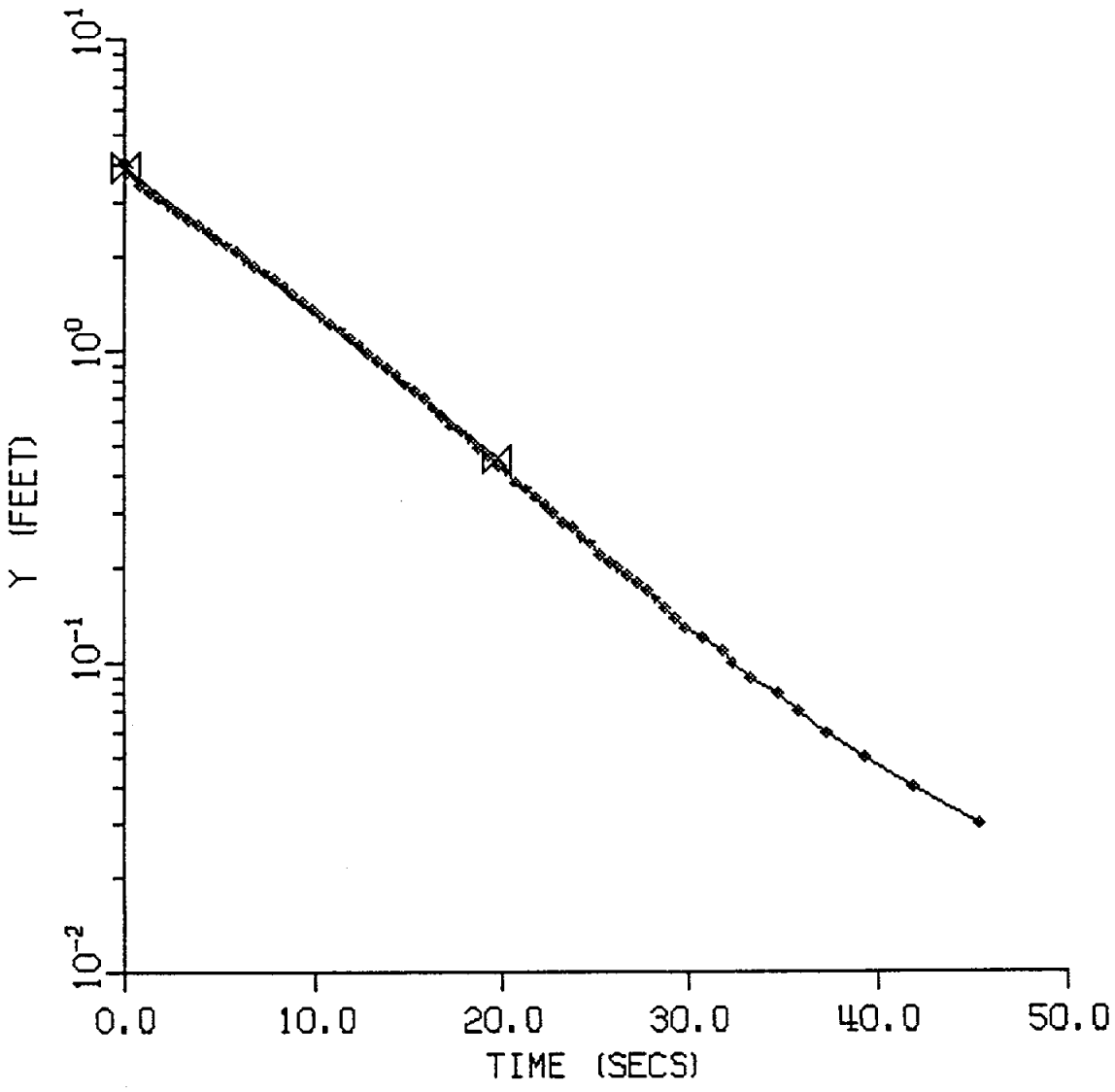
B = 0.38

C = 0.00

Y-INTERCEPT = 3.92

SLOPE = -0.0454

STEPAN COMPANY
BRMW15-TEST 2



K (CM/S) = 0.003030

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 17.0

H (FEET) = 15.85

COEFFICIENTS

A = 2.41

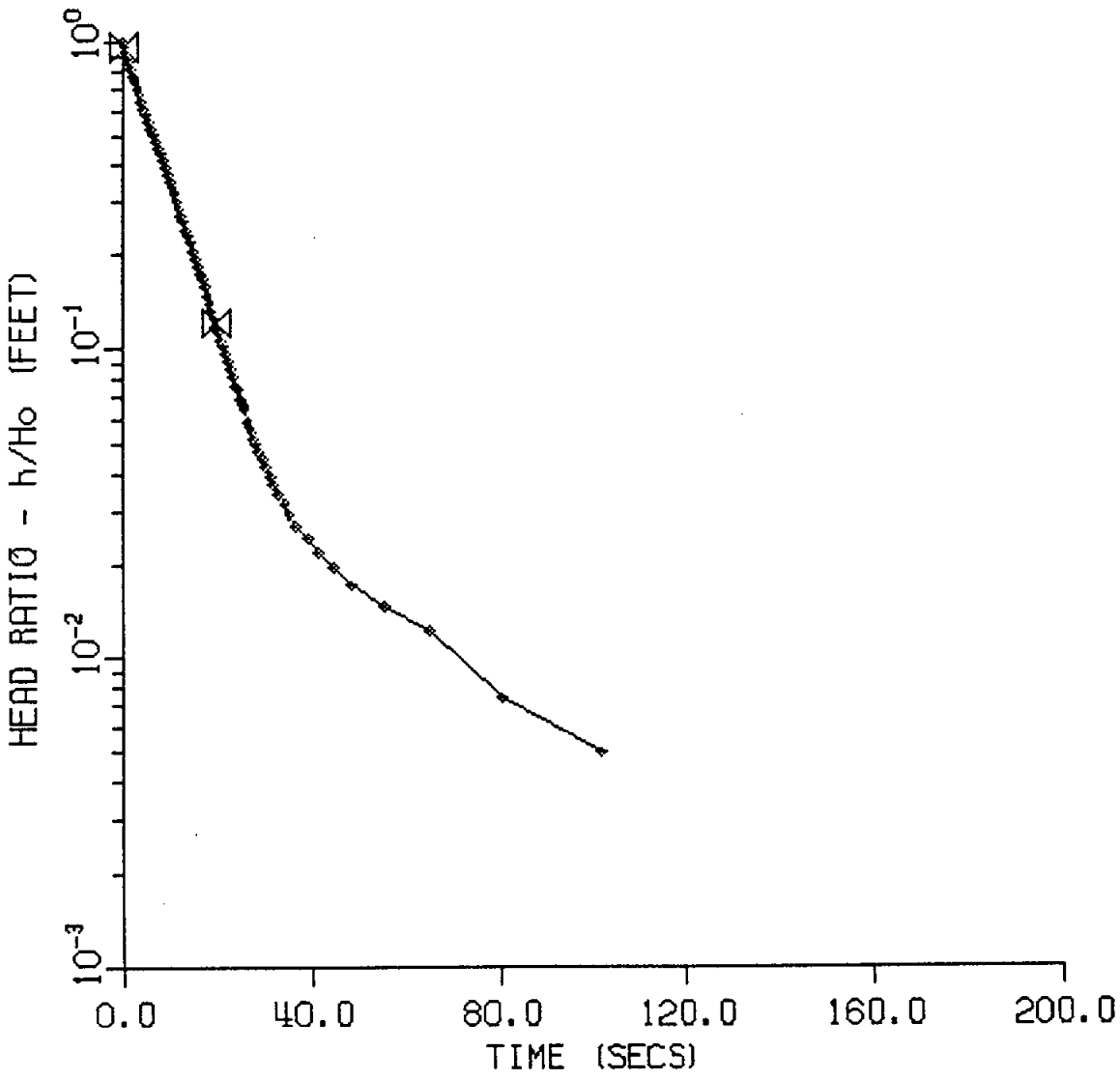
B = 0.38

C = 0.00

Y-INTERCEPT = 3.90

SLOPE = -0.0473

STEPAN COMPANY
BRMW15-TEST 1



K (CM/S) = 0.005858

WELL SPECS. (FEET)

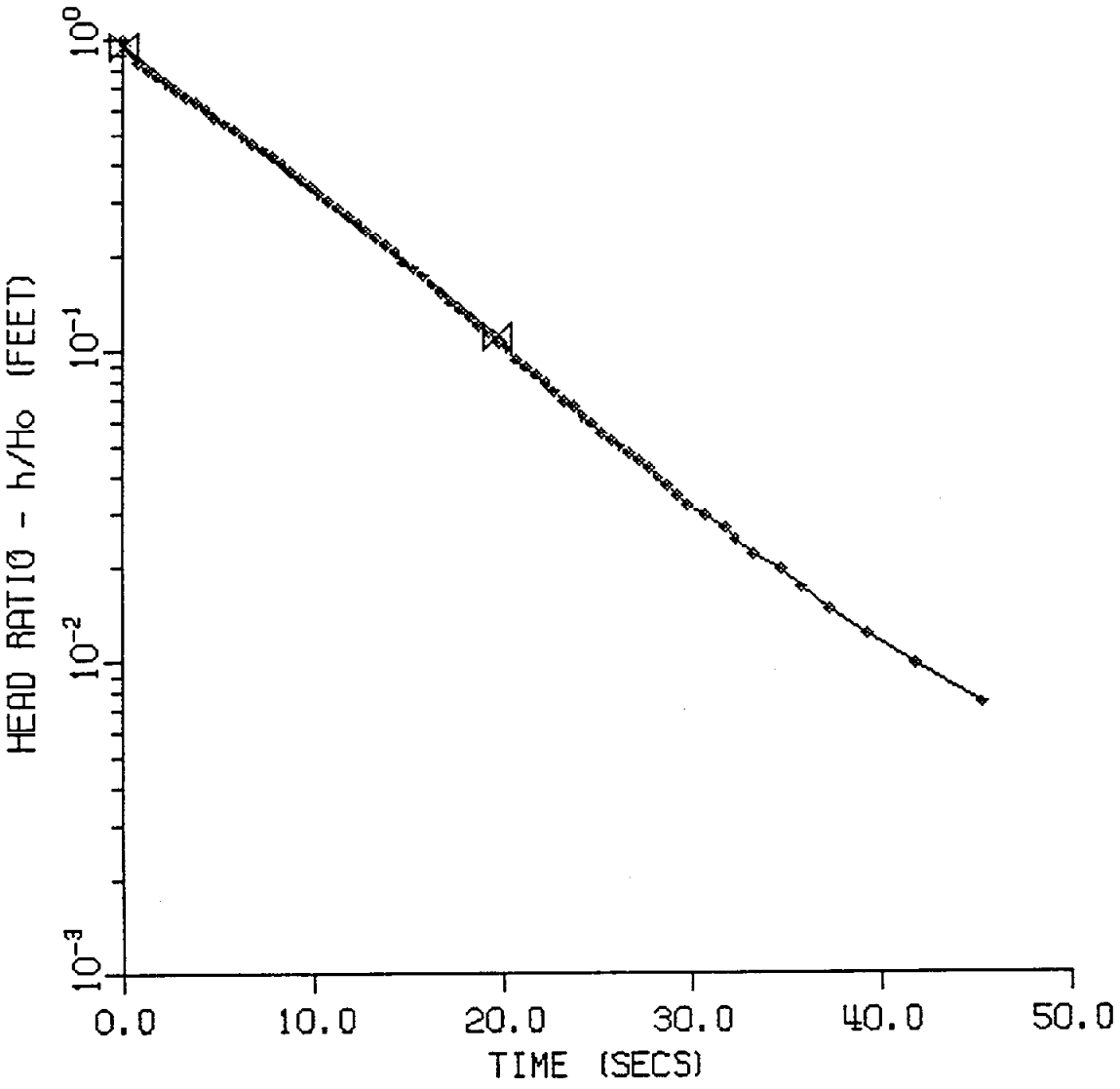
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0454

STEPAN COMPANY
BRMW15-TEST 2



K (CM/S) = 0.006113

WELL SPECS. (FEET)

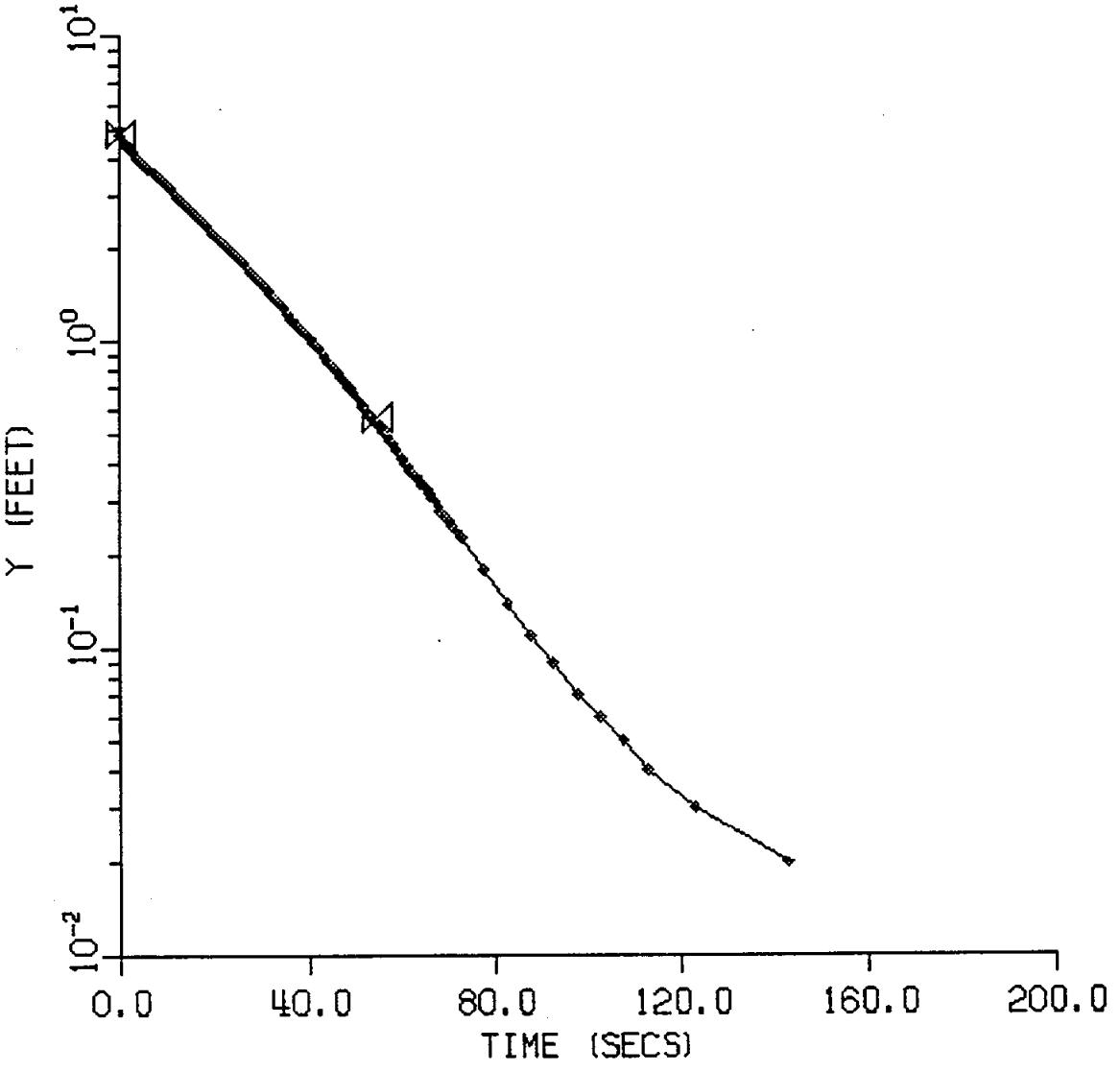
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0473

STEPAN COMPANY
BRMW16-TEST 1



K (CM/S) = 0.001118

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 18.0

H (FEET) = 17.20

COEFFICIENTS

A = 2.41

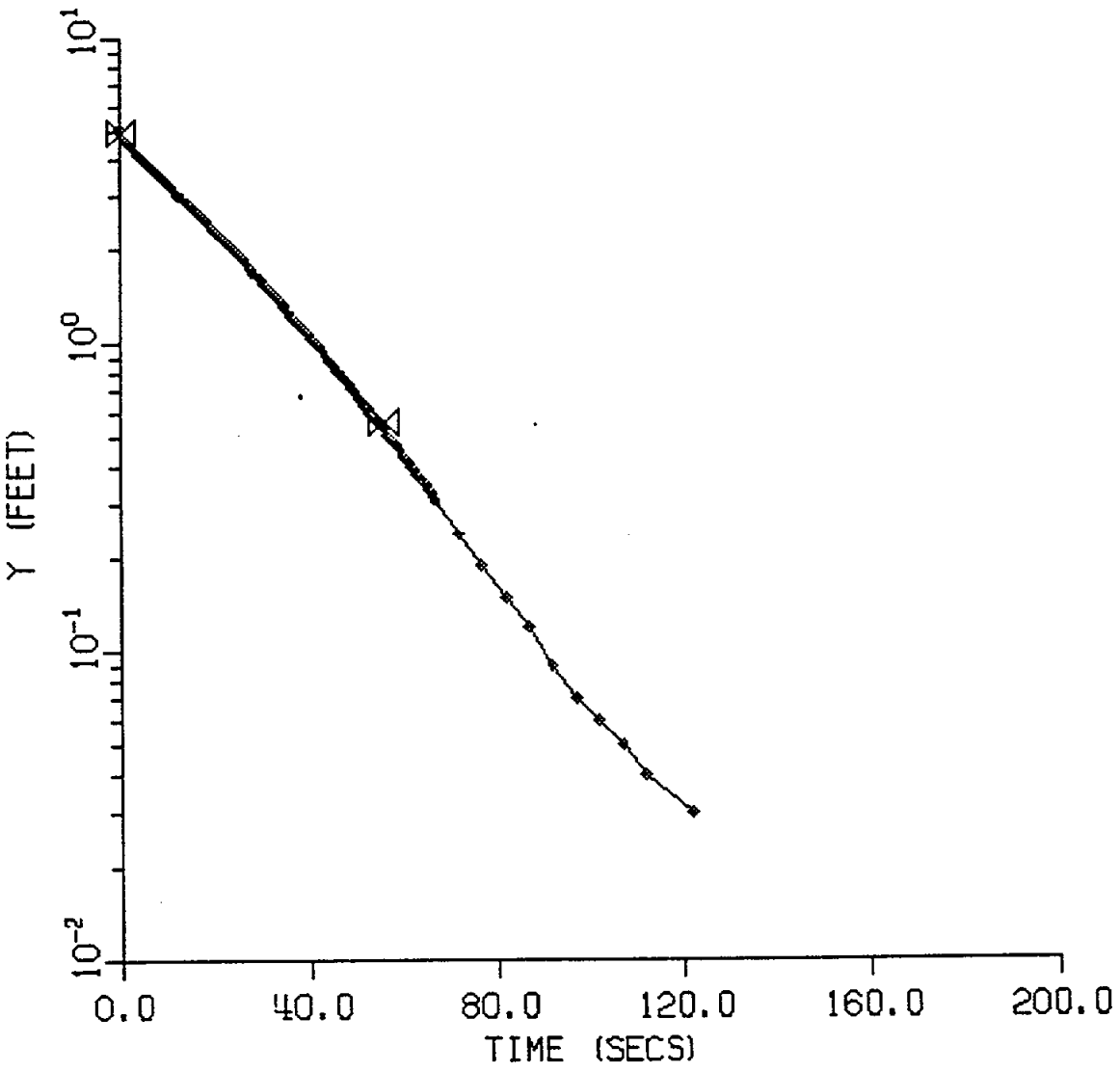
B = 0.38

C = 0.00

Y-INTERCEPT = 4.82

SLOPE = -0.0170

STEPAN COMPANY
BRMW16-TEST 2



K (CM/S) = 0.001114

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 18.0

H (FEET) = 17.20

COEFFICIENTS

A = 2.41

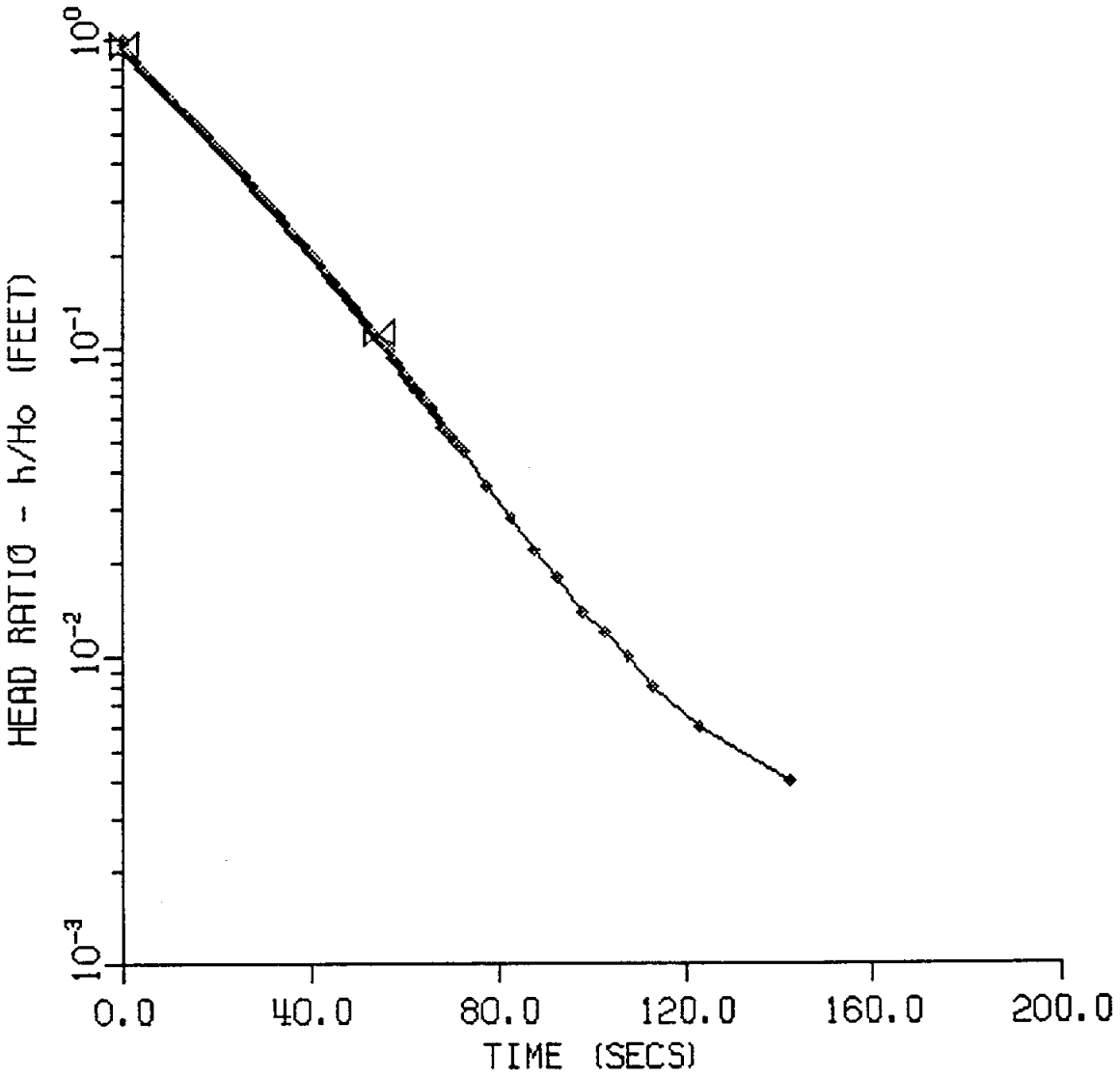
B = 0.38

C = 0.00

Y-INTERCEPT = 4.94

SLOPE = -0.0169

STEPAN COMPANY
BRMW16-TEST 1



K (CM/S) = 0.002194

WELL SPECS. (FEET)

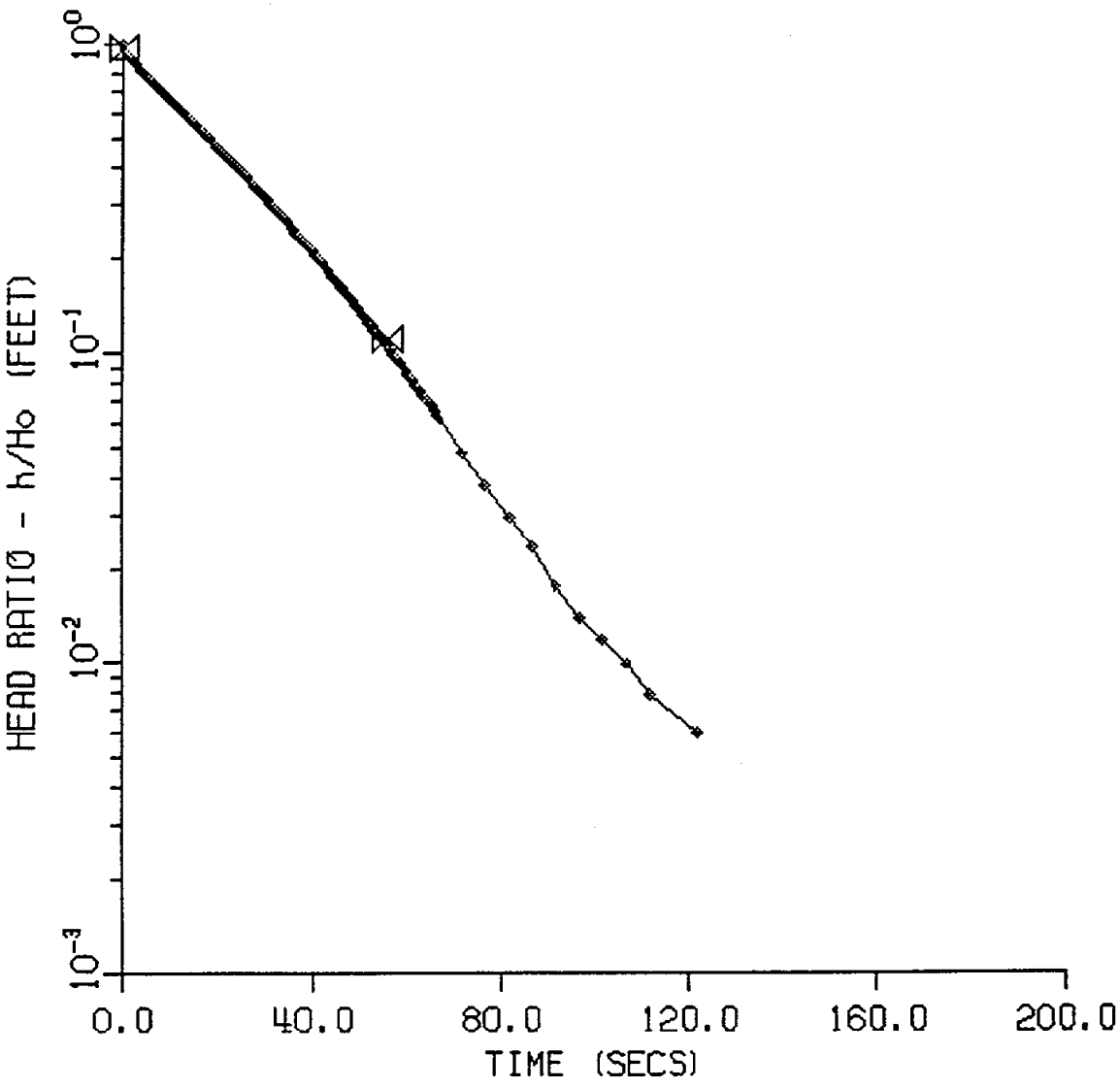
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0170

STEPAN COMPANY
BRMW16-TEST 2



K (CM/S) = 0.002186

WELL SPECS. (FEET)

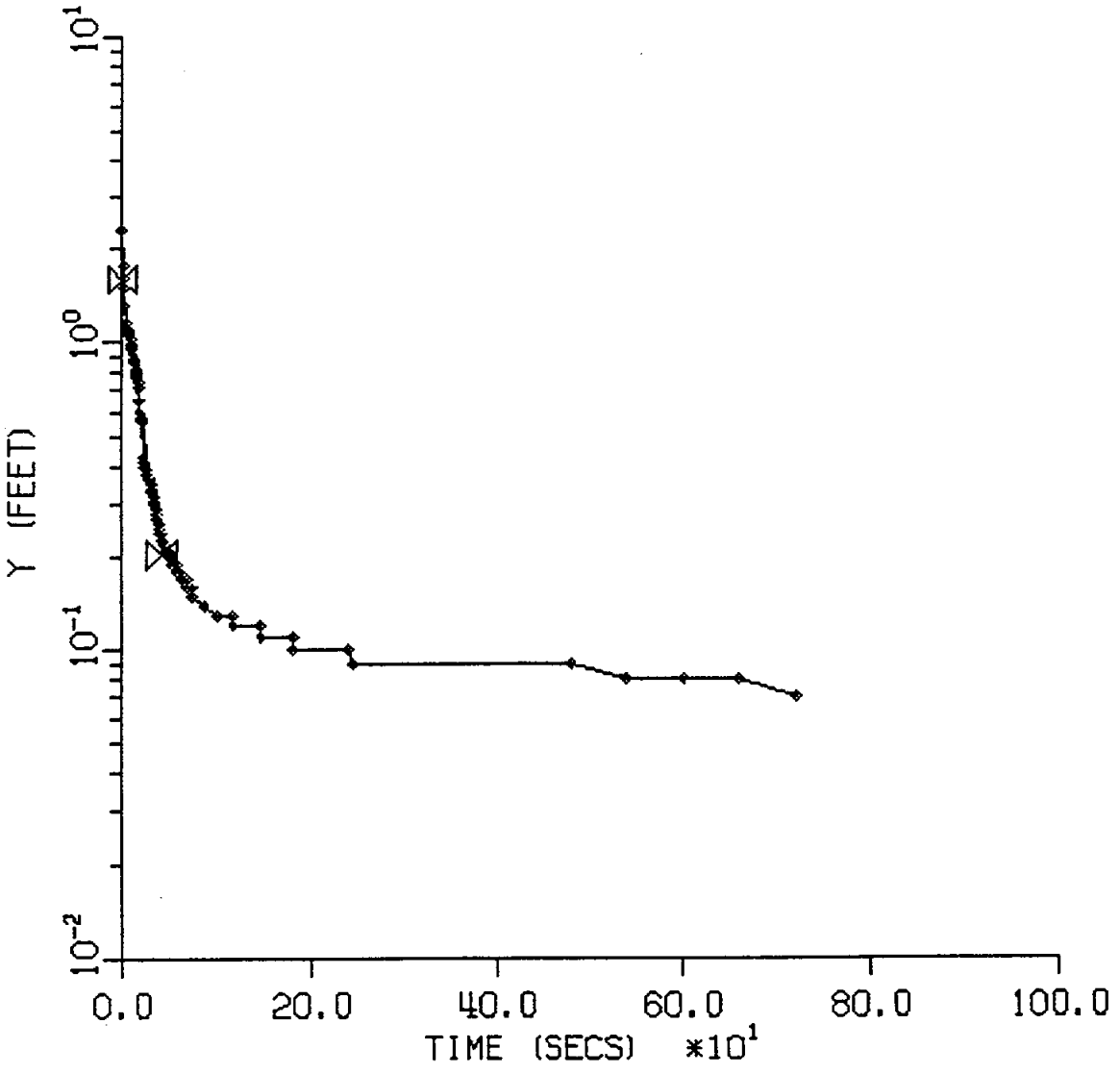
SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 10.0 SLOPE = -0.0169

STEPAN PROPERTY
OBMW17-TEST 1



K (CM/S) = 0.010387

WELL SPECS. (FEET)

SCREEN LENGTH = 8.4

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 8.4

H (FEET) = 8.40

COEFFICIENTS

A = 0.00

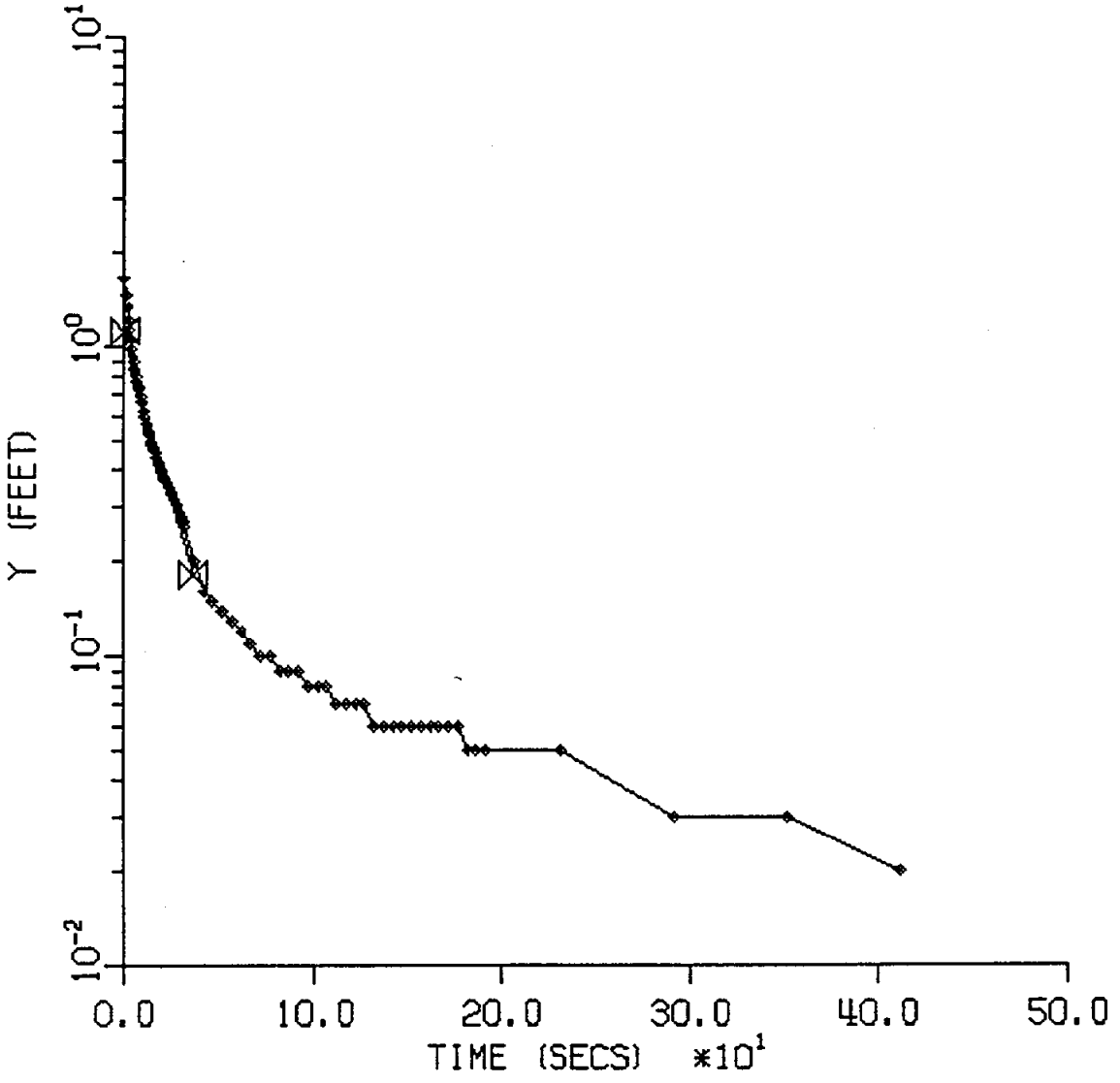
B = 0.00

C = 1.90

Y-INTERCEPT = 1.59

SLOPE = -0.0213

STEPAN COMPANY
08MW17-TEST 2



K (CM/S) = 0.010499

WELL SPECS. (FEET)

SCREEN LENGTH = 8.4

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.22

AQUIFER THICKNESS = 8.4

H (FEET) = 8.40

COEFFICIENTS

A = 0.00

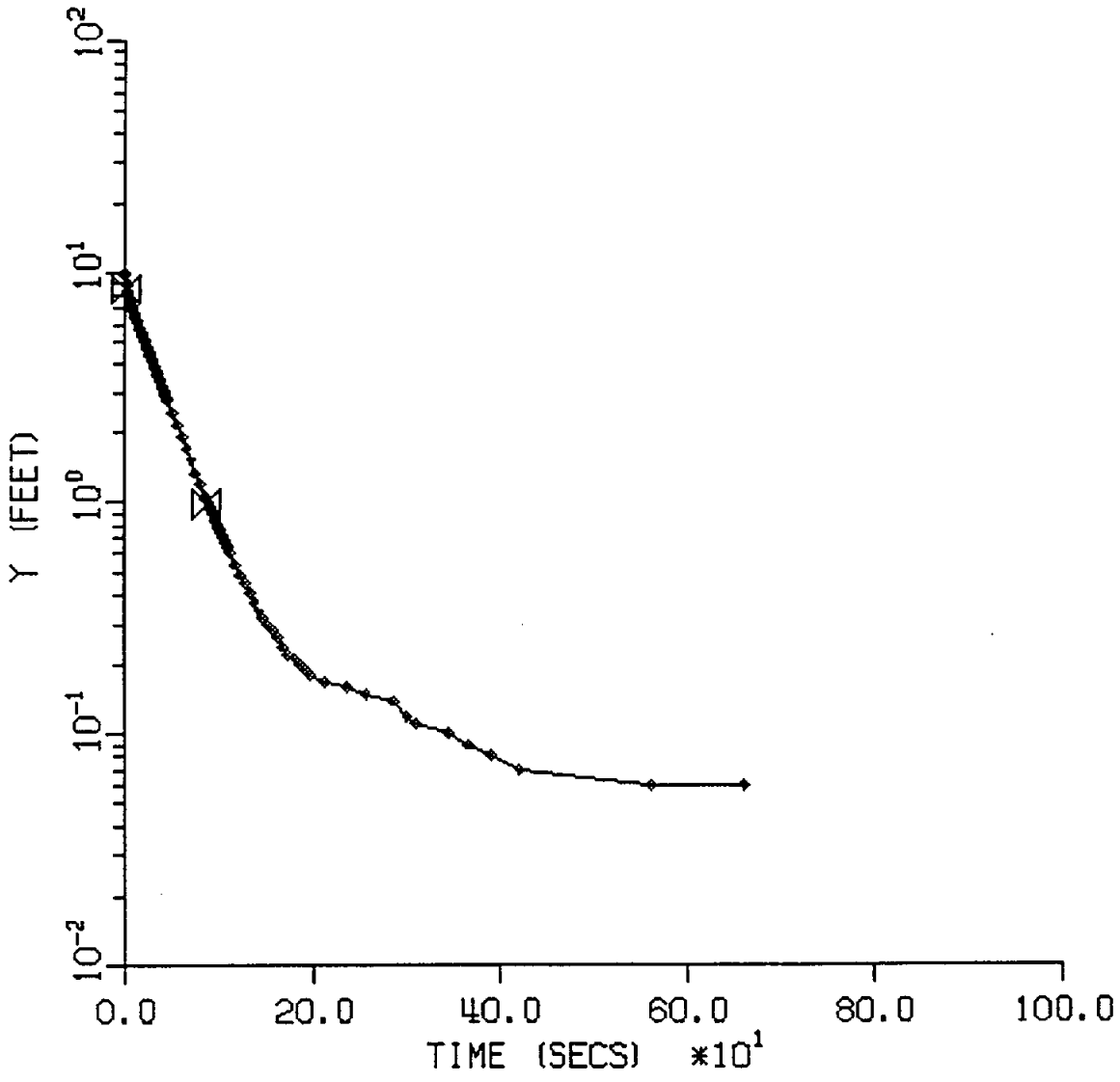
B = 0.00

C = 1.90

Y-INTERCEPT = 1.13

SLOPE = -0.0215

STEPAN COMPANY
BRMW17-TEST 1



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WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 31.0

H (FEET) = 30.05

COEFFICIENTS

A = 2.41

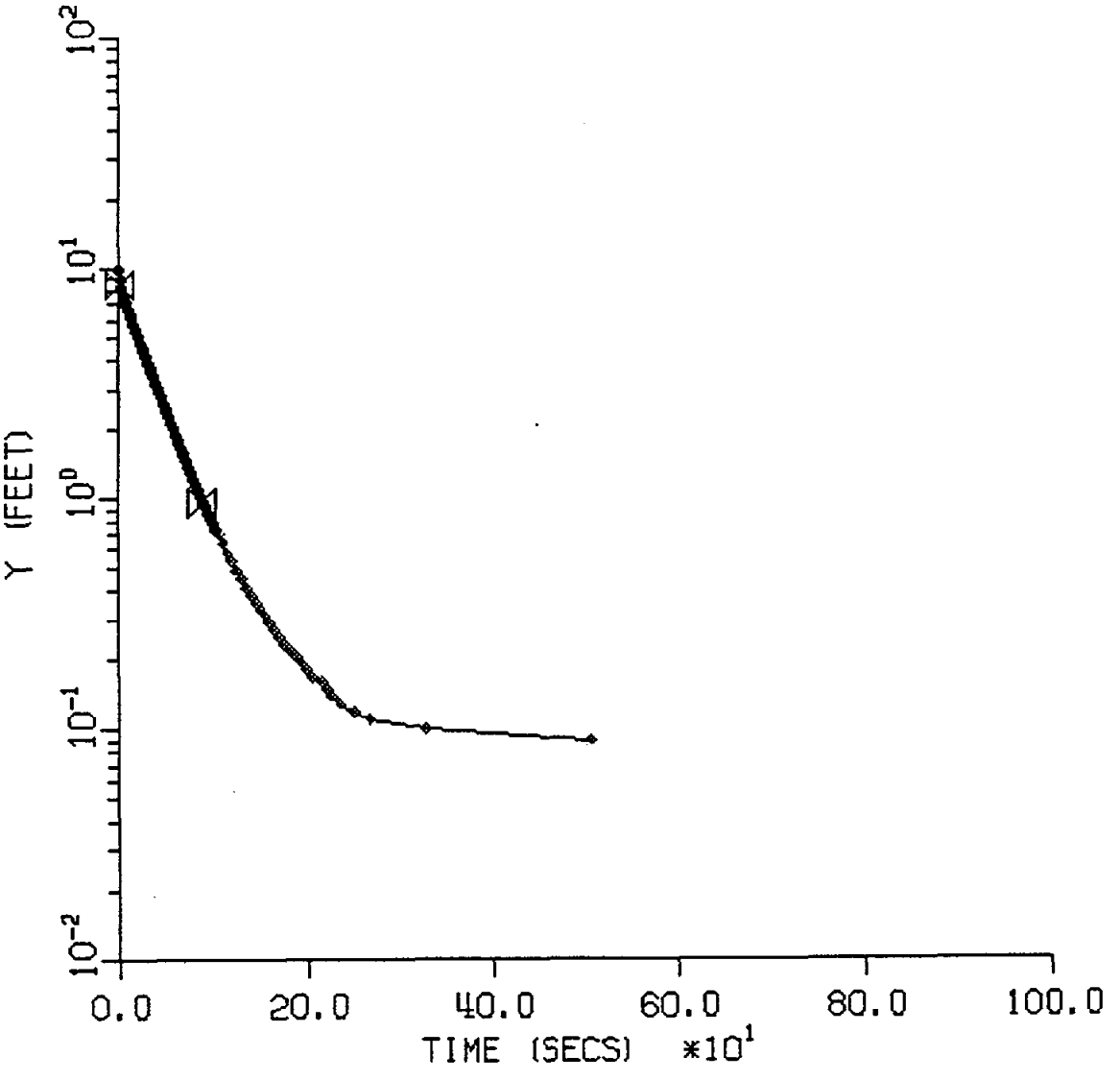
B = 0.38

C = 0.00

Y-INTERCEPT = 8.53

SLOPE = -0.0108

STEPAN COMPANY
BRMW17-TEST 2



K (CM/S) = 0.000767

WELL SPECS. (FEET)

SCREEN LENGTH = 10.0

WELL SCREEN/BORE RADIUS = 0.33

WELL CASING RADIUS = 0.08

AQUIFER THICKNESS = 31.0

H (FEET) = 30.05

COEFFICIENTS

A = 2.41

B = 0.38

C = 0.00

Y-INTERCEPT = 8.47

SLOPE = -0.0106

Appendix M
Surface Geophysics Technical Memorandum

NOTE: Attachments including data profiles and magnetic contour maps are not included. They are available upon request through CH2M HILL.

TECHNICAL MEMORANDUM CH2M HILL

PREPARED FOR: Jeffrey Gratz/USEPA, Region II

PREPARED BY: Mary Kate Dwyer/CH2M HILL

COPIES: Jeffrey Bartlett/Stepan Company
Roger Julian/Stepan Company
Ted Kielbasa/Stepan Company
Rick Ramuglia/Alliance

DATE: March 4, 1992

SUBJECT: Surface Geophysics Investigation--SWS Realty Property

PROJECT: NJO22948.FH.GP

1.0 Introduction

1.1 Purpose and Scope

A surface geophysical investigation was conducted at the SWS Realty property (Lot 4, Block 124; former Hunter-Douglas property) in Maywood, New Jersey, on December 31, 1991 and January 3, 1992. The survey, performed as part of the Remedial Investigation at the site, was conducted over approximately 2.5 acres of open area around the facility. The remaining 2 acres of the site was not investigated because it was occupied by the site building and tall brush on the eastern boundary of the site. The survey was conducted by CH2M HILL personnel Mary Kate Dwyer, Joe Merchak, and Bob Jackson.

The objectives of the geophysical investigation are to identify potential sources of chemical contamination. Specifically, the geophysical investigation was performed in an effort to locate and define abandoned ferromagnetic containers in the overburden of the SWS Realty property. Due to the nature of deposits in the Maywood area, a magnetic survey was determined to be the most effective geophysical method available. The magnetometer can identify areas of buried metal but cannot distinguish drums from other ferrous materials or determine whether there is chemical contamination present. Therefore, the results of the magnetometer investigation were used to select locations for test pits that will be used to characterize the buried material.

The geophysical investigation was performed in several steps. First a grid was established in the survey areas. A magnetometer was then used to collect and store the geophysical data along the survey lines. The raw data was transferred from the magnetometer to the computer and the data was then arranged in spreadsheet form.

The data were graphed and anomalies were identified. The locations of the source of the anomalies were interpreted and put on the base map. The anomalies that could not be explained by cultural features were evaluated to identify possible areas of buried metal.

This technical memorandum (TM) is organized into six sections and supplemented with three attachments. The remainder of this introduction presents an overview of the report organization. The magnetometer selected and the theory of magnetics is described in Section 2.0. Section 3.0 describes the procedures employed in the collection of the data. Section 4.0 describes the methods used to interpret the data. Section 5.0 presents the results of the survey, the interpretation of the data, and the limitations of the results. A map showing the location of buried metal is included as part of this interpretation. Finally, Section 6.0 discusses recommendations for use of the data. Attachment A contains letters from CH2M HILL to the United States Environmental Protection Agency (EPA) regarding the change in the magnetometer used for the survey. Attachment B contains profile plots of the data collected during the investigation. Attachment C contains letters from CH2M HILL and EPA regarding a change in interpretation procedures for the anomalous areas.

2.0 Magnetometer and Theory of Magnetics

2.1 Magnetometer

A GEM GSM-19G overhauser gradiometer was used for the magnetic investigation. This magnetometer is different from the Geometrics G866 originally proposed in the workplan. The change in method was presented to the EPA before the survey was performed. The change in method was approved by the EPA. The letters documenting the change in method, the technical rationale for the change, and the advantages of the GEM magnetometer are presented in Attachment A.

2.2 Theory of Magnetics

The GEM is a proton precession magnetometer that measures the magnitude of the earth's magnetic field and vertical magnetic gradient. The magnetic field measured by the magnetometer is the sum of the earth's field, fields due to geologic formations, and fields due to cultural features such as buildings, cars, and other ferrous metal. The vertical magnetic gradient is the difference between two simultaneous total field measurements made at different heights above the ground. The gradiometer sensor supplied with the GEM magnetometer consists of two sensors about 2 feet apart. The vertical gradient often provides higher resolution of magnetic anomalies and may allow the collection of useful data closer to buildings than do total field measurements.

The magnetometer sensor consists of a small container filled with an organic, hydrogen-rich fluid, such as kerosene. A current is passed through a coil wrapped around the container, causing the molecules of the liquid to orient themselves with the inducing magnetic field produced by the coil. When the current to the coil is stopped, the molecules realign (precess) themselves with the earth's magnetic field. A small electric field, produced by the molecules as they realign themselves, is measured by the coil around the container and amplified. The strength of this field is proportional to the strength of the earth's magnetic field. The electronic circuitry of the magnetometer converts the measured field to a digital display of the magnetic field strength.

The earth's field varies during the day due to solar activity, and these variations are called diurnal drift. Diurnal drift is measured by periodic readings at a base station and removed from the data if necessary. Diurnal drift is usually negligible compared to anomalies caused by the presence of buried metal. The vertical gradient is not subject to diurnal drift.

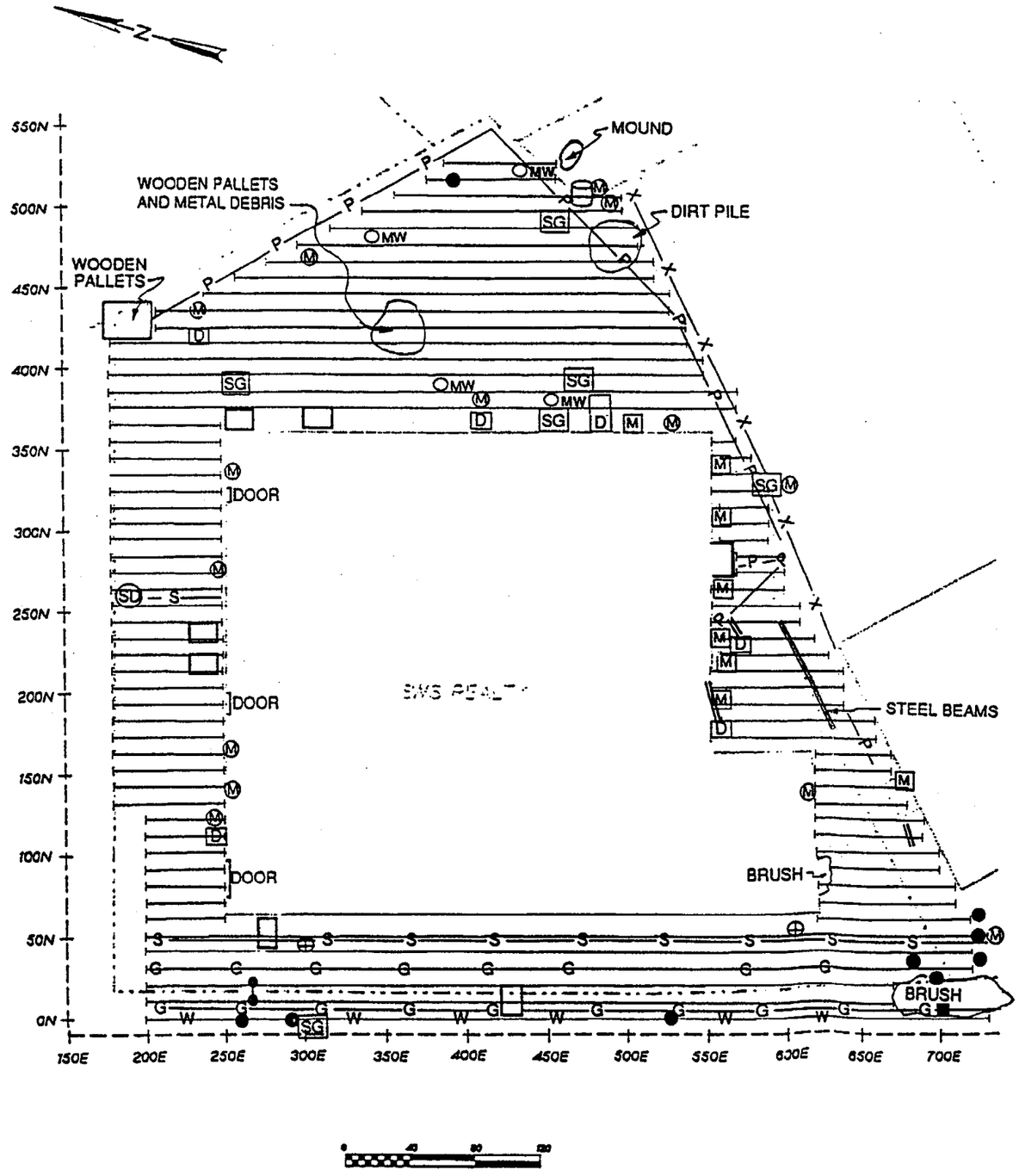
Anomalies due to geologic formations can be and often are negligible, depending on the nature of the formation and its depth. Geologic anomalies are usually related to igneous or metamorphic rock formations. These rock types are not present near the surface at the Maywood site. Therefore, the anomalies at SWS Realty property are not thought to be geologic.

3.0 Field Procedures

3.1 Establishing the Grid

Survey grids were established over the SWS Realty property before geophysical data was collected. The grids were placed to allow accurate and systematic sampling and to cite the positions of anomalies in the field. The grids were based on two perpendicular base lines formed by placing markers (pin flags or spray paint) at regular intervals across the site by using a compass and measuring tape. Grid north was oriented approximately 80 degrees east of true north.

Figure 1 shows the extent of the survey and the grid coordinates. East-west base lines were marked at 20-foot intervals. The east-west base lines corresponded with the 100-foot intervals along the north-south grid lines. East-west base lines were parallel to the front edge of the SWS Realty building. East-west grid coordinates were labeled continuously from the AMP Realty property to the SWS Realty property, so that data could be combined and graphed between the two site buildings. The location of metal objects and other sources of interference at the site are also shown in Figure 1.



LEGEND:

- = SURVEY LINE
- = PROPERTY LINE
- X = FENCE LINE
- = RUBBLE
- M / Ⓜ = METAL OBJECTS OR DEBRIS
- ■ = HYDRANT
- = DRUM
- P = POWERLINE
- G = GAS LINE
- W = WATERLINE
- MC = REINFORCED CONCRETE (REBAR)
- = CAR,TRUCK, VAN OR RV
- ○ = TELEPHONE POLE
- ● = POLE
- MW = MONITORING WELL
- SD = STORM DRAIN
- D = DUMPSTER
- = PIPE
- ⊕ = MANHOLE
- ● = SIGN
- S = SEWER LINE
- SG = SEWER GRATE

Figure 1
SURVEY GRID AND EXTENT OF MAGNETOMETER INVESTIGATION
CULTURAL FEATURES MAP
SWS REALTY PROPERTY
MAYWOOD, NJ

3.2 Base Station

A base station was established to determine the amount of diurnal (daily) drift in the earth's magnetic field. The station was located in an area free from magnetic anomalies and away from any detectable sources of interference. Readings were taken throughout the day in the morning, midday, and late afternoon and were entered into the field notes. On all days, the drift was less than 100 gammas. No drift correction was performed because the maximum observed drift of 100 gammas is small compared to the anomalies recorded over the site, which typically measured from greater than 200 gammas up to 5,000 gammas.

3.3 Magnetometer Survey

Data were systematically collected at 10-foot intervals along the east-west grid lines, since these lines corresponded closely with the true north direction. The line number and direction, station number, and the station spacing were programmed into the magnetometer at the start of each grid line. Data were collected and stored in the internal memory of the instrument. Measurements were also recorded in the field logbook at regular intervals. Locations of features such as fences, power lines, utilities, buildings, and scrap metal that may have affected the readings were recorded. Data from the digital logger were transferred to a computer on a daily basis, and the data were reviewed to determine if they were properly recorded and were checked for consistency with the data manually recorded in the logbook. Data were then processed as described in Section 4.0.

No functional checks are prescribed in the operator's manual for the magnetometer. Initial readings were compared against the total magnetic intensity predicted for the area, as shown on a map that was provided with the equipment. Equipment was determined to be responsive by taking measurements at different locations and noting that the measurements did not remain constant.

4.0 Interpretation Procedures

4.1 Magnetic Data

Preparation and plotting of the magnetometer data consisted of the following steps. The data were received in XYZ format, imported into a spreadsheet, and rearranged into a spreadsheet format with the columns representing survey lines and the rows representing station positions along the line. Profile plots of magnetic intensity and vertical magnetic gradient were prepared (Attachment B). The profile plots were used to interpret the location of the source of each anomaly.

A magnetic anomaly normally consists of both a magnetic high and a magnetic low. The pair of high and low values is due to the magnetic field induced in the buried

metal by the earth's field. The magnetic field induced in the buried object has both a north and south magnetic pole, which results in a net increase and decrease, respectively, in the measured total field. In the northern hemisphere, the magnetic high is on the south side of the source and the low is on the north side. The source of the anomaly is interpreted as extending from the peak of the magnetic high to the lowest value north of the high. The high/low pairs are not always well-defined due to nearby interferences and grid line orientation. Professional judgement is required in delineating magnetic sources. An anomaly was chosen if it was recognizable over the same station interval on both the total field and the vertical gradient profiles. Once an anomaly was identified, the interpreted location of the source of the anomaly was transferred to the base map.

5.0 Results of Investigation

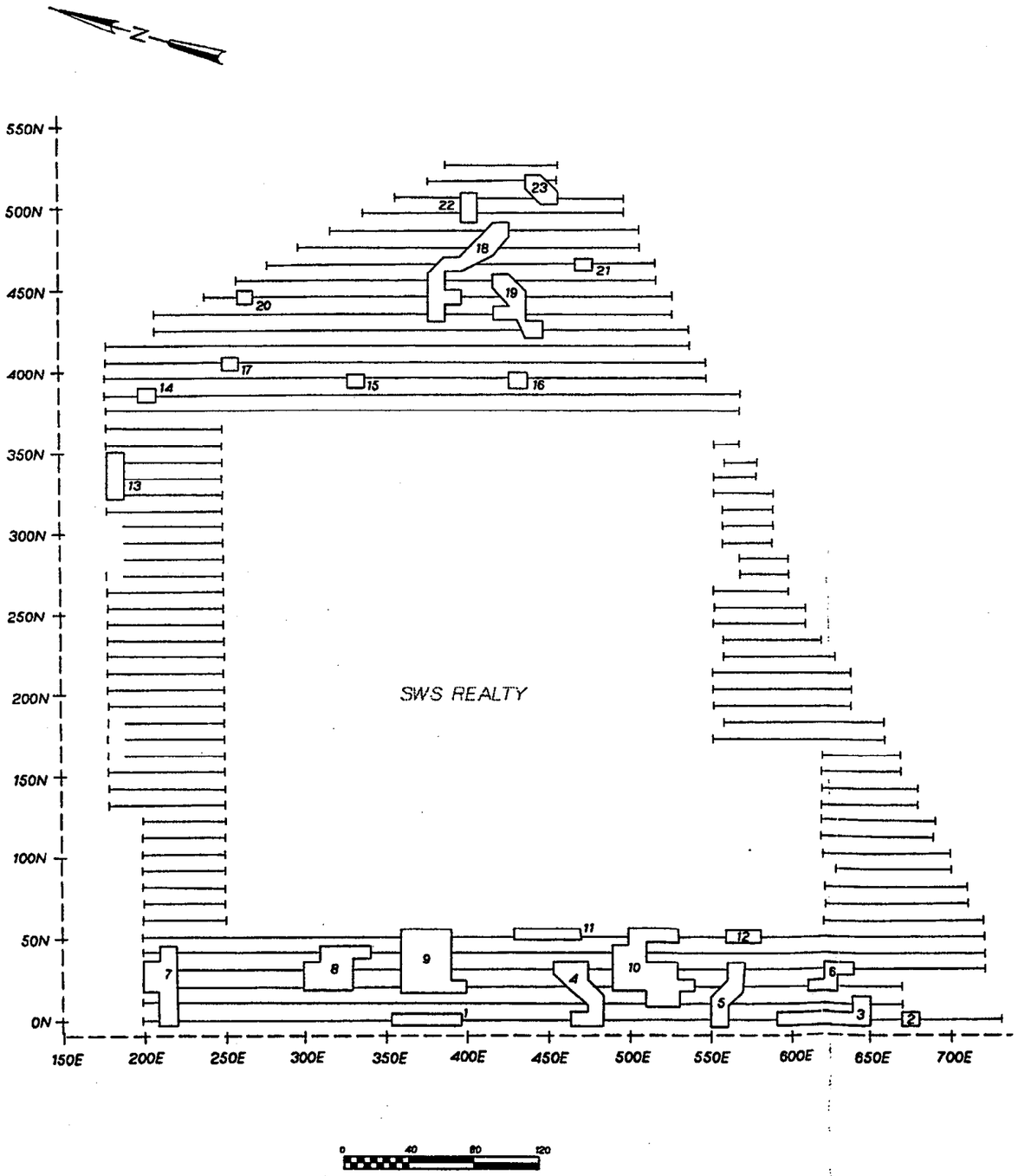
5.1 Buried Metal

The extent of the magnetometer survey conducted on the SWS Realty property is shown in Figure 1. Magnetic data are presented in Attachment B. Figure 2 presents the locations that are interpreted to contain buried metal.

Twenty-three areas of buried metal have been identified at the site (Figure 2). The areas shown on the map have been identified based on magnetic anomalies that are not a result of known sources. Anomalies resulting from known sources, such as power lines, surface metal, or buildings have not been shown unless other buried material is suspected based upon the amplitude of the anomaly. The location of metal objects and other sources of interference encountered at the site are shown in Figure 1. The areas are numbered from west to east across the property. These areas are listed in Table 5-1, along with their strength, nearby cultural features, and potential test-pit locations.

5.2 Limitation of Results

Prioritization for followup investigations of the interpreted areas of buried metal should not be based only on geophysical data. Other factors, such as site history and visual observations, should also be considered. The instrument is sensitive enough to see the anomaly associated with several drums to a depth of 20 feet. This depth is greater than the thickness of the overburden at the site. Because of the existence of many cultural sources of interference on the site, anomalies that were identified in some cases may not contain buried metal or appear to be as extensive as they are shown on the map. Other locations that may contain minor amounts of buried metal may have been missed due to magnetic interferences from known or unknown sources.



LEGEND

SURVEY LINE

PROPERTY LINE

2 BOUNDARIES OF INTERPRETED METAL

FIGURE 2
Interpreted Areas of Buried Metal
SWS REALTY PROPERTY
MAYWOOD, NJ

CH2M HILL

Table 5-1
Interpreted Areas of Buried Metal
SWS Realty Property

Area	Strength of Anomalies (gammas)	Cultural Feature	Potential Test-Pit Location
1	250-1200	Water line	0 N, 350-370 E
2	470	Water line	0 N, 670-680 E
3	1000-1750	Water line	0 N, 600-610 E
4	560-1250	Water line, 2 gas lines	30 N, 450-470 E
5	120-700	Water line, 2 gas lines	10 N, 550-560 E
6	500-1200	Gas line	30 N, 620-640 E
7	640-3600	Water line, 2 gas lines, sewer line	30 N, 200-220 E
8	1500-2350	Gas line, sewer line	30 N, 310-330 E
9	1300-4000	Sewer line, 2 gas lines	50 N, 370-390 E
10	630-5400	Sewer line, 2 gas lines	50 N, 510-520 E
11	1250	Sewer line, water line	50 N, 450-470 E
12	1050	Sewer line	50 N, 560-580 E
13	200	None	320 N, 220-230 E
14	180	None	380 N, 200-210 E
15	240	None	390 N, 330-340 E
16	170	None	390 N, 430-440 E
17	550	Sewer grate?	400 N, 250-260 E
18	150-325	None	460 N, 390-400 E
19	225-825	None	450 N, 420-430 E
20	275	Power line	440 N, 260-270 E
21	275	Dirt pile	460 N, 470-480 E
22	150-250	None	490 N, 400-410 E
23	2000-2400	Power line	500 N, 450-460 E

6.0 Discussion and Recommendations

Buried metal has been identified in 23 areas distributed around the site. Some of the anomalies are thought to be due to underground utilities and other sources of interference.

The following 12 areas are recommended for the test-pit program on the SWS Realty property: Areas 9, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23. Areas 1 through 12 on the western side of the property adjacent to Route 17, are generally not recommended for test-pit activities. Two gas lines, a water line, and a sewer line, are located beneath these areas. The strong anomalies in this area appear to be due to these utility lines. However, some anomalies over the utility lines appear to line up on adjacent lines, perpendicular to the direction of the utility lines. This suggests that there may be additional sources causing the anomalies. Area 9 exhibits the strongest anomalies on adjacent lines and is recommended for the test-pit investigation. Careful excavation adjacent to the utility lines may reveal additional buried metal or waste material. Investigation of this area is considered sufficient to characterize the type of materials that may be present in other anomalous areas west of the SWS Realty building. All other anomalies located on the site are recommended for test-pitting.

The nature of the buried metal cannot be determined from the data and further investigations will be necessary. All anomalies proposed for test-pitting will be field screened with a metal detector before digging to correctly locate their position and extent. If metal is not detected in areas where a cultural feature is present, the cultural feature will be determined to be the source of the anomaly and the anomaly will not be test-pitted. All anomalies greater than 100 gammas have been identified.

Priority of the follow-up investigations (i.e., test-pitting) should be based on the areal extent of the buried metal (an indication of volume), the strength of the magnetic anomalies, site history, and field observations. The test-pit program should concentrate on the strongest anomalies within the recommended test-pit areas, in order to characterize the type of materials producing the largest anomalies. The investigation should progress from those areas consisting of multiple-line anomalies to the areas defined by single-line anomalies. Single-line anomalies may be less significant as potential sources.

The extent of the test pit will be sufficient to characterize the source of the magnetic anomaly. The test pit will target the strongest part of the anomaly. A test pit excavated within the locations provided in Table 5-1 should be sufficient to characterize the anomaly.

CH2M HILL
Engineers
Planners
Economists
Scientists

April 27, 1992

Mr. Jeffrey Gratz, Project Manager
United States Environmental Protection Agency
Special Programs Branch, Room 2930
26 Federal Plaza
New York, New York 10278

Dear Mr. Gratz:

Subject: Maywood Chemical Company Site, Maywood, Bergen County, New Jersey, Administrative Order on Consent (Index No. II-CERCLA-70104): Surface Geophysics Report, Sears Property

Enclosed please find one (1) copy of the above. By copy of this letter, we are also forwarding a copy to Rick Ramuglia/Alliance.

Please give me a call with any comments or questions.

Sincerely,

Mary S. Manto /MKJ

Mary S. Manto
Project Manager

mtc/NJC9/061C9.51
cc: R. Ramuglia/Alliance
J. Bartlett/Stepan Co.
R. Julian/Stepan Co.

North Atlantic Regional Office
99 Cherry Hill Road, Suite 304
Parsippany, NJ 07054-1102
201.316.9300
FAX 201.334.5847

TECHNICAL MEMORANDUM CH2M HILL

PREPARED FOR: Jeffrey Gratz/USEPA, Region II

PREPARED BY: Don Johnson/CH2M HILL

COPIES: Jeffrey Bartlett/Stepan Company
Rodger Julian/Stepan Company
Rick Ramuglia/Alliance

DATE: April 27, 1992

SUBJECT: Surface Geophysics Investigation--Sears Property

PROJECT: NJO22948.SR.GP

1.0 Introduction

1.1 Purpose and Scope

A surface geophysical investigation was conducted at the Sears Logistical Services Property (Sears) in Maywood, New Jersey, from March 2 to March 17, 1992. The survey, performed as part of the Remedial Investigation at the site, was conducted over approximately 15 acres of open area around the facility. The remaining 10 acres were occupied by buildings, reinforced concrete surfaces, railroad tracks, or open water which prohibited the execution of the geophysical investigation. The survey was conducted by CH2M HILL personnel Don Johnson, Mary Kate Dwyer, Mike Snype and Joe Merchak.

The objectives of the geophysical investigation are to identify potential sources of chemical contamination. Specifically, the geophysical investigation was performed in an effort to locate and define abandoned ferromagnetic containers in the overburden of the Sears property. Due to the nature of deposits at the Sears site, a magnetic survey was determined to be the most effective geophysical method available. The magnetometer can identify areas of buried metal but cannot distinguish drums from other ferrous materials or determine whether there is chemical contamination present. Therefore, the results of the magnetometer investigation were used to select locations for test pits that will be used to characterize the buried material.

The geophysical investigation was performed in several steps. First a grid was established in the survey areas. A magnetometer was then used to collect and store the geophysical data along the survey lines. The raw data was transferred from the magnetometer to the computer and the data was then arranged in spreadsheet form.

The data were graphed and anomalies were identified. The locations of the sources of the anomalies were interpreted and put on the base map. The anomalies that could not be explained by cultural features were evaluated to identify possible areas of buried metal.

This technical memorandum (TM) is organized into six sections and supplemented with two attachments. The remainder of this introduction presents an overview of the report organization. The magnetometer selected and the theory of magnetics is described in Section 2.0. Section 3.0 describes the procedures employed in the collection of the data. Section 4.0 describes the methods used to interpret the data. Section 5.0 presents the results of the survey, the interpretation of the data, and the limitations of the results. A map showing the location of buried metal is included as part of this interpretation. Finally, Section 6.0 discusses recommendations for use of the data. Attachment A contains letters from CH2M HILL to the United States Environmental Protection Agency (EPA) regarding the change in the magnetometer used for the survey. Attachment B contains profile plots of the data collected during the investigation.

2.0 Magnetometer and Theory of Magnetics

2.1 Magnetometer

A GEM GSM-19G overhauser gradiometer was used for the magnetic investigation. This magnetometer is different from the Geometrics G866 originally proposed in the work plan. The change in method was presented to the EPA before the survey was performed. The change in method was approved by the EPA. The letters documenting the change in method, the technical rationale for the change, and the advantages of the GEM magnetometer are presented in Attachment A.

2.2 Theory of Magnetics

The GEM is a proton precession magnetometer that measures the magnitude of the earth's magnetic field and vertical magnetic gradient. The magnetic field measured by the magnetometer is the sum of the earth's field, fields due to geologic formations, and fields due to cultural features such as buildings, cars, and other ferrous metal. The vertical magnetic gradient is the difference between two simultaneous total field measurements made at different heights above the ground. The gradiometer sensor supplied with the GEM magnetometer consists of two sensors about 2 feet apart. The vertical gradient often provides higher resolution of magnetic anomalies and may allow the collection of useful data closer to buildings than do total field measurements.

The magnetometer sensor consists of a small container filled with an organic, hydrogen- rich fluid, such as kerosene. A current is passed through a coil wrapped around the container, causing the molecules of the liquid to orient themselves with the inducing magnetic field produced by the coil. When the current to the coil is

stopped, the molecules realign (precess) themselves with the earth's magnetic field. A small electric field, produced by the molecules as they realign themselves, is measured by the coil around the container and amplified. The strength of this field is proportional to the strength of the earth's magnetic field. The electronic circuitry of the magnetometer converts the measured field to a digital display of the magnetic field strength.

The earth's field varies during the day due to solar activity, and these variations are called diurnal drift. Diurnal drift is measured by periodic readings at a base station and removed from the data if necessary. Diurnal drift is usually negligible compared to anomalies caused by the presence of buried metal. The vertical gradient is not subject to diurnal drift.

Anomalies due to geologic formations can be and often are negligible, depending on the nature of the formation and its depth. Geologic anomalies are usually related to igneous or metamorphic rock formations. These rock types are not present near the surface at the Maywood site. Therefore, the anomalies at Sears are not thought to be geologic.

3.0 Field Procedures

3.1 Establishing the Grid

Survey grids were established in areas clear of mature vegetation and building structures over the Sears property before geophysical data was collected. A single grid was established over the entire site, with the exception of a portion of the access road to the site. Since the access road crossed the primary grid at an angle and was bounded by a fence on either side, this area was gridded parallel to the road to facilitate data collection.

Subsequent references to compass directions in this technical memorandum refer to grid directions. Grid north is approximately 45 degrees west of true north.

The primary grid was based on the west and south sides of the Sears building. The east-west base lines for the survey grid were parallel to the south side of the building. The south-west corner of the building was arbitrarily assigned grid coordinates 1000 E and 1000 N. Figure 1 shows the extent of the survey and the grid coordinates. East-west base lines were marked at 20-foot intervals. The east-west base lines corresponded with the 100- foot intervals along the north-south grid lines.

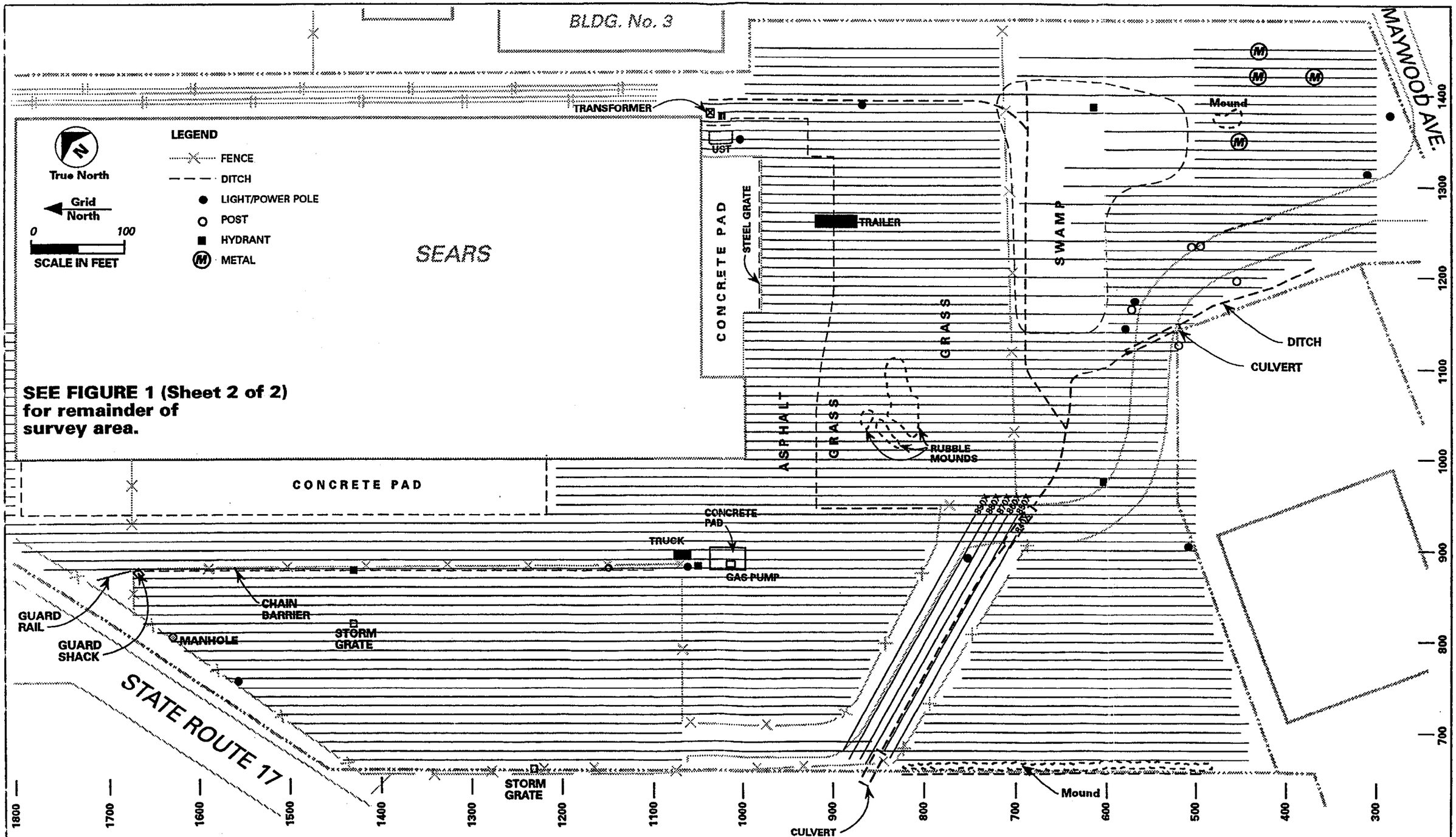


FIGURE 1 (Sheet 1 of 2)
Extent of Magnetometer Investigation
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

CRAMHILL

N:\02048.88.GP MAG SURVEY 1 4-20-92mms

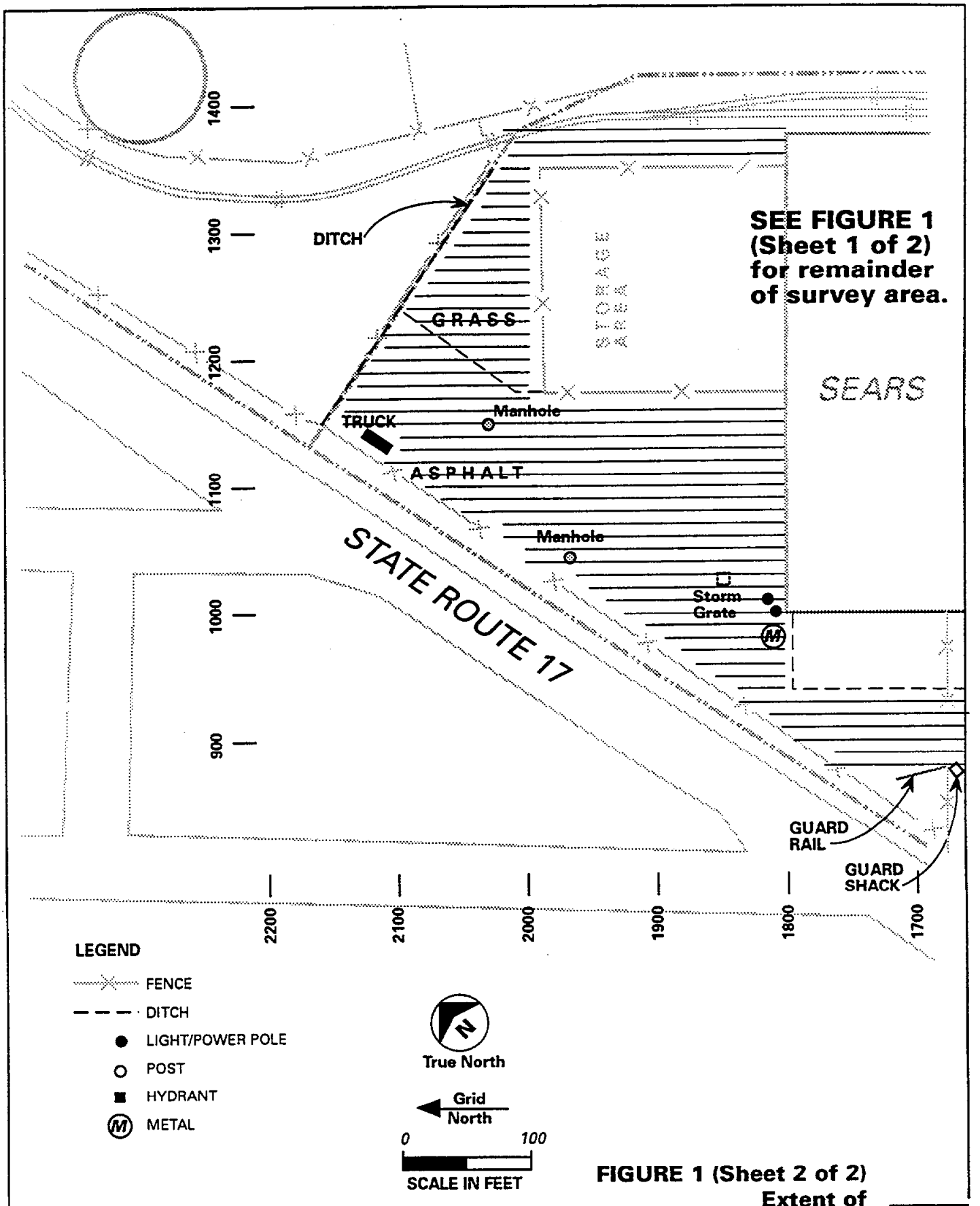


FIGURE 1 (Sheet 2 of 2)
Extent of
Magnetometer Investigation
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

CH2MHILL

NJO22948.SR.GP 2 Ext of MAG Survey 4-20-92mms

3.2 Base Station

A base station was established to determine the amount of diurnal (daily) drift in the earth's magnetic field. The station was located in an area free from magnetic anomalies and away from any detectable sources of interference (in the grassy area south of the building). Readings were taken throughout the day in the morning, midday, and late afternoon and were entered into the field notes. On all days, the drift was less than about 50 gammas. No drift correction was performed because the maximum observed drift was small compared to the anomalies recorded over the site, which typically measured from greater than 200 gammas up to 3,000 gammas.

3.3 Magnetometer Survey

Data were systematically collected at 10-foot intervals along the north-south grid lines across most of the site. The swampy area south of the building was surveyed at 20-foot line intervals because the swamp was impassible without considerable brushing. In some areas of the swamp, no data could be collected because perched water and marsh deposits were too deep. The situation was discussed with EPA and they verbally approved of our plan for this area.

The line number and direction, station number, and the station spacing were programmed into the magnetometer at the start of each grid line. Data were collected and stored in the internal memory of the instrument. Measurements were also recorded in the field logbook at regular intervals. Locations of features such as roads, fences, power lines, utilities, buildings, and scrap metal that may have affected the readings were recorded. Data from the digital logger were transferred to a computer on a daily basis, and the data were reviewed to determine if they were properly recorded and were checked for consistency with the data manually recorded in the logbook. Data were then processed as described in Section 4.0.

No functional checks are prescribed in the operator's manual for the magnetometer. Initial readings were compared against the total magnetic intensity predicted for the area, as shown on a map that was provided with the equipment. Equipment was determined to be responsive by taking measurements at different locations and noting that the measurements did not remain constant.

4.0 Interpretation Procedures

4.1 Magnetic Data

Preparation and plotting of the magnetometer data consisted of the following steps. The data were received in XYZ format, imported into a spreadsheet, and rearranged into a spreadsheet format with the columns representing survey lines and the rows representing station positions along the line. Profile plots of magnetic intensity and vertical magnetic gradient were prepared (Attachment B). The profile plots were used to interpret the location of the source of each anomaly.

A magnetic anomaly normally consists of both a magnetic high and a magnetic low. The pair of high and low values is due to the magnetic field induced in the buried metal by the earth's field. The magnetic field induced in the buried object has both a north and south magnetic pole, which results in a net increase and decrease, respectively, in the measured total field. In the northern hemisphere, the magnetic high is on the south side of the source and the low is on the north side. The source of the anomaly is interpreted as extending from the peak of the magnetic high to the lowest value north of the high. The high/low pairs are not always well-defined due to nearby interferences and grid line orientation. Professional judgement is required in delineating magnetic sources. An anomaly was chosen if it was recognizable over the same station interval on both the total field and the vertical gradient profiles.

Once an anomaly was identified, the interpreted location of the source of the anomaly was transferred to the base map. Anomalies that corresponded to anomalies on adjacent lines were grouped together as an anomalous area.

5.0 Results of Investigation

5.1 Buried Metal

The extent of the magnetometer survey conducted at Sears is shown in Figure 1. The site has been subdivided into 4 separate areas to facilitate the discussion of results and is shown in Figure 2. Magnetic data are presented in Attachment B. Figure 3 presents the locations that are interpreted to contain buried metal.

A total of 183 areas of buried metal have been identified at the site. Eighty three of the areas are based on anomalies on two or more adjacent lines (Table 5-1). The remaining 101 areas are based on anomalies observed on single lines (Table 5-2). The areas shown on the map have been identified based on magnetic anomalies that are not a result of known sources. Anomalies resulting from known sources, such as power lines, surface metal, or buildings have not been shown unless other buried material is suspected based upon the amplitude of the anomaly. The location of metal objects and other sources of interference encountered at the site is shown in Figure 1.

5.2 Distribution of Anomalous Areas

A brief description of the site with respect to the areas of buried metal is given in the following summary.

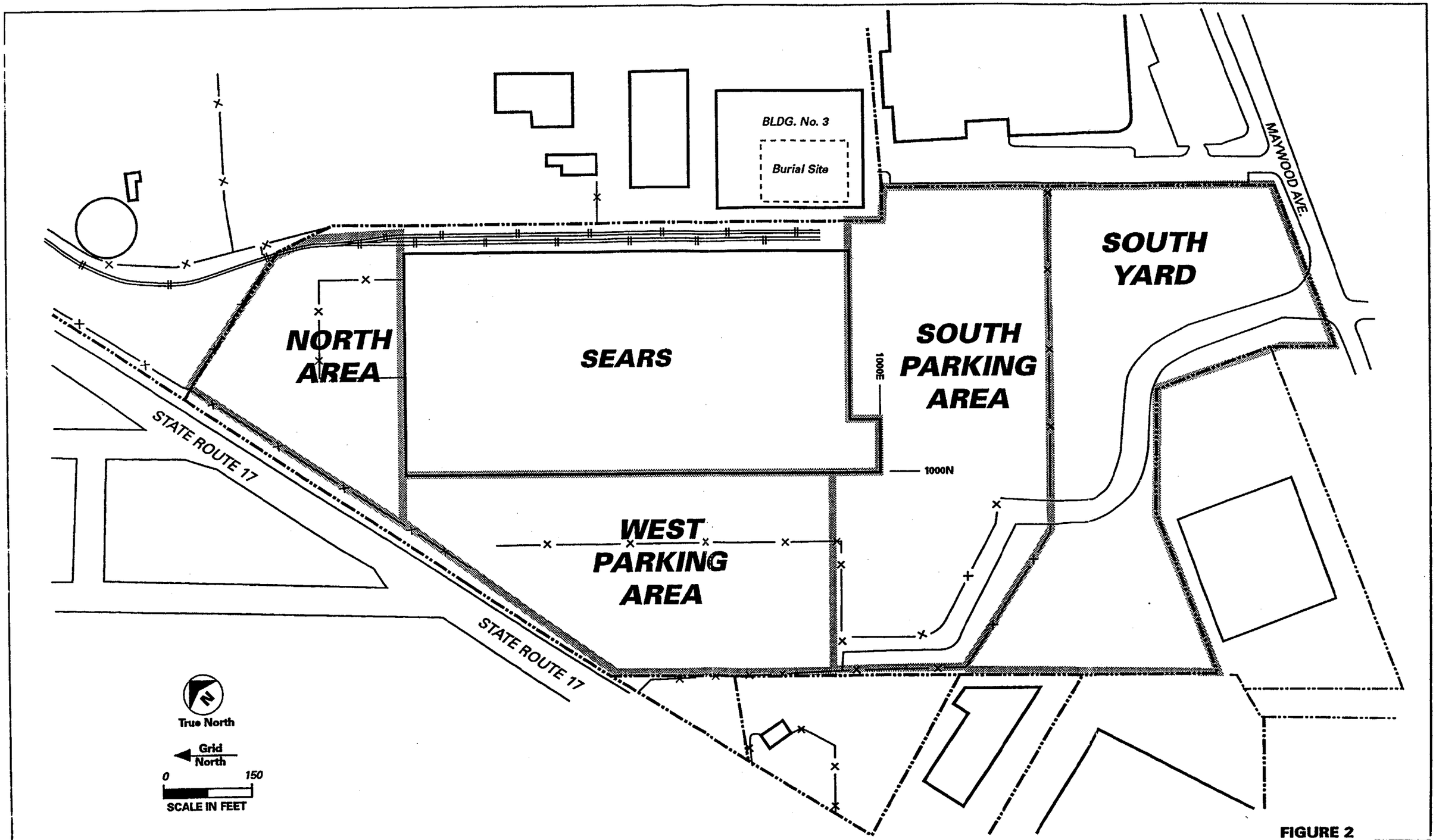


FIGURE 2
Site Map
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

CH2MHILL

NJ022948.8R.GP Vicinity Map 4-20-92mms

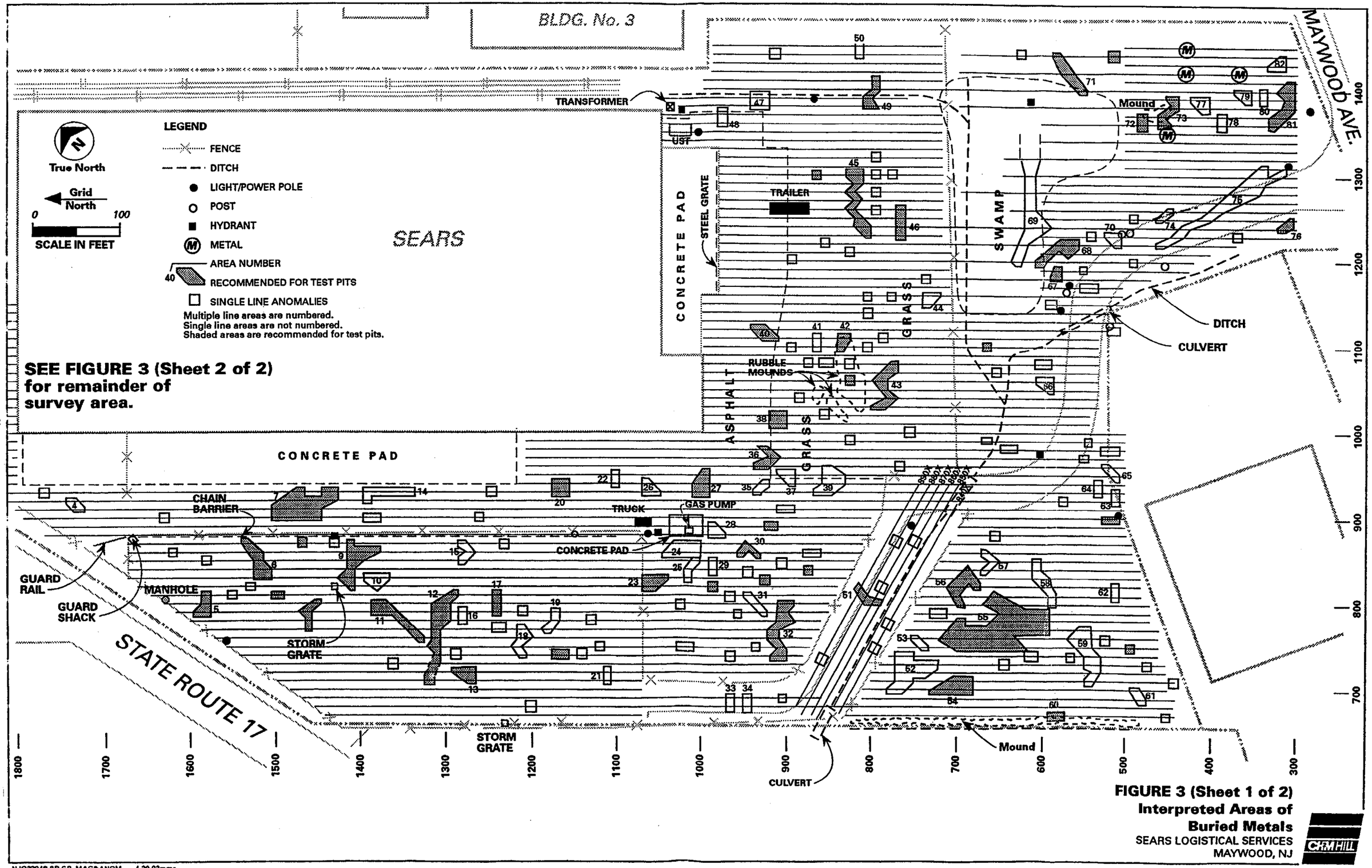


FIGURE 3 (Sheet 1 of 2)
Interpreted Areas of Buried Metals
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

CH2MHILL

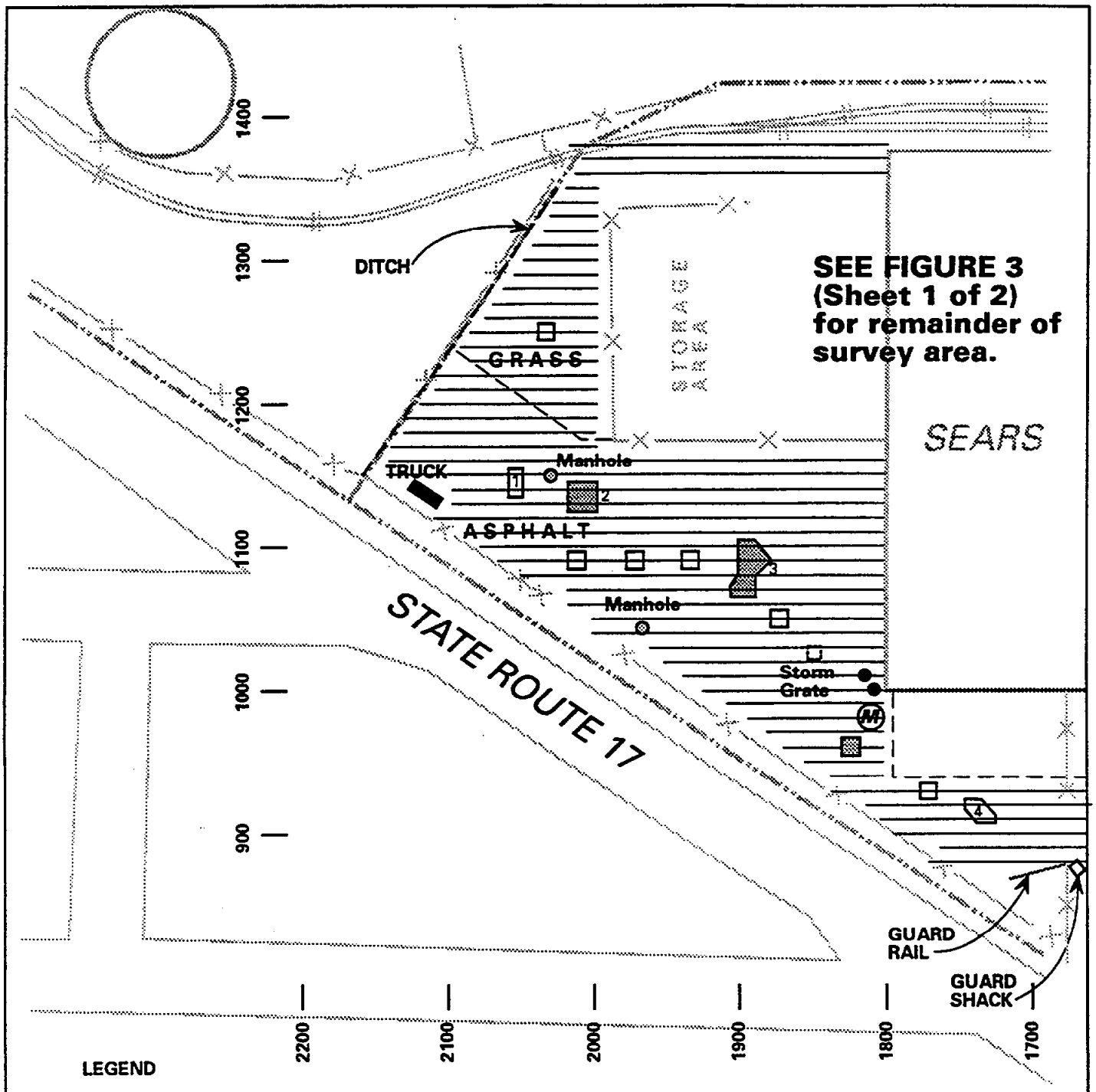


FIGURE 3 (Sheet 2 of 2)
Interpreted Areas of Buried Metals
SEARS LOGISTICAL SERVICES
MAYWOOD, NJ

NJO22948.SR.GP 2 Mag & Anom 4-20-92mms

Table 5-1			Page 1 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
1	130	1140 E, 2050-2060 N	Weak
2*	1200	1140 E, 2000-2010 N	10 feet from manhole.
3*	1300	1090 E, 1880-1890 N	Much weaker on adjacent lines.
4	170	920 E, 1740-1750 N	The anomalies are affected by their proximity to the building.
5*	350	800 E, 1580-1590 N	Western 2 anomalies affected by fence.
6*	700	850 E, 1520-1530 N	About 25 feet west of storm sewer.
7*	1400	910 E, 1450-1480 N	West side not well defined because of interpreted utility along grid line 880 E (appx.)
8*	1000	790 E, 1460-1470 N	Well defined anomalies.
9*	1200	830 E, 1410-1430 N	West end merges with storm sewer anomalies. Additional interference with Area 10 anomalies. Near DOE drum site.
10	550	830 E, 1380-1400 N	Considerably weaker on adjacent lines.
11*	900	800 E, 1370-1390 N	Most other anomalies in this zone are weak. Linearity of this area suggests a utility line.
12*	1300	750 E, 1310-1320 N	Most anomalies are greater than 500 gammas. Area crosses storm sewer.

Table 5-1			Page 2 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
13*	1100	720 E, 1270-1290 N	Although anomaly on line 710 appears stronger, it is distorted by storm sewer anomaly and does not provide a good target. Near DOE drum site.
14	1600	930 E, 1340-1370 N	Not seen at all on 920 E. Near edge of concrete pad in front of building.
15	200	850 E, 1280-1290 N	Weak, poorly defined anomalies.
16	250	780 E, 1280-1290 N	Weak.
17*	550	790 E, 1240-1250 N	Other anomalies in area are less than 200 gammas.
18	250	770 E, 1210-1220 N	Weak, poorly formed anomalies.
19	200	790 E, 1170-1180 N	Weak, poorly formed anomalies.
20*	550	930 E, 1160-1180 N	Possibly affected by proximity to building.
21	150	710 E, 1110-1120 N	Weak. Distorted by response to fence at 1070 N.
22	170	950 E, 1100-1110 N	Weak. Both anomalies less than 200 gammas.
23*	3000	820 E, 1050-1070 N	Partially affected by fence at 1070 N. Similar in appearance to Area 24, which is probably a UST.
24	4000	870 E, 1000-1040 N	Adjacent to a gas pump and presumably an underground tank.
25	350	840 E, 1010-1020 N	Distorted by Area 24 anomalies.

Table 5-1			Page 3 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
26	250	930 E, 1050-1070 N	Weak. Affected by proximity to building.
27*	400	930 E, 990-1010 N	Anomalies not well shaped. Affected by nearby building.
28	300	880 E, 970-990 N	Anomalies not well shaped. Weak on other line.
29	250	840 E, 980-990 N	Weak.
30*	350	860 E, 930-940 N	
31	200	790 E, 920-930 N	Weak. Anomaly on line 800 E is less than 100 gammas.
32*	300	780 E, 890-910 N	West end affected by proximity to fence.
33	400	690 E, 960-970 N	Beneath access road. Full extent of area may not be defined because of fence.
34	220	690 E, 940-950 N	Beneath access road. Full extent of area may not be defined because of fence.
35	240	930 E, 925-940 N	
36*	2000	970 E, 910-920 N	Edge of asphalt.
37	600	950 E, 890-910 N	Adjacent lines are much weaker.
38*	600	1020 E, 900-910 N	Metal can observed at this location.

Table 5-1			Page 4 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
39	300	940 E, 830-850 N	Poorly formed anomalies.
40*	280	1120 E, 920-930 N	Distinct anomalies. Near edge of asphalt.
41	120	1110 E, 860-870 N	Weak, poorly formed anomalies.
42*	400	1110 E, 830-840 N	Concrete and other rubble present.
43*	400	1050 E, 780-790 N	Grassy area.
44	200	1160 E, 720-740 N	Somewhat distorted by fence at 700 N.
45*	400	1300 E, 810-820 N	Other weak single line anomalies in vicinity.
46*	1100	1240 E, 760-770 N	Other anomalies in this area 200 gammas or less.
47	1000	1390 E, 920-940 N	A suspected underground utility line is beneath grid line 1380 or 1390 E. It may be a power line servicing the light pole at 1390 E, 870 N.
48	300	1370 E, 970-980 N	Noisy data due to proximity to transformer and suspected underground utility.
49*	1700	1390 E, 800-810 N	A suspected underground utility line is beneath grid line 1380 or 1390 E. It may be a power line servicing the light pole at 1390 E, 870 N.
50	220	1450 E, 810-820 N	Eastern extent not defined because of proximity to power line.

Table 5-1			Page 5 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
51*	700	860x N, 810-820 E	Data are noisy and interpretation is less certain.
52	700	740 E, 750-770 N	Fence crosses east end of area. Most anomalies are relatively wide, poorly formed and with multiple peaks.
53	400	750 E, 730-740 N	Possible distortion of anomalies by nearby fence.
54*	500	710 E, 700-710 N	Multiple peaks along each of the two lines of this area. Near DOE drum site.
55*	700	770 E, 660-670 N 780 E, 600-610 N	Multiple peaks along each of the lines. Two test pit locations are proposed because of the size of the area.
56*	1000	800 E, 690-700 N	Possible connected to Area 55.
57	250	850 E, 650-660 N	Weak.
58	190	820 E, 600-610 N	All anomalies less than 200 gammas.
59	250	760 E, 550-570 N	Mostly weak, poorly shaped anomalies.
60*	600	670 E, 580-600 N	Western extent not covered by survey. May originate in dirt/rubble pile beside ditch.
61	230	690 E, 480-490 N	Weak.
62	200	820 E, 510-520 N	Weak.

Table 5-1			Page 6 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
63	250	920 E, 510-520 N	Power line is nearby.
64	110	940 E, 530-540 N	Weak.
65	200	960 E, 520-530 N	Weak.
66	200	1060 E, 590-600 N	Weak.
67*	400	1180 E, 580-590 N	
68*	260	1210 E, 590-600 N	No data on line 1220.
69	300	1240 E, 600-620 N	Weak anomalies. Underground water line is suspected.
70	190	1220 E, 510-520 N	Weak, poorly shaped anomalies.
71*	1300	1440 E, 580-590 N	East end of area not defined.
72*	500	1370 E, 480-490 N	Possibly related to Area 73 and utility line.
73*	500	1370 E, 460-470 N	Corresponds in part to a dirt mound. Possibly related to Area 72. East end not well defined because of effect of presumed underground utility along grid line 1380 or 1390 E.
74	200	1260 E, 450-460 N	Along edge of access road.
75	400	1290 E, 350-360 N	Beneath access road. Length vs. width suggests underground utility line.

Table 5-1			Page 7 of 7
MULTIPLE LINE AREAS			
Area Number	**Maximum Anomaly Strength (Gammas)**	**Potential Test-Pit Location**	**Comments**
76*	600	1250 E, 310-320 N	Beside access road.
77	500	1390 E, 410-430 N	Anomalies may be due to assumed underground utility along grid line 1380 or 1390 E.
78	130	1370 E, 390-400 N	Weak.
79	130	1400 E, 360-370 N	Weak, poorly shaped anomalies. May be due to assumed underground utility along grid line 1380 or 1390 E.
80	150	1390 E, 340-350 N	Weak, poorly shaped anomalies. May be due to assumed underground utility along grid line 1380 or 1390 E.
81*	500	1380 E, 310-320 N	May be related to assumed underground utility along grid line 1380 or 1390 E.
82	200	1440 E, 320-330 N	Weak.

*Areas recommended for test pits.

Table 5-2			Page 1 of 4
SINGLE LINE AREAS			
Location of Anomaly Peak	**Anomaly Strength (Gammas)**	**Recommended for Test Pit (Y/N)**	**Comments**
900 E, 510 N	1400	Y	Possibly due to power line noise.
810 E, 1500 N	660	Y	In line with Area 6.
870 E, 1470 N	460	Y	Might be part of Area 7.
890 E, 910 N	400	Y	Corresponding low seen on Line 900 E.
960 E, 1820 N	380	Y	
1100 E, 660 N	310	Y	
1300 E, 860 N	300	Y	
740 E, 1170 N	300	Y	
820 E, 980 N	260	Y	Corresponding low seen on Line 830 E. Near DOE drum site.
830 E, 920 N	260	Y	
750 E, 490 N	250	Y	Corresponding low seen on adjacent line.
840 E, 870 N	240	Y	
1060 E, 820 N	210	Y	Corresponding low seen on Line 1070 E. Located on rubble pile.
1440 E, 520 N	-400	Y	Only anomalous low seen.
740 E, 610 N	440	N	Might be part of Area 55.
1190 E, 550 N	400	N	Near pole and near Areas 67 and 68.
1020 E, 850 N	380	N	Metal poles.
870 E, 1430 N	310	N	Near Area 9.
1080 E, 820 N	260	N	
1080 E, 870 N	260	N	
1160 E, 770 N	250	N	
850 E, 1580 N	250	N	
980 E, 630 N	240	N	
900 E, 1630 N	240	N	
730 E, 640 N	230	N	
1110 E, 780 N	230	N	

Table 5-2			Page 2 of 4
SINGLE LINE AREAS			
Location of Anomaly Peak	**Anomaly Strength (Gammas)**	**Recommended for Test Pit (Y/N)**	**Comments**
850 E, 900 N	220	N	
1220 E, 850 N	220	N	
930 E, 1770 N	220	N	Entire line is noisy.
750 E, 1120 N	210	N	
770 E, 1240 N	210	N	
1170 E, 540 N	200	N	In line with possible utility (Area 75).
800 E, 1020 N	200	N	
810 E, 960 N	200	N	
1300 E, 770 N	200	N	
840 N, 800 E	200	N	Skewed grid.
860 E, 1620 N	200	N	
750 E, 1010 N	190	N	
790 E, 710 N	190	N	
880 E, 650 N	180	N	
910 E, 890 N	180	N	
1000 E. 750 N	180	N	
930 E, 1250 N	180	N	
890 N, 720 E	180	N	Skewed grid.
860 N, 900 E	180	N	Skewed grid.
740 E, 560 N	170	N	
790 E, 950 N	170	N	
1080 E, 850 N	170	N	
1100 E, 890 N	170	N	
1180 E, 730 N	170	N	
900 E, 1260 N	170	N	
990 E, 540 N	160	N	
730 E, 470 N	150	N	
970 E, 550 N	150	N	

Table 5-2			Page 3 of 4
SINGLE LINE AREAS			
Location of Anomaly Peak	**Anomaly Strength (Gammas)**	**Recommended for Test Pit (Y/N)**	**Comments**
980 E, 510 N	150	N	
1200 E, 490 N	150	N	
750 E, 930 N	150	N	
900 E, 1380 N	150	N	
1090 E, 1930 N	150	N	
1230 E, 540 N	140	N	
990 E, 660 N	140	N	
990 E, 820 N	140	N	
1160 E, 800 N	140	N	
1440 E, 620 N	140	N	
680 E, 1200 N	140	N	
790 E, 1210 N	140	N	
820 E, 1530 N	140	N	
880 N, 880 E	140	N	Skewed grid.
1250 E, 490 N	130	N	
840 E, 940 N	130	N	
960 E, 760 N	130	N	
740 E, 1140 N	130	N	
740 E, 1290 N	130	N	
780 E, 1130 N	130	N	
860 N, 830 E	130	N	Skewed grid.
870 E, 1230 N	130	N	
860 E, 860 N	120	N	
1070 E, 650 N	120	N	
1140 E, 800 N	120	N	
1200 E, 890 N	120	N	
1210 E, 820 N	120	N	
1300 E, 790 N	120	N	
1440 E, 910 N	120	N	

Table 5-2			Page 4 of 4
SINGLE LINE AREAS			
Location of Anomaly Peak	**Anomaly Strength (Gammas)**	**Recommended for Test Pit (Y/N)**	**Comments**
730 E, 1360 N	120	N	
1050 E, 1870 N	120	N	
1090 E, 1970 N	120	N	
840 N, 760 E	120	N	Skewed grid.
670 E, 450 N	110	N	
760 E, 520 N	110	N	
740 E, 960 N	110	N	
1100 E, 800 N	110	N	
1260 E, 790 N	110	N	
1280 E, 790 N	110	N	
1320 E, 790 N	110	N	
810 E, 1550 N	110	N	
1090 E, 2010 N	110	N	
1250 E, 2030 N	110	N	
710 E, 440 N	100	N	
920 E, 570 N	100	N	
1040 E, 880 N	100	N	
1230 E, 320 N	-100	N	No corresponding high was observed.

5.2.1 North Area

The north area consists of a section of lawn as well as an asphalt parking area. A fenced storage area adjacent to the north side of the building was not investigated. A test line within the storage area indicated excessive interferences from an extensive reinforced concrete pad and a steel roof. A fence is present between the site and Highway 17. A truck was located at the north end of the area.

Three multiple-line areas have been identified, with 2 of them recommended for test pits. Both are within 20 feet of a manhole and the location of the underground utility should be confirmed.

5.2.2 West Parking Area

This entire area is asphalt covered. It is bounded on the east by the Sears building and the concrete parking area in front of the building. A chain barrier present along grid Line 880 east separates automobile parking from the truck access to the loading docks. Data suggests an underground utility (such as a water line) is present beneath the chain barrier. There is a fence along the south and west sides of this area. A storm sewer also crosses this area. Anomalies due to the storm sewer are not shown in the figures.

Nineteen multiple-line areas of buried metal have been interpreted beneath the west parking area. An underground utility line (in addition to the storm sewer) is suspected as causing some of the anomalies in Areas 9, 10, 11, 12 and 13. These areas, along with Area 7, also correspond closely with the location of a former drainage channel. Previous DOE investigations encountered drums in the vicinity of Areas 13 and 9.

Areas 17, 18, 19 and 21, along with several one-line anomalies fall within a relatively isolated grouping. This suggests that the buried material within the cluster might be related.

Area 14 is one of the strongest detected at the site but is not recommended for test pitting because of the likelihood that the anomaly is related to either the building or concrete pad in front of the loading docks.

5.2.3 South Parking Area

About two-thirds of this area is asphalt covered and the remainder is grass. A gas pump is present in the west portion of this area and large anomalies attributed to underground storage tanks were detected at either side of the pump. A power transformer and a fuel oil UST near the southeast corner of the building interfered with data in that area. Noisy data along grid lines 1380 and 1390 E indicate the presence of a buried utility there.

A large number of anomalies were detected beneath the asphalt in the west portion of this area (west of grid line 950 E). Many were single line anomalies and less than 300 gammas, indicating a scattering or relatively small amounts of metal. Area 23 anomalies are similar in strength and extent to Area 24 anomalies (probably an UST) and the anomalies over the concrete pad at the gas pump (assumed to be another UST and/or reinforcing bars in the concrete and not shown in the figure). Previous DOE investigations encountered a drum near a single line area recommended for follow-up at 820 E, 980 N (adjacent to Area 29).

Another grouping of anomalies, including Areas 41, 42 and 43, is located in an area of dirt piles and concrete and asphalt pieces. A similar grouping is centered around Area 45, except no rubble is present on the surface.

5.2.4 South Yard

The south yard consists of grassy areas, wooded areas and a swamp. The access road crosses this area. The survey over the swampy area was conducted with 20-foot line spacing in order to minimize the number of lines cut through the weeds and because it was difficult to survey this area. A part of the swamp (about 1 acre) could not be investigated at all because of deep perched water and relatively thick (3 feet) marsh deposits.

The portion of the south yard west of the access road contains the most extensive areas of buried metal on the Sears property. Area 55 is the single most extensive area of buried metal and covers an area about 100 feet by 40 feet. The nature of the anomalies indicate that metal is not evenly distributed throughout Area 55. DOE investigations encountered a drum in the vicinity of Area 54.

The grouping of anomalies around Areas 63, 64 and 65 are weak, with the exception of the single line anomaly recommended for further investigation (900 E, 510 N). They may be due to interferences from the nearby power line. Several anomalies are related to cultural features including light poles, hydrants, culverts and reflector poles. Underground utilities cross the area, but their locations are not well known. Areas 69 and 75 are suspected of being due to utilities. A suspected underground utility beneath grid line 1380 or 1390 may be the source of anomalies at Areas 72, 73, 77, 78, 79, 81 and 82. A gas and water line exist in this area.

5.3 Limitation of Results

Prioritization for follow-up investigations of the interpreted areas of buried metal should not be based only on geophysical data. Other factors, such as site history and visual observations, should also be considered. The magnetometer is sensitive enough to detect the anomaly associated with several drums to a depth of 20 feet. This depth is greater than the thickness of the overburden at the site. Because of the complex nature of the site and the existence of many cultural sources of interference, anomalies that were identified in some cases may not contain buried metal or appear

to be as extensive as shown on the map. Other locations that may contain minor amounts of buried metal may have been missed due to magnetic interferences from other nearby metal.

6.0 Discussion and Recommendations

Buried metal has been identified in 183 areas distributed around the site. The nature of the buried metal cannot be determined from the data and further investigations will be necessary. All of the interpreted areas shown in Figure 3 are believed to have buried metal present. Test pits are not recommended for follow-up at all locations because it is not necessary or practical to perform such a large number of test pits to adequately characterize the buried materials. Each area within a clustered group of anomalies should not require further investigation. Excavation of a limited number of areas within each cluster should be adequate to characterize the group as a whole.

Areas recommended for test pits have been selected based on several criteria:

- They are the most extensive areas.
- They contain the largest amplitude anomalies.
- Cultural features do not appear to significantly contribute to the anomalies in the area.
- Previous DOE investigations encountered one or more containers in the vicinity.

Areas that were not recommended for follow-up were generally not selected because:

- Other areas selected for follow-up were nearby.
- The anomalies were small, indicating only small amounts of metal are present.

The following approach is recommended for the test-pit program. All anomalies proposed for test pitting will be field screened with a metal detector before digging to correctly locate their position and extent and to help establish the presence of buried utilities. Anomalies that cannot be located with the metal detector will not be investigated further.

6.1 Test-Pit Program

Thirty six multiple-line areas and 14 single-line areas for a total of 50 areas, are recommended for the test-pit program on the Sears property. The areas are identified in Tables 5-1 and 5-2. Test pit locations to investigate the areas defined by multiple line anomalies are described in Table 5-1. Test pits to investigate the areas defined by single lines should start at the location given in Table 5-2 and extend north about 10 feet.

Excavation of the selected test pits should provide a representative characterization of the type of ferromagnetic materials buried at the site. If drums are found in any of the test pits, it will be assumed that drums may exist in the other nearby anomalous areas and further investigations in these areas will not be necessary. If drums are found, the need for additional monitoring well coverage will be evaluated based on analytical results from the test-pit program. If no drums are found, the possibility that this area is still a source of contamination will be evaluated by using groundwater quality data obtained from the existing and proposed monitoring wells located downgradient of this area.

If test pits in addition to the ones recommended above are required, then priority of the follow-up investigations should be based on the areal extent of the buried metal (an indication of volume), the strength of the magnetic anomalies, site history, and field observations. The test-pit program should concentrate on the strongest anomalies within the recommended test-pit areas, in order to characterize the type of materials that are producing the largest anomalies. The investigation should progress from those areas consisting of multiple-line anomalies to the areas defined by single-line anomalies. Single-line anomalies may be less significant as potential sources. The extent of the test pit will be sufficient to characterize the source of the magnetic anomaly. The test pit will target the strongest part of the anomaly.

TECHNICAL MEMORANDUM CH2M HILL

PREPARED FOR: Jeffrey Gratz/USEPA, Region II

PREPARED BY: Mary Kate Dwyer/CH2M HILL

COPIES: Jeffrey Bartlett/Stepan Company
Rick Ramuglia/Alliance

DATE: November 8, 1991

SUBJECT: Surface Geophysics Investigation--Stepan Property

PROJECT: NJO22948.ST.GP

1.0 Introduction

1.1 Purpose and Scope

A surface geophysical investigation was conducted at the Stepan Company (Stepan) in Maywood, New Jersey, from September 3 to September 12, 1991. The survey, performed as part of the Remedial Investigation at the site, was conducted over approximately 8.6 acres of open area around the facility. The remaining 10 acres were occupied by buildings, reinforced concrete surfaces, railroad tracks, or radiation restricted areas which prohibited the execution of the geophysical investigation. The survey was conducted by CH2M HILL personnel Don Johnson, Mary Kate Dwyer, Bob Jackson, and Joe Merchak.

The objectives of the geophysical investigation are to identify potential sources of chemical contamination. Specifically, the geophysical investigation was performed in an effort to locate and define abandoned ferromagnetic containers in the overburden of the Stepan property. Due to the nature of deposits at the Stepan site, a magnetic survey was determined to be the most effective geophysical method available. The magnetometer can identify areas of buried metal but cannot distinguish drums from other ferrous materials or determine whether there is chemical contamination present. Therefore, the results of the magnetometer investigation were used to select locations for test pits that will be used to characterize the buried material. The Stepan site has been filled with approximately 10 feet of material, and it is likely that other types of non-hazardous metal debris and old building material may be the cause of a significant number of anomalies identified at the site.

The geophysical investigation was performed in several steps. First a grid was established in the survey areas. A magnetometer was then used to collect and store the geophysical data along the survey lines. The raw data was transferred from the magnetometer to the computer and the data was then arranged in spreadsheet form.

The data were graphed and anomalies were identified. The locations of the source of the anomalies were interpreted and put on the base map. The anomalies that could not be explained by cultural features were evaluated to identify possible areas of buried metal.

This technical memorandum (TM) is organized into six sections and supplemented with five attachments. The remainder of this introduction presents an overview of the report organization. The magnetometer selected and the theory of magnetics is described in Section 2.0. Section 3.0 describes the procedures employed in the collection of the data. Section 4.0 describes the methods used to interpret the data. Section 5.0 presents the results of the survey, the interpretation of the data, and the limitations of the results. A map showing the location of buried metal is included as part of this interpretation. Finally, Section 6.0 discusses recommendations for use of the data. Attachment A contains letters from CH2M HILL to the United States Environmental Protection Agency (EPA) regarding the change in the magnetometer used for the survey. Attachment B contains profile plots of the data collected during the investigation. Attachment C contains letters from CH2M HILL and EPA regarding a change in interpretation procedures for the anomalous areas. Attachment D is a contour map of the total magnetic field that was prepared for the southwest portion of the site. Also provided in this attachment is the map superimposed with the outlined areas and explanations for all other anomalies not included within the areas. Attachment E is a cultural features map that shows the location of metal objects and other sources of interference at the site.

2.0 Magnetometer and Theory of Magnetics

2.1 Magnetometer

A GEM GSM-19G overhauser gradiometer was used for the magnetic investigation. This magnetometer is different from the Geometrics G866 originally proposed in the workplan. The change in method was presented to the EPA before the survey was performed. The change in method was approved by the EPA. The letters documenting the change in method, the technical rationale for the change, and the advantages of the GEM magnetometer are presented in Attachment A.

2.2 Theory of Magnetics

The GEM is a proton precession magnetometer that measures the magnitude of the earth's magnetic field and vertical magnetic gradient. The magnetic field measured by the magnetometer is the sum of the earth's field, fields due to geologic formations, and fields due to cultural features such as buildings, cars, and other ferrous metal. The vertical magnetic gradient is the difference between two simultaneous total field measurements made at different heights above the ground. The gradiometer sensor supplied with the GEM magnetometer consists of two sensors about 2 feet apart. The vertical gradient often provides higher resolution of magnetic anomalies and may allow the collection of useful data closer to buildings than do total field measurements.

The magnetometer sensor consists of a small container filled with an organic, hydrogen-rich fluid, such as kerosene. A current is passed through a coil wrapped around the container, causing the molecules of the liquid to orient themselves with the inducing magnetic field produced by the coil. When the current to the coil is stopped, the molecules realign (precess) themselves with the earth's magnetic field. A small electric field, produced by the molecules as they realign themselves, is measured by the coil around the container and amplified. The strength of this field is proportional to the strength of the earth's magnetic field. The electronic circuitry of the magnetometer converts the measured field to a digital display of the magnetic field strength.

The earth's field varies during the day due to solar activity, and these variations are called diurnal drift. Diurnal drift is measured by periodic readings at a base station and removed from the data if necessary. Diurnal drift is usually negligible compared to anomalies caused by the presence of buried metal. The vertical gradient is not subject to diurnal drift.

Anomalies due to geologic formations can be and often are negligible, depending on the nature of the formation and its depth. Geologic anomalies are usually related to igneous or metamorphic rock formations. These rock types are not present near the surface at the Maywood site. Therefore, the anomalies at Stepan are not thought to be geologic.

3.0 Field Procedures

3.1 Establishing the Grid

Survey grids were established over the Stepan property before geophysical data was collected in areas clear of mature vegetation and building structures. Four separate grids were established over various portions of the site to facilitate data collection over the site. This was necessary because the buildings prevented a continuous grid to be established easily. The grids were placed to allow accurate and systematic sampling and to cite the positions of anomalies in the field. The grids were based on two perpendicular base lines formed by placing markers (pin flags or spray paint) at regular intervals across the site by using a compass and measuring tape. The east-west base lines for the major survey grid were parallel to the southern property fenceline. The east-west base lines for the northeast and eastern part of the property were parallel to West Hunter Avenue. The east-west lines for the two smaller grid areas were established over minor localized areas, as shown in Figure 1. Grid north was oriented approximately 50 degrees east of true north for the major site grid and varied by several degrees for the other grids.

Figure 1 shows the extent of the survey and the grid coordinates. East-west base lines were marked at 20-foot intervals. The east-west base lines corresponded with the 100-foot intervals along the north-south grid lines.

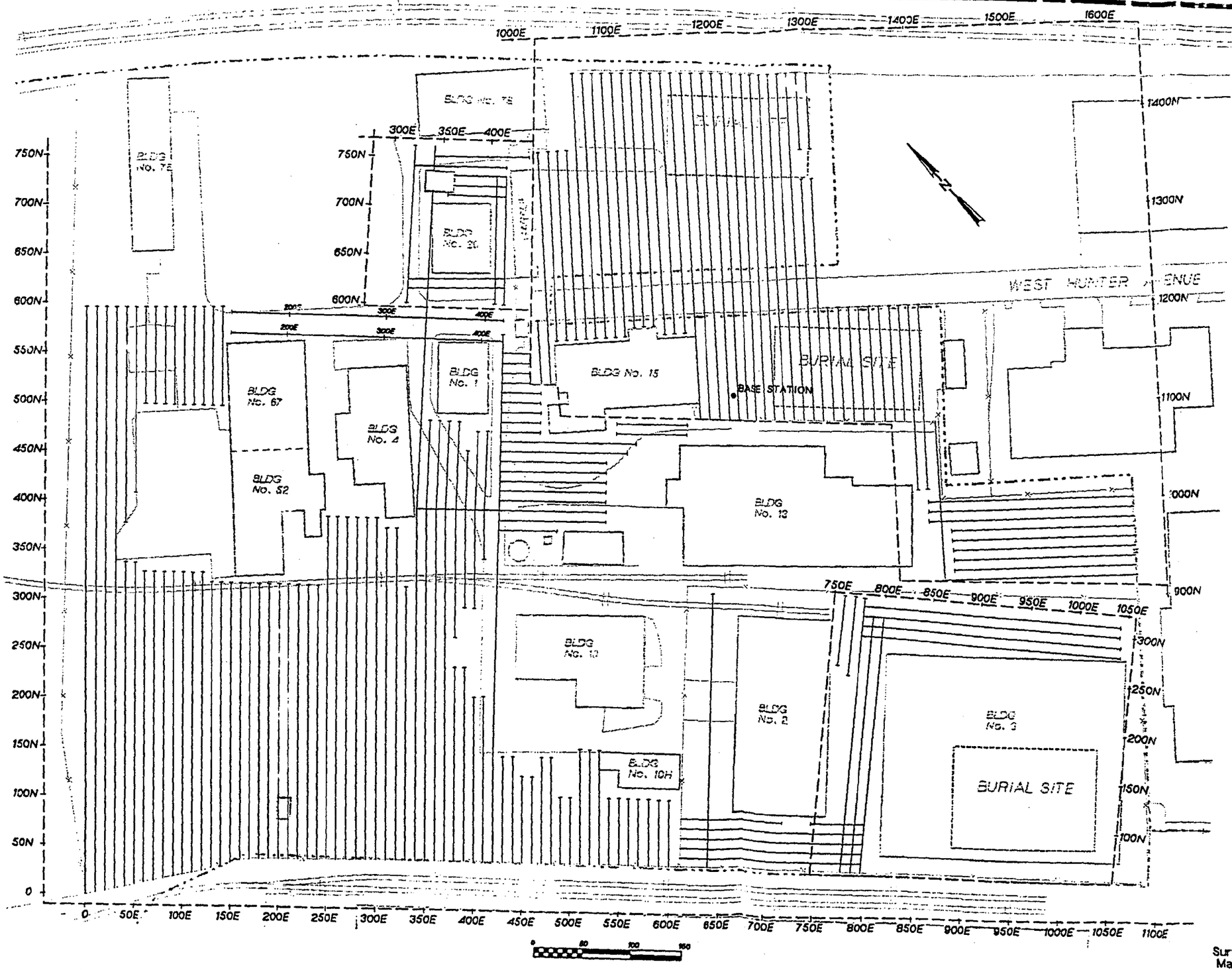


FIGURE 1
Survey Grid And Extent Of Magnetometer Investigation
STEPAN COMPANY
MAYWOOD, NJ

CH2MHILL

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3.2 Base Station

A base station was established to determine the amount of diurnal (daily) drift in the earth's magnetic field. The station was located in an area free from magnetic anomalies and away from any detectable sources of interference (Figure 1). Readings were taken throughout the day in the morning, midday, and late afternoon and were entered into the field notes. On all days, the drift was less than 100 gammas. No drift correction was performed because the maximum observed drift of 100 gammas is small compared to the anomalies recorded over the site, which typically measured from greater than 500 gammas up to 5,000 gammas.

3.3 Magnetometer Survey

Data were systematically collected at 10-foot intervals along the north-south grid lines across most of the site. In areas that could not be surveyed in the north-south direction, data was collected at 10-foot intervals along east-west lines. The line number and direction, station number, and the station spacing were programmed into the magnetometer at the start of each grid line. Data were collected and stored in the internal memory of the instrument. Measurements were also recorded in the field logbook at regular intervals. Locations of features such as roads, fences, power lines, utilities, buildings, and scrap metal that may have affected the readings were recorded. Data from the digital logger were transferred to a computer on a daily basis, and the data were reviewed to determine if they were properly recorded and were checked for consistency with the data manually recorded in the logbook. Data were then processed as described in Section 4.0.

No functional checks are prescribed in the operator's manual for the magnetometer. Initial readings were compared against the total magnetic intensity predicted for the area, as shown on a map that was provided with the equipment. Equipment was determined to be responsive by taking measurements at different locations and noting that the measurements did not remain constant.

4.0 Interpretation Procedures

4.1 Magnetic Data

Preparation and plotting of the magnetometer data consisted of the following steps. The data were received in XYZ format, imported into a spreadsheet, and rearranged into a spreadsheet format with the columns representing survey lines and the rows representing station positions along the line. Profile plots of magnetic intensity and vertical magnetic gradient were prepared (Attachment B). The profile plots were used to interpret the location of the source of each anomaly.

A magnetic anomaly normally consists of both a magnetic high and a magnetic low. The pair of high and low values is due to the magnetic field induced in the buried metal by the earth's field. The magnetic field induced in the buried object has both a north and south magnetic pole, which results in a net increase and decrease, respectively, in the measured total field. In the northern hemisphere, the magnetic high is on the south side of the source and the low is on the north side. The source of the anomaly is interpreted as extending from the peak of the magnetic high to the lowest value north of the high. The high/low pairs are not always well-defined due to nearby interferences and grid line orientation. Professional judgement is required in delineating magnetic sources. An anomaly was chosen if it was recognizable over the same station interval on both the total field and the vertical gradient profiles.

Once an anomaly was identified, the interpreted location of the source of the anomaly was transferred to the base map. A contour map of total magnetic field was generated for the southwest corner of the site, because of the large number of anomalies in this area. The contour map illustrates the relationship between anomalies on adjacent lines and also shows which anomalies should be grouped together.

Many geophysical constraints and potential magnetic interferences are present on the Stepan property and were described in the workplan. As was stated in the workplan, the combined effect of magnetic interferences from buildings, utilities, and other features present at the Stepan site could not be predicted before the survey. These combined interferences affect the anomaly amplitude required before an anomaly is recognizable. After the data were reviewed on the profiles and anomalies plotted on the base map, it was determined that a different approach (i.e., anomaly amplitude) would be necessary for interpretation of the data. This approach was brought to the EPA's attention. The letters included in Attachment C document the correspondence between CH2M HILL and EPA.

Ordinarily at a site free of buildings and other cultural features, a 100 gamma anomaly, as stated in the workplan, would be recognizable and considered significant. However, because of the large amount of anomalies with large amplitude and areal extent identified at the site, this approach is no longer practical for the Stepan property. With respect to the anomalies encountered and the geophysical constraints present at the site, only anomalies greater than 500 gammas have been identified as anomalous areas. However, anomalies less than 500 gammas were plotted on the base map, as was stated in the workplan.

5.0 Results of Investigation

5.1 Buried Metal

The extent of the magnetometer survey conducted at Stepan is shown in Figure 1. Magnetic data are presented in Attachment B. Figure 2 presents the locations that are interpreted to contain buried metal. Attachment D is the contour map of total magnetic field intensity for the particularly complicated southwest area of the site. Attachment D-1 illustrates how the anomalies on the contour map were used to define the location and shape of anomalous areas.

Ninety-two areas of buried metal have been identified at the site (Figure 2). The areas shown on the map have been identified based on magnetic anomalies that are not a result of known sources. Anomalies resulting from known sources, such as power lines, surface metal, or buildings have not been shown unless other buried material is suspected based upon the amplitude of the anomaly. The location of metal objects and other sources of interference encountered at the site are shown in the cultural features map (Attachment E). Note that a qualitative attempt was made to prioritize the anomalies by numerical order based on the areal extent of the interpreted location of the source and the amplitude of magnetic anomalies within the area.

5.2 Distribution of Anomalous Areas

A brief description of the site with respect to the areas of buried metal is given in the following summary. Figure 3 shows where the anomalous areas are located.

5.2.1 Southwest Site

The southwest portion of the site contains a majority of the interpreted areas. Approximately 51 areas of buried metal have been located. Anomalies in this area range from less than 500 gammas to greater than 5000 gammas. One of the strongest magnetic anomalies in this areas is located directly south of the railroad tracks (Area 2). It appears to be related to Area 28. The anomalies in both of these areas are located on the same magnetic high seen on the total field contour map (Attachment D). Steel tanks and other metal structures near the eastern portion of the southwest area may be affecting the strong anomalies that define the delineated areas located here.

5.2.2 Northwest Site

The northwest portion of the site contains 16 areas of buried metal. Magnetic anomalies in this portion of the site range from less than 500 to 2000 gammas. The large reinforced concrete pad located in the central portion of this area may be affecting the amplitude of nearby anomalies.

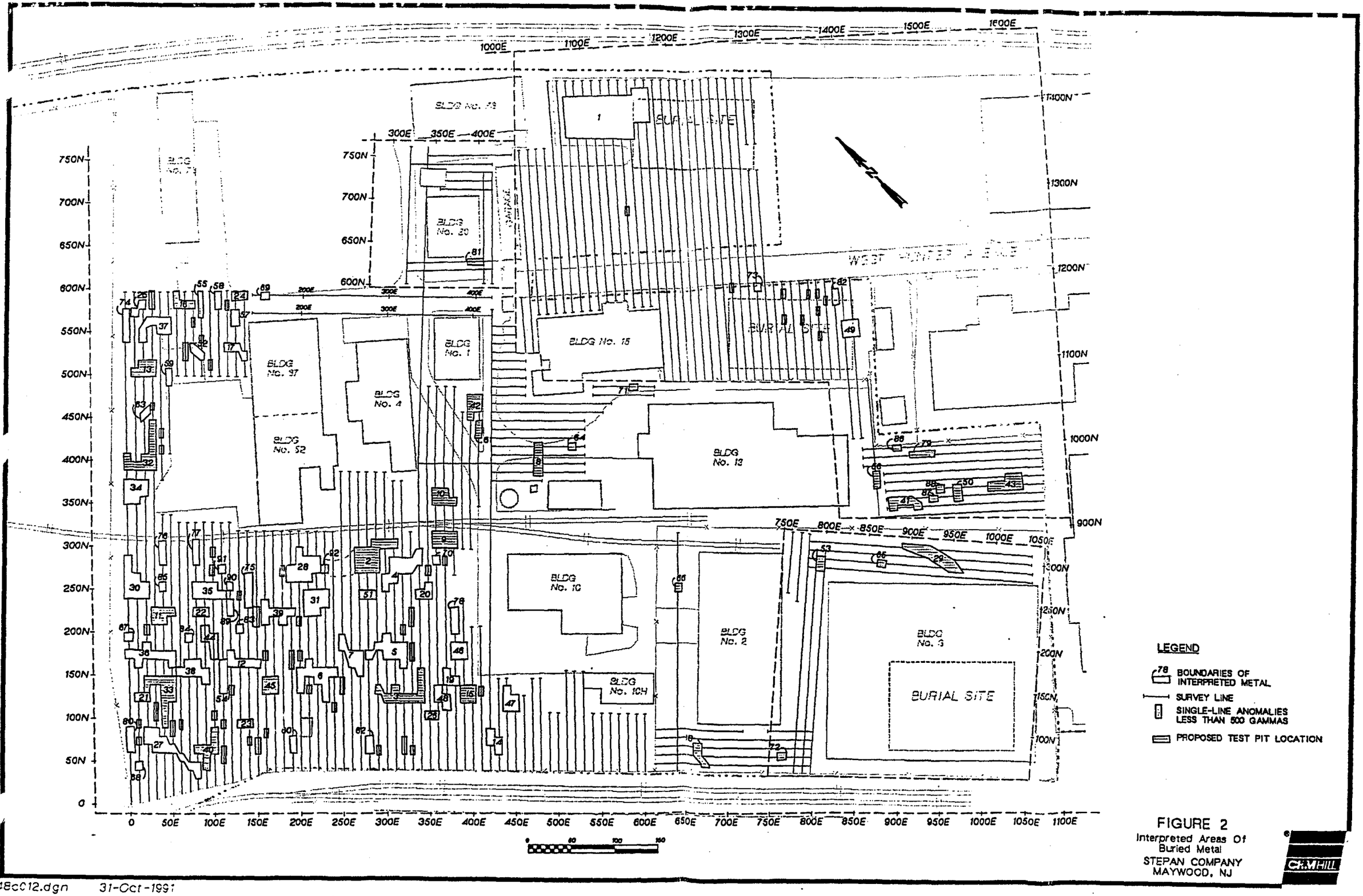

FIGURE 2
Interpreted Areas Of Buried Metal
STEPAN COMPANY
MAYWOOD, NJ

CH2M HILL

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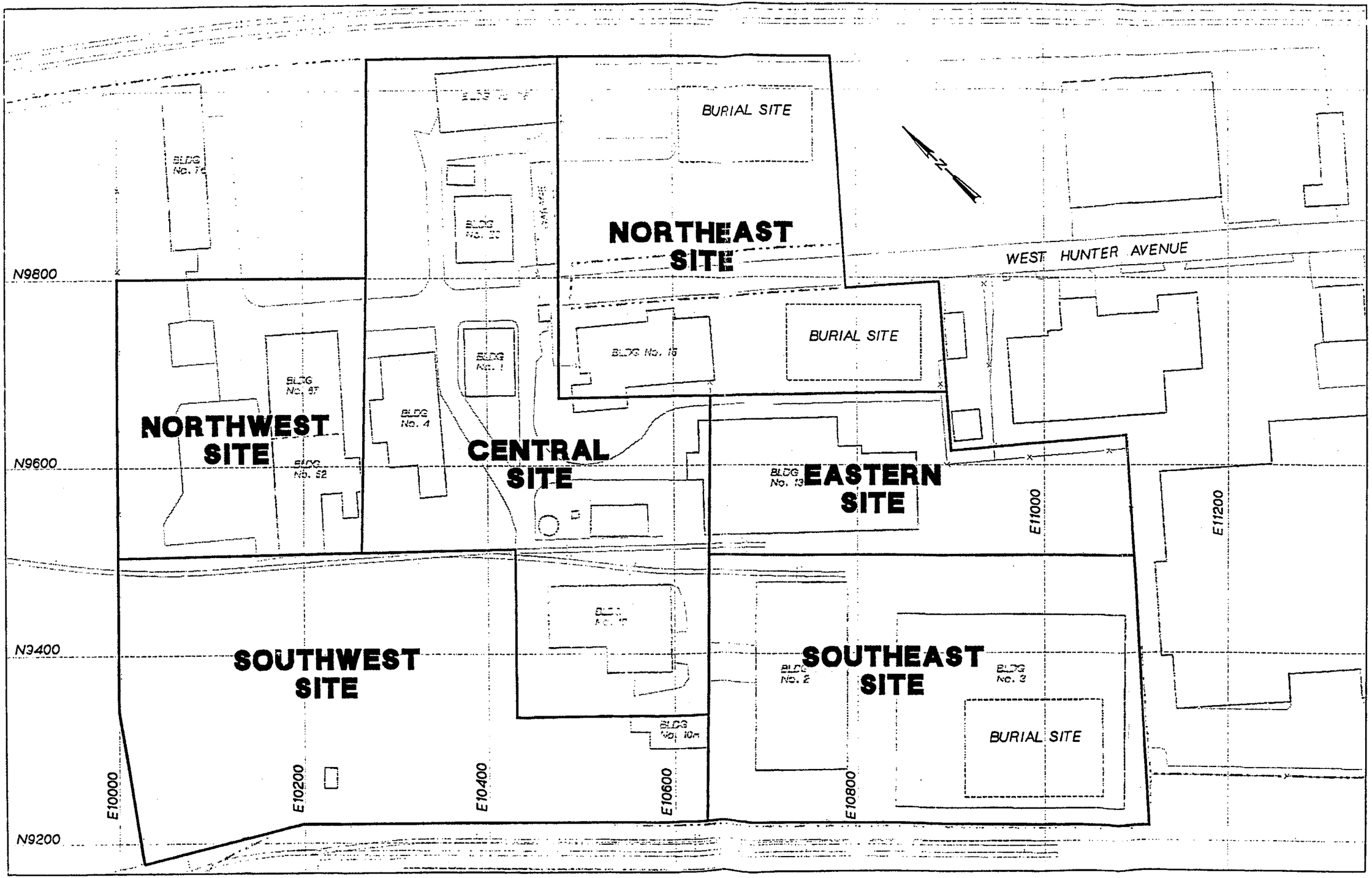

FIGURE 3
Site Location Index
STEPAN COMPANY
MAYWOOD, NJ

CH2M HILL

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5.2.3 Central Site

The central portion of the site contains seven areas of buried metal. Anomalies range from less than 500 to 4000 gammas. Large interferences (i.e., buildings) and metal objects prevented collection of usable data over a large portion of this area.

5.2.4 Northeast Site

The northeast portion of the site contains the largest and one of the strongest anomalies found at the site (Area 1). Area 1 is thought to be the burial site in the north parking lot, because of its shape and extensive area. Three smaller anomalous areas in the eastern part of the front lawn, and a number of weaker anomalies, were observed and appear to be related to the burial site located below this area.

5.2.5 Eastern Site

The eastern portion of the site contains 8 areas of buried metal. Anomalies range from 500 to 5,000 gammas in this area. Most of the areas are believed to be located over a portion of the railroad that used to exist in this area that is now covered with asphalt.

5.2.6 Southeast Site

The southeast portion of the site contains six areas of buried metal. Anomalies in this area range from 500 to 2,000 gammas. The smaller anomalies may be related to utility lines that run through the area. Area 29 is believed to be located over a portion of the railroad line that used to exist in this area that is now covered with asphalt.

5.3 Categories of Buried Metal

The areas of buried metal were divided into four different categories, based on their overall extent, magnetic amplitude, and whether there were cultural features that may have contributed to the anomaly at the surface.

5.3.1 Category 1 Areas

Category 1 areas are characterized by multiple-line anomalies that are greater than 500 gammas and are not influenced by any observed surface or subsurface source of interference. These areas are listed in Table 5-1 along with their site location, their strength, and test-pit locations. Potential test-pit locations given in these tables indicate the strongest source of the anomaly and the location to begin digging if the source is investigated.

Table 5-1 Category 1 Areas*				
Area	Site Location	Strength of Anomalies (gammas)	Potential Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
1	NE Site	>500-5,000	1170 E, 1420-1430 N	Related to Radiation Burial site.
2***	SW Site	>1,000-5,000	280-290 E, 280-300 N	Recommended test-pit location.
3***	SW Site	>1,000-2,000	320-330 E, 120-130 N	Recommended test-pit location.
4	SW Site	>1,000-2,000	310-330 E, 270-290 N	Between Area 2 and Area 9.
5	SW Site	>500-1,000	310 E, 170-180 N	Close to Area 3.
6	SW Site	>500-2,000	240 E, 150-160 N; 210 E, 150 N	Anomaly not well-defined. May be several smaller sources. Close to Area 45.
7	SW Site	>1,000-5,000	250 E, 180-200 N	Area adjacent to transformer pad. Close to Area 3.
8	Central Site	>2,000-5,000	410 N, 470-480 E	Suspected location of abandoned underground storage tank.
9***	SW Site	>2,000	360 E, 300-320 N	Recommended test-pit location.
10***	Central Site	<500-2,000	360 E, 350-370 N	Recommended test-pit location.
11***	SW Site	>500-1,500	40-50 E, 210-220 N	Recommended test-pit location.
12	SW Site	<500-1,500	130 E, 160-170 N	Close to Area 45.
13***	NW Site	>500-2,000	10 E, 500-510 N	Recommended test-pit location.
14	SW Site	>1,000-2,000	430 E, 60-70 N	Possible powerline/rubble interference. Close to Area 15.
15***	SW Site	>2,000	390-400 E, 120-130 N	Recommended test-pit location.
16***	NW Site	>500-2,000	580 N, 50-60 E	Recommended test-pit location.
17	NW Site	<500-1,000	140 E, 520-530 N	Adjacent to building structure. Weak response. Close to Area 16.
18***	SE Site	>500	60 N, 660-670 E	Recommended test-pit location.
19	SW Site	>2,000	370 E, 140-150 N	Adjacent to Area 15.

Table 5-1
Category 1 Areas*

Area	Site Location	Strength of Anomalies (gammas)	Potential Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
20	SW Site	>500	340 E, 240-250 N	Weak response. Close to Area 9.
21	SW Site	1,000-1,500	10 E, 120-130 N	Adjacent to Area 33.
22	SW Site	500-1,000	80 E, 220-230 N	Weak response. Limited extent. Close to Area 11.
23	SW Site	>500	130-140 E, 90-100 N	Weak response. Limited extent. Close to Area 40.
24	NW Site	>500	130 E, 590-600 N	Weak response. Close to Area 16.
25	NW Site	>500	10 E, 570-580 N	Weak response. Close to Area 16.
26	SW Site	>1,000	350 E, 100-110 N	Between Area 3 and Area 15.

*Multiple-line anomalies greater than 500 gammas not influenced by cultural sources.
**Recommendations based on amplitude of anomalies, areal extent and location of areas, and the nature of magnetic high and low pairs on magnetic contour map.
***Recommended test-pit location.

5.3.2 Category 2 Areas

Category 2 areas consist of multiple-line anomalies that are greater than 500 gammas and may be influenced by a source of interference at the surface. These areas are shown in Table 5-2. The cultural feature that may have contributed to the magnetic field is also listed.

5.3.3 Category 3 Areas

Category 3 areas are classified as single-line anomalies greater than 500 gammas that are located in an area where no source of interference is present. These areas are listed in Table 5-3.

5.3.4 Category 4 Areas

Category 4 areas are described as single line anomalies greater than 500 gammas that may be influenced by the presence of a cultural feature. These areas are shown in Table 5-4. The cultural feature that may have contributed to the magnetic field is also listed.

5.4 Limitation of Results

Prioritization for followup investigations of the interpreted areas of buried metal should not be based only on geophysical data. Other factors, such as site history and visual observations, should also be considered. The instrument is sensitive enough to see the anomaly associated with several drums to a depth of 20 feet. This depth is greater than the thickness of the overburden at the site. Because of the complex nature of the site and the existence of many cultural sources of interference, anomalies that were identified in some cases may not contain buried metal or appear to be as extensive as they are shown on the map. Other locations that may contain minor amounts of buried metal may have been missed due to magnetic interferences from known or unknown sources.

6.0 Discussion and Recommendations

Buried metal has been identified in 92 areas distributed around the site. The largest concentration of areas is in the western portion of the site, particularly in the south. The nature of the buried metal cannot be determined from the data and further investigations will be necessary. Only anomalies that exceeded 500 gammas were identified as anomalous areas. Even though there were many sources of interference at the site, a large number of anomalies were identified and comprise the interpreted areas of buried metal. Anomalies less than 500 gammas were insignificant in comparison to the selected areas and many may be caused by surface features or related to the larger anomalies.

Table 5-2
Category 2 Areas*

Area	Site Location	Strength of Anomalies (gammas)	Cultural Feature	Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
27	SW Site	<500-1,000	rubble, scrap metal	20 E, 70-90 N; 70 E, 40-50 N	Anomaly not well-defined. Adjacent to Area 40 and Area 33.
28	SW Site	1,000-2,000	building foundation	220 E, 270-280 N	Close to Area 2. May be related to same source as Area 2.
29***	SE Site	3,000-4,000	RR tracks, drums	300 N, 920-930 E	Recommended test-pit location.
30	SW Site	>500-1,500	monitoring well, fence	10 E, 250-270 N	Close to Area 11.
31	SW Site	>500-1,000	foundation edge, scrap metal	210 E, 240-250 N	Close to Area 2.
32***	NW Site	>1,000-2,000	reinforced concrete	10-20 E, 390-410 N	Recommended test-pit location.
33***	SW Site	>1,000-2,000	rubble	30-40 E, 140-150 N	Recommended test-pit location.
34	NW Site	>1,000	fence, metal plate	20 E, 360-380 N	Adjacent to Area 32.
35	SW Site	>1,000-2,000	foundation, drum	100 E, 240-260 N	Close to Area 11.
36	SW Site	>500-1,000	rubble	30 E, 170-180 N	Between Area 11 and Area 33.
37	NW Site	>500-2,000	reinforced concrete	40 E, 550-570 N	Between Area 13 and Area 16.
38	SW Site	>500-1,000	rubble	60-70 E, 150-160 N	Adjacent to Area 33.
39	SW Site	>1,000-2,000	rubble	180 E, 210-230 N	Close to Area 45.
40***	SW Site	>500-1,000	scrap metal, rubble	90-100 E, 60 N	Recommended test-pit location.
41***	Eastern Site	>2,000	RR tracks	940 N, 1,440-1,450 E	Recommended test-pit location.
42***	Central Site	>2,000	loading ramp	400-410 E, 460-470 N	Recommended test-pit location.
43***	Eastern Site	>5,000	RR tracks	960 N, 1,560-1,580 E	Recommended test-pit location.
44	SW Site	>500-2,000	rubble, metal pipe	100 E, 170-180 N	Weak response. Between Area 11 and Area 45.

Table 5-2
Category 2 Areas*

Area	Site Location	Strength of Anomalies (gammas)	Cultural Feature	Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
45***	SW Site	>2,000-3,000	rebar, metal	160 E, 130-140 N	Recommended test-pit location.
46	SW Site	>2,000-3,000	near tanks	390 E, 170-190 N	Close to Area 15.
47	SW Site	>1,000-2,000	near fence; tank	440 E, 110-130 N	Weak response. Close to Area 15.
48	SW Site	>1,000-2,000	dumpster	360 E, 120-130 N	Adjacent to Area 3 and Area 15.
49	NE Site	>500	edge of burial site	1390-1400 E, 1,120-1,140 N	Related to Radiation Burial site.
50***	Eastern Site	>500-2,000	RR tracks	940 N, 1,500-1,510 E	Recommended test-pit location.
51	SW Site	>500-1,000	monitor well	280 E, 240-250 N	Anomaly not well-defined. Close to Area 2.
52	NW Site	<500-500	reinforced concrete	80 E, 530-540 N	Weak response. Between Area 13 and Area 16.
53***	SE Site	undetermined	building	280-290 N, 790-800 E	Recommended test-pit location.

*Multiple-line anomalies greater than 500 gammas not influenced by cultural sources.
**Recommendations based on amplitude of anomalies, areal extent and location of areas, observed cultural features, and the nature of magnetic high and low pairs on magnetic contour map.
***Recommended test-pit location.

Table 5-3 Category 3 Areas*			
Area	Site Location	Strength of Anomalies (gammas)	Test-Pit Location
54	SW Site	>500	110 E, 130-150 N
55	NW Site	>500	90 E, 590-600 N
56**	Eastern Site	1500	1410 E, 950-970 N
57	NW Site	>1000	130 E, 560-580 N
58	NW Site	>1000	110 E, 580-590 N
59	NW Site	>1000	50 E, 490-500 N
60	SW Site	>500	not recommended
61**	Central Site	>500	410 E, 430-440 N
62	SW Site	>500	not recommended
63	NW Site	>500	20 E, 450-460 N
64**	Central Site	>1000	420 N, 510-520 E
65**	SE Site	>1000	290 N, 860-870 E
66**	SE Site	>1000	640 E, 250-260 N
67	SW Site	>500	0 E, 190-200 N
68	SW Site	>500	not recommended
69	NW Site	>500	590 N, 150-160 E
70	SW Site	>500	360 E, 280-290 N
71**	NE Site	>500	490 N, 580-590 E
72**	SE Site	>500	60 N, 760-770 E
73**	NE Site	>500	1,290, 1,190-1,200 N

*Single-line anomalies greater than 500 gammas not influenced by a cultural source
**Recommended test-pit location

Table 5-4 Category 4 Areas*				
Area	Site Location	Strength of Anomalies (gamma)	Cultural Feature	Test Pit Location
74	NW Site	>1000	fenceline	OE, 540-550 N
75	SW Site	>1000	foundation, rebar	140 E, 230-260 N
76	SW Site	>2000	foundation	40 E, 280-290 N
77	SW Site	>1000	foundation	80 E, 280-290 N
78	SW Site	>2000	tank farm	380 E, 200-210 N
79**	Eastern Site	>1000	fenceline	990 N, 1,460-1,480 E
80	SW Site	>2000	fenceline	OE, 60-80 N
81**	North Central	>2000	building	620 N, 390-410 E
82	NE Site	>500	edge of burial site	not recommended
83	SW Site	>2000	metal pipe, rubble	130 E, 200-210 N
84	SW Site	>1000	rubble	70 E, 190-200 N
85	SW Site	>1000	foundation edge	40 E, 250-260 N
86**	Eastern Site	>2000	fenceline	1000 N, 1,430-1,440 E
87**	Eastern Site	>1000	RR tracks	940 N, 1,470-1,480 E
88**	Eastern Site	>1000	RR tracks	950 N, 1,480-1,490 E
89	SW Site	>500	gravel road	120 E, 220-240 N
90	SW Site	>500	foundation	120 E, 250-260 N
91	SW Site	>500	foundation	110 E, 270-280 N
92	SW Site	>500	scrap metal	230 E, 270-280 N

*Single-line anomalies greater than 500 gammas influenced by a cultural source
**Recommended test-pit location

The following approach is recommended for the test-pit program. All anomalies proposed for test pitting will be field screened with a metal detector before digging to correctly locate their position and extent.

Sixty-seven anomalies greater than 500 gammas were identified in the southwest and northwest areas of the site (Figure 2). Of these total areas, 11 of the strongest and most extensive anomalous areas were selected from the Category 1 and Category 2 areas (Tables 5-1 and 5-2). Anomalies that were located above concrete foundations were not chosen primarily because of the age of the possible sources (assuming that these structures are at least 50 years old). The total field magnetic contour map was used to help identify the strongest areas (Attachment D). The anomalous areas were selected to provide reasonable areal coverage of the southwest and northwest portions of the site. Tables 5-1 and 5-2 present the justification for not recommending other Category 1 and Category 2 areas for the test-pit program.

6.1 Test-Pit Program

The following 11 areas are recommended for the test-pit program in the southwest and northwest portions of the site: Areas 2, 3, 9, 11, 13, 15, 16, 32, 33, 40, and 45.

CH2M HILL believes that these test pits will provide a representative characterization of the type of ferromagnetic materials buried at the site. We feel that additional test areas would not significantly add to the characterization of the ferrous material present. If drums are found in any of the test pits in the northwest and southwest areas, it will be assumed that drums may exist in the other anomalous areas and no further excavations will be necessary. If drums are found, the need for additional monitoring well coverage will be evaluated based on analytical results from the test-pit program. If no drums are found, the possibility that this area is still a source of contamination will be evaluated by using groundwater quality data obtained from the existing and proposed monitoring wells located downgradient of this area.

Anomalous areas located in other portions of the site will be investigated as follows. Areas 1, 49, 73, and 82 appear to be related to radiation burial areas at the site and will not be investigated through the test pit program because of health and safety concerns.

Areas 29, 41, 43, 50, 87, and 88 are believed to be related to old railroad tracks that are now covered with asphalt. These anomalies will be traced with a metal detector and the position of the tracks will be confirmed at several locations.

Area 8 is thought to be the location of an abandoned underground storage tank. This location should not be test pitted if the location of the abandoned tank can be confirmed in this area.

The fifteen remaining anomalous areas (10, 18, 42, 53, 56, 61, 64, 65, 66, 71, 72, 73, 79, 81, and 86) will be test pitted at the locations shown in Tables 5-1 through 5-4.

If test pits in addition to the ones recommended above are required, then priority of the followup investigations should be based on the areal extent of the buried metal (an indication of volume), the strength of the magnetic anomalies, site history, and field observations. The test-pit program should concentrate on the strongest anomalies within the recommended test-pit areas, in order to characterize the type of materials that are producing the largest anomalies. The investigation should progress from those areas consisting of multiple-line anomalies to the areas defined by single-line anomalies. Single-line anomalies may be less significant as potential sources.

The extent of the test pit will be sufficient to characterize the source of the magnetic anomaly. The test pit will target the strongest part of the anomaly. A test pit excavated within the locations provided in Tables 5-1 to 5-4 should be sufficient to characterize the anomaly.

TECHNICAL MEMORANDUM CH2MHILL

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DATE: March 4, 1992

SUBJECT: Surface Geophysics Investigation--Amended Stepan Property

PROJECT: NJO22948.ST.GP

1.0 Introduction

1.1 Purpose and Scope

A surface geophysical investigation was conducted at the Stepan Company (Stepan) in Maywood, New Jersey, from December 10 to December 12, 1991. The survey, performed as part of the Remedial Investigation at the site, was conducted over approximately 2.8 acres of property west of the Department of Energy (DOE)/Stepan fenceline (Figure 1). The survey was conducted by CH2M HILL personnel Mary Kate Dwyer and Joe Merchak.

The objectives of the geophysical investigation are to identify potential sources of chemical contamination. Specifically, the geophysical investigation was performed in an effort to locate and define abandoned ferromagnetic containers in the overburden of the Stepan property. Due to the nature of deposits at the Stepan site, a magnetic survey was determined to be the most effective geophysical method available. The magnetometer can identify areas of buried metal but cannot distinguish drums from other ferrous materials or determine whether there is chemical contamination present. Therefore, the results of the magnetometer investigation were used to select locations for test pits that will be used to characterize the buried material. The Stepan site has been filled with approximately 10 feet of material, and it is likely that other types of non-hazardous metal debris and old building material may be the cause of a significant number of anomalies identified at the site.

The geophysical investigation was performed in several steps. First a grid was established in the survey areas. A magnetometer was then used to collect and store the geophysical data along the survey lines. The raw data was transferred from the magnetometer to the computer and the data was then arranged in spreadsheet form.

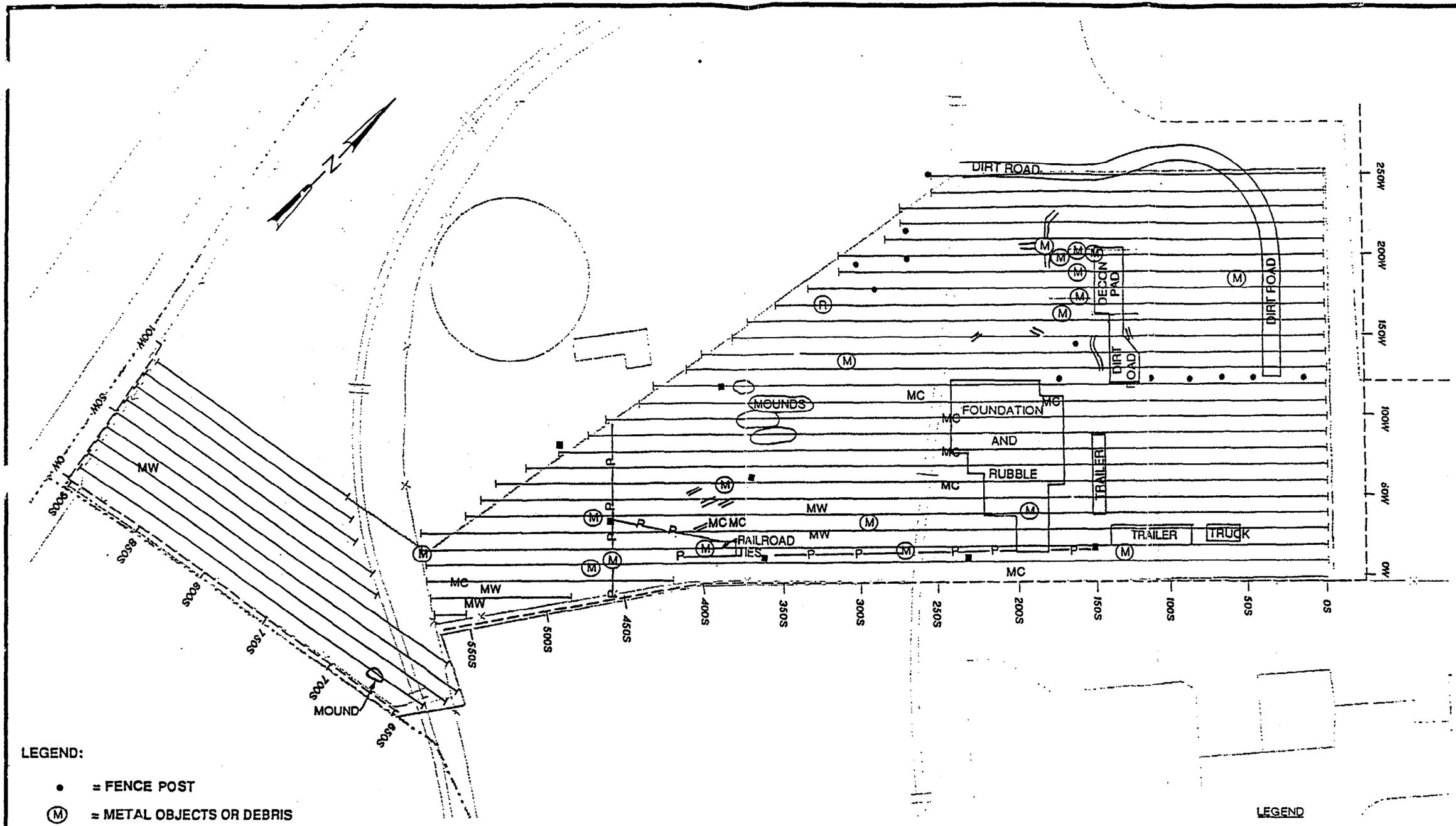


Figure 1
AMMENDED
STEPAN PROPERTY
CULTURAL FEATURES MAP

Survey Grid and Extent of Magnetometer Investigation
Cultural Features Map
STEPAN COMPANY
MAYWOOD, NJ

CH2MHILL

The data were graphed and anomalies were identified. The locations of the source of the anomalies were interpreted and put on the base map. The anomalies that could not be explained by cultural features were evaluated to identify possible areas of buried metal.

This technical memorandum (TM) is organized into six sections and supplemented with three attachments. The remainder of this introduction presents an overview of the report organization. The magnetometer selected and the theory of magnetics is described in Section 2.0. Section 3.0 describes the procedures employed in the collection of the data. Section 4.0 describes the methods used to interpret the data. Section 5.0 presents the results of the survey, the interpretation of the data, and the limitations of the results. A map showing the location of buried metal is included as part of this interpretation. Finally, Section 6.0 discusses recommendations for use of the data. Attachment A contains letters from CH2M HILL to the United States Environmental Protection Agency (EPA) regarding the change in the magnetometer used for the survey. Attachment B contains profile plots of the data collected during the investigation. Attachment C contains letters from CH2M HILL and EPA regarding a change in interpretation procedures for the anomalous areas.

2.0 Magnetometer and Theory of Magnetics

2.1 Magnetometer

A GEM GSM-19G overhauser gradiometer was used for the magnetic investigation. This magnetometer is different from the Geometrics G866 originally proposed in the workplan. The change in method was presented to the EPA before the survey was performed. The change in method was approved by the EPA. The letters documenting the change in method, the technical rationale for the change, and the advantages of the GEM magnetometer are presented in Attachment A.

2.2 Theory of Magnetics

The GEM is a proton precession magnetometer that measures the magnitude of the earth's magnetic field and vertical magnetic gradient. The magnetic field measured by the magnetometer is the sum of the earth's field, fields due to geologic formations, and fields due to cultural features such as buildings, cars, and other ferrous metal. The vertical magnetic gradient is the difference between two simultaneous total field measurements made at different heights above the ground. The gradiometer sensor supplied with the GEM magnetometer consists of two sensors about 2 feet apart. The vertical gradient often provides higher resolution of magnetic anomalies and may allow the collection of useful data closer to buildings than do total field measurements.

The magnetometer sensor consists of a small container filled with an organic, hydrogen-rich fluid, such as kerosene. A current is passed through a coil wrapped around the container, causing the molecules of the liquid to orient themselves with the inducing magnetic field produced by the coil. When the current to the coil is stopped, the

molecules realign (precess) themselves with the earth's magnetic field. A small electric field, produced by the molecules as they realign themselves, is measured by the coil around the container and amplified. The strength of this field is proportional to the strength of the earth's magnetic field. The electronic circuitry of the magnetometer converts the measured field to a digital display of the magnetic field strength.

The earth's field varies during the day due to solar activity, and these variations are called diurnal drift. Diurnal drift is measured by periodic readings at a base station and removed from the data if necessary. Diurnal drift is usually negligible compared to anomalies caused by the presence of buried metal. The vertical gradient is not subject to diurnal drift.

Anomalies due to geologic formations can be and often are negligible, depending on the nature of the formation and its depth. Geologic anomalies are usually related to igneous or metamorphic rock formations. These rock types are not present near the surface at the Maywood site. Therefore, the anomalies at Stepan are not thought to be geologic.

3.0 Field Procedures

3.1 Establishing the Grid

Survey grids were established over the Stepan property before geophysical data was collected. Two separate grids were established to facilitate data collection on the property owned by Stepan. One grid was established for data collected north of the southern DOE fenceline and the other grid was placed south of this fenceline. The grids were placed to allow accurate and systematic sampling and to cite the positions of anomalies in the field. The grids were based on two perpendicular base lines formed by placing markers (pin flags or spray paint) at regular intervals across the site by using a compass and measuring tape. The north-south base lines for the major survey grid were parallel to the DOE fenceline. The north-south lines for the smaller grid was established parallel to the fenceline east of the south survey area. Grid north was oriented approximately 50 degrees east of true north for the major site grid and approximately 80 degrees east of true north for the smaller grid area.

Figure 1 shows the extent of the survey and the grid coordinates. East-west base lines were marked at 20-foot intervals. The east-west base lines corresponded with the 100-foot intervals along the north-south grid lines. The location of metal objects and other sources of interference at the site are also shown in Figure 1.

3.2 Base Station

A base station was established to determine the amount of diurnal (daily) drift in the earth's magnetic field. The station was located in an area free from magnetic anomalies and away from any detectable sources of interference. Readings were taken

throughout the day in the morning, midday, and late afternoon and were entered into the field notes. On all days, the drift was less than 30 gammas. No drift correction was performed because the maximum observed drift of 30 gammas is small compared to the anomalies recorded over the site, which typically measured from greater than 500 gammas up to 5,000 gammas.

3.3 Magnetometer Survey

Data were systematically collected at 10-foot intervals along the north-south grid lines across most of the site. In areas that could not be surveyed in the north-south direction, data was collected at 10-foot intervals along east-west lines. The line number and direction, station number, and the station spacing were programmed into the magnetometer at the start of each grid line. Data were collected and stored in the internal memory of the instrument. Measurements were also recorded in the field logbook at regular intervals. Locations of features such as roads, fences, power lines, utilities, buildings, and scrap metal that may have affected the readings were recorded. Data from the digital logger were transferred to a computer on a daily basis, and the data were reviewed to determine if they were properly recorded and were checked for consistency with the data manually recorded in the logbook. Data were then processed as described in Section 4.0.

No functional checks are prescribed in the operator's manual for the magnetometer. Initial readings were compared against the total magnetic intensity predicted for the area, as shown on a map that was provided with the equipment. Equipment was determined to be responsive by taking measurements at different locations and noting that the measurements did not remain constant.

4.0 Interpretation Procedures

4.1 Magnetic Data

Preparation and plotting of the magnetometer data consisted of the following steps. The data were received in XYZ format, imported into a spreadsheet, and rearranged into a spreadsheet format with the columns representing survey lines and the rows representing station positions along the line. Profile plots of magnetic intensity and vertical magnetic gradient were prepared (Attachment B). The profile plots were used to interpret the location of the source of each anomaly.

A magnetic anomaly normally consists of both a magnetic high and a magnetic low. The pair of high and low values is due to the magnetic field induced in the buried metal by the earth's field. The magnetic field induced in the buried object has both a north and south magnetic pole, which results in a net increase and decrease, respectively, in the measured total field. In the northern hemisphere, the magnetic high is on the south side of the source and the low is on the north side. The source of the anomaly is interpreted as extending from the peak of the magnetic high to the

lowest value north of the high. The high/low pairs are not always well-defined due to nearby interferences and grid line orientation. Professional judgement is required in delineating magnetic sources. An anomaly was chosen if it was recognizable over the same station interval on both the total field and the vertical gradient profiles. Once an anomaly was identified, the interpreted location of the source of the anomaly was transferred to the base map.

Many geophysical constraints and potential magnetic interferences are present on the Stepan property and were described in the workplan. As was stated in the workplan, the combined effect of magnetic interferences from old building foundations, utilities, and other features present at the Stepan site could not be predicted before the survey. These combined interferences affect the anomaly amplitude required before an anomaly is recognizable in areas of high magnetic intensity. After the data were reviewed on the profiles and anomalies plotted on the base map, it was determined that a different approach (i.e., anomaly amplitude) would be necessary for interpretation of the data. This approach was brought to the EPA's attention. The letters included in Attachment C document the correspondence between CH2M HILL and EPA.

Ordinarily, at a site free of construction debris and other cultural features, a 100 gamma anomaly, as stated in the workplan, would be recognizable and considered significant. However, because of the large amount of anomalies with large amplitude and areal extent identified at the site, the investigation approach is focused on the strongest and largest anomalies. Multiple-line anomalies less than 500 gammas were also identified as anomalous areas, west of the DOE fenceline. All anomalies greater than 100 gammas were plotted on the base map, when they could be recognized, as was stated in the workplan.

5.0 Results of Investigation

5.1 Buried Metal

The extent of the magnetometer survey conducted on the amended Stepan property is shown in Figure 1. Magnetic data are presented in Attachment B. Figure 2 presents the locations that are interpreted to contain buried metal.

Forty areas of buried metal have been identified at the site (Figure 2). The areas shown on the map have been identified based on magnetic anomalies that are not a result of known sources. Anomalies resulting from known sources, such as power lines, surface metal, or buildings have not been shown unless other buried material is suspected based upon the amplitude of the anomaly. The location of metal objects and other sources of interference encountered at the site are shown in Figure 1. Note that a qualitative attempt was made to prioritize the anomalies by numerical order based on the areal extent of the interpreted location of the source and the amplitude of magnetic anomalies within the area.

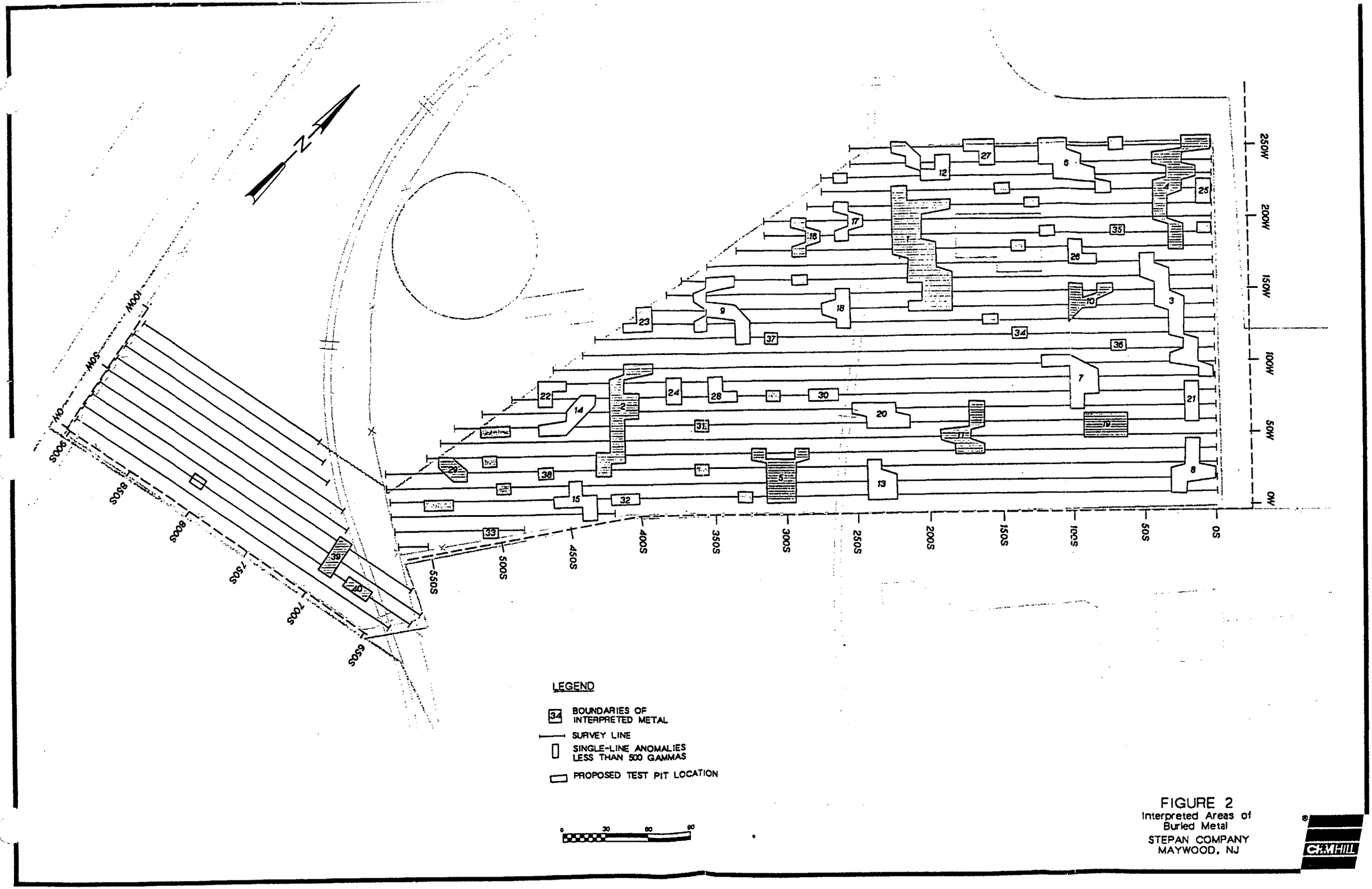


FIGURE 2
Interpreted Areas of Buried Metal
STEPAN COMPANY
MAYWOOD, NJ

CH2MHILL

20-49c026.rgn 22-Jan-1992

5.2 Categories of Buried Metal

The areas of buried metal were divided into four different categories, based on their overall extent, magnetic amplitude, and whether there were cultural features that may have contributed to the anomaly at the surface.

5.2.1 Category 1 Areas

Category 1 areas are characterized by multiple-line anomalies that are greater than 500 gammas and are not influenced by any observed surface or subsurface source of interference. These areas are listed in Table 5-1 along with their site location, their strength, and test-pit locations. Potential test-pit locations given in these tables indicate the strongest source of the anomaly and the location to begin digging if the source is investigated.

5.2.2 Category 2 Areas

Category 2 areas consist of multiple-line anomalies that are greater than 500 gammas and may be influenced by a source of interference at the surface. These areas are shown in Table 5-2. The cultural feature that may have contributed to the magnetic field is also listed.

5.2.3 Category 3 Areas

Category 3 areas are classified as single-line anomalies less than 500 gammas that may or may not be influenced by a cultural feature. These areas are listed in Table 5-3.

5.2.4 Category 4 Areas

Category 4 areas are described as multiple-line anomalies less than 500 gammas that may or may not be influenced by the presence of a cultural feature. These areas are shown in Table 5-4. The cultural feature that may have contributed to the magnetic field is also listed.

5.3 Limitation of Results

Prioritization for followup investigations of the interpreted areas of buried metal should not be based only on geophysical data. Other factors, such as site history and visual observations, should also be considered. The instrument is sensitive enough to see the anomaly associated with several drums to a depth of 20 feet. This depth is greater than the thickness of the overburden at the site. Because of the complex nature of the site and the existence of many cultural sources of interference, anomalies that were identified in some cases may not contain buried metal or appear to be as extensive as

Table 5-1
Category 1 Areas*

Area	Strength of Anomalies (gammas)	Potential Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
1***	500-5,000	160 W, 200-210 S	Recommended test-pit location.
2***	225-1,825	70 W, 410-420 S	Recommended test-pit location.
3	300-1,100	130 W, 20-30 S	Similar in strength and orientation as Area 4. Between Area 4 and Area 19.
4***	100-1,100	240 W, 30-40 S	Recommended test-pit location.
5***	275-2,000	10 W, 290-310 S	Recommended test-pit location.
6	150-1,000	230 W, 90-110 S	Between Area 4 and Area 1.
7	500-725	90 W, 90-100 S	Adjacent to Area 19.
8	200-900	20 W, 10-30 S	Similar in strength and orientation as Area 4. Close to Area 19.
10***	200-1,800	100 S, 140-150 W	Recommended test-pit location.
12	200-650	230 W, 180-200 S	Adjacent to Area 1. Strength of anomaly much weaker than Area 1.
19***	2,400	60 W, 60-90 S	Recommended test-pit location.
21	100-500	70 W, 10-20 S	Similar in strength and orientation as Area 4. Close to Area 19.
24	400-950	90 W, 370-380 S	Close to Area 2. Strength of anomaly much weaker than Area 2.
25	250-1,050	220 W, 0-10 S	Adjacent to Area 4. Related to Area 4.

* Multiple-line anomalies greater than 500 gammas not influenced by cultural sources.
** Recommendations based on amplitude of anomalies, aerial extent and location of areas, site history, and areal photographs.
*** Recommended test-pit location.

Table 5-2 Category 2 Areas*				
Area	Strength of Anomalies (gammas)	Observed Cultural Feature	Potential Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
11***	300-2,350	Foundation, rubble	40 W, 160-180 S	Recommended test-pit location.
13	350-2,000	Electric pole, powerline, rubble	20 W, 220-240 S	Close to Area 11. Near old building foundation.
14	200-1,175	Powerline	80 W, 430-440 S	Adjacent to Area 2.
15	150-1,500	Metal pipe, powerline	10 W, 450-460 S	Similar to strength and orientation to Area 2. Adjacent to Area 2.
16***	575-2,000	Fence post	190 W, 270-280 S	Recommended test-pit location.
17	300-3,500	Railroad	200 W, 240-250 S	Close to Area 16. Strength of anomaly may be affected by railroad.
18	300-1,175	Railroad	130 W, 250-260 S	Close to Area 16. Strength of anomaly may be affected by railroad.
20	1,875-3,200	Rubble, reinforced concrete	60 W, 210-240 S	Close to Area 11. Located on former building foundation.
22	625-800	Powerline	80 W, 460-470 S	Close to Area 2. Located on trade water sewer.
23	100-625	Metal pole	130 W, 390-410 S	Weaker in strength and similar in orientation to Area 2. Adjacent to Area 2.

* Multiple-line anomalies greater than 500 gammas that may be influenced by a cultural source.
** Recommendations based on amplitude of anomalies, aerial extent and location of areas, observed cultural features, site history, and areal photographs.
*** Recommended test-pit location.

Table 5-3
Category 3 Areas*

Area	Strength of Anomalies (gammas)	Observed Cultural Feature	Potential Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
30	1,825	None	80 W, 260-280 S	Close to Area 5.
31***	2,300	Pole	60 W, 350-360 S	Recommended test-pit location.
32	1,050	Fenceline, powerline, railroad ties	10 W, 400-420 S	Similar in strength and orientation to Area 2. Adjacent to Area 2.
33	1,250	Fence	10 E, 500-510 S	Close to Area 2. Located over sewer line.
34	525	Dirt road	120 W, 130-140 S	Adjacent to Area 10.
35	600	None	190 W, 60-70 S	Between Area 4 and Area 10.
36	700	None	110 W, 60-70 S	Between Area 19 and Area 10.
37	525	None	120 W, 300-310 S	Between Area 16 and Area 5.
38	900	Powerline, pole and guywire	30 W, 460-470 S	Between Area 2 and Area 29. Located over trade water sewer and a sewer line.
40***	625	None	20 W, 660-680 S	Recommended test-pit location.

* Single-line anomalies greater than 500 gammas that may or may not be influenced by a cultural source.
** Recommendations based on amplitude of anomalies, aerial extent and location of areas, observed cultural features, site history, and areal photographs.
*** Recommended test-pit location.

Table 5-4 Category 4 Areas*				
Area	Strength of Anomalies (gammas)	Observed Cultural Feature	Potential Test-Pit Location	Justification for Not Recommending Area As a Test-Pit Location**
9	125-300	None	120 W, 320-330 S	Between Area 16 and Area 2. Weak anomaly.
26	200-400	None	180 W, 90-100 S	Adjacent to Area 10. Weak anomaly.
27	175-425	None	240 W, 150-160 S	Close to Area 1. Weak anomaly.
28	225	Surface mound	90 W, 340-350 S	Between Area 5 and Area 2. Weak anomaly.
29***	175-375	None	30 W, 520-530 S	Recommended test-pit location.
39***	150-325	Train car	20 W, 690-700 S	Recommended test-pit location.

* Single- or multiple-line anomalies less than 500 gammas that may or may not be influenced by a cultural source.
** Recommendations based on amplitude of anomalies, aerial extent and location of areas, observed cultural features, site history, and areal photographs.
*** Recommended test-pit location.

they are shown on the map. Other locations that may contain minor amounts of buried metal may have been missed due to magnetic interferences from known or unknown sources.

6.0 Discussion and Recommendations

Buried metal has been identified in 40 areas west of the DOE fenceline. The largest concentration of areas is north of the southern DOE fenceline. Numerous building structures were formerly located in this area. These buildings can be seen on aerial photographs to occupy most of the area north of the DOE fenceline. Numerous anomalies located here appear to correspond with former building locations. Buried demolition debris that was generated when the structures were leveled is probably the source of most of these anomalies. However, the nature of the buried metal cannot be determined from the data and further investigations will be necessary. Only anomalies that exceeded 500 gammas, or multiple-line anomalies less than 500 gammas, were identified as anomalous areas. Single-line anomalies less than 500 gammas were insignificant in comparison to the selected areas and some may be caused by surface features or related to the larger anomalies.

The following approach is recommended for the test-pit program. All anomalies proposed for test pitting will be field screened with a metal detector before digging to correctly locate their position and extent.

Forty areas of buried metal comprised of anomalies greater than 100 gammas were identified on Stepan property west of the DOE fenceline (Figure 2). Of these total areas, 12 areas are recommended for the test-pit investigation. Nine of the strongest and most extensive anomalous areas were selected from the Category 1 through Category 4 areas for test-pitting north of the DOE fenceline (Tables 5-1 through 5-4). Area 29 was selected in the southern portion of the major grid area for areal coverage and to characterize the source of a weaker anomalous area (Table 5-4). Anomalies that were located above concrete foundations were not chosen primarily because of the age of the possible sources (assuming that these structures are at least 50 years old). The anomalous areas were selected to provide reasonable areal coverage of the amended property. Two areas of buried metal were recommended for test-pitting south of the DOE fenceline. These areas were recommended because it appeared that buildings were never present in this area. Tables 5-1 through 5-4 present the justification for not recommending other Category 1 through Category 4 areas for the test-pit program.

6.1 Test-Pit Program

The following 12 areas are recommended for the test-pit program on the amended Stepan property: Areas 1, 2, 4, 5, 10, 11, 16, 19, 29, 31, 39, and 40.

CH2M HILL believes that these test pits will provide a representative characterization of the type of ferromagnetic materials buried at the site. We feel that additional test areas would not significantly add to the characterization of the ferrous material present. If drums are found in any of the test pits on the amended Stepan property, it will be assumed that drums may exist in the other anomalous areas and no further excavations will be necessary. If drums are found, the need for additional monitoring well coverage will be evaluated based on analytical results from the test-pit program. If no drums are found, the possibility that this area is still a source of contamination will be evaluated by using groundwater quality data obtained from the existing monitoring wells located downgradient of this area.

If test pits in addition to the ones recommended above are required, then priority of the followup investigations should be based on the areal extent of the buried metal (an indication of volume), the strength of the magnetic anomalies, site history, and field observations. The test-pit program should concentrate on the strongest anomalies within the recommended test-pit areas, in order to characterize the type of materials that are producing the largest anomalies. The investigation should progress from those areas consisting of multiple-line anomalies to the areas defined by single-line anomalies. Single-line anomalies may be less significant as potential sources.

The extent of the test pit will be sufficient to characterize the source of the magnetic anomaly. The test pit will target the strongest part of the anomaly. A test pit excavated within the locations provided in Tables 5-1 to 5-4 should be sufficient to characterize the anomaly.

PREPARED FOR: Jeffrey Gratz/USEPA, Region II

PREPARED BY: Mary Kate Dwyer/CH2M HILL

COPIES: Jeffrey Bartlett/Stepan Company
Rick Ramuglia/Alliance

DATE: December 10, 1991

SUBJECT: Surface Geophysics Investigation--Vicinity Properties

PROJECT: NJO22948.ST.GP

1.0 Introduction

Surface geophysical investigations (magnetometer surveys) were conducted on the properties adjacent to Stepan Company as part of a Remedial Investigation. These properties are DeSaussure, Federal Express, Gulf, Sunoco, and AMP Realty (former Hunter Douglass property). All properties are located in Maywood, New Jersey. The lot and block numbers referred to in the description of each property have changed from those contained in the workplan. The surveys were conducted by CH2M HILL personnel, Don Johnson, Mary Kate Dwyer, Bob Jackson, and Joe Merchak.

1.1 Scope

1.1.1 DeSaussure

A surface geophysical investigation was conducted at the DeSaussure property (Lot 17, Block 124) from September 12 to 13, 1991. The survey was conducted over approximately 1.7 acres of open area around the facility. The remaining 1.5 acres of the site was not investigated because it was occupied by the site building and mature woods on the north portion of the site.

1.1.2 Federal Express

A surface geophysical investigation was conducted at the Federal Express property (Lot 4, Block 124) from September 18 to 20, 1991. The survey was conducted over approximately 2.6 acres of open area around the facility. The remaining 1.4 acres of the site was not investigated because it was occupied by the warehouse building and a pond in the northern part of the site.

1.1.3 Gulf

A surface geophysical investigation was conducted on the Gulf property (Lot 1, Block 124) on October 29, 1991. The survey was conducted over approximately 0.38 acres of open area around the Gulf station building.

1.1.4 Sunoco

A surface geophysical investigation was conducted on the Sunoco property (Lot 2, Block 124) on October 31, 1991. The survey was conducted over approximately 1.0 acres of open area around the station. The remaining 0.3 acres was occupied by the gas station building, trucks, and other vehicles that were moved to the northern portion of the property.

1.1.5 AMP Realty

A surface geophysical investigation was conducted at the AMP Realty property (Lot 3, Block 124) from November 14 to 15, 1991. The survey was conducted over approximately 0.9 acres of open area around the facility. The remaining 0.3 acres of the property was not investigated because it was occupied by the site building and a drainage channel filled with surface water runoff on the eastern boundary of the property.

1.2 Purpose

The objective of the geophysical investigations is to identify potential sources of chemical contamination. Specifically, the geophysical investigations were performed in an effort to locate and define abandoned ferromagnetic containers in the overburden of the adjacent properties. Due to the nature of deposits in the Maywood area, a magnetic survey was determined to be the most effective geophysical method available. The magnetometer can identify areas of buried metal but cannot distinguish drums from other ferrous materials or determine whether there is chemical contamination present. Therefore, the results of the magnetometer investigations were used to select locations for test pits that will be used to characterize the buried material.

The geophysical investigations were performed in several steps. First a grid was established in the survey areas. A magnetometer was then used to collect and store the geophysical data along the survey lines. The raw data was transferred from the magnetometer to the computer and the data was then arranged in spreadsheet form.

The data were graphed and anomalies were identified. The locations of the source of the anomalies were interpreted and put on the base maps. The anomalies that could not be explained by cultural features were evaluated to identify possible areas of buried metal.

This technical memorandum (TM) is organized into six sections and supplemented with six attachments. The remainder of this introduction presents an overview of the report organization. The magnetometer selected and the theory of magnetics is described in Section 2.0. Section 3.0 describes the procedures employed in the collection of the data. Section 4.0 describes the methods used to interpret the data. Section 5.0 presents the results of the surveys, the interpretation of the data, and the limitations of the results. A map showing the location of buried metal is included as part of this interpretation. Finally, Section 6.0 discusses recommendations for use of the data. Attachment A contains letters from CH2M HILL to the United States Environmental Protection Agency (EPA) regarding the change in the magnetometer used for the survey. Attachment B contains profile plots of the DeSaussure data. Attachment C contains profile plots of the Federal Express data. Profile plots of the data for Gulf are contained in Attachment D. Attachment E contains profile plots of the Sunoco data. Attachment F contains profile plots of the AMP Realty data.

2.0 Magnetometer and Theory of Magnetics

2.1 Magnetometer

A GEM GSM-19G overhauser gradiometer was used for the magnetic investigations. This magnetometer is different from the Geometrics G866 originally proposed in the workplan. The change in method was presented to the EPA before the surveys were performed. The change in method was approved by the EPA. The letters documenting the change in method, the technical rationale for the change, and the advantages of the GEM magnetometer are presented in Attachment A.

2.2 Theory of Magnetics

The GEM is a proton precession magnetometer that measures the magnitude of the earth's magnetic field and vertical magnetic gradient. The magnetic field measured by the magnetometer is the sum of the earth's field, fields due to geologic formations, and fields due to cultural features such as buildings, cars, and other ferrous metal. The vertical magnetic gradient is the difference between two simultaneous total field measurements made at different heights above the ground. The gradiometer sensor supplied with the GEM magnetometer consists of two sensors about 2 feet apart. The vertical gradient often provides higher resolution of magnetic anomalies and may allow the collection of useful data closer to buildings than do total field measurements.

The magnetometer sensor consists of a small container filled with an organic, hydrogen-rich fluid, such as kerosene. A current is passed through a coil wrapped around the container, causing the molecules of the liquid to orient themselves with the inducing magnetic field produced by the coil. When the current to the coil is stopped, the molecules realign (precess) themselves with the earth's magnetic field. A small electric field, produced by the molecules as they realign themselves, is measured by the coil around the container and amplified. The strength of this field is proportional to the

strength of the earth's magnetic field. The electronic circuitry of the magnetometer converts the measured field to a digital display of the magnetic field strength.

The earth's field varies during the day due to solar activity, and these variations are called diurnal drift. Diurnal drift is measured by periodic readings at a base station and removed from the data if necessary. Diurnal drift is usually negligible compared to anomalies caused by the presence of buried metal. The vertical gradient is not subject to diurnal drift.

Anomalies due to geologic formations can be and often are negligible, depending on the nature of the formation and its depth. Geologic anomalies are usually related to igneous or metamorphic rock formations. These rock types are not present near the surface at the Maywood site. Therefore, the anomalies on the adjacent properties are not thought to be geologic.

3.0 Field Procedures

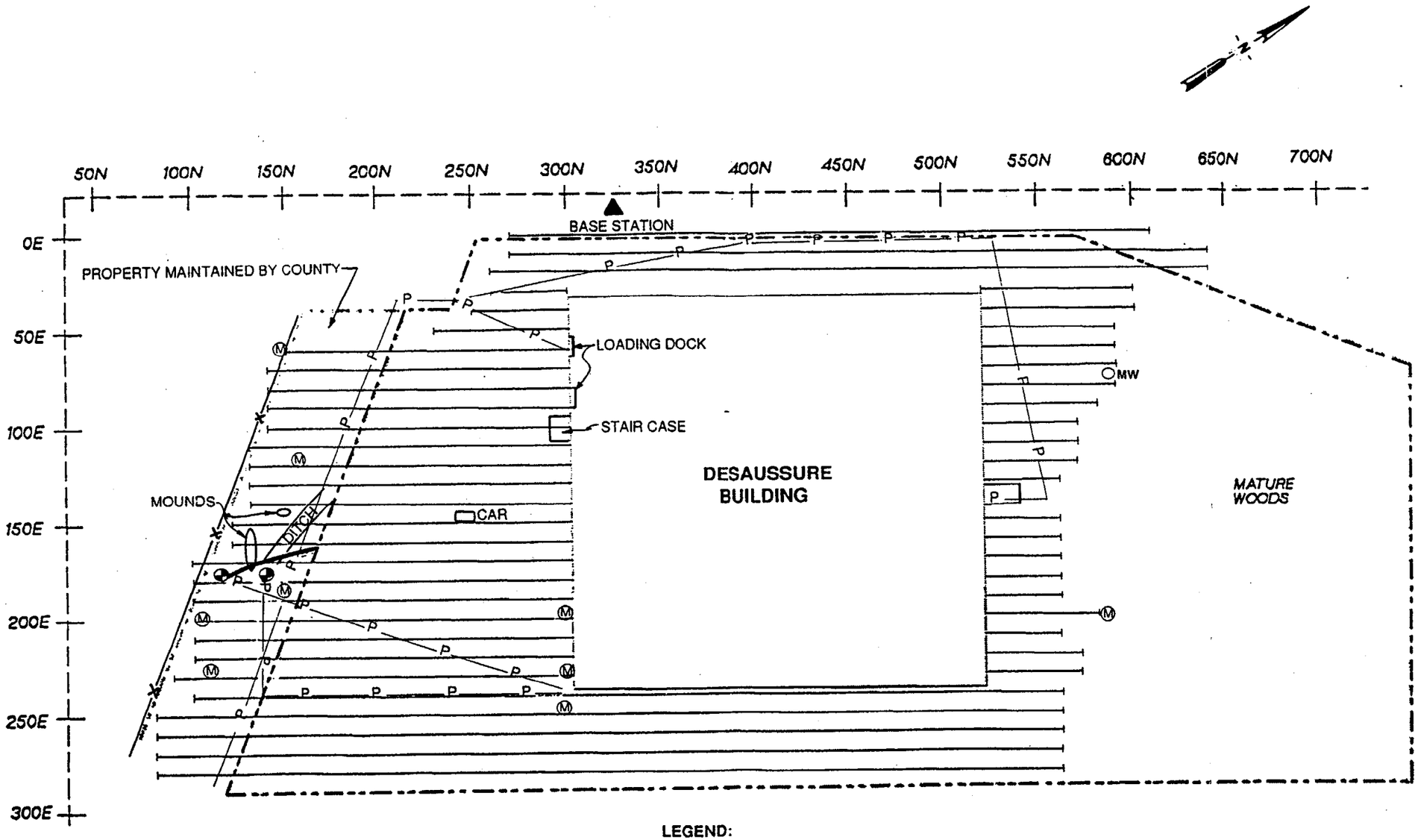
3.1 Establishing the Grid

Survey grids were established over the properties before geophysical data was collected in areas clear of mature vegetation and building structures. The grids were placed to allow accurate and systematic sampling and to cite the positions of anomalies in the field. The grids were based on two perpendicular base lines formed by placing markers (pin flags or spray paint) at regular intervals across the site by using a compass and measuring tape. The east-west base lines were marked at 20-foot intervals. The east-west base lines corresponded with the 100-foot intervals along the north-south grid lines. Grid north was oriented approximately 30 degrees east of true north for the major site grid on DeSaussure, 45 degrees east of true north on Federal Express, and 80 degrees east of true north on Gulf, Sunoco, and AMP Realty.

Figures 1 through 5 show the extent of the surveys and the grid coordinates on the DeSaussure, Federal Express, Gulf, Sunoco, and AMP Realty properties, respectively.

3.2 Base Station

A base station was established to determine the amount of diurnal (daily) drift in the earth's magnetic field. The station was located in an area free from magnetic anomalies and away from any detectable sources of interference. A base station was not established on Gulf, Sunoco, and AMP Realty properties due to the short duration of the surveys. Readings were taken throughout the day in the morning, midday, and late afternoon and were entered into the field notes. On all days, the drift was less than 100 gammas. No drift correction was performed because the maximum observed drift of 100 gammas is small compared to the anomalies recorded over the sites, which typically measured from greater than 200 gammas up to 3,000 gammas.



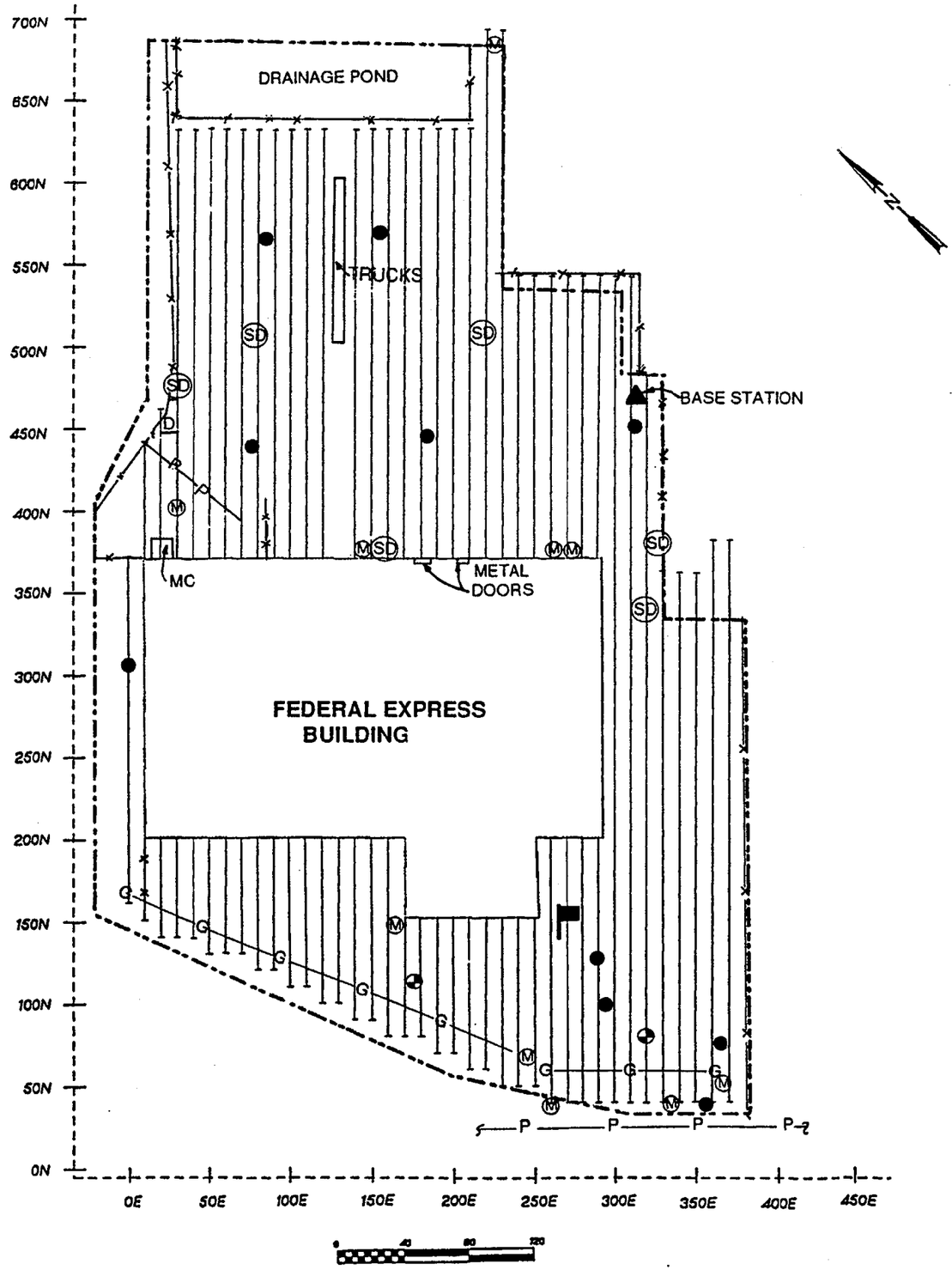
LEGEND:

- = SURVEY LINE
- = PROPERTY LINE
- = FENCE LINE
- M / Ⓜ = METAL OBJECTS OR DEBRIS
- P = POWER LINE
- = GUARD RAIL
- = MANHOLE
- MW = MONITORING WELL

Figure 1
SURVEY GRID AND EXTENT
OF MAGNETOMETER SURVEY
CULTURAL FEATURES MAP

DESAUSSURE PROPERTY
MAYWOOD, NEW JERSEY

CH2M HILL



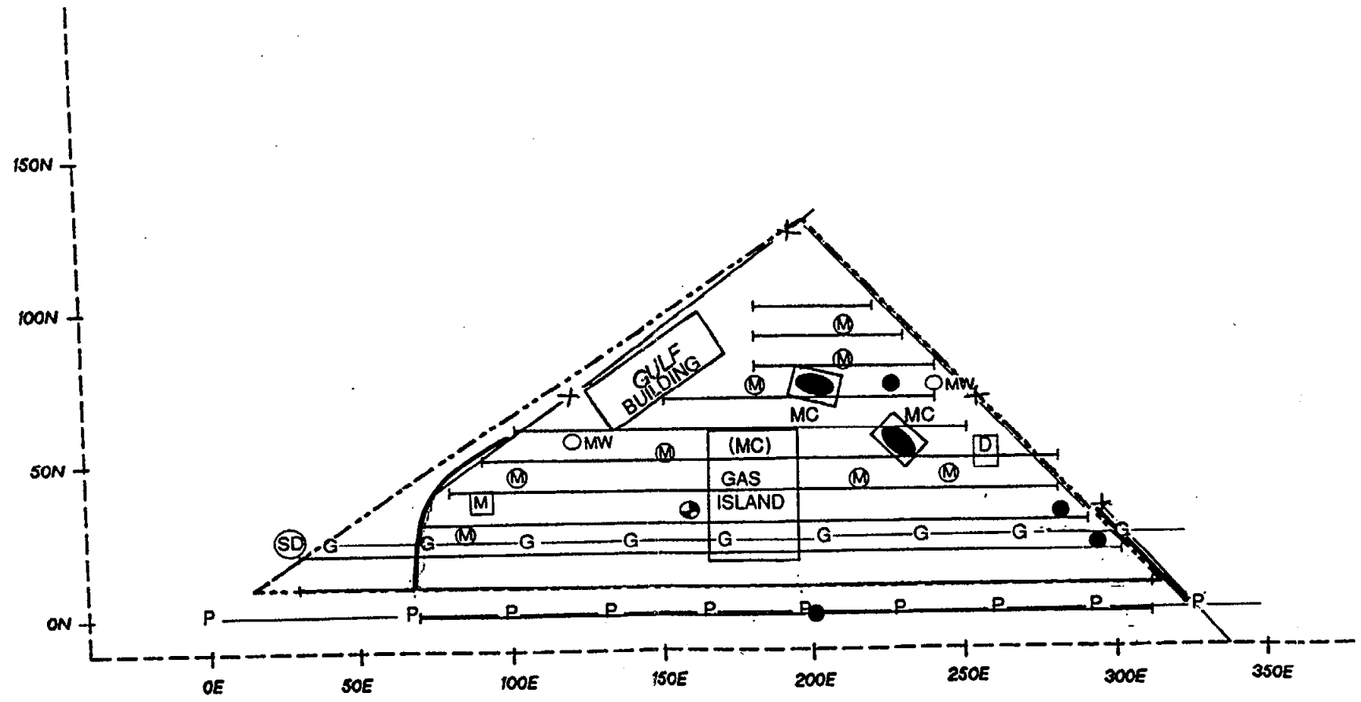
LEGEND:

- = SURVEY LINE
- = PROPERTY LINE
- = FENCE LINE
- = RUBBLE
- = METAL OBJECTS OR DEBRIS
- = HYDRANT
- = POWER LINE
- = GAS LINE
- = SEWER LINE
- MC = REINFORCED CONCRETE (REBAR)
- = FLAG POLE
- = TELEPHONE POLE
- = POWER POLE/LIGHT POLE
- MW = MONITORING WELL
- = STORM DRAIN
- = DUMPSTER
- = GUARDRAIL
- = MANHOLE

Figure 2
SURVEY GRID AND EXTENT OF MAGNETOMETER SURVEY CULTURAL FEATURES MAP

FEDERAL EXPRESS PROPERTY
MAYWOOD, NEW JERSEY

CH2M-HILL



LEGEND:

= SURVEY LINE

= PROPERTY LINE

= FENCE LINE

= METAL OBJECTS OR DEBRIS

= POWER LINE

= GAS LINE

= POWER POLE/LIGHT POLE

= DUMPSTER

= GUARD RAIL

= STORM DRAIN

= MANHOLE

MW = MONITORING WELL

MC = REINFORCED CONCRETE (REBAR)

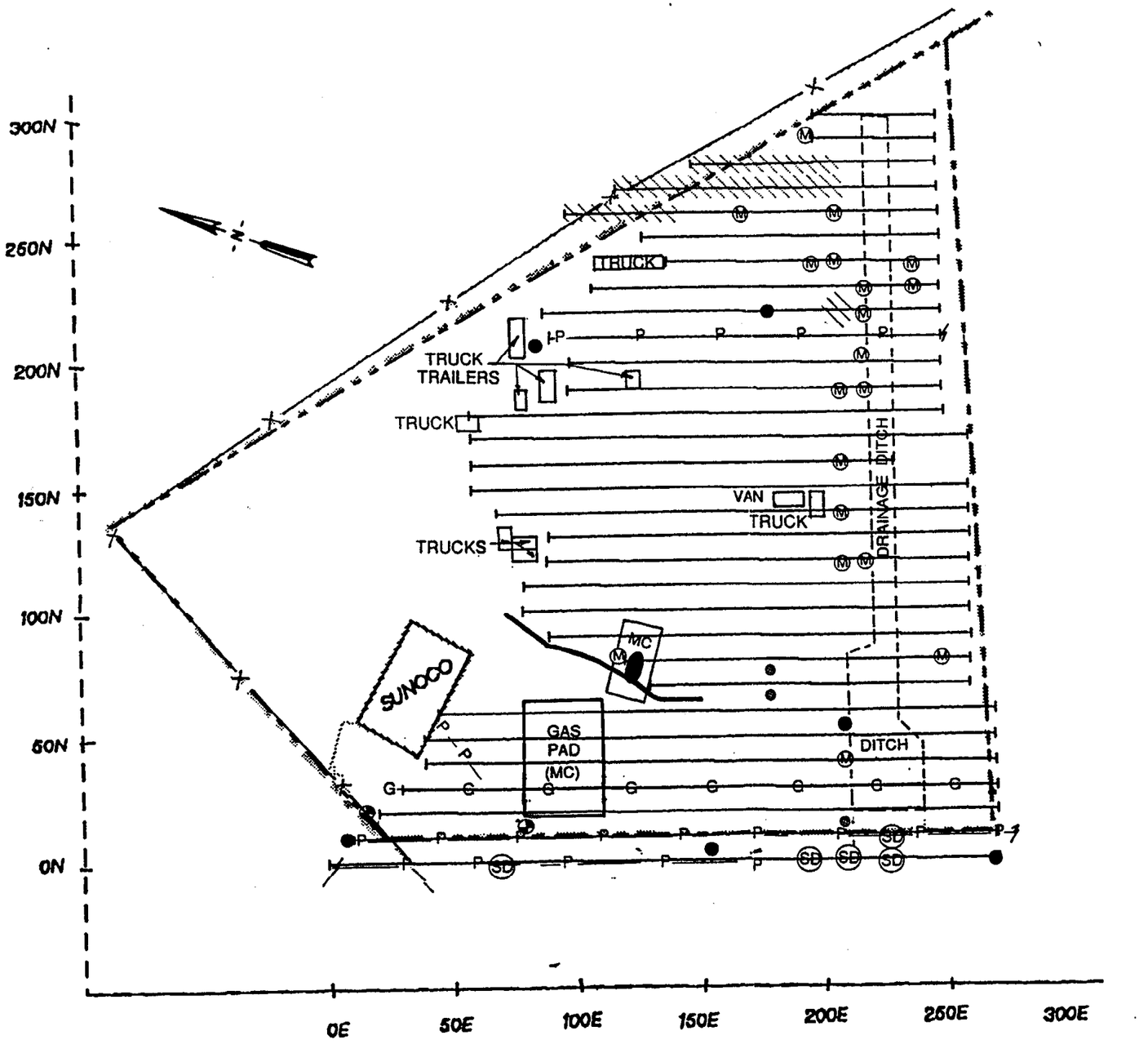
= SUSPECTED UNDERGROUND TANK

0 25 50 75

Figure 3
SURVEY GRID AND EXTENT OF MAGNETOMETER SURVEY CULTURAL FEATURES MAP

GULF PROPERTY
MAYWOOD, NEW JERSEY

CH2MHILL



LEGEND:

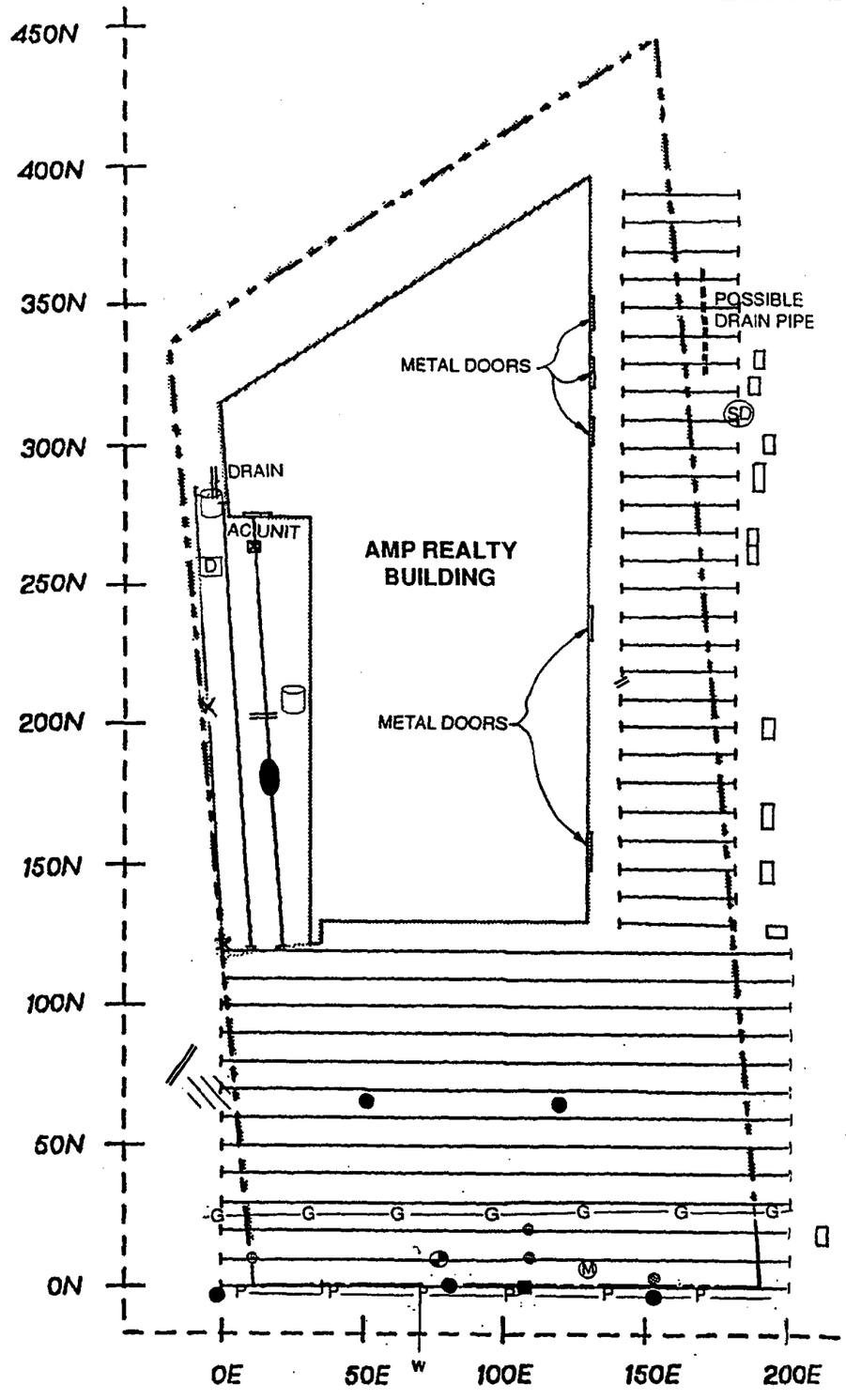
- ——— = SURVEY LINE
- — — — = PROPERTY LINE
- —X— = FENCE LINE
- \\\\ = RUBBLE
- M / Ⓜ = METAL OBJECTS OR DEBRIS
- ■ = HYDRANT
- —P— = POWER LINE
- —G— = GAS LINE
- —S— = SEWER LINE
- MC = REINFORCED CONCRETE (REBAR)
- ⚑ = FLAG POLE
- ○ = TELEPHONE POLE
- ● = POWER POLE/LIGHT POLE
- MW = MONITORING WELL
- Ⓢ = STORM DRAIN
- D = DUMPSTER
- ——— = GUARDRAIL
- ◓ = MANHOLE
- ⊙ = SIGN
- ⬬ = SUSPECTED UNDERGROUND TANK

0 50 100 150 FEET

Figure 4
SURVEY GRID AND EXTENT OF MAGNETOMETER SURVEY CULTURAL FEATURES MAP

SUNOCO PROPERTY
MAYWOOD, NEW JERSEY

CH2MHILL



LEGEND:

- = SURVEY LINE
- = PROPERTY LINE
- = FENCE LINE
- = RUBBLE
- M = METAL OBJECTS OR DEBRIS
- = HYDRANT
- = DRUM (ABOVE GROUND)
- P = OVERHEAD POWER LINE
- G = GAS LINE
- W = WATERLINE
- MC = REINFORCED CONCRETE (REBAR)
- = CAR,TRUCK OR VAN
- = TELEPHONE POLE
- = POLE
- MW = MONITORING WELL
- SD = STORM DRAIN
- D = DUMPSTER
- = PIPE
- = MANHOLE
- = SIGN
- = SUSPECTED UNDERGROUND TANK

0 50 100 150 FEET

Figure 5
SURVEY GRID AND EXTENT
OF MAGNETOMETER SURVEY
CULTURAL FEATURES MAP

AMP REALTY PROPERTY
MAYWOOD, NEW JERSEY

CH2MHILL

3.3 Magnetometer Surveys

Data were systematically collected at 10-foot intervals along the north-south grid lines across most of the sites. At the Gulf, Sunoco, and AMP Realty properties, data was collected at 10-foot intervals along east-west lines since these lines corresponded closely with the true north direction. The line number and direction, station number, and the station spacing were programmed into the magnetometer at the start of each grid line. Data were collected and stored in the internal memory of the instrument. Measurements were also recorded in the field logbook at regular intervals. Locations of features such as roads, fences, power lines, utilities, buildings, and scrap metal that may have affected the readings were recorded. Data from the digital logger were transferred to a computer on a daily basis, and the data were reviewed to determine if they were properly recorded and were checked for consistency with the data manually recorded in the logbook. Data were then processed as described in Section 4.0.

No functional checks are prescribed in the operator's manual for the magnetometer. Initial readings were compared against the total magnetic intensity predicted for the area, as shown on a map that was provided with the equipment. Equipment was determined to be responsive by taking measurements at different locations and noting that the measurements did not remain constant.

4.0 Interpretation Procedures

4.1 Magnetic Data

Preparation and plotting of the magnetometer data consisted of the following steps. The data were received in XYZ format, imported into a spreadsheet, and rearranged into a spreadsheet format with the columns representing survey lines and the rows representing station positions along the line. Profile plots of magnetic intensity and vertical magnetic gradient were prepared. The profile plots were used to interpret the location of the source of each anomaly. Profile plots for DeSaussure are included in Attachment B. Profile plots for Federal Express are included in Attachment C. Profile plots for Gulf are included in Attachment D. Profile plots for Sunoco are included in Attachment E. Profile plots for AMP Realty are included in Attachment F.

A magnetic anomaly normally consists of both a magnetic high and a magnetic low. The pair of high and low values is due to the magnetic field induced in the buried metal by the earth's field. The magnetic field induced in the buried object has both a north and south magnetic pole, which results in a net increase and decrease, respectively, in the measured total field. In the northern hemisphere, the magnetic high is on the south side of the source and the low is on the north side. The source of the anomaly is interpreted as extending from the peak of the magnetic high to the lowest value north of the high. The high/low pairs are not always well-defined due to nearby interferences and grid line orientation. Professional judgement is required in delineating magnetic sources. An anomaly was chosen if it was recognizable over the

same station interval on both the total field and the vertical gradient profiles. Once an anomaly was identified, the interpreted location of the source of the anomaly was transferred to the base maps.

5.0 Results of Investigation

5.1 Buried Metal

5.1.1 DeSaussure

The extent of the magnetometer survey conducted at DeSaussure is shown in Figure 1.

Fifteen areas of buried metal have been identified at the site (Figure 6). The areas are numbered from north to south across the property.

Anomalies range in strength from 100 to 3,000 gammas. The areas are characterized by both single- and multiple-line anomalies. These areas are listed in Table 5-1 along with their strength, nearby cultural features, and test-pit locations.

5.1.2 Federal Express

The extent of the magnetometer survey conducted at Federal Express is shown in Figure 2.

Nine areas of buried metal have been identified at the site (Figure 7). The areas are numbered from west to east across the property.

Anomalies range in strength from 100 to 2,500 gammas. The areas are characterized by both single- and multiple-line anomalies. These areas are listed in Table 5-2 along with their strength, nearby cultural features, and test-pit locations.

5.1.3 Gulf

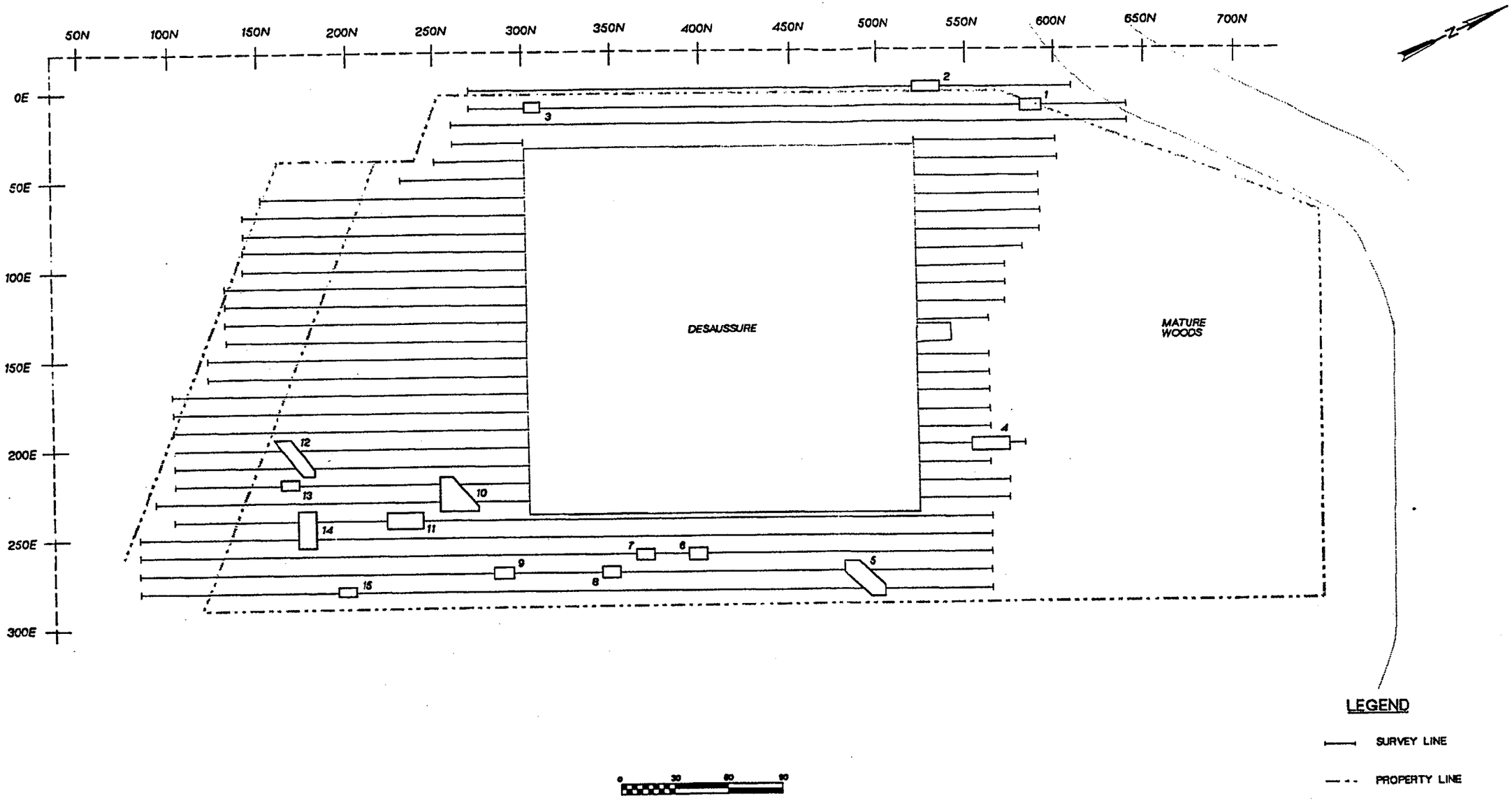
The extent of the magnetometer survey conducted on Gulf is shown in Figure 3.

Two areas of buried metal have been identified at the site (Figure 8). The following is a description of these two areas.

Area 1--Line 40N, 220-230E. Area 1 is a single-line anomaly that is approximately 300 gammas. It is located 5 feet south of a metal plate on the ground surface.

Area 2--Line 10N, 230-240E. Area 2 is a single-line anomaly that is approximately 300 gammas. It is not influenced by any surface feature.

Figure 6



LEGEND

SURVEY LINE

PROPERTY LINE

12 BOUNDARIES OF INTERPRETED METAL

FIGURE 6
Interpreted Areas
of Buried Metal
DESAUSSURE PROPERTY
MAYWOOD, NJ

CH2MHILL

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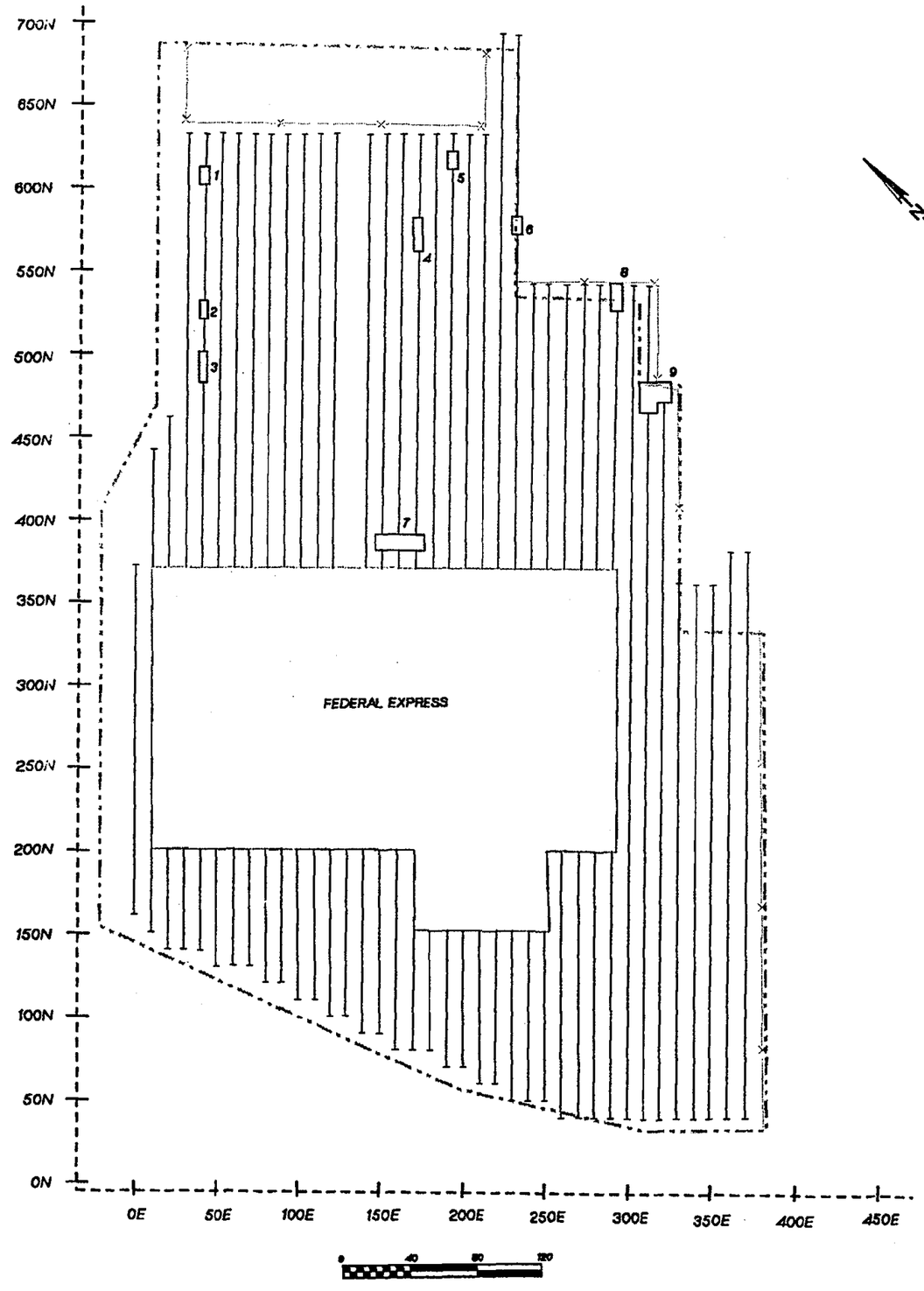
Table 5-1
Interpreted Areas of Buried Metal
DeSaussure Property

Area	Strength of Anomalies (gammas)	Cultural Feature	Potential Test-Pit Location
1	270	none	10E, 580-590N
2	500	powerline, pole*	0E, 520-530N
3	150	powerline	10E, 300-310N
4	750	none	200E, 550-560N
5	170	none	270E, 480-490N
6	230	none	260E, 390-400N
7	700	none	260E, 360-370N
8	110	none	270E, 340-350N
9	300	none	270E, 280-290N
10	3,000	powerline	220E, 250-260N
11	900	powerline	240E, 220-230N
12	1,200	none	200E, 160-170N
13	170	may be related to Area 12	220E, 160-170N
14	100	none	250E, 170-180N
15	170	none	280E, 190-200N

*Location of feature will be confirmed during reconnaissance and utility stake-out surveys.

Figure 7



LEGEND

- SURVEY LINE
- FENCE LINE
- PROPERTY LINE
- 8 BOUNDARIES OF INTERPRETED METAL

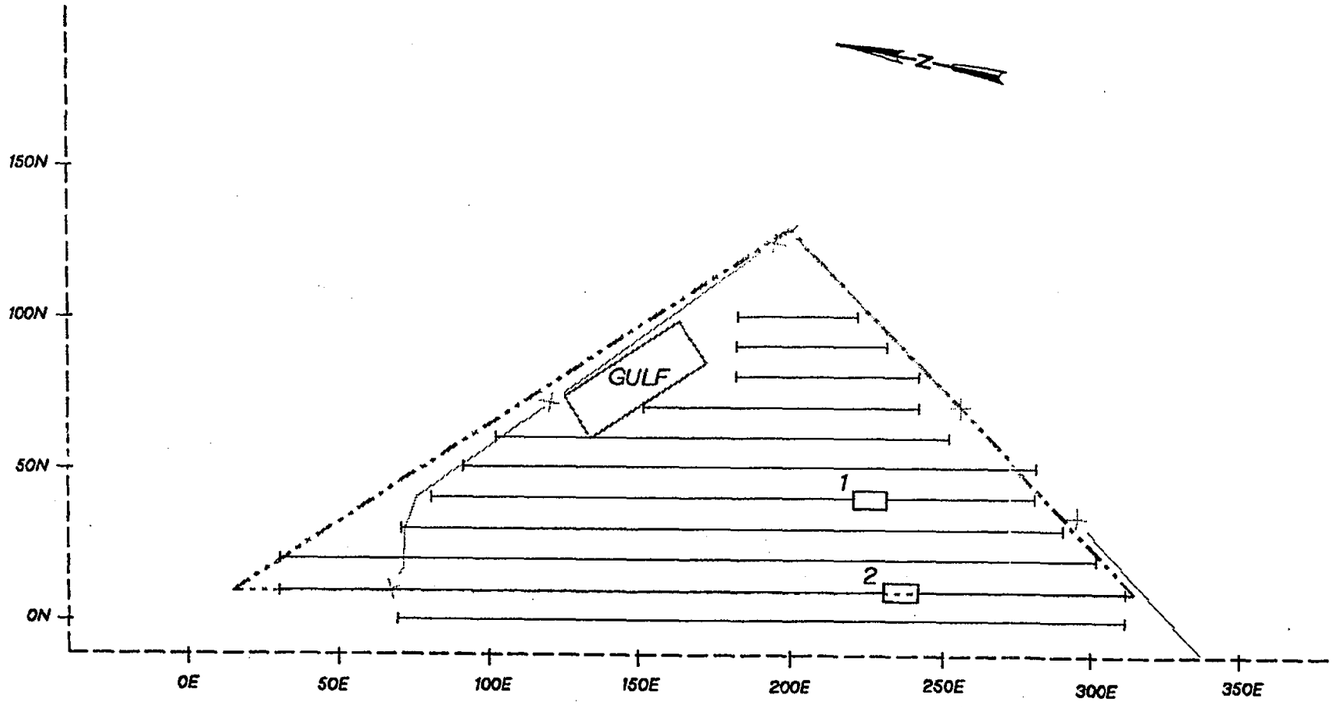
FIGURE 7
Interpreted Areas of Buried Metal
FEDERAL EXPRESS PROPERTY
MAYWOOD, NJ

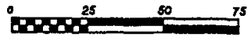
CH2MHILL

2948c020.dgn 4-Dec-1991

Table 5-2
Interpreted Areas of Buried Metal
Federal Express Property

Area	Strength of Anomalies (gammas)	Cultural Feature	Potential Test-Pit Location
1	600	none	40E, 600-610N
2	200	none	40E, 520-530N
3	500	may be affected by nearby dumpster	40E, 480-490N
4	370	light pole to west at 155E	170E, 560-570N
5	250	fenceline	190E, 610-620N
6	200	none	230E, 570-580N
7	900	may be related to concrete slab	150E, 380-390N
8	2,350	fence	290E, 520-530N
9	1,400	fence, light pole at 315E, 450N	310E, 470-480N





LEGEND

- SURVEY LINE
- PROPERTY LINE
- FENCE LINE
- 1 BOUNDARIES OF INTERPRETED METAL

FIGURE 8
Interpreted Areas of Buried Metal
GULF PROPERTY
MAYWOOD, NJ

CH2MHILL

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5.1.4 Sunoco

The extent of the magnetometer survey conducted on Sunoco is shown in Figure 4.

Fifteen areas of buried metal have been identified at the site (Figure 9). The areas are numbered from east to west across the property. Anomalies range in strength from 300 to 3,000 gammas. The areas are characterized by both single- and multiple-line anomalies. These areas are listed in Table 5-3 along with their strength, nearby cultural features, and test-pit locations.

5.1.5 AMP Realty

The extent of the magnetometer survey conducted on AMP Realty is shown in Figure 5.

Seven areas of buried metal have been identified at the site (Figure 10). One of the areas (Area 1) is located on the SWS Realty property. The areas are numbered from east to west across the property. Anomalies range in strength from 500 to 2,250 gammas. The areas are characterized by both single- and multiple-line anomalies. These areas are listed in Table 5-4 along with their strength, nearby cultural features, and test-pit locations.

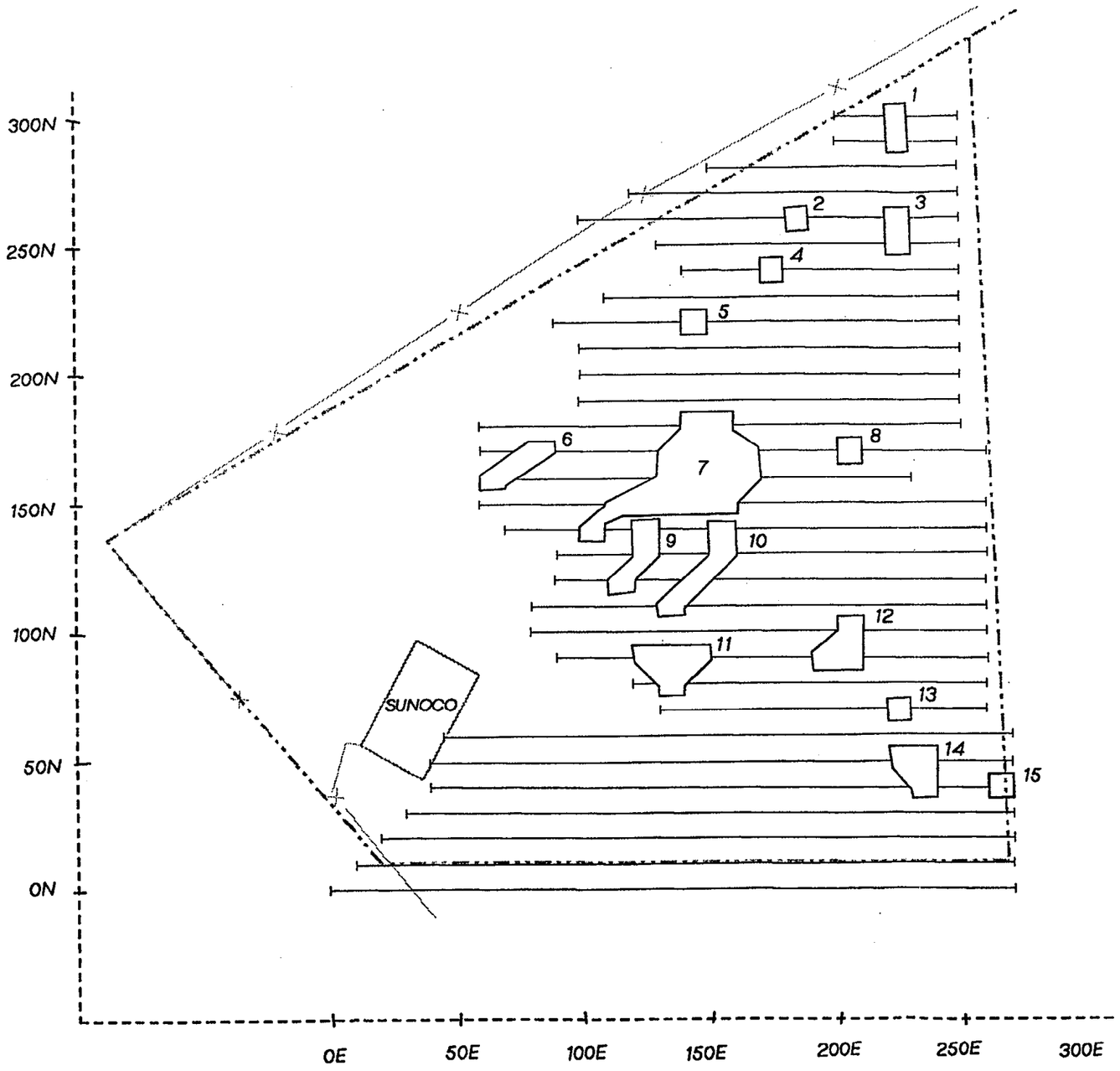
5.2 Anomaly Identification and Test-Pit Location

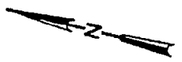
The areas of interpreted buried metal shown on the maps have been identified based on magnetic anomalies that are not a result of known sources. Anomalies resulting from known sources, such as power lines, surface metal, or buildings have not been shown unless other buried material is suspected based upon the amplitude of the anomaly. The location of metal objects and other sources of interference encountered on the sites are shown on the base maps (Figures 1 through 5).

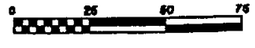
Potential test pit locations given in Tables 5-1 through 5-4 indicate the strongest source of the anomaly and the location to begin digging if the source is investigated.

5.3 Limitation of Results

Prioritization for followup investigations of the interpreted areas of buried metal should not be based only on geophysical data. Other factors, such as site histories and visual observations, should also be considered. The instrument is sensitive enough to see the anomaly associated with several drums to a depth of 20 feet. This depth is greater than the thickness of the overburden on the sites. Because of the existence of many cultural sources of interference on the sites, anomalies that were identified in some cases may not contain buried metal or appear to be as extensive as they are shown on the map. Other locations that may contain minor amounts of buried metal may have been missed due to magnetic interferences from known or unknown sources.







LEGEND

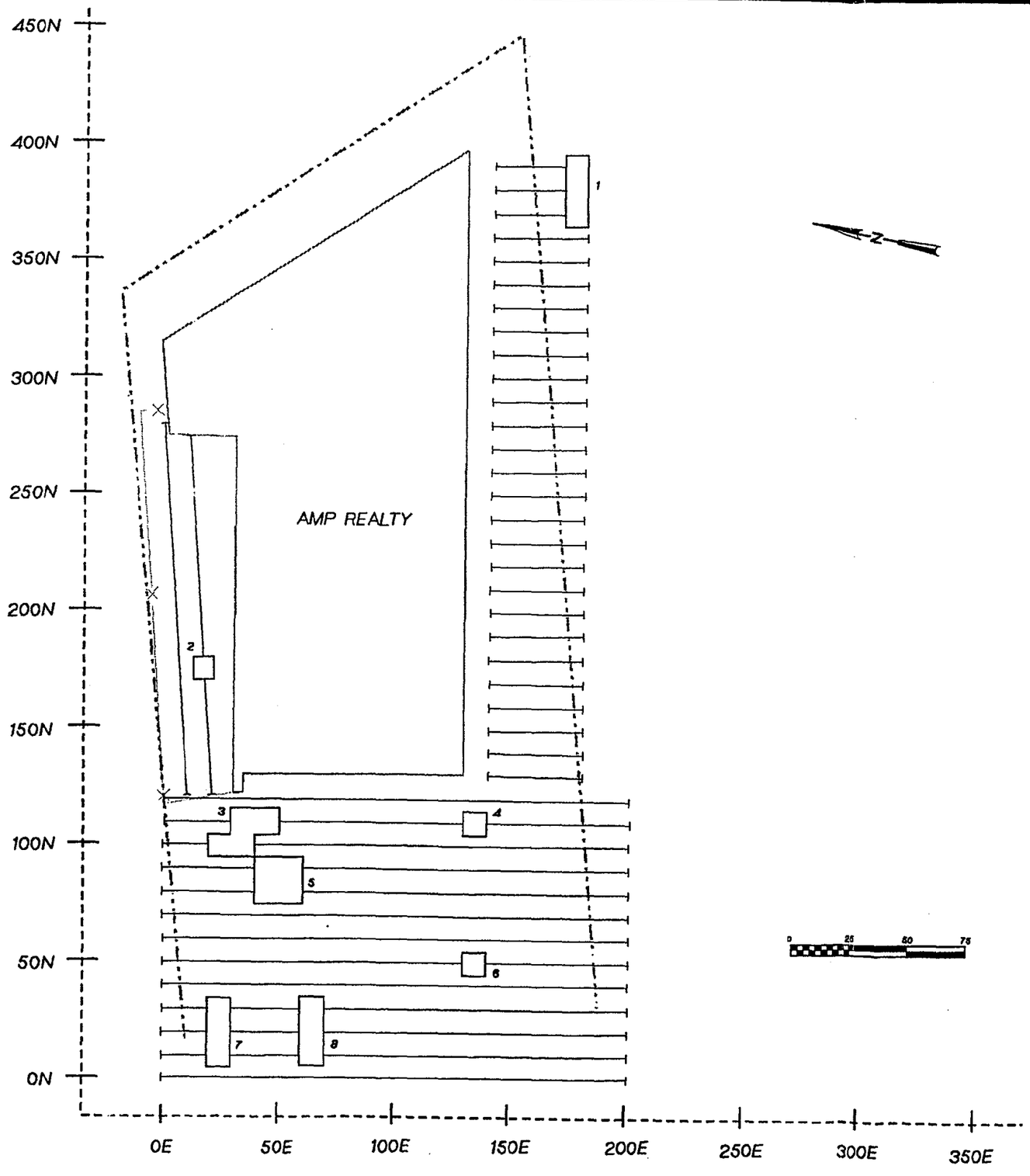
- SURVEY LINE
- FENCE LINE
- PROPERTY LINE
- BOUNDARIES OF INTERPRETED METAL

FIGURE 9
Interpreted Areas of Buried Metal
SUNOCO PROPERTY
MAYWOOD, NJ

CH2M HILL

Table 5-3
Interpreted Areas of Buried Metal
Sunoco Property

Area	Strength of Anomalies (gammas)	Cultural Feature	Potential Test-Pit Location
1	300	drainage ditch	300N, 220-230E
2	gradient too high	none	260N, 180-190E
3	280	drainage ditch	260N, 220-230E
4	325	none	240N, 170-180E
5	2,250	none	220N, 140-150E
6	1,100	none	160N, 60-70E
7	2,900	none	160N, 130-140E
8	400	near heat pipes	170N, 200-210E
9	700	none	130N, 120-130E
10	875	none	130N, 150-160E
11	3,000	near guard rail	90N, 120-130E
12	675	none	90N, 190-200E
13	450	drainage ditch	70N, 220-230E
14	650	drainage ditch	50N, 220-230E
15	900	none	40N, 260-270E



LEGEND

- SURVEY LINE
- FENCE LINE
- PROPERTY LINE
- 5 BOUNDARIES OF INTERPRETED METAL

FIGURE 10
Interpreted Areas of Buried Metal
AMP REALTY
MAYWOOD, NJ

CH2MHILL

Table 5-4
Interpreted Areas of Buried Metal
AMP Realty Property

Area	Strength of Anomalies (gammas)	Cultural Feature	Potential Test-Pit Location
1	1,300	possible drain pipe	380N, 170-180E
2	400-1,800	suspected underground tank	20E, 180N
3	800	possible utility line	110N, 30-40E
4	900	electric line to overhead lights*	110N, 130-140E
5	780	possible utility line	90N, 40-60E
6	500	electric line to overhead lights*	50N, 130-140E
7	2,250	gasline at 27N*	30N, 20-30E
8	700	suspected water line	10N, 60-70E

*Location of feature will be confirmed during reconnaissance and utility stake-out surveys.

6.0 Discussion and Recommendations

Based on our evaluation of the magnetometer data, the recommended approach to excavating the areas of buried metal is in an order that is based on the areal extent and the strength of the magnetic anomaly.

6.1 DeSaussure

Buried metal has been identified in 15 areas distributed around the site. Some of the anomalies may be the result of overhead powerlines or other sources of interference.

The recommended order for the test-pit program on the DeSaussure property if all anomalous areas are to be investigated is as follows: Area 10, 12, 11, 4, 7, 2, 9, 1, 6, 5, 13, 15, 3, 14, and 8.

6.2 Federal Express

Buried metal has been identified in nine areas distributed on the northern portion the site. Some of the anomalies may be the result of overhead lights, reinforced concrete, fencelines, or other sources of interference.

The recommended order for the test-pit program on the Federal Express property if all anomalous areas are to be investigated is as follows: Area 7, 9, 8, 1, 3, 4, 5, 2, and 6.

6.3 Gulf

Buried metal has been identified in two areas on the property. Test-pitting activities are not recommended for these areas because it is possible that the anomalies are due to overhead powerlines, underground utilities (gasline), and traffic movement in this area.

6.4 Sunoco

Buried metal has been identified in 15 areas distributed around the site. Some of the anomalies may be the result of overhead lights, guardrail, or other sources of interference.

The recommended order for the test-pit program on the Sunoco property if all anomalous areas are to be investigated is as follows: Area 7, 11, 10, 9, 12, 5, 2, 6, 13, 8, 3, 1, and 4. Areas 14 and 15 are not recommended for test-pitting due to an underground gasline in this area.

6.5 AMP Realty

Buried metal has been identified in seven areas distributed around the site. One area was located on the SWS property. Some of the anomalies may be the result of underground utility lines, drain pipes, and an underground storage tank.

The recommended order for the test-pit program on the AMP Realty property if all anomalous areas are to be investigated is as follows: Area 3, 5, 4, and 6. Area 1 is recommended for follow-up investigation on the SWS Realty property. Areas 7 and 8 are not recommended for test-pitting due to an underground gasline and other utilities in this area. Area 2 is suspected to be the location of an underground storage tank and will not be investigated if its presence can be confirmed with the owner.

6.6 Generalized Test-Pitting Approach

The nature of the buried metal cannot be determined from the data and further investigations will be necessary. All anomalies proposed for test-pitting will be field screened with a metal detector before digging to correctly locate their position and extent. If metal is not detected in areas where a cultural feature is present, the cultural feature will be determined to be the source of the anomaly and the anomaly will not be test-pitted. All anomalies greater than 100 gammas have been identified.

Priority of the follow-up investigations (i.e., test-pitting) should be based on the areal extent of the buried metal (an indication of volume), the strength of the magnetic anomalies, site history, and field observations. The test-pit program should concentrate on the strongest anomalies within the recommended test-pit areas, in order to characterize the type of materials producing the largest anomalies. The investigation should progress from those areas consisting of multiple-line anomalies to the areas defined by single-line anomalies. Single-line anomalies may be less significant as potential sources.

The extent of the test pit will be sufficient to characterize the source of the magnetic anomaly. The test pit will target the strongest part of the anomaly. A test pit excavated within the locations provided in Tables 5-1 to 5-4 should be sufficient to characterize the anomaly.

Appendix N
Monitoring Well Form Bs

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Ave., Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 0 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-21.22"
Latitude (one-tenth of a second): North 40°-53'-43.03"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 48.82 Outer= 49.42 GRD= 49.37
Owners Well Number (As shown on application or plans): OBMW1

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Paul J. Emilius
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

Paul J. Emilius
PROFESSIONAL LAND SURVEYOR'S NAME (Please print or type)

SEAL

New Jersey P.L.S. License No. 11363
PROFESSIONAL LAND SURVEYOR'S LICENSE #

The Department reserves the right in cases of violation of permit specified ground water limits or Ground Water Quality Standards (N.J.A.C. 7:9-6.1 et seq. to require that wells be resurveyed to an accuracy of one-hundredth of a second latitude and longitude. This shall not be considered to be a major modification of the NJPDES permit.

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 8 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-21.24"
Latitude (one-tenth of a second): North 40°-53'-43.11"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 49.08 GRD= 49.45
Outer= 49.49
Owners Well Number (As shown on application or plans): BRMW1

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Ave., Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 9 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-16.31"
Latitude (one-tenth of a second): North 40°-53'-46.70"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 54.40 Outer= 54.86 GRD= 54.88
Owners Well Number (As shown on application or plans): OBMW2

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 7 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-16.25"
Latitude (one-tenth of a second): North 40°-53'-46.77"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 54.61 GRD= 54.92
Outer= 54.92
Owners Well Number (As shown on application or plans): BRMW2

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Cumberland Farms, Inc.
Name of Facility: Gulf Station
Location: 239 N/S Route 17, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 4 7 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-17.83"
Latitude (one-tenth of a second): North 40°-53'-36.01"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 46.80 GRD= 47.16
Owners Well Number (As shown on application or plans): Outer= 47.13 OBMW3

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Cumberland Farms, Inc.
Name of Facility: Gulf Station
Location: 239 N/S Route 17, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 3 0 2 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-17.86"
Latitude (one-tenth of a second): North 40°-53'-35.92"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 46.67 Outer= 46.93 GRD= 46.94
Owners Well Number (As shown on application or plans): BRMW3

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 1 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-9.61"
Latitude (one-tenth of a second): North 40°-53'-36.64"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner=45.96 Outer=46.24 GRD= 46.16
Owners Well Number (As shown on application or plans): OBMW4

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 9 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-9.70"
Latitude (one-tenth of a second): North 40°-53'-36.56"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 46.33 GRD= 46.64
Outer= 46.68
Owners Well Number (As shown on application or plans): BRMW4

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Sun Refining and Marketing Co.
Name of Facility: Sunoco
Location: 167 N/S Route 17, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 4 8 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-17.30"
Latitude (one-tenth of a second): North 40°-53'-34.65"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 46.13 Outer= 46.45 GRD= 46.44
Owners Well Number (As shown on application or plans): OBMW5

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Sun Refining and Marketing Co.
Name of Facility: Sunoco
Location: 167 N/S Route 17, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 4 9 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-17.05"
Latitude (one-tenth of a second): North 40°-53'-34.63"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 45.97 GRD= 46.42
Outer= 46.41
Owners Well Number (As shown on application or plans): BRMW5

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 2 -
This number must be permanently affixed to the well casing.
Datum NAD 27
Longitude (one-tenth of a second): West 74°-04-01.31"
Latitude (one-tenth of a second): North 40°-53'-36.72"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): IC= 48.94 OC= 49.22 GRD= 48.83
Owners Well Number (As shown on application or plans): OBMW6

BENCHMARK - Monument USGS 7467 Elevation 64.105

DATE OF SURVEY - 7/28/92

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Paul J. Emilius
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

Paul J. Emilius
PROFESSIONAL LAND SURVEYOR'S NAME (Please print or type)

SEAL

New Jersey P.L.S. License No. 11363
PROFESSIONAL LAND SURVEYOR'S LICENSE #

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 0 -
This number must be permanently affixed to the well casing.
Datum NAD 27
Longitude (one-tenth of a second): West 74°-04'-01.29"
Latitude (one-tenth of a second): North 40°-53'-36.66"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): IC= 49.06 OC= 49.48 GRD=49.31
Owners Well Number (As shown on application or plans): BRMW6

BENCHMARK - Monument USGS 7467 Elevation 64.105

DATE OF SURVEY - 7/28/92

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 3 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-8.51"
Latitude (one-tenth of a second): North 40°-53'-3.89"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 44.95 Outer= 45.66 GRD= 45.57
Owners Well Number (As shown on application or plans): OBMW7

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 1 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-8.54"
Latitude (one-tenth of a second): North 40°-53'-31.79"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 45.11 GRD= 45.63
Owners Well Number (As shown on application or plans): Outer= 45.67 BRMW7

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: SWS Realty Association
Name of Facility: Mark Correctional
Location: 87 Route 17, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 7 4 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-14.04"
Latitude (one-tenth of a second): North 40°-53'-28.13"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 45.55 Outer= 45.81 GRD= 45.71
Owners Well Number (As shown on application or plans): OBMW8

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: SWS Realty Association
Name of Facility: Mark Correctional
Location: 87 Route 17, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 7 5 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-14.08"
Latitude (one-tenth of a second): North 40°-53'-28.22"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 45.17 Outer= 45.68 GRD= 45.66
Owners Well Number (As shown on application or plans): BRMW8

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Maurice W. Weil
Name of Facility: Federal Express
Location: 29 Essex Street, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 7 2 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-9.57"
Latitude (one-tenth of a second): North 40°-53'-23.26"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): WC= 54.34 /PVC= 54.65 /GRD= 53.27
Owners Well Number (As shown on application or plans): BRMW9

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 4 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-9.25"
Latitude (one-tenth of a second): North 40°-53'-40.42"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 48.09 Outer= 48.50 GRD= 48.50
Owners Well Number (As shown on application or plans): OBMW10

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 8 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-11.15"
Latitude (one-tenth of a second): North 40°-53'-42.80"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 58.95 Outer= 59.39 GRD= 59.37
Owners Well Number (As shown on application or plans): BRMW10

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 5 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-5.73"
Latitude (one-tenth of a second): North 40°-53'-39.46"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 48.23 Outer= 48.54 GRD= 45.63
Owners Well Number (As shown on application or plans): OBMW11

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 2 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-5.91"
Latitude (one-tenth of a second): North 40°-53'-39.50"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 47.79 Outer= 48.41 GRD= 45.70
Owners Well Number (As shown on application or plans): BRMW11

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Maurice W. Weil
Name of Facility: Federal Express
Location: 29 Essex Street, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 7 1 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-7.36"
Latitude (one-tenth of a second): North 40°-53'-28.83"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 47.27 Outer= 47.54 GRD= 47.54
Owners Well Number (As shown on application or plans): OBMW12

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Maurice W. Weil
Name of Facility: Federal Express
Location: 29 Essex Street, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 7 3 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-7.41"
Latitude (one-tenth of a second): North 40°-53'-28.79"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 47.23 Outer= 47.61 GRD= 47.59
Owners Well Number (As shown on application or plans): BRMW12

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 6 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-17.16"
Latitude (one-tenth of a second): North 40°-53'-38.98"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 47.26 Outer= 47.68 GRD= 47.70
Owners Well Number (As shown on application or plans): OBMW13

BENCHMARK - Monument 7467 Elevation 64.105

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GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 3 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-17.04"
Latitude (one-tenth of a second): North 40°-53'-38.91"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 47.21 Outer= 47.66 GRD= 47.64
Owners Well Number (As shown on application or plans): BRMW13

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 5 7 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-19.25"
Latitude (one-tenth of a second): North 40°-53'-38.57"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 46.02 Outer= 46.51 GRD= 46.52
Owners Well Number (As shown on application or plans): OBMW14

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Paul J. Emilius
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

Paul J. Emilius
PROFESSIONAL LAND SURVEYOR'S NAME (Please print or type)

SEAL

New Jersey P.L.S. License No. 11363
PROFESSIONAL LAND SURVEYOR'S LICENSE #

The Department reserves the right in cases of violation of permit specified ground water limits or Ground Water Quality Standards (N.J.A.C. 7:9-6.1 et seq. to require that wells be resurveyed to an accuracy of one-hundredth of a second latitude and longitude. This shall not be considered to be a major modification of the NJPDES permit.

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Jeco Corporation/Kin Properties
Name of Facility: Sears
Location: 151 Maywood Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 4 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-19.19"
Latitude (one-tenth of a second): North 40°-53'-38.44"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 46.22 Outer= 46.58 GRD= 46.57
Owners Well Number (As shown on application or plans): BRMW14

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 8 9 3 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-6.16"
Latitude (one-tenth of a second): North 40°-53'-49.35"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 72.27 Outer= 72.55 GRD= 70.08
Owners Well Number (As shown on application or plans): OBMW15

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 8 9 2 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-6.10"
Latitude (one-tenth of a second): North 40°-53'-49.43"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 71.63 Outer= 71.85 GRD= 70.25
Owners Well Number (As shown on application or plans): BRMW15

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 5 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-8.16"
Latitude (one-tenth of a second): North 40°-53'-46.67"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 67.95 Outer= 68.52
GRD= 66.89
Owners Well Number (As shown on application or plans): BRMW16

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER-MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 8 9 4 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-5.78"
Latitude (one-tenth of a second): North 40°-53'-43.93"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 62.70 Outer= 63.02 GRD= 60.47
Owners Well Number (As shown on application or plans): OBMW17

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: Stepan Company
Name of Facility: Stepan
Location: 100 West Hunter Avenue, Maywood, NJ
NJPDES Number: N/A

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation): 2 6 - 2 8 4 6 6 -
This number must be permanently affixed to the well casing.
Datum NAD 29
Longitude (one-tenth of a second): West 74°-04'-5.86"
Latitude (one-tenth of a second): North 40°-53'-43.84"
Elevation of Top of Casing (cap off) (one-hundredth of a foot): Inner= 62.04 Outer= 62.37 GRD= 60.32
Owners Well Number (As shown on application or plans): BRMW17

BENCHMARK - Monument 7467 Elevation 64.105

DATE OF SURVEY - 3/18/92

AUTHENTICATION

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Bergen County
1936 - 1938

LOCAL CONTROL SURVEY

STATE OF NEW JERSEY

MAP 15

DESCRIPTION OF MONUMENTS

Mon. #3828: Lodi, Bergen Co. N.J. A standard N.J.G.C.S. disk, set in a cast iron box, flush with the surface, 7 inches below surface in roadway on southeast corner of Essex St. and North Main St.

The monument is 51.37 ft. south of a cross cut in C.I. rim of gas drip in center of North Main St., and Essex St., 36.56 ft. south of cross cut in catch basin on north curb of Essex St. and 10.39 ft. west of cross cut in catch basin in south curb of Essex St. Companion monument #3831 is 1182.44 ft. north.

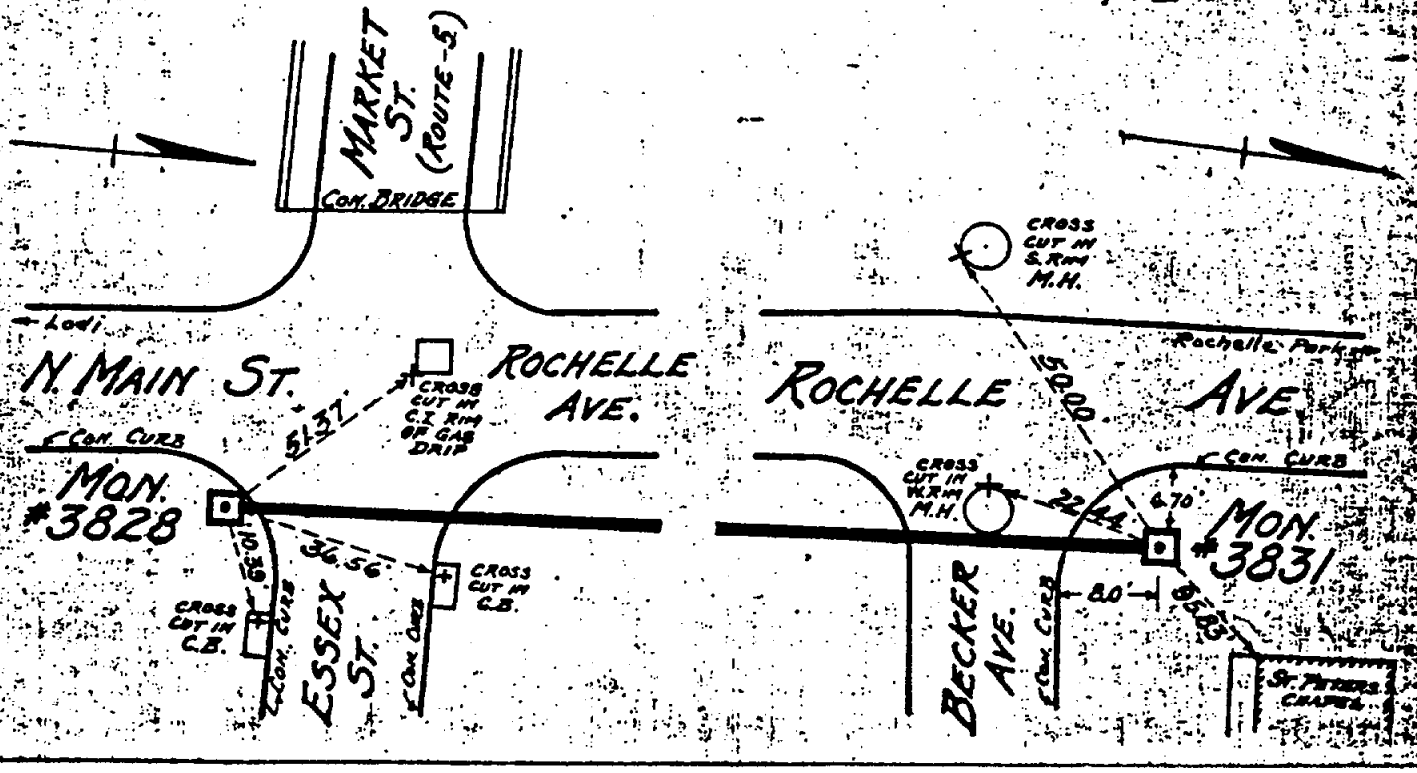
Mon. #3831: Rochelle Park, Bergen Co. N.J. A standard U.S.C.&G.S.&S.S. disk, set in concrete, flush with the sidewalk, on the northeast corner of Rochelle Ave. and Becker Ave.

The monument is 50.0 ft. east of a cross cut in a manhole on the west side of Rochelle Ave., 95.83 ft. west of the southwest corner of St. Peters Chapel, and 22.44 ft. north of a cross cut in rim of manhole in center of Becker Ave. Companion monument #3828 is 1182.44 ft. south.

N.J. Grid Bearing: Mon. #3828 to Mon. #3831: N 20°16'42.6" W

Mon. #3828:	feet
Elevation:	39.735
x-coord:(east)	2,162,510.48
y-coord:(north)	751,487.11
Recovered 1955	N/F 3/92

Mon. #3831:	feet
Elevation:	41.804
x-coord:(east)	2,162,463.47
y-coord:(north)	752,668.61
Recovered 1955	FNC 1-86 3/92



Bergen County
1936 - 1938

LOCAL CONTROL SURVEY

STATE OF NEW JERSEY

DESCRIPTION OF MONUMENTS MAP 15

Mon. #3832: Rochelle Park, Bergen Co. N.J. A standard U.S.C.&G.S.&S.S. disk, set in concrete, flush with the ground, on the west side of Rochelle Ave., 63.70 ft. south of the south curb of Terrace Ave., and 1.60 ft. west of the west curb of Rochelle Ave.

The monument is 53.38 ft. west of a cross cut in the rim of a manhole on the east side of Rochelle Ave.; 5.57 ft. east of a cross cut in rim of manhole on the west side of Rochelle Ave., and 38.11 ft. south of cross cut in rim of manhole on west side of Rochelle Ave. Companion monument #3833 is 2216.82 ft. north.

Mon. #3833: Rochelle Park, Bergen Co. N.J. A standard U.S.C.&G.S.&S.S. disk, set in concrete, flush with the sidewalk on the northeast corner of Passaic St. and Rochelle Ave.

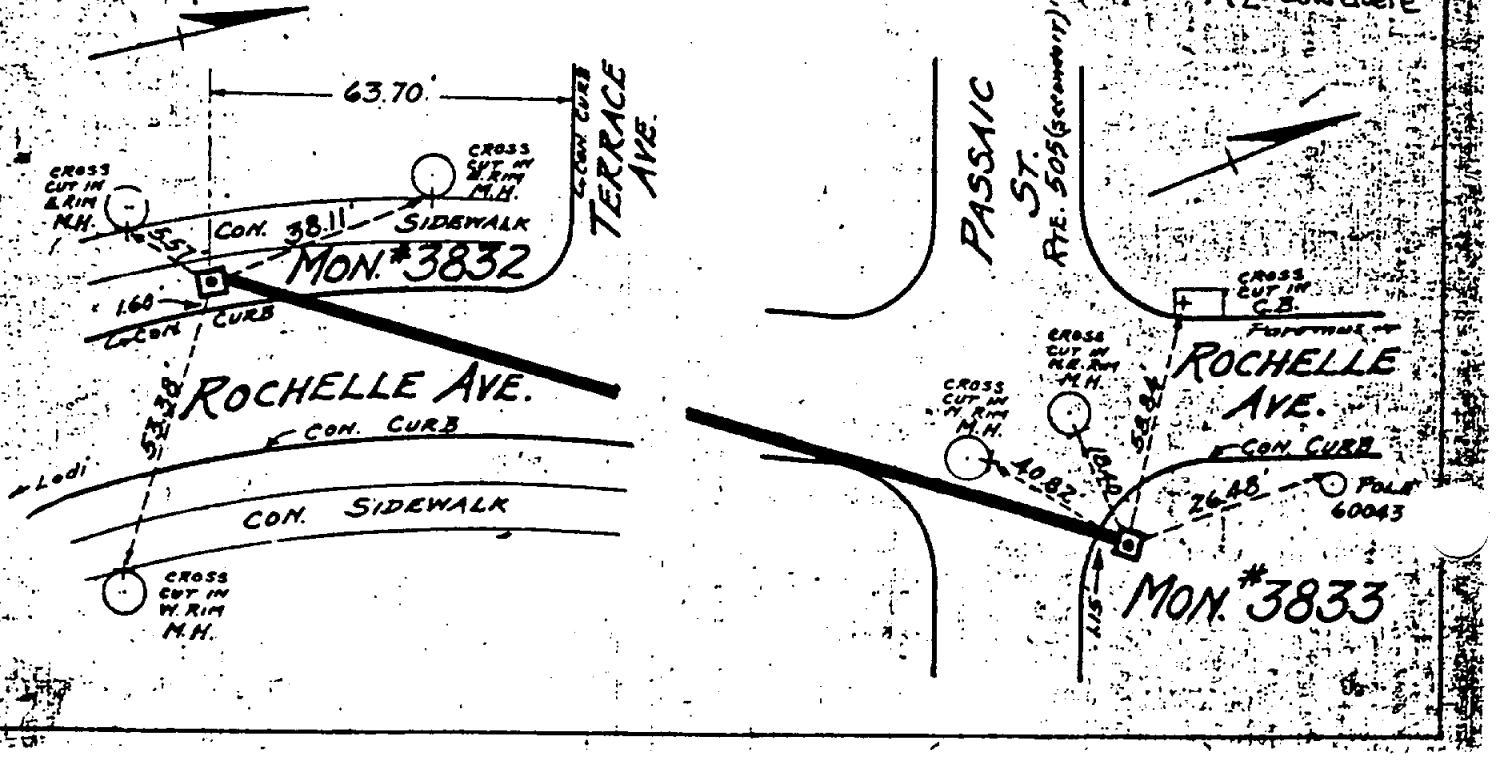
The monument is 40.82 ft. northeast of a cross cut in rim of manhole in Passaic St., 18.40 ft. east of cross cut in rim of manhole in center of Rochelle Ave., and 58.84 ft. southeast of cross cut in catch basin on west curb of Rochelle Ave. Companion monument #3832 is 2216.82 ft. south.

N.J. Grid Bearing: Mon. #3832 to Mon. #3833: N 37°15'54.1" E

Mon. #3832:	feet	Mon. #3833:	feet
Elevation:	50.735	Elevation:	67.409
x-coord:(east)	2,162,591.48	x-coord:(east)	2,162,933.77
y-coord:(north)	755,045.85	y-coord:(north)	756,810.09

Mon. #3832 reset by Co. Engr. 1952
Fnd 1-20-86 3/92

Recovered 1955
Fnd 1-1-86 N/F 3/92



(206)

Bergen County
1953

LOCAL CONTROL SURVEY

STATE OF NEW JERSEY

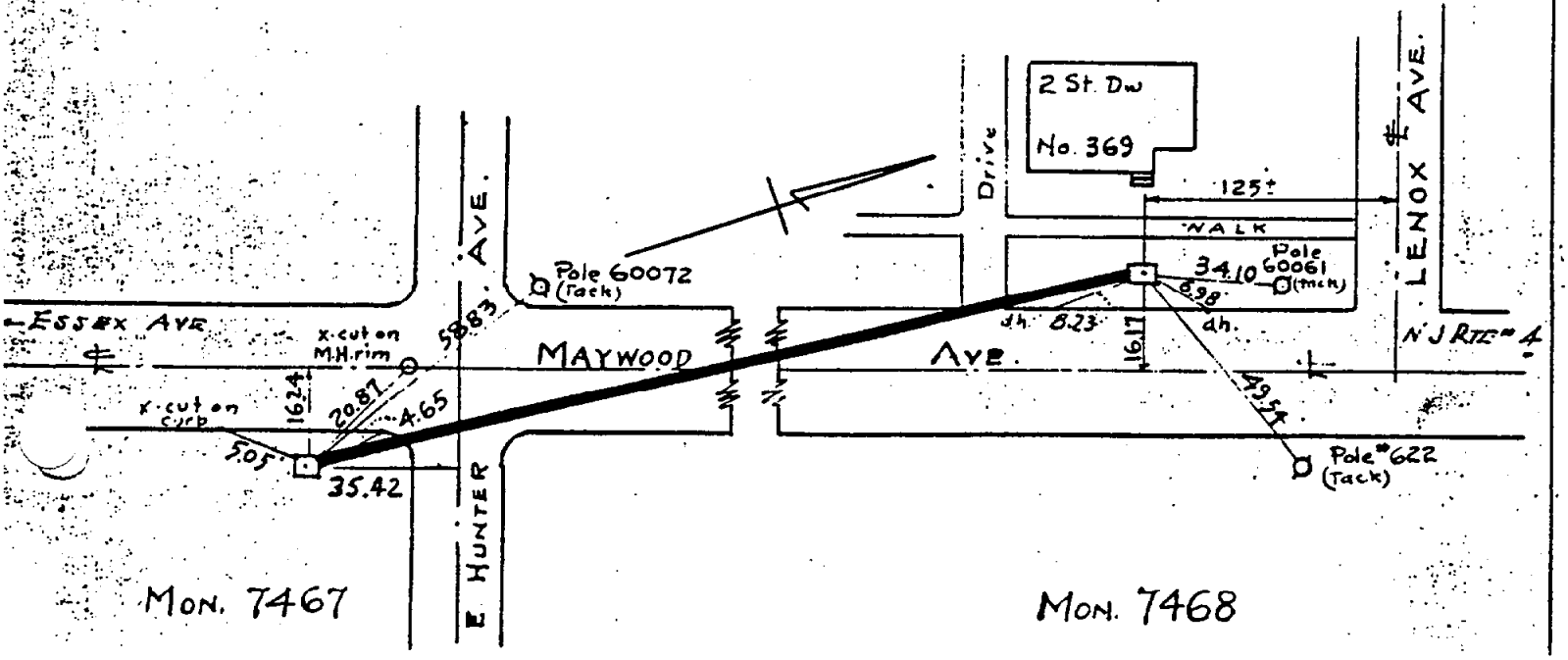
DESCRIPTION OF MONUMENTS

Mon. #7467: MAYWOOD BORO, BERGEN COUNTY, NEW JERSEY. A standard N.J.G.C.S. disk, set in concrete flush with the ground at the southeast corner of Maywood Avenue and East Hunter Avenue. It is 16.24 ft. east of the centerline of Maywood Avenue, 35.42 ft. south of the centerline of East Hunter Avenue, 5.05 ft. north and 4.65 ft. south of two x-cuts on the curb. 20.87 ft. southeast of x-cut on a manhole rim, and 58.83 ft. southeast of tack in Pole #60072. Companion monument #7468 is 1340.51 ft. northeast.

Mon. #7468: MAYWOOD BORO, BERGEN COUNTY, NEW JERSEY. A standard N.J.G.C.S. disk, set in concrete flush with the ground on the west side of Maywood Avenue, approximately 125 ft. south of the centerline of Lenox Avenue. It is 16.17 ft. west of the centerline of Maywood Avenue, 49.54 ft. southwest of a tack in Pole #622; 34.10 ft. south of a tack in Pole #60061, 8.23 ft. north and 6.98 ft. southwest of 2 drill holes in the concrete curb. The monument is in front of a two-story dwelling #369. Companion monument #7467 is 1340.51 ft. southwest.

N. J. Grid Bearing Mon. #7467 to Mon. #7468: N 13° 56' 05.6" E

Mon. #7467:	feet	Mon. #7468:	feet
Elevation:	64.105	Elevation:	85.937
x-coord:	2,166,035.18	x-coord:	2,166,358.00
y-coord:	751,643.49	y-coord:	752,944.55
Recovered, 1953 FND 3/92		Recovered, 1953	



Appendix O
Wetlands Delineation Technical Memorandum

WETLANDS DELINEATION
TECHNICAL MEMORANDUM

PREPARED FOR:
STEPAN COMPANY
MAYWOOD, NEW JERSEY

PREPARED BY:
CH2M HILL
PARSIPPANY, NEW JERSEY

DECEMBER 1992

Engineers
Planners
Economists
Scientists

December 1, 1992

NJO22948.ST.WF

Mr. Jeffrey Gratz, Project Manager
U.S. Environmental Protection Agency
Special Programs Branch, Rm. 2930
26 Federal Plaza
New York, N.Y. 10278

Dear Mr. Gratz:

Subject: Maywood Chemical Company Sites
Administrative Order Index No. II-CERCLA-10105 and Administrative Order on Consent, Index No. II-CERCLA-70104

In accordance with the referenced orders, the enclosed Wetlands Delineation Technical Memorandum is forwarded for your information. Should you have any questions regarding the memorandum, please call me at (201) 316-9300.

Sincerely,

CH2M HILL

Tom B. Norris
Environmental Scientist

tld/NJC9/047C9.51
cc: Rodger Julin/Stepan Company
Susan Cange/USDOE
Tim Bryan/TRC Environmental
Susan Stoloff/TRC Environmental
Mary Manto/CH2M HILL/NJO

North Atlantic Regional Office
99 Cherry Hill Road, Suite 304
Parsippany, NJ 07054-1102
201.316.9300
FAX 201.334.5847

CONTENTS

SUBJECT: Wetlands Delineation

PREPARED BY: Kerry Iliff, CH2M HILL Environmental Scientist
John Longo, CH2M HILL Environmental Scientist

DATE: December 3, 1992

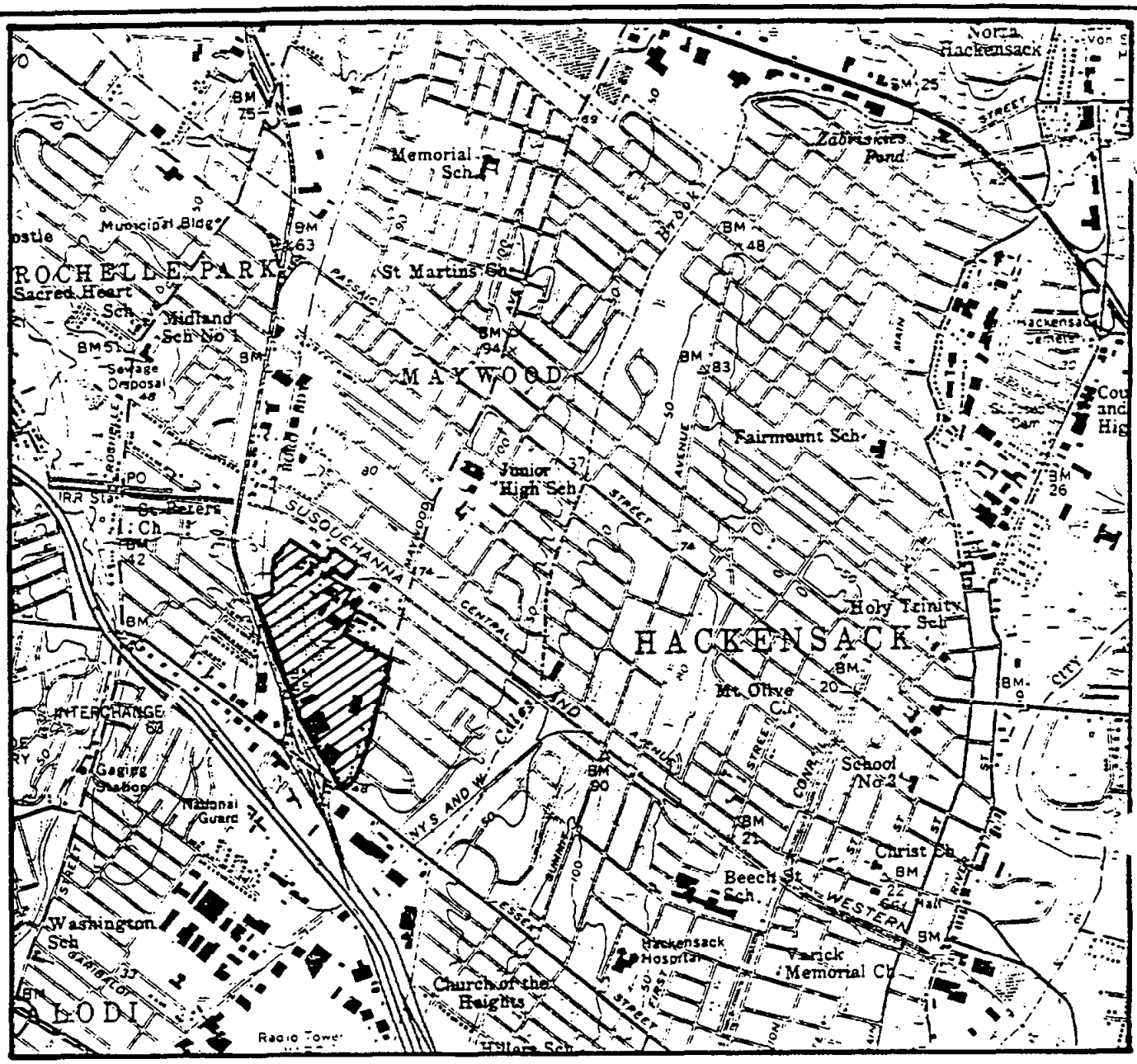
PROJECT: NJO22948.SR.WF

1.0 Introduction

A detailed jurisdictional wetland delineation has been conducted on the study area in the Township of Maywood, Bergen County, New Jersey. The area is bounded by Route 17 on the west, and Maywood Avenue on the east (Figure 1). The area includes the properties shown on Table 1. Land use consists of commercial and light industrial facilities located in a predominately residential area. The study area is within the Hackensack River watershed, and encompasses approximately 60 acres of urban development, drainage ditches, and mixed emergent/forested/mowed wetland areas.

Table 1
Property List

Block	Lot
124	Lots 31, 32, 40, 47, 48
124	Lot 30
124	Lot 17
124	Lot 1
124	Lot 2
124	Lot 3
124	Lot 4
124	Lot 5



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

QUADRANGLE LOCATION

REFERENCE: HACKENSACK QUADANGLE
U.S.G.S. 7.5 MIN. SERIES
DATED: 1981

LOCATION MAP

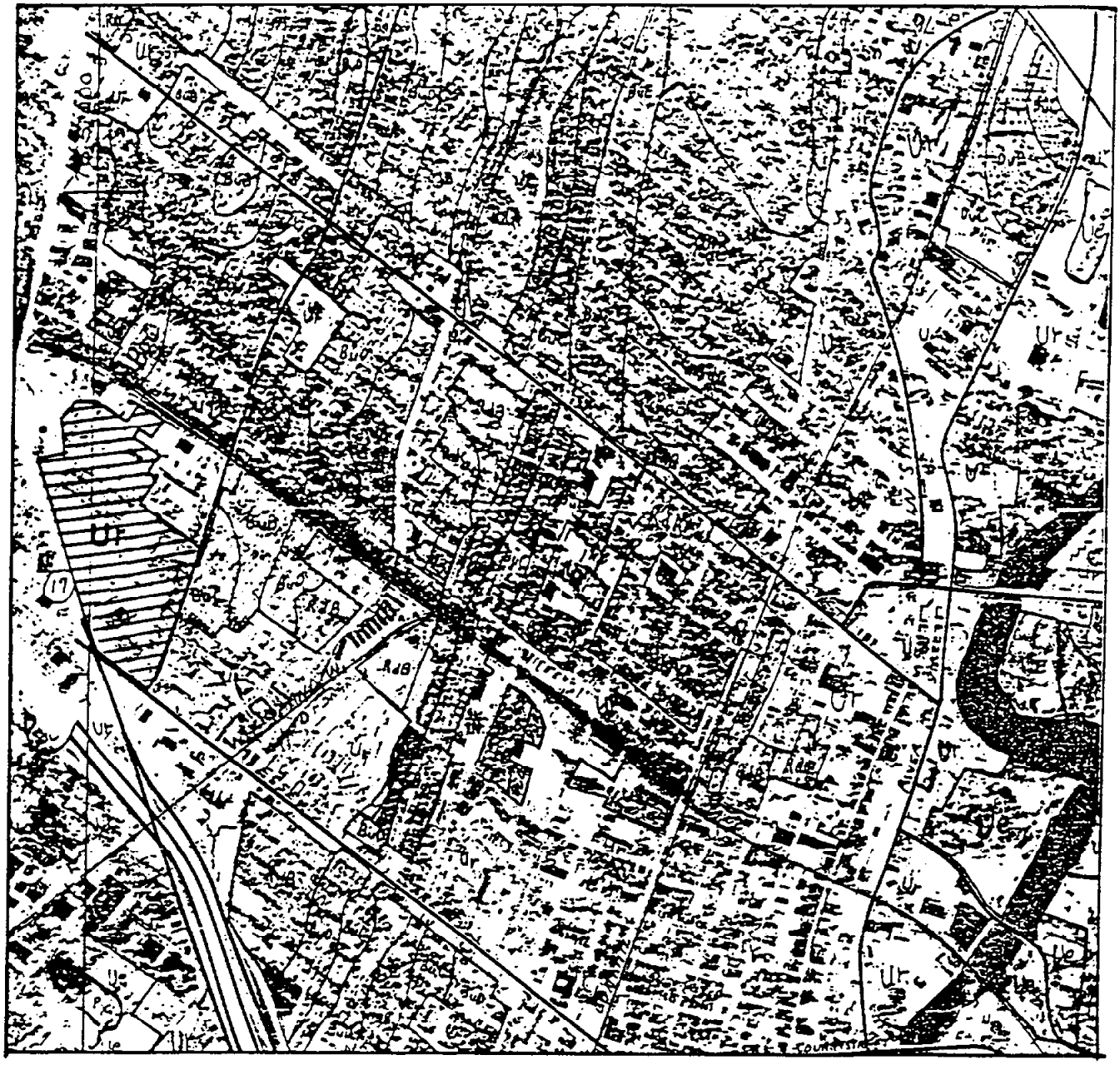
FIGURE 1

CH2MHILL

2.0 Field Investigation Methods and Procedures

A preliminary wetlands assessment was performed at the site on February 24, 1992 to identify and map potential jurisdictional wetland areas. The results of this assessment were used to identify the portions of the site that had the greatest probability to contain wetlands. CH2M HILL also conducted a preliminary review of existing environmental information to assist in the wetland delineation process. The hydric soils list for the state of New Jersey (Tiner, 1985) was reviewed to determine the location of potential wetlands on the site. Soil descriptions from the Bergen County Soil Survey (Bergen County Soil Conservation District, 1990) were also reviewed to further identify areas of hydric soils and to prepare a soils map (Figure 2). The National Wetland Inventory map (NWI) for the area was reviewed to assist in determining possible wetland areas on the site (Figure 3).

A detailed wetland delineation was performed on the site on April 20-21, 1992 utilizing the three parameter approach outlined in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Federal Interagency Committee for Wetland Delineations, 1989). A reconnaissance of the entire site was performed. Soil borings were located at noticeable changes in vegetation and topography. Locating the extent of the soil types and changes in plant community was difficult because of minimal topographic relief, presence of disturbed soil, and lack of native vegetation. To assist in the location of hydric soils and the extent of wetland-upland areas, random soil samples were taken with a soil auger within the mowed areas. Federal manual routine data sheets were completed at eight data points, including information on herbaceous species, shrubs, woody vines, saplings, trees, soil and hydrology. Photographs were taken at each data point to document site characteristics. Copies of the completed data sheets and photographs are included in the Appendix A and B, respectively. Data points were numbered and marked in the field with orange and black flagging, tied to vegetation or pink wire stakes. Wetland boundaries were identified in the field with numbered pink wire stakes, and pink and black flagging to indicate their location. Data point locations and wetland boundaries were surveyed and placed on a map (Figure 4).



REFERENCE: INTERIM SOIL SURVEY OF BERGEN COUNTY
BERGEN COUNTY SOIL CONSERVATION DISTRICT
JULY 1990

SOILS MAP

FIGURE 2

NATIONAL WETLANDS INVENTORY
UNITED STATES DEPARTMENT OF THE INTERIOR

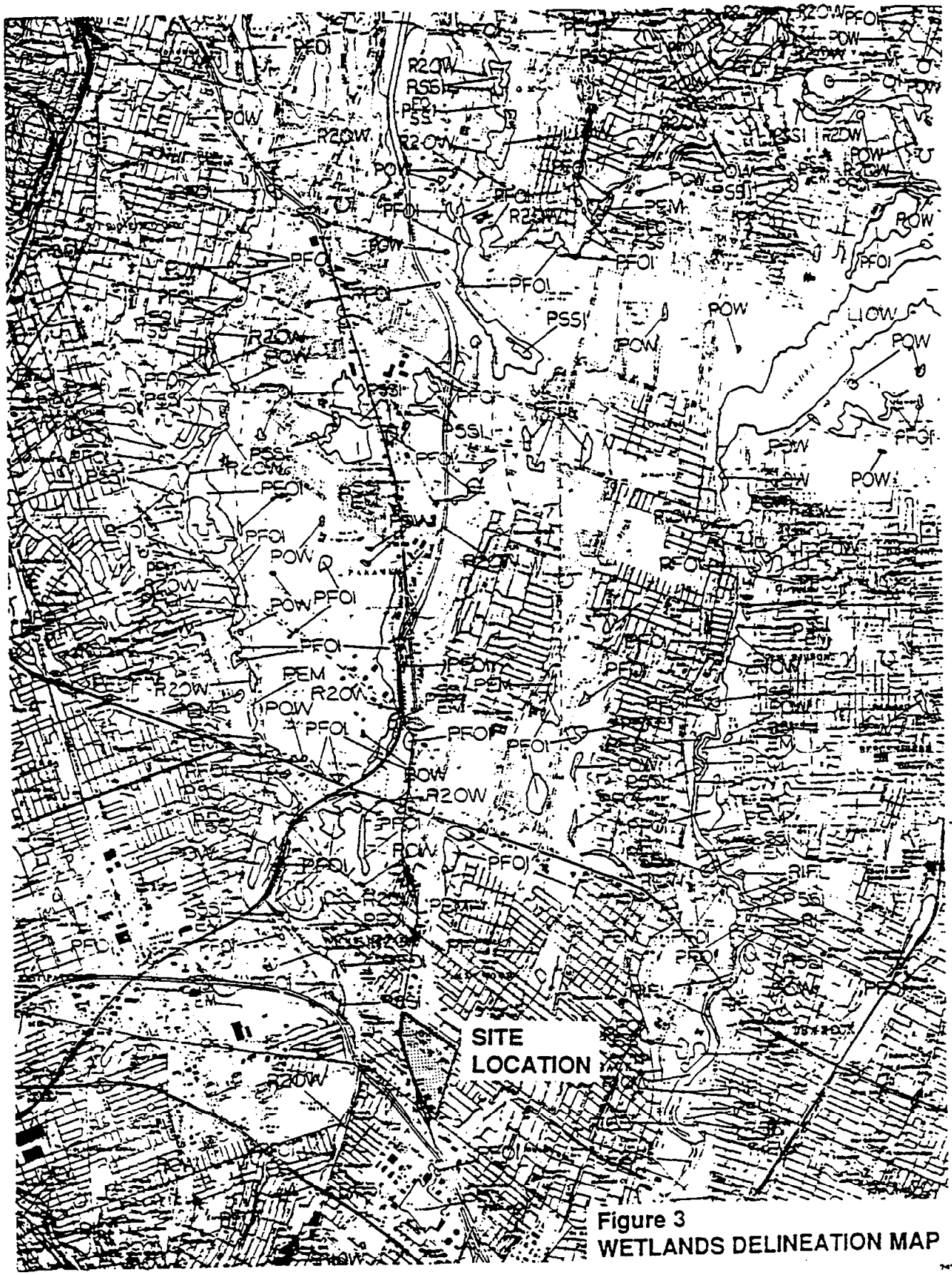
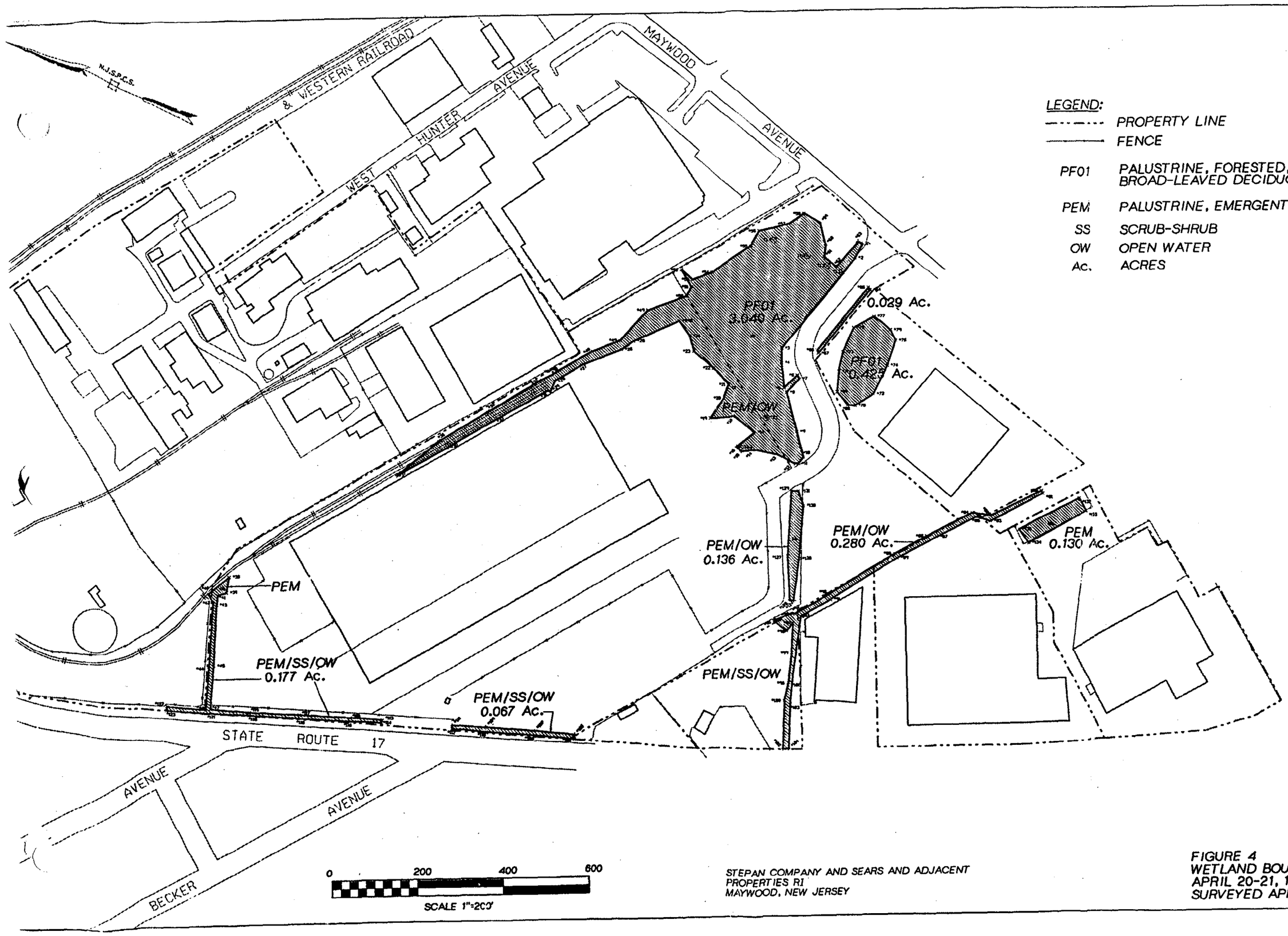


Figure 3
WETLANDS DELINEATION MAP

NEWARK NE
NEWARK

HACKENSACK, N.J.



LEGEND:

——·——·——	PROPERTY LINE
————	FENCE
PF01	PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS
PEM	PALUSTRINE, EMERGENT
SS	SCRUB-SHRUB
OW	OPEN WATER
Ac.	ACRES

STEPAN COMPANY AND SEARS AND ADJACENT PROPERTIES RI
MAYWOOD, NEW JERSEY

FIGURE 4
WETLAND BOUNDARY MAP:
APRIL 20-21, 1992
SURVEYED APRIL 22-24, 1992

3.0 Results

Soils

According to the Bergen County Soil Survey (Bergen County Soil Conservation District, 1990) only Urban Land (Ur) soil type is mapped on the 60 acre site. According to the survey, urban land consists of nearly level or gently sloping areas that have been developed for residential, commercial, or industrial use. During development these areas were leveled or cut and filled and covered with an impervious surface to such an extent that over 85 percent of the original soil has been altered. Included in the mapping unit are high density residential areas that are less than 85 percent covered and contain reworked soil material or Udorthents. No hydric soil types are mapped on the site.

Disturbed soil conditions were encountered in the vicinity of data points T2.1, D1 and D2. The upper 18 inches or so of soil, in the vicinity of T2.1 and D1, appeared to be fill material. The fill material consisted of clayey loam and displayed little or no horizonization, and few, if any mottles, or other signs of hydric conditions. A 3 inch layer of organic material was found immediately below the fill material. The organic material consisted of distinguishable vegetative matter. Soil characteristics below the organic layer in the wetland areas displayed hydric indicators such as mottling and gleying. In upland areas the soil below the organic layer was fairly bright and sandy, with few signs of inundation.

Radioactive material was encountered in the vicinity of T2.1 and D2. The material generally occurred approximately 12 inches below the ground surface near T2.1. This material, though moist, displayed no hydric characteristics. D2 is located within a Palustrine Broad-Leaved Deciduous (PFO1) area on the DeSaussure property. The natural soil in this location is buried under approximately 3.5 feet of bright-blue, silty fill material (See photograph of D2 in the Appendix). The extent of the fill was limited to the PFO1 area. Based upon the size of the trees growing in the immediate area, it appears that the fill material has been in place for many decades. The water table in this location was about 8-12 inches below the surface. The buried soil displayed strong hydric characteristics.

Wetlands

The NWI map did not show the presence of any wetlands within the study area boundaries. However, the results of the onsite delineation identified Palustrine Emergent (PEM) areas associated with the ditches that traverse the area. Two PFO1 areas were identified adjacent to Maywood Avenue entrance to the Sears property.

The PEM wetlands were dominated by common reed (*Phragmites australis*), and in a few areas, Cattails (*Typha latifolia*). In the area of data point T2.1, the vegetation consisted primarily of mowed turf grass, mixed with a few sedges and spike grass (*Eleocharis sp.*). The PFO1 wetlands were dominated by mature stands of red maple (*Acer rubrum*), sycamore (*Platanus occidentalis*), American elm (*Ulmus americana*), sweetgum (*Liquidambar styraciflua*), and mowed turf grass. The upland areas on the site are either impervious surfaces, or previously filled, mowed turf grass, or otherwise disturbed areas. Wetlands encompass approximately 4.1 acres of the study area.

4.0 Summary and Conclusions

The majority of the wetlands identified in the study area are PEM, mowed PEM, and PFO1. The hydrologic regime for the site is primarily influenced by run-off and a relatively high water table. The ditches in the area appear to have been put in place for offsite and onsite drainage control. All of the ditches contained flowing water at the time of the delineation.

The New Jersey Department of Environmental Protection and Energy (NJDEPE) requires transition areas around all wetland boundaries. The width of the transition area varies depending upon the type of classification assigned to the wetland by NJDEPE. Because their were no endangered or threatened plant or animal species identified in the area, the wetlands will not be classified as exceptional resource value wetlands. However, the wetlands within the site boundaries may be classified as freshwater wetlands of intermediate or ordinary resource value, and therefore, would have at least a 50 foot transition area assigned to them.

This jurisdictional wetland determination represents the best professional judgement of CH2M HILL, but a final administrative determination can be made only by the U.S. Army Corps of Engineers, the New Jersey Department of Environmental Protection and Energy, or both.

References Cited

Tiner Jr., R.W., *Wetlands of New Jersey*. U.S. Fish and Wildlife Service. Newton Corner, Massachusetts. pp. 40-53. 1985.

United States Department of Agriculture, *Interim Soil Survey of Bergen County*. pp. 59-135. 1990.

KERRY P. ILIFF
Environmental Scientist

Education

B.S., Renewable Natural Resources, University of Connecticut, Storrs

Experience

Mrs. Iliff is an environmental scientist with CH2M HILL with more than 4 years of experience in wetland projects. She has participated in wetland mitigation planning, design, and implementation projects in New Jersey, Maryland, and Virginia.

Recently, Mrs. Iliff managed and designed a mitigation plan for Atlantic Electric Company. She is project biologist for design, implementation, and monitoring for the life of the project. She is currently involved in a mitigation design project in Pompton Lakes, New Jersey. She has extensive experience in wetland delineation and permitting. Within the last 3 years, she has participated in more than 50 projects involving wetland issues.

Currently, Mrs. Iliff is involved in two wetland delineations in New Jersey: EPA-Raymark and Stepan Company. She is reviewing data and analyzing results, mapping wetlands, and writing a project report. At Raymark she is also conducting a characterization of the macrobiota and assessing the health of aquatic species.

On a similar project, Mrs. Iliff delineated and mapped the wetlands potentially affected by a proposed gravel-quarry operation for Genstar and the Bridgeton Port Authority in New Jersey.

In King and Queen County, Virginia, and the Oak Forest property in Cumberland County, Virginia, Mrs. Iliff helped with the wetland delineation component of the sanitary landfill Part A permit application for Browning-Ferris Industries. She was involved in reviewing and preparing data, mapping, and writing a report for the project.

Mrs. Iliff worked on wetland delineation and mapping as part of the environmental impact statements for the partial closure and realignment project at the U.S. Army's base at Fort Meade in Maryland and the base realignment and closure project at Fort Belvoir in Virginia.

Mrs. Iliff also participated in the benthic, water-quality, and alternatives analysis for the City of Norfolk's Lake Wright Dredging Program in Virginia. Her duties included field investigation of the wetlands on the site, sampling of lake-bottom sediment, various tasks related to analyzing alternatives for disposing of the dredged material, and a partial cost analysis for the dredging program.

KERRY P. ILIFF

As part of an environmental assessment (EA), Mrs. Iliff assisted in the bathymetric survey at the proposed Tompkins Basin Recreation Center at Fort Belvoir in Virginia. Her duties included survey work and obtaining depth soundings in Gunston Cove, where dredging is proposed, so that the location of the marina facility can be incorporated into the final plans. Mrs. Iliff also wrote sections of the EA pertaining to submerged aquatic vegetation, boating, and safety.

Mrs. Iliff participated as an assistant to the field biologists on the Du Pont surface water study of the James River in Richmond, Virginia. Water-quality data, such as dissolved oxygen, conductivity, turbidity, and pH, were collected, as were data on sediment, water, and fish for tissue analysis.

Mrs. Iliff helped review all National Environmental Policy Act documentation to determine CH2M HILL involvement and the responsibilities of various agencies with regard to the U.S. Army Corps of Engineers (COE) Coyote Creek mitigation project in San Jose, California. She identified environmental commitments by reach and phase, determined the status of the project, and listed updated or changed requirements for each agency in table form for COE planning.

Membership in Professional Organizations

Society of Wetland Scientists
The Oceanography Society

WDCRES2/020.51

JOHN P. LONGO
Environmental Scientist

Education

B.S., Biology, William Paterson College

Experience

Mr. Longo is an Environmental Scientist in CH2M HILL's Parsippany, New Jersey office. He is responsible for organizing and implementing field sampling events in accordance with regulatory requirements, compiling data, and assisting in report and document preparation.

Recently, Mr. Longo assisted in a jurisdictional wetland delineation on the Stepan Company site. At Stepan, he identified plants and animals, characterized soil, conducted hydrologic studies, and assisted in mapping.

Before joining CH2M HILL, Mr. Longo served as a laboratory assistant in a mobile laboratory performing PCB and lead analyses. He conducted soil, water, and air sampling for hazardous waste operations.

Mr. Longo assisted in the remedial evaluation of a construction site oil spill. He oversaw the spill's remediation and submitted a summary evaluation and remediation report. Mr. Longo also reviewed and edited final hazardous waste assessment reports for New York State Department of Transportation (NYSDOT) contracts.

As part of his academic research, Mr. Longo conducted field and laboratory duties to determine the seasonal variations of pore water chemistry in a salt water marsh. These duties included collecting soil core samples and determining field parameters. Mr. Longo performed the pore water extraction and subsequent chemical analysis using ion chromatography and ICP emissions spectroscopy.

WDCRES4/11479.51

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI / JL Date: 4/20/92
Project Site: STEPAN CO
County: Bergen State: N.J
Applicant/Owner: Stepan Plant Community #/Name: T1.1

Do normal environmental conditions exist at the plant community? Yes: X No: ___ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: ___ No: X (If yes, explain on back)

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Phalaris arundinacea	10	FACW+	H
2.	Graminae sp. (Turf grass)	70	—	H
3.	Rumex verticillatus	5	OBL	H
4.	Carex sp.	10	—	H
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: 50
Is the hydrophytic vegetation criterion met? Yes: X No: ___
Rational: Although turf grass is dominant, other plant sp. present are hydrophytic.

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol ___ Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 10yr 2/1 Mottle Colors: —
Other hydric soil indicators: few oxidized concretions of iron
Is the hydric soil criterion met: Yes: X No: ___
Rational: Soil has chroma ≤ 2

HYDROLOGY

Is the ground surface inundated? Yes: X No: ___ Surface water depth: Surface
Is the soil saturated? Yes: X No: ___
Depth to free-standing water in pit/soil probe hold: Surface
Mark other field indicators of surface inundation or soil saturation below:
___ Oxidized root zones ___ Water-stained leaves X Water marks X Water-borne sediment deposits
X Wetland drainage pattern X Surface scoured leaves X Drift lines X Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: Although surface ponding may be due to runoff from road, the area appears to pond often.

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: All criteria met

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI / JL Date: 4/20/92
Project Site: STRpan Co.
County: Bergen State: NJ
Applicant/Owner: Sears Plant Community #/Name: T1.2

Do normal environmental conditions exist at the plant community? Yes: X No: ___ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: ___ No: X (If yes, explain on back)

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Glechoma hederacea	80	FACU	H
2.	Graminae sp	10	—	H
3.	Rosa multiflora	30	FACU	Sh
4.	Acer rubrum	30	FACW	Stp
5.	Acer rubrum	30	FAC	T
6.	Ulmus americana	20	FACW	T
7.	Quercus alba	10	FACU-	T
8.	Red oak Sp. (Quercus)	10	—	T
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: <50
Is the hydrophytic vegetation criterion met? Yes: X No: X
Rational: Most trees & shrubs are growing on hummocks. Little or no understory. Ponding. Area slightly higher than T1.1.

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol X Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 10 YR 2/1 @ 14"-18" Mottle Colors: 2.5 YR 3/3
Other hydric soil indicators: Rocky Soil / Mottles are many & small.
Is the hydric soil criterion met: Yes: X No: ___
Rational: Chroma < 2 w/ mottles.

HYDROLOGY

Is the ground surface inundated? Yes: ___ No: X Surface water depth: —
Is the soil saturated? Yes: ___ No: X
Depth to free-standing water in pit/soil probe hold: — 14"
Mark other field indicators of surface inundation or soil saturation below:
X Oxidized root zones ___ Water-stained leaves ___ Water marks ___ Water-borne sediment deposits
___ Wetland drainage pattern ___ Surface scoured leaves ___ Drift lines ___ Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: Signs of hydrology (water table) above 15".

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: Borderline Situation; Small area surrounded by very wet characteristic PFO1.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI / JL Date: 4/20/92
Project Site: Stephan Co
County: Bergen State: NJ
Applicant/Owner: Sears Plant Community #/Name: T1.3

Do normal environmental conditions exist at the plant community? Yes: X No: ___ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: ___ No: X (If yes, explain on back)

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Gramineae sp.	30	—	H
2.	Glechoma hederacea	30	FACU	H
3.	Allium canadense	5	FACU	H
4.	Rumex verticillatus	5	OBL	H
5.	Solidago sp.	5	—	H
6.	Ulmus americana	20	FACW-	SH
7.	Fraxinus americana	20	FACW	SH
8.	Toxicodendron radicans	2	FAC	V
9.	Acer rubrum	60	FAC	T
10.	Red Oak sp.	10	—	T
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: 50%
Is the hydrophytic vegetation criterion met? Yes: X No: ___
Rational: Predominance of hydrophytic veg. (some not able to identify).

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol ___ Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 10yR 2/1 @ 12" Mottle Colors: ___
Other hydric soil indicators: Black loam
Is the hydric soil criterion met: Yes: X No: ___
Rational: Chroma ≤ 2.

HYDROLOGY

Is the ground surface inundated? Yes: X No: ___ Surface water depth: Surface
Is the soil saturated? Yes: X No: ___
Depth to free-standing water in pit/soil probe hold: Surface
Mark other field indicators of surface inundation or soil saturation below:
___ Oxidized root zones ___ Water-stained leaves ___ Water marks X Water-borne sediment deposits
X Wetland drainage pattern X Surface scoured leaves X Drift lines X Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: Wetland Hydrology present. High water table.

JURISDICTION

NO PHOTO.

Is the plant community a wetland: Yes: X No: ___
Rational: All criteria met

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI / JZ Date: 9/24/92
Project Site: Stepan Co.
County: Bergen State: N.J.
Applicant/Owner: Sears Plant Community #/Name: T1 4

Do normal environmental conditions exist at the plant community? Yes: X No: ___ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: ___ No: X (If yes, explain on back)

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	V. burnum recognitum	10	FACW-	H
2.	S. spiacuspus tortidus	20	OBL	H
3.	Aillium canadense	3	FACW	H
4.	Graminae sp.	5	—	H
5.	Rosa multiflora	5	FACW	SH
6.	Acer rubrum	10	FACW-	SH
7.	Prunus serotina	10	FAC	SH
8.	Toxicodendron radicans	3	FACW	SH
9.	Fraxinus pennsylvanica	3	FAC	V
10.	Acer rubrum	10	FACW-	SAP
11.	Fraxinus pennsylvatica	20	FAC	T
12.	Ulmus americana	5	FACW-	T
13.	Liquidambar Styraciflua	10	FACW-	T
14.		5	FAC	T
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: >50
Is the hydrophytic vegetation criterion met? Yes: X No: ___
Rational: >50 FAC, FACW, OBL veg. present.

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol X Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 10 yr 3/1 Mottle Colors: 5yr 3/3
Other hydric soil indicators: Sand loam
Is the hydric soil criterion met: Yes: X No: ___
Rational: Chroma ≤ 2 w/ mottles.

HYDROLOGY

Is the ground surface inundated? Yes: ___ No: X Surface water depth: —
Is the soil saturated? Yes: X No: ___
Depth to free-standing water in pit/soil probe hold: 2"
Mark other field indicators of surface inundation or soil saturation below:
X Oxidized root zones X Water-stained leaves ___ Water marks ___ Water-borne sediment deposits
X Wetland drainage pattern X Surface scoured leaves ___ Drift lines X Morphological adaptations
Is wetland hydrology criterion met: Yes: ___ No: ___
Rational: Presence of hydrology High water table.

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: A2e criterion met

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: Kerry Ilitt / John Longo Date: 4/20/92
Project Site: Stephan Co.
County: Bergen State: NJ
Applicant/Owner: Sears Plant Community #/Name: T2.1

Do normal environmental conditions exist at the plant community? Yes: X No: ___ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: ___ No: X (If yes, explain on back)

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Typha latifolia	40	OBL	H
2.	Graminae sp.	10	—	H
3.	Lythrum salicaria	5	FACW+	H
4.	Rumex verticillatum	5	OBL	H
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: ≥50
Is the hydrophytic vegetation criterion met? Yes: X No: ___
Rational: ≥50% FAC, FACW, OBL plant sp. present

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol X Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 7.5YR 2/0 Mottle Colors: 10YR 3/3
Other hydric soil indicators: Deep organic layer
Is the hydric soil criterion met: Yes: X No: ___
Rational: Data point is w/in 3' of stream (ditch) & soil criteria met.

HYDROLOGY

Is the ground surface inundated? Yes: ___ No: X Surface water depth: —
Is the soil saturated? Yes: X No: ___
Depth to free-standing water in pit/soil probe hold: 6
Mark other field indicators of surface inundation or soil saturation below:
___ Oxidized root zones X Water-stained leaves X Water marks X Water-borne sediment deposits
X Wetland drainage pattern X Surface scoured leaves X Drift lines X Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: Hydrology present

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: All criteria met

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI/JL Date: 4/21/92
Project Site: Stepan Co
County: Bergen State: NJ
Applicant/Owner: Stepan Co Plant Community #/Name: T2.2

Do normal environmental conditions exist at the plant community? Yes: ___ No: X (If no, explain on back) Mowed
Has the vegetation, soils, and/or hydrology been disturbed? Yes: X No: ___ (If yes, explain on back) Fill

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Carex sp.	5	—	H
2.	Glechoma hederacea	20	FACU	H
3.	Cirsium sp.	5	—	H
4.	Graminae sp. (Turf Grass) Mowed	80	—	H
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: <50
Is the hydrophytic vegetation criterion met? Yes: ___ No: X
Rational: < 50% OBL, FACW, FAC present. Area has been filled or mowed recently.

SOILS

Series/Phase: Urbanland Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol ___ Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 5Y 2.5/1 @ 6 Mottle Colors: 5Y 5/1 @ 6
Other hydric soil indicators: AT 12" Thorium begins
Is the hydric soil criterion met: Yes: X No: X
Rational: Aggregate fill placed on top of Thorium - difficult to distinguish hydric characteristics.

HYDROLOGY

Is the ground surface inundated? Yes: ___ No: X Surface water depth: —
Is the soil saturated? Yes: X No: ___
Depth to free-standing water in pit/soil probe hold: ~16"
Mark other field indicators of surface inundation or soil saturation below:
X Oxidized root zones ___ Water-stained leaves ___ Water marks X Water-borne sediment deposits
X Wetland drainage pattern ___ Surface scoured leaves ___ Drift lines ___ Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: Ponding occurs, evidence by areas w/ little or no vegetation saturated soil ox. root zones in many

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: Determined by hydrology & location on slope wetland boundary determined by topography is this acc.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI / JL Date: 4/21/92
Project Site: Stepan Co
County: Bergen State: NJ
Applicant/Owner: Sears Plant Community #/Name: D1

Do normal environmental conditions exist at the plant community? Yes: ___ No: X (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: X No: ___ (If yes, explain on back)

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Phragmites australis	60	FACW	H
2.	Typha latifolia	30	OBL	H
3.	Carex sp.	3	—	H
4.	Cirsium sp	3	—	H
5.	Hydrocotyle americana	5	OBL	H
6.	Graminae sp. (mowed)	20	—	H
7.	Asclepias incarnata	2	OBL	H
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: >50
Is the hydrophytic vegetation criterion met? Yes: X No: ___
Rational: >50 OBL, FACW or FAC veg. sp. present.

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol ___ Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 2.5Y 2.5/0 Mottle Colors: ___
Other hydric soil indicators: possible buried remnant soil (@ 15" deep)
Is the hydric soil criterion met: Yes: X No: ___
Rational: Chroma ≤ 2 no mottles Hydrophytic veg. assumes wet conditions.

HYDROLOGY

Is the ground surface inundated? Yes: ___ No: X Surface water depth: —
Is the soil saturated? Yes: ___ No: X
Depth to free-standing water in pit/soil probe hold: 16"
Mark other field indicators of surface inundation or soil saturation below:
___ Oxidized root zones X Water-stained leaves ___ Water marks X Water-borne sediment deposits
___ Wetland drainage pattern X Surface scoured leaves ___ Drift lines ___ Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: Drainage pattern slight, however area experiences ponding frequently.

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: All criteria met.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD

Investigators: KI / JT Date: 4/21/92
Project Site: Stepan Co.
County: Bergen State: NJ
Applicant/Owner: JD Swayze Plant Community #/Name: D2

Do normal environmental conditions exist at the plant community? Yes: X No: ___ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been disturbed? Yes: X No: ___ (If yes, explain on back) →

VEGETATION

Stratum	Dominant Plant Species	% Cover	Indicator Status	
1.	Vitis sp.	5	—	V
2.	Toxicodendron radicans	5	FAC	V
3.	Acer rubrum	10	FAC	SAP
4.	Fraxinus americana	10	FACW	SAP
5.	Nyssa sylvatica	5	FAC	SAP
6.	Ailanthus altissima	2	NI	SAP
7.	Platanus occidentalis	20	FACW	T
8.	Ulmus americana	20	FACW	T
9.	Acer rubrum	30	FAC	T
10.	Liquidambar styraciflua	10	FAC	T
11.				
12.				
13.				
14.				
15.				

Percent of dominant species that are OBL, FACW, and/or FAC: >50
Is the hydrophytic vegetation criterion met? Yes: X No: ___
Rational: >50 OBL, FACW or FAC veg. sp. present

SOILS

Series/Phase: Urban Land Subgroup: —
Is the soil on the hydric soils list? Yes: ___ No: X Undetermined: ___
Mark other soil conditions below:
___ Histosol ___ Mottled ___ Gleyed ___ Histic epipedon present
Matrix Color: 10YR 5/1 @ 4' Mottle Colors: 2.5Y 3/0 — (Buried Soil)
Other hydric soil indicators: Data taken below fill material (~4') 3.5' of blue soil has been placed over entire wetland area.
Is the hydric soil criterion met: Yes: X No: ___
Rational: Chroma ≤ 2

HYDROLOGY

Is the ground surface inundated? Yes: ___ No: X Surface water depth: —
Is the soil saturated? Yes: X No: ___
Depth to free-standing water in pit/soil probe hold: 10"
Mark other field indicators of surface inundation or soil saturation below:
___ Oxidized root zones ___ Water-stained leaves ___ Water marks X Water-borne sediment deposits
___ Wetland drainage pattern ___ Surface scoured leaves ___ Drift lines ___ Morphological adaptations
Is wetland hydrology criterion met: Yes: X No: ___
Rational: High water table - disturbed wetland.

JURISDICTION

Is the plant community a wetland: Yes: X No: ___
Rational: All criteria met

T2.1
PEM (Mowed)
+ Turf Grass

T2.2
PEM & Ditch

T1.1
PFO1/Turf Grass

T1.2
PFO1/Turf Grass

T1.4
PFO1-No
Understory

D1-PEM
Phrag/Turf Grass

D2
PF01-Showing
Bright-Blue-Silty
Soil and Remnant Soil

Appendix P
Rock Core Logs

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	BRMW2 SHEET 1 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5'); water Rotary ORIENTATION Vertical, unoriented

WATER LEVEL AND DATE _____ START 3/19/92 FINISH 3/19/92 LOGGER L. Vogel, viewed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	RQD (%)	FRACTURES PER FOOT	DISCONTINUITIES DESCRIPTION: DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS	GRAPHIC LOG	LITHOLOGY: ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	COMMENTS: SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC
	R1 4.4/5=88%	2.97/5=59.4%	0	20.3' mechanical break		20-21.15' SANDSTONE, pale reddish brown, hard, very fine-fine sand, wellsorted	0909 begin coring 20-25'
				20.8' mechanical break			
21.0			>10	21.1'-21.6' numerous veins, open approx. 10 broken pieces recovered, subhorizontal. ? quartz coating on each thin pieces all <.1' thick planar, rough		21.15-24.0' MUDSTONE, with thin interbeds of sandstone, pale reddish brown, grayish red, soft, cross beds abundant, (thin < .01"). Crossbeds of sandstone & mudstone more abundant from 22.5-24	
				21.65' Vein, healed (broken by LV) thin quartz and calcite coating			
22.0			2	21.8 Vein, open, planar, smooth, thin coating of calcite and quartz, 2 coatings			
				22.06' and 22.4' Veins, tight, planar smooth thin coating of calcite and quartz,			
				22.7' Vein, healed, very thin			
			7	23'-23.5' multiple Veins, open, smooth, undulating, quartz and clay coating subhorizontal, approx. 6 broken core pieces			
24.0				23.85' Vein, open, stepped, smooth, weathered, mica on edge, clay, coating approx. .01'		24.0-36.9' SANDSTONE, grayish red, very fine-fine sand, hard, wellsorted, bedding barely visible, quartz, bioturbation at bottom?	
			1	24.2' Joint, open, undulating, smooth, subhorizontal			0952 trip out core 20-25'
				24.8' Mechanical break			
25.0							1000 begin coring 25-30'
	R2 4.8/5=95%	4.32/5=86.6%	1	25.4' Joint, open, undulating, rough,			
26.0				25.9' Mechanical break			
			1	26.55' Vein, tight, white coating/specks (reacts greatly to HCl,) planar, rough			
				26.75' Mechanical break			
27.0				27.1'-27.8' Mechanical breaks crisscrossing			
			0				
28.0							
			0	28.6' Mechanical break			
29.0							
			0				

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	BRMW2

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION _____ **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5'); water Rotary **ORIENTATION** Vertical, unoriented

WATER LEVEL AND DATE _____ **START** 3/19/92 **FINISH** 3/19/92 **LOGGER** L. Vogel, viewed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			0	30.55' Mechanical break			1030 tripout core 25-30'
31.0				30.85'-31.1' Mechanical breaks crisscross			1035 begin coring 30-35'
			0				
32.0	R3 4.9/5=98%	4.77/5=95.4%					
			0	32.2' Mechanical break 32.3' Mechanical break			
33.0							
			0	33.1' Mechanical break			
				33.6' 2 Mechanical breaks			
34.0			0				
35.0							1058 tripout core 30-35'
			0				1104 begin coring 35-40'
36.0				35.85'-36.03' Mechanical break, friable sandstone			
			0				
37.0	R4 4.25/5=85%	3.47/5=69.4%				36.9-37.6' **MUDSTONE**, grayish red, soft smooth surface, finely laminated thin vein of calcite at 37.35	Well taking water approx. 36.5'
			1	37.1' Mechanical break 37.2' joint, open, smooth, undulating, slightly weathered, subhorizontal 37.3' Mechanical break 37.45'-37.55' Mechanical break, weak spot 38.25' Mechanical break 38.3'-38.5' vein, healed calcite, thin 38.7' Mechanical break		37.6-38.5' **SANDSTONE**, pale reddish brown, fine-med. sand, hard, some soft grains, quartz crossbeds at top with mudstone 38.5-41.1' Thin interbeds of **MUDSTONE, SANDSTONE**, pale reddish brown, SS hard, MS soft, crossbedding slight fining downward fine-med sand at 38.95-39 zone of white, soft-hard material, in sandstone noncalcareous, easily scratched feldspar ? doesn't react to HCl can be scratched with knife, intermixed with fine sandstone.	
38.0			2				
39.0			1	38.9' joint, open, stepped, smooth, subhorizontal 38.7'-39.25' joint, open-tight, approx. 80 degrees, missing piece at top & bottom 38.70'-38.85' and 39.15'-39.25' 39.15' joint, open, undulating, smooth			1132 tripout core 35-40' 1139 begin coring 40-45'

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.WI	BRMW2 SHEET 3 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5'); water Rotary ORIENTATION Vertical, unoriented

WATER LEVEL AND DATE _____ START 3/19/92 FINISH 3/19/92 LOGGER L. Vogel, viewed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
	R5 5/5=100%	4.66/5=93.2%	0	40'-40.2' subhorizontal, joint, open, missing piece, undulating smooth			
41.0			2	41.0' joint, open, smooth, undulating, slightly weathered 41.1' BED PARTING, open, planar, rough		41.1-45.4' SANDSTONE, pale red pale reddish brown, 2 fining upward sequences 41.1-42.5' and 42.5-45.4' very fine-fine sand, coarsening into medium coarse quartz feldspar, mudstone liths, sands, well graded pebbles of evaporite? react highly to HCl, very soft, scratched by nail located in coarse beds.	
42.0			0	41.95' Mechancial break			
			0	43.4' Mechanical break 43.65' Mechanical break 43.8' Mechanical break			
44.0			0	44.3' Mechanical break 44.5' Mechanical break			
45.0	R6 5/5=100%	4.36/5=87.2%	0	45.7' Mechanical break		45.4-50.0' SANDSTONE, pale red, pale reddish brown, very fine-fine sands, hard, zones of mudstone at 47-47.19', 47.55-48.4', grayish red; soft, white zone feldspar? (similar to 38.95'-39.00') at 47.15'-47.35' doesn't react to HCl, soft-hard, crossbeds throughout core length.	1200 tripout core 45-50' 1209 begin coring 45-50'
46.0			1	46.4'-46.83' joint, tight, undulating, smooth, approx. 70 deg.			
47.0			4	47' joint, open, stepped, rough, weathered, subhorizontal 47.1' joint, open, planar, rough, subhorizontal 47.55', 47.65', 47.95', 48.05', 4 joints, open, planar, rough, weathered, subhorizontal, trace clay coating			
48.0			2	48.75' Joint, tight, undulating, rough, 60 deg. meets with joint at 49'			
49.0			1	49' joint, tight, undulating, rough, subhorizontal, thin crack from 49'-49.6' 49.6' Mechanical break			1254 tripout core 45-50' end of coring

PROJECT NUMBER	BORING NUMBER	
NJ022948.SR.SI	BRMW13	SHEET 1 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION _____ **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5'), water rotary **ORIENTATION** Vertical, unoriented

WATER LEVEL AND DATE _____ **START** 4/9/92 **FINISH** 4/9/92 **LOGGER** S. Repko

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH, AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			3	21.2' Fracture, weathered 21.5' Fracture, weathered		21'-36' SANDSTONE, medium reddish brown, massive, hard-very hard, some quartz-rich bands, weathering only in fractures, no visible primary porosity.	See Soil Boring Log 0845 Begin coring 20'-25'
22.0			6	21.95' Fracture, weathered 22.0' Fracture, slightly weathered 22.1' Fracture, slightly weathered 22.75'-23.0' Fracture zone, weathered			
23.0	R1 4.9/5.0=98%	2.41/5=48.2%	4	23.2'-23.5' Fracture zone, weathered			drilling smooth 25.8' Begin losing fluid
			1	24.3' Fracuture, slightly weathered			
25.0			0	25.0' Mechanical break 25.4' Mechanical break			0930 tripout core 21'-26' 0935 begin coreing 26'-31'
26.0				25.8' Mechanical Break			driller estimate approximately 50% circulation loss from 26'-32'
			4	26.5' Fractures			
27.0				26.9' Fractures			
			2	27.2'-27.8' Vertical break (fracture?)			
28.0	R2 5.0/5.0=100%	4.87/5=93.4%	3	28.5'-29.33' Fractures (vertical and horizontal)			smooth drilling
29.0			3				
30.0			1	30.5' Breaks mechanical & natural			

CRM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	BRMW13 SHEET 2 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5'), water rotary ORIENTATION Vertical, unoriented

WATER LEVEL AND DATE _____ START 4/9/92 FINISH 4/9/92 LOGGER S. Repko

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			4	31.3' Mechanical break 31.2'-31.75' Breaks-tight (mechanical?)			1007 tripout core 26'-31' 1012 begin coring 31'-26'
32.0			2	32.2' Fractures, horizontal, vertical break			Circulation loss approximately 10%
33.0	R3 5.0/5.0=100%	3.78/5=75.6%	1	33.1' Fracture, slightly weathered			
34.0			2	34.1' Fracture, slightly weathered 34.5' Fracture, slightly weathered			
35.0			11	35.1', 35.5' 2 Fractures, weathered 35.5'-36.0' Fracture zone, weathered			1050 tripout core 31'-36' 1100 begin coring 36'-41'
36.0			1			36'-51' SANDSTONE, medium reddish brown, massive, very little weathering (fractures only), hard-very hard, no visible primary porosity.	
37.0			4	37.2'-37.3' Fracture zone, weathered			Coring rate approximately 5 feet/40 min=0.13 feet/min
38.0	R4 5.0/5.0=100%	4.79/5=95.8%	3	37.9' Fracture, slightly weathered 38.5' Fracture, slightly weathered			Circulation loss approximately 10%
39.0			1				
40.0			1				drilling smooth
				40.9' Fracture, slightly weathered			

PROJECT NUMBER	BORING NUMBER
NJ022948.SR.SL	BRMW13 SHEET 3 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION _____ **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5'), water rotary **ORIENTATION** Vertical, unoriented

WATER LEVEL AND DATE _____ **START** 4/9/92 **FINISH** 4/9/92 **LOGGER** S. Repko

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			1				1143 tripout core 36'–41' 1150 begin coring 41'–46'
42.0			1	42.0' Fracture, slightly weathered			
			1	42.5' Fracture, slightly weathered			
43.0	R5 5.0/5.0=100%	4.87/5=93.4%	1				
			2	44.1' Fracture, weathered			
45.0			1	44.6' Fracture, slightly weathered 44.7' Fracture, slightly weathered			
				45.6' Fracture, slightly weathered			
46.0			2	46.2'–46.4' Fracture zone, with vertical and horizontal fractures			1245 tripout core 41'–46' 1250 begin coring 46'–51'
47.0			1				
48.0	R6 4.75/5.0=95%	3.91/5=78.2%	0	47.9' Fracture zone, weathered (small)			rough drilling inc. circulation loss approximately 30%
49.0			?	49'–50.1' Fracture zone			
50.0			0				1330 tripout core 46'–51' End of coring @ 51'

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	BRMW17 SHEET 1 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobil Rig w/NX Core (5') water rotary ORIENTATION Vertical unoriented

WATER LEVEL AND DATE _____ START 3/23/92 FINISH 3/23/92 LOGGER L. Vogel, viewed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
	R1 4.95/5=99%	4.75/5=95%	1	20.2' Joint, open, planar rough, subhorizontal 20.45' Mechanical break		20'-23.3' SANDSTONE, pale red-pale reddish brown, hard fining upward sequence, poorly sorted, fine-medium sand coarsening to coarse-medium sand, trace coarse & pebbles throughout, quartz, feldspar, calcite, mudstone liths, rounded grains poorly, bedded	1007 begin coring 20'-25'
21.0				20.95' Mechanical break 21.1' Mechanical break			
			0	21.7' Mechanical break			
22.0							22' well taking H20
			0	22.2' Mechanical break 22.44' Mechanical break			
				22.95' Mechanical break			1041 tripout core 20'-25' 1043 begin coring 25'-30'
			0	23.5' Mechanical break to fit in box		23.3'-25.5' SILTSTONE, pale red-pale reddish brown, hard, bioturbation throughout 23.5'-24.7', calcite in matrix, thin MUDSTONE BAND at 23.5', soft	
24.0				24.0' Mechanical break			
			1	24.35' Mechanical break			
25.0				24.95' End of core run break, vein? undulating, smooth, evaporite coating, subhorizontal, reacts with HCl greatly			
	R2 4.87/5=97%	4.05/5=81%	3	25.3'-25.4' Numerous joints, open-tight, undulating smooth, slightly weathered 25.45' Mechanical break 26.0' Mechanical break		25.5'-28.9' SANDSTONE, pale red-grayish red, hard, porous fine-medium sand, quartz, feldspar, subangular, orange specks throughout, poorly sorted porousity varies throughout core length	
26.0				26.2' Mechanical break			
			0	26.7' Mechanical break			
27.0				27.2' Mechanical break			
			0				
28.0				28.0' Mechanical break			
			1				
29.0				28.9' BEDPARTING, open, undulating, smooth, clay coating		28.9'-35' SANDSTONE, very fine-fine sand, with silt, grayish red trace very coarse sand, slight fining upward sequence, hard, quartz, feldspar	1112 tripout core 25'-30' 1113 begin coring 30'-35 (actually 29.8'-35')

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	BRMW17 SHEET 2 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobil Rig w/NX Core (5') water rotary ORIENTATION Vertical unoriented

WATER LEVEL AND DATE _____ START 3/23/92 FINISH 3/23/92 LOGGER L. Vogel, viewed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
	R3 5.2/5=104%	5.2/5=104%	0	30.0' Mechanical break, evaporite in crack 30.2' Mechanical break 30.6' Mechanical break			
31.0				31.2' Joint, open, undulating, rough, subhorizontal 31.45' Mechanical break			
32.0				32.05' Mechanical break			
33.0				33.3' Mechanical break 33.65' Mechanical break			
34.0				34.3' Mechanical break			
35.0				34.9' Mechanical break			
	R4	3.27/5=65.4%	<1	35.1' Joint, open, undulating, smooth, orange staining 35.3'–35.4' Crisscrossing mechanical breaks		35'–39.2' SANDSTONE, pale red, hard, quartz, feldspar, bioturbation?, fine–medium sand thin band of mudstone at 35.9'–36.2', soft, trace bedding (barely noticeable)	1140 tripout core 30'–35' 1143 begin coring 35'–40'
36.0			<5	35.9'–36.2' numerous broken pieces, slightly weathered joints?, open, undulating, rough, trace clay coating 36.3' Mechanical break			
37.0			?	36.7'–36.8' Joints, tight, slightly weathered, planar, rough 37.2'–37.35' Numerous broken pieces, joints, open, planar, rough 37.5' Joint, open, undulating, smooth 37.6' Joint, healed			
38.0			0				
39.0			<10	38.9' Mechanical break to fit in box 39.2'–39.45' Numerous joints, open, planar, planar, smooth, slightly weathered 39.6', 39.7', 39.75', 3 Joints open, planar, smooth, slightly weathered, trace clay coating		39.2'–42.05' SILTSTONE, grayish red, soft, cobbles of very soft material throughout (sparse), evaporite, reacts to HCL, thinly bedded, trace bioturbation	1228 tripout core 35'–40' 1230 begin coring

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.SL	BRMW17 SHEET 3 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobil Rig w/NX Core (5') water rotary ORIENTATION Vertical unoriented

WATER LEVEL AND DATE _____ START 3/23/92 FINISH 3/23/92 LOGGER L. Vogel, viewed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			0	40.35'-40.65' Vein, healed			
41.0			1				
42.0	R5 5/5=100%	4.74/5=94.8%	0	41.95' Joint, tight, planar, smooth, subhorizontal, slightly weathered, trace orange staining 42.4' Mechanical break 42.7' Mechanical break 42.95' Mechanical break		42.05'-43.65' SANDSTONE, pale red, hard, quartz, feldspar, fine-medium sand, calcite in matrix; cobble size grains of quartz, mudstone liths, feldspar, rounded	
			1	43.65' BEDPARTING, open, planar, smooth, missing piece		43.65'-44.5' MUDSTONE, grayish red, soft finely bedding, thin orthoclase band at 43.9' and cobble at 44.3'	
44.0			4	44.2'-44.3', 2 Veins, tight, planar, smooth, thin calcite coating, slightly weathered		44.5'-45.4' SANDSTONE, pale red, hard, quartz, feldspar, fine-medium sand, bioturbated coarse sand throughout, mudstone liths	1307 tripout core 40'-45' 1309 begin coring 45'-50'
46.0			3	45.0'-45.03', 2 Veins, tight, undulating rough, thin calcite coating, possibly reealed & broken by drilling 45.4' BEDPARTING, open, planar, smooth		45.4'-46.0' MUDSTONE, grayish red, soft, finely bedded	
46.0				45.65'-45.85', 2 Joints, open, planar, smooth, slight weathering, clay coating		46.0'-48.3' Fining upward sequence of SANDSTONE, med-coarse, fining to very fine-fine sand, quartz, feldspar, trace cobbles of feldspar, bedding apparent in coarse material	
			0	46.3' Mechanical break to fit in box			
47.0	R6 5/5=100%	3.75/5=75%		46.85' Mechanical break			
			0				
48.0			4	48.3' BEDPARTING, open, planar, smooth, slightly weathered 48.5', 48.6', 48.85', 48.95' 4 Joints, open, slightly weathered mechanical breaks at 48.7', 48.9'		48.3'-50' Fining upward sequence of SANDSTONE-MUDSTONE, pale red-grayish red, very fine-fine quartz sand, trace bedding (barely noticeable)	
49.0			1	49.2' Vein, open, planar, smooth, trace quartz coating			1345 tripout core 45'-50'

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.WI	BRMW8 SHEET 1 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION ____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5') ORIENTATION Vertical, unoriented

WATER LEVEL AND DATE ____ START 3/28/92 FINISH 3/28/92 LOGGER S. Repko, veiwed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
	R1 4.9/5=98%	1.66/5=33.2%	1	30'-30.6' Fracture vertical, broken, weathered, one side broken		30'-39.8' SANDSTONE, fine sand with silt, moderate reddish brown	0901 begin coring 30'-35'
31.0			3	31.0' Fracture, horizontal, flat, weathered undulating, smooth, no fill or stain			
				31.5' Fracture, angled, weathered undulating, smooth w/no fill or stain			
32.0			>10	31.9'-34.5' weathered fracture zone to Rock fragments vary in size from 0.25" to 0.1 or less, all weathered some healed, fractures, visible high angle fracture at 32.9'			
			>10				
34.0				34.0' Short vertical fracture (45°)			
			7	34.5' Vertical fracture (45°)			0934 tripout core 30'-35' 0941 begin coring 35'-40'
35.0	R2 4.5/5=90%	3.06/5=61.2%	4	35'-35.4' Core weathered, but not fractured			
36.0			>5	35.5'-36.0' 4 fractures all highly weathered Vertical (90°) and horizontal 36-36.4 Low angle at 36.4' (25°)			
37.0			2	37.1' Horizontal, weathered, no filling or stain, smooth undulating 37.4' High angle fracture (25°) weathered smooth			
38.0			0				
39.0			1	39.8' Flat tight fracture, slightly weathered.		39.8'-45' Same as above, except more coarse-grained and more white (quartz) significanly fewer fractures	

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.WI	BRMW8 SHEET 2 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI LOCATION Maywood, NJ

ELEVATION _____ DRILLING CONTRACTOR Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5') ORIENTATION Vertical, unoriented

WATER LEVEL AND DATE _____ START 3/28/92 FINISH 3/28/92 LOGGER S. Repko, veiwed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	RQD (%)	FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			0				1025 tripout core 35'-40' 1028 begin coring 40'-45'
41.0			0				
42.0	R3 4.90/5=98.2%	4.94/5=98.8%	2				
43.0				43.8', 43.85' two closely spaced tight fractures, slightly weathered			
			0				
44.0			0	44.6' Healed angled fracture			1053 tripout core 40'-45'
45.0			2	45'-45.2' Rounded edges due to coring, broken pieces, orientation unknown. 45.2'-45.3' Vein, filled with calcite, cavity with crystals, 85° 45.7'-46.3' SHEAR FRACTURE, tight, approx. 75°, slickenslided, stepped, coating of Calcite and calcite crystals 45.8' Joint, tight, subhorizontal, rough, undulating (cuts fracture at 45.7'-46.3') 46.1' Joint, open, subhorizontal, rough, undulating (cuts fracture at 45.7'-46.3')		45'-45.2' SILTSTONE, dark reddish brown, well sorted, soft, broken, rounded edges, orientation not discernible. 45.2'-47.3' grayish red, SANDSTONE fine-medium sand, moderately sorted, hard fining upward, bands of quartz throughout, very coarse pebble size grains in bottom, fining to medium size quartz grains, matrix slightly calcareous.	1058 begin coring 45'-50'
46.0			1				
47.0	R4 4.91/5=98.2%	4.16/5=83.2%	1	47.45' Joint, tight, subhorizontal, rough, planor, possible mechanical break 47.8' Mechanical break		47.3'-48.15' SANDSTONE, grayish red, very fine-fine sand, hard, wellsorted.	
48.0			1			48.15'-48.75' CONGLOMERATE, pale reddish brown, grayish orange pink pebbles, liths. include chalk (CaCo3), quartz, feldspar, mudstone; mudstone liths, oriented horizontally, up to 1" long coarse sand to pebble size, medium graded with fining upward	
49.0			0	48.75' BED PARTING, open, subhorizontal, rough, undulating 48.8' Mechanical break, subhorizontal		48.75'-53.5' SANDSTONE, grayish red, very fine-medium sand, hard. slight fining up, % increase of medium quartz sand in bottom	1122 tripout core 45'-50' 1129 begin coring 50'-55'

PROJECT NUMBER	BORING NUMBER
NJ022948.FH.WI	BRMW8 SHEET 3 OF 3

ROCK CORE LOG

PROJECT Stepan Co. and Sears and Adjacent Properties RI **LOCATION** Maywood, NJ

ELEVATION _____ **DRILLING CONTRACTOR** Environmental Drilling, West Creek, NJ

DRILLING METHOD AND EQUIPMENT B80 Mobile NX Core (5') **ORIENTATION** Vertical, unoriented

WATER LEVEL AND DATE _____ **START** 3/28/92 **FINISH** 3/28/92 **LOGGER** S. Repko, veiwed by D. Snyder

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
			0	50'-50.1' Rounded broken pieces due to coring, orientation unknown			
51.0			0				
52.0	R5 5.25/5.25=100%	4.71/5.25=89.7%	0	52.48' Mechanical break 52.48' Mechanical break to fit in box 52.9'-53.3' healed, vein, approx. 60°, crystals of calcite in 2 small cavities			Well taking water
			6	53.5' BED PARTING, open, planar, subhorizontal rough 53.55' Joint, open, undulating, smooth, weathered surface, clay coating, subhorizontal		53.5'-55.3' MUDSTONE, grayish red, soft, smooth surface, finely laminated	Mechanical break at weak spot while logging
54.0			1	53.64' Joint, open, undulating, smooth, weathered surface, clay coating, subhorizontal 53.8' Joint, open, undulating, weathered surface, clay coating, rough			
55.0				53.94' Joint, open, undulating, rough, weathered surface, thin			
			0	54.9' Vein, open, stepped, rough, calcite coating, subhorizontal		55.3'-60' SANDSTONE, pale reddish brown, very hard, fining upward, fine-medium sand, quartz	
58.0			0	56.15' Mechanical break to fit in box			1202 tripout core 50'-55' 1210 begin coring 55'-60'
57.0	R6 4.75/4.75=100%	4.51/4.75=94.9%	1	57.03' Joint, tight, planar, smooth subhorizontal			
58.0			1	58.0'-58.5' Vein, open, stepped rough, 50°, thick calcite coating, white, calcite of crystals			
59.0			1	59.55' Joint, open, undulating rough, subhorizontal		End of Coring	1235 tripout core

Appendix Q
Geotechnical Data

C24(4-6)

GEOTECH

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dr.
St. Louis, Mo. 63114-5700
Attn: Paul Smith

DATE: MAY 28, 1992

PROJECT NUMBER: KJ022948.SW.SP

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: SB-SB-C24 (4-6)
TCT STL NO.- 92002356

MECHANICAL ANALYSIS: (See Attached Curve)

Passing #10*	100%
#20	98.6
#40	93.6
#60	86.2
#100	79.8
#200	71.0
0.0303 mm	44.5
0.0200	34.9
0.0122	22.0
0.0089	12.5
0.0064	9.3
0.0032	4.5
0.0013	2.9

ATTERBERG LIMITS:

Liquid Limit	20
Plasticity Index	1

MOISTURE CONTENT: 15.4%

REMARKS:

Fractional components: Sand 29.0%, Silt 63.3%, Clay 7.7%

GRAIN SIZE DISTRIBUTION TEST DATA

Test No.

Date: 04/20/92
Project No.: 4122 02-0072
Project: CH2M -Hill

Sample Data

Location of Sample: SR-SB-C24
Sample Description: SANDY SILT
USCS Class: ML
AASHTO Class: A-4
Liquid limit: 20
Plasticity index: 1

Notes

Remarks: Depth: 4-6 ft.

Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
# 10	2.000	100.0
# 20	0.840	98.6
# 40	0.420	93.6
# 60	0.250	86.2
# 100	0.149	79.8
# 200	0.074	71.0

Hydrometer Analysis Data

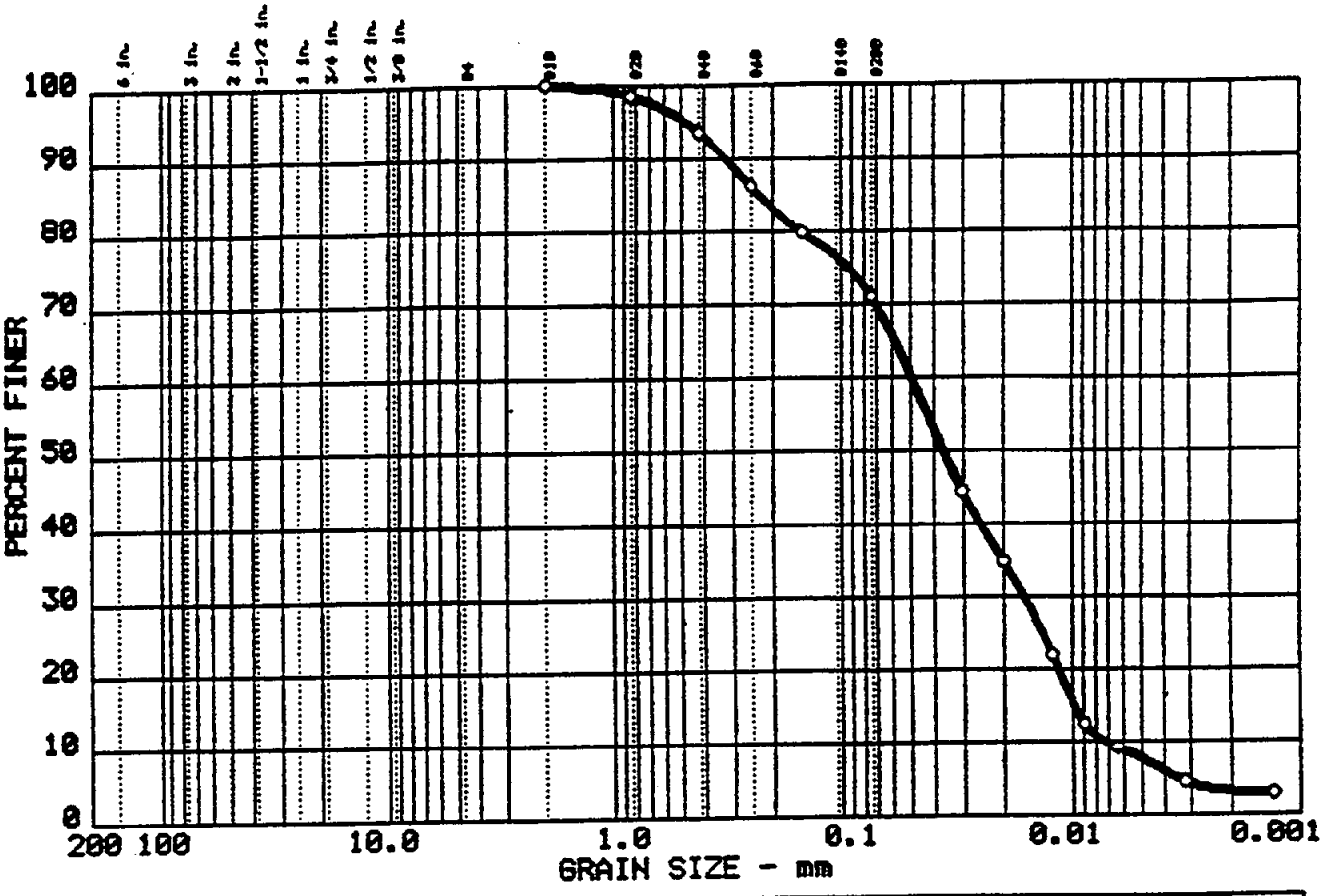
Size, mm	Percent finer
0.0303	44.5
0.0200	34.9
0.0122	22.0
0.0089	12.5
0.0064	9.3
0.0032	4.5
0.0013	2.9

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 29.0
% SILT = 63.3 % CLAY = 7.7

D85= 0.23 D60= 0.050 D50= 0.037
D30= 0.0161 D15= 0.00982 D10= 0.00719
Cc = 0.7295 Cu = 6.8865

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75	% GRAVEL	% SAND	% SILT	% CLAY
o	12	0.0	0.0	29.0	63.3	7.7

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o	20	1	0.23		0.04	0.016	0.0098	0.0072	0.73	6.9

MATERIAL DESCRIPTION	USCS	AASHTO
o SANDY SILT	ML	A-4

Project No.: 4122 02-0072
Project: CH2M -Hill
o Location: SR-S3-C24

Date: 04/20/92

Remarks:
Depth: 4-6 ft.

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

HYDROMETER ANALYSIS

4122

JOB NO. 02-0072 PROJECT ENG. D.V. TABLE NO. ____ TECHNICIAN HR DATE 4/16/92 TIME ____

Project: CH2M-Hill Location: SR-SB-C24 Depth: 4-6

Test	Drio MC	Hvo MC
Sample No.		
Pan No.	48	45
Wt. Pan	2.00	1.96
Wt. Pan & Wet Soil	63.80	61.92
Wt. Pan & Dry Soil	55.53	60.44
Moisture Loss	8.27	1.48
Wt. Dry Soil	53.53	58.48
Percent Moisture	15.4	2.5

SIEVE SIZES	WEIGHT (GRAMS)	PER CENT OF -#10	PER CENT OF TOTAL	% FINER TOTAL
RET. ON 1½"				
1½" - 1"				
1" - ¾"				
¾" - ⅜"				
⅜" - #4				
#4 - #10	—			100.0
AFTER WASH	18.30			
#10 - #20	0.88			98.6
#20 - #40	3.12			93.6
#40 - #60	4.57			86.2
#60 - #100	4.04			79.8
#100 - #200	5.46			71.0
PASSING #200	0.23			

Hydrometer No. ____ Thermometer No. ____

Wt. Total Sample (air dry)	479.94
Wt. Total Sample (oven dry)	468.09
Wt. Passing #10 (air dry)	479.94
Wt. Passing #10 (oven dry)	468.09
Wt. Soil for Hyd Test (air dry)	63.79
Wt. Soil for Hyd Test (oven dry)	62.22

Time Soaked 4/17/92 11:30 ____ in 125ml of Sodium Hexametaphosphate Mixture

Time Stirred 4/20/92 ____ ____

Remarks: L.L. = 20.0 P.I. = 1.0
P.L. = 19.0

CYL# A JAR# A PAN# ____

(EST.) G_s = 0.9955 a = 2.67

Date	Time	Interval Minutes (T)	Temp °C.	Hyd Reading	Temp Corr.	Corr. Hyd. Rdg.	L (Chart C)	K (Chart B)	$D=K\sqrt{\frac{L}{T}}$	Per Cent Finer -#10	Per Cent Finer Total
4/20	10:02	2	24	32	4.2	27.8	11.0	0.01294	0.0303	44.5	44.5
	10:05	5	24	26		21.8	12.0		0.0200	34.9	34.9
	10:15	15	24	18		13.8	13.3		0.0122	22.0	22.0
	10:30	30	24	12		7.8	14.3		0.0089	12.5	12.5
	11:00	60	24	10		5.8	14.7		0.0064	9.3	9.3
	14:10	250	24	7		2.8	15.1		0.0032	4.5	4.5
4/21	10:00	1440	24	6	4.2	1.8	15.3	0.01294	0.0013	2.9	2.9

Classification Sandy Silt

-31 (75-8)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 4122 02 - 0072 Date 4/20/92 Project Eng. D. V. Tech. HR Time

oring No.												
ample No.												
PF or Sample Type												
epth (ft)												
oil Type												

MOISTURE CONTENT (%)

an No.												
Vt. of Pan												
Vt. Pan & Wet Soil												
Vt. Pan & Dry Soil												
Moisture Loss												
Vt. Dry Soil												
% Moisture	15.4%											

DRY DENSITY (PCF)

Vt. Dish												
Vt. Wet Sample												
Vt. Dish & Hg												
Vt. Hg												
ol. Sample												
Vt. Dry Soil												
ctual Density												
urve Density												

LIQUID LIMIT (%)

lows (N)	20											
an No.	SP											
Vt. Pan	2.59											
Vt. Pan & Wet Soil	23.70											
Vt. Pan & Dry Soil	20.09											
Moisture Loss	3.61											
Vt. Dry Soil	17.50											
% Moisture	20.6											
orrected LL	20.0											

PLASTIC LIMIT (%)

an No.	AO											
Vt. Pan	1.43											
Vt. Pan & Wet Soil	17.36											
Vt. Pan & Dry Soil	14.82											
Moisture Loss	2.54											
Vt. Dry Soil	13.39											
% Moisture	19.0											

FOR HYDROMETER USING -- 40 Grams/1000 Liters

Wt. soil for Hydr. test (oven dry) : 62.22
Specific Gravity for Hydr. test : 2.67
a 0.9955

Retained on #10 sieve (% Total) : 100.00

Pass. # 200 70.97

Time	Temp C	Hyd Rdg	Temp coor.	Corr. Rdg.	L	K	D	% Finer -#10	% Finer Total
2	24.0	32.0	-4.20	27.80	11.0	0.01294	0.0303	44.48	44.48
5	24.0	26.0	-4.20	21.80	12.0	0.01294	0.0200	34.88	34.88
15	24.0	18.0	-4.20	13.80	13.3	0.01294	0.0122	22.08	22.08
30	24.0	12.0	-4.20	7.80	14.3	0.01294	0.0089	12.48	12.48
60	24.0	10.0	-4.20	5.80	14.7	0.01294	0.0064	9.28	9.28
240	24.0	7.0	-4.20	2.80	15.1	0.01294	0.0032	4.48	4.48
1440	24.0	6.0	-4.20	1.80	15.3	0.01294	0.0013	2.88	2.88

Total Sample (oven dry): 468.09

Passing #10 (oven dry): 468.09

Soil for Hyd. Test (oven dry): 62.22

Sieve Size	Wt. Grams	- #10	% Total	% Finer
1"	0.00	XXXXXX	0.00	100.00
3/4"	0.00	XXXXXX	0.00	100.00
3/8"	0.00	XXXXXX	0.00	100.00
#4	0.00	XXXXXX	0.00	100.00
#10	0.00	XXXXXX	0.00	100.00
After Wash	18.30	XXXXXX	XXXXXX	XXXXXX
#20	0.88	1.41	1.41	98.59
#40	3.12	5.01	5.01	93.58
#60	4.57	7.34	7.34	86.24
#100	4.04	6.49	6.49	79.75
#200	5.46	8.78	8.78	70.97
Pass. #200	0.23	70.96	70.96	XXXXXX

Traffic Report & Chain of Custody Record

Project Number: NJO 22948.SR.SL	Project Name: STEPAN COMPANY	Date Shipped: 4-8-92	Carrier: Fed X
Client Name: STEPAN COMPANY		Airbill Number: 896927230 3	
Project Manager: Mary Manto	Copy to:	Ship To: TCT St-Louis	
Requested Comp. Date: Routine			
Sampler (Name:): L-Gavin			

Box No. 1 Preservation: 1. HCl 2. HNO3 3. NaOH 4. H_2SO_4 5. Ice only 6. Other (Specify) N. Not preserved

Box No. 2 Sample Descrip: 1. Surface Wate 2. Ground Wate 3. Rinsate 4. Soil/Sediment 5. Oil 6. Waste 7. Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med. High	Sample Type: Comp./ Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Cont. d-Lim. α-Phene	TCLP	Flet/CN_	Radnuc	TOC	GEOTECH.	TAL Metals			Date	Time	Remarks
~~SR03-F~~																				
SR-SB-C19 (0-2)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	1320	
SR-SB-C6 (0-2)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	1155	
SR-SB-C2 (3-4)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	1100	
SR-SB-C7 (0-2)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	1020	
SR-SB-C37 (3-4)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	0855	
DS-SB-C37D (0-2)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	0850	
DS-SB-C37 (0-2)	4	L	G	2	X	X	X	X	X		X				X			4-8-92	0850	
SR-SB-C24 (4-6)	4	L	G	2									X	X				4-7-92	1115	Grainsize, % Moist., TOC
SR-SB-C19 (8-)	4	L	G	2	X	X	X	X	X		X				Y			4-8-92	1330	

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Laura Gavin	4-8-92 | 1900	Fed X		4/9/92 | 800	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4/10/91 | 1600	AIRBORNE			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks	Is custody seal intact ? Y/N/None

STEPAN NJ0022948.SR.SL

C26(0-6)

GEOTECH

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dr.
St. Louis, Mo. 63114-5700
Attn: Paul Smith

DATE: MARCH 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

CH2M-HILL SITE ID: FA-SB-C26 (0-6)
TCT-ST. LOUIS LAB NO: 92001247
FILE ID #: 260006

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS:

This sample was received on February 28, 1992.

twin city testing
corporation
662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: FA-SB-C26 (0-6)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS: This sample was received on February 28, 1992.

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: FA-SB-C26 (0-6)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS: This sample was received on February 28, 1992.

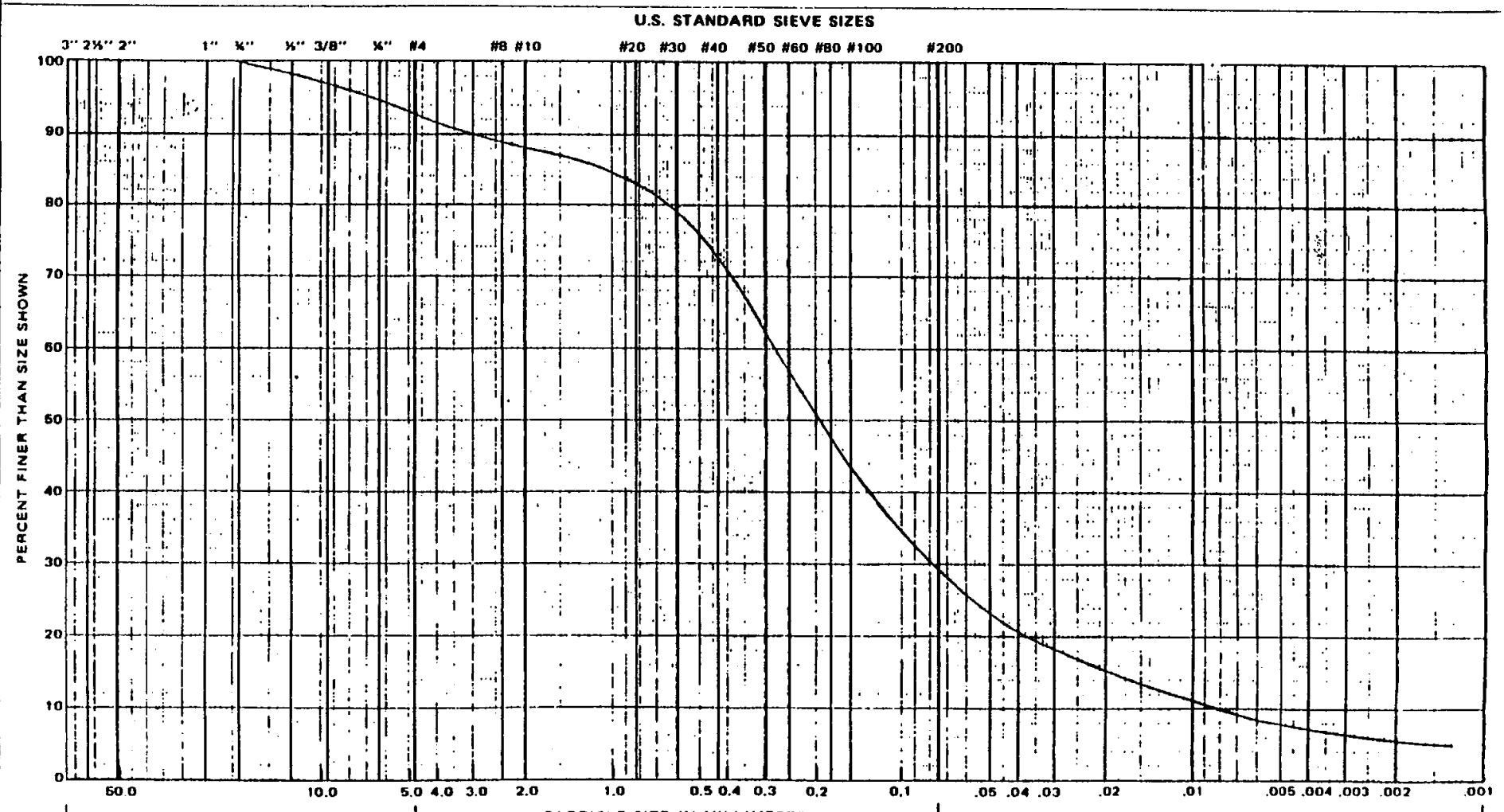
twin city testing corporation

Sample No. FA-SB-C26(0-6)

Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



SL-31 (75-B)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 1122-02-0055 Date 1 3 02 Project Eng. _____ Tech. HB/LR Time _____

Boring No.												
Sample No.			Location:		FA SB-26C		0-6'					
BPF or Sample Type			Sample ID:		0131501C							
Depth (ft)												
Soil Type												

MOISTURE CONTENT (%)

Pan No.	2											
Wt. of Pan	7.96											
Wt. Pan & Wet Soil	230.08											
Wt. Pan & Dry Soil	203.29											
Moisture Loss	26.79											
Wt. Dry Soil	195.33											
% Moisture	13.7											

DRY DENSITY (PCF)

Wt. Dish												
Wt. Wet Sample												
Wt. Dish & Hg												
Wt. Hg												
Vol. Sample												
Wt. Dry Soil												
Actual Density												
Curve Density												

LIQUID LIMIT (%)

DS-SB-C31 8-10'

Blows (N)	25						22					
Pan No.	SL						ZB					
Wt. Pan	2.60						2.60					
Wt. Pan & Wet Soil	22.39						21.15					
Wt. Pan & Dry Soil	19.57						18.39					
Moisture Loss	2.82						2.76					
Wt. Dry Soil	16.97						15.79					
% Moisture	16.6						17.5					
Corrected LL	17						17.2					

PLASTIC LIMIT (%)

Pan No.	K 27						A0					
Wt. Pan	1.44						1.42					
Wt. Pan & Wet Soil	Not available						10.39					
Wt. Pan & Dry Soil							9.23					
Moisture Loss							1.16					
Wt. Dry Soil							7.81					
% Moisture							14.9					

L.L. 2.3

SPECIFIC GRAVITY TESTS

Job No. 4122 02-0055 Project Eng ____ Table No ____ Technician ____ Date ____ Time ____

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ t
TW@ ____ to ____ Ft. TW@ ____ to ____ F

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ F
TW@ ____ to ____ Ft. TW@ ____ to ____ F

Sample No. ____ Boring No. ____ BPF @ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ F
TW @ ____ to ____ Ft. TW@ ____ to ____ F

Sample No.	FA SB C-26		DS SB C-31			
Pycnometer No.	#43		#46			
WT. Pyc. (including CAP)						
Wt. Pyc. + Oven Dry Soil						
Wt. Oven Dry Soil (Wo)	72.87		52.41			
Wt. Pyc + H_2O @ 20° C (Wa)	343.03		343.03			
Wt. Pyc + H_2O + Soil @Tx(Wb)	388.80		376.05			
Temperature (Tx)	20°					
Correction Factor K	2.69		2.70			

Tx DEG. C	Relative H_2O Density	Corr., Factor K
18	0.998624	1.0004
19	0.998435	1.0002
20	0.998234	1.0000
21	0.9980233	0.9998
22	0.997802	0.9996
23	0.997570	0.9993
24	0.997329	0.9991
25	0.997077	0.9989
26	0.996816	0.9986
27	0.996545	0.9983
28	0.996626	0.9980
29	0.996598	0.9977
30	0.996678	0.9974

Pan # 46

1.99

$$Ge\ 20°C = \frac{W_o}{W_o + (W_a - W_b)}$$

SL-3 (70-A)

GRAIN SIZE DISTRIBUTION TEST DATA

Test No.: 17

Date: 3/06/92
Project No.: 4122 02-0055
Project: CH 2 M-Hill

Sample Data

Location of Sample: FA-SB-C26(0-6)
Sample Description: SILTY SAND W/GRAVEL, FINE GRAINED
USCS Class: SM Liquid limit:
AASHTO Class: Plasticity index:

Notes

Remarks: SAMPLE NO.: 0131501C DEPTH (ft): 0 - 6
TYPE OF SAMPLE: BULK
Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
0.75 inches	19.05	100.0
0.375 inches	9.53	97.0
# 4	4.760	93.3
# 10	2.000	88.5
# 20	0.840	83.1
# 40	0.420	73.1
# 60	0.250	57.8
# 100	0.149	42.7
# 200	0.074	28.9

Hydrometer Analysis Data

Size, mm	Percent finer
0.0328	19.0
0.0210	15.9
0.0122	12.9
0.0088	9.8
0.0062	8.3
0.0031	6.7
0.0013	5.2

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 6.7 % SAND = 64.4
% SILT = 21.1 % CLAY = 7.8

D85= 1.07 D60= 0.268 D50= 0.194
D30= 0.0790 D15= 0.01728 D10= 0.00896
Cc = 2.6002 Cu = 29.8538

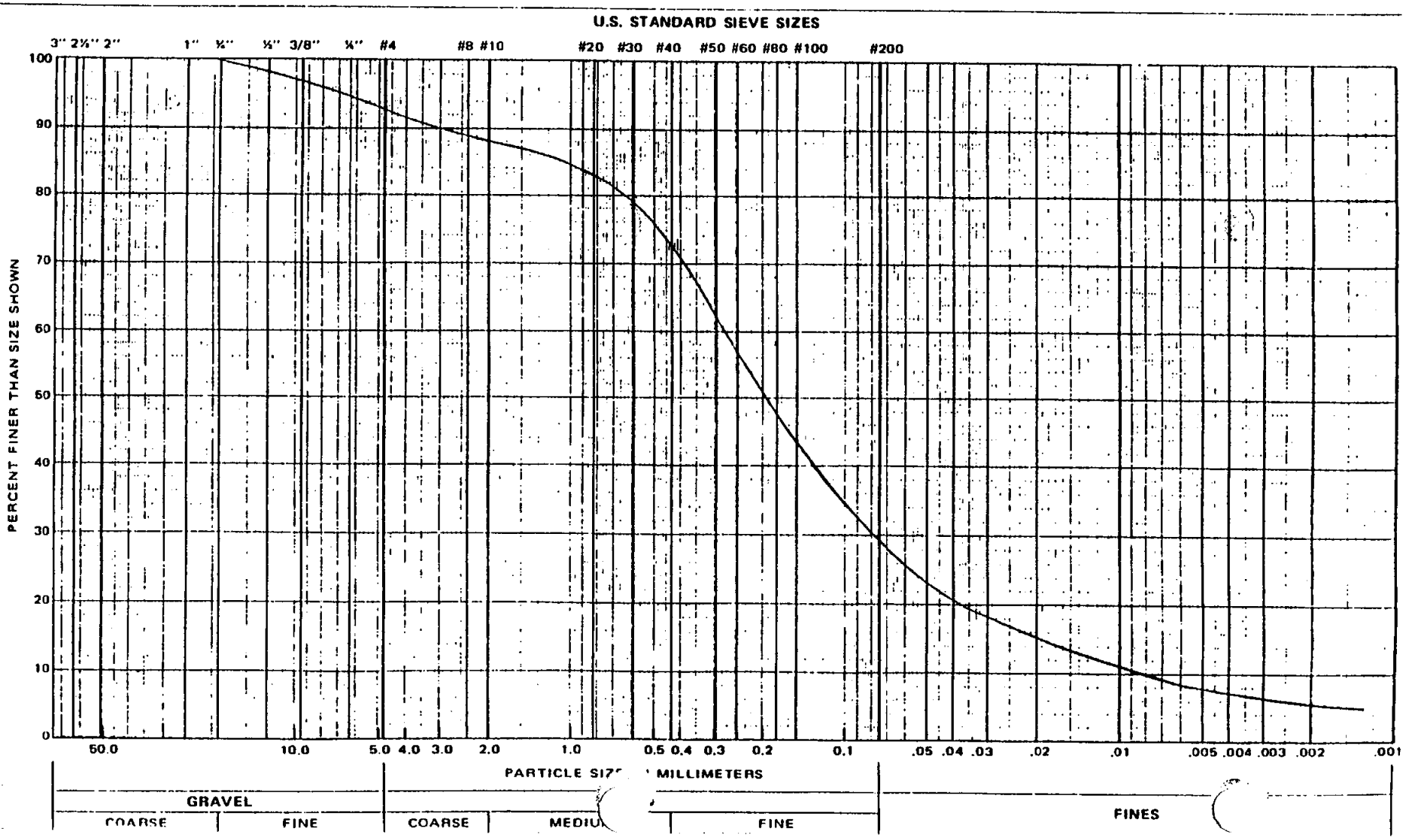
twin city testing corporation

Sample No. FA-SB-C26(0-6)

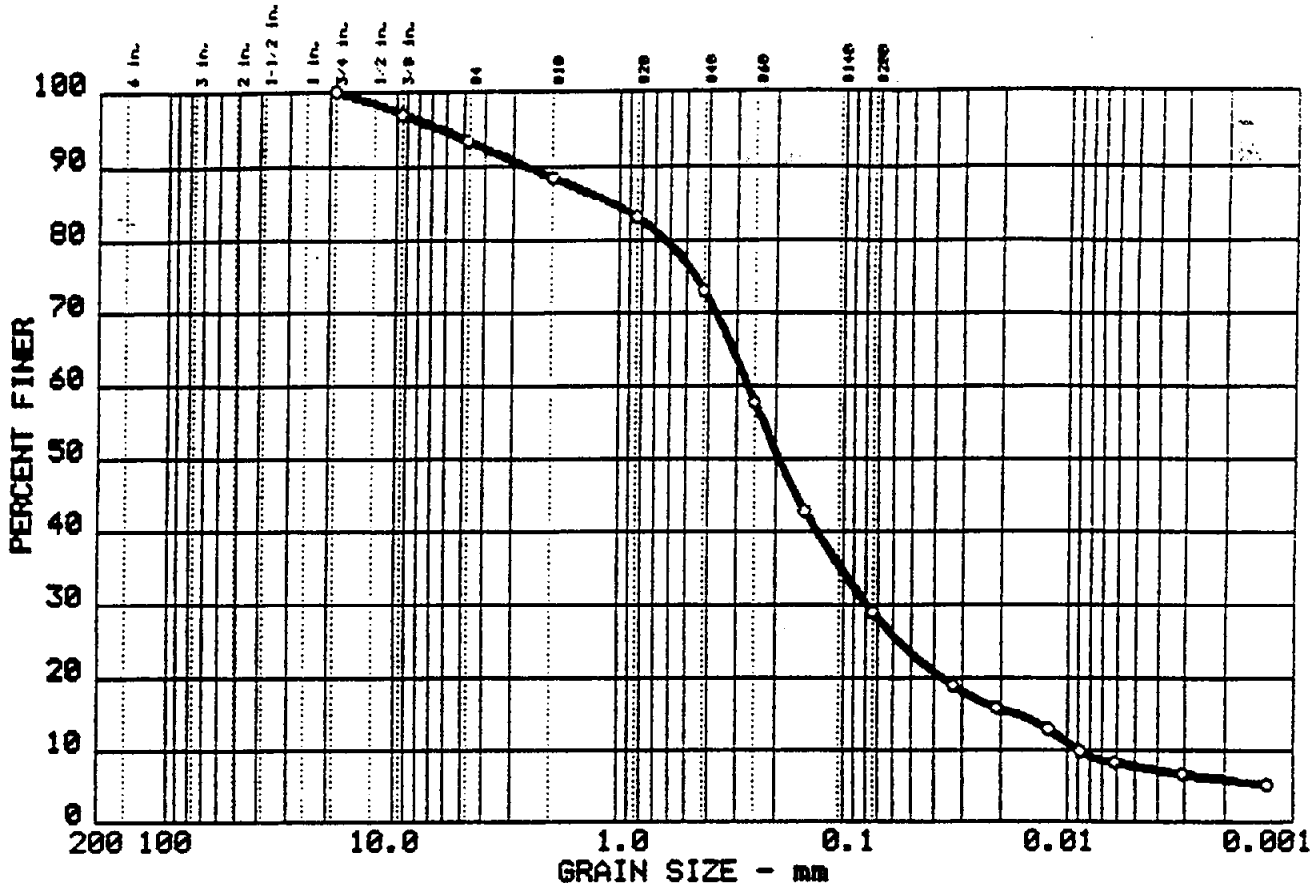
Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75㎜	% GRAVEL	% SAND	% SILT	% CLAY
o	17	0.0	6.7	64.4	21.1	7.8

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o			1.07	0.27	0.19	0.079	0.0173	0.0090	2.60	29.9

MATERIAL DESCRIPTION	USCS	AASHTO
o SILTY SAND W/GRAVEL, FINE GRAINED	SM	

Project No.: 4122 02-0055
Project: CH 2 M-Hill
o Location: FA-SB-C26(0-6)

Date: 3/06/92

Remarks:
SAMPLE NO.: 0131501C
DEPTH (ft): 0 - 6
TYPE OF SAMPLE: BULK

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

JOB NO. 4122 02-0055 PROJECT ENG. ____ TABLE NO. ____ TECHNICIAN HR DATE 3/4/92 TIME ____

Location
~~Boring No.~~ FA SB - C26 Sample No. 0131501C Depth 0-6'

Test	Orig MC	Hyd MC
Sample No.		
Pan No.	2	43
Wt. Pan	7.96	1.99
Wt. Pan & Wet Soil	230.08	75.22
Wt. Pan & Dry Soil	203.29	74.82
Moisture Loss	26.79	0.40
Wt. Dry Soil	195.33	72.83
Percent Moisture	13.7	0.55

Sieve Sizes	Weight (Grams)	Per Cent of -#10	Per Cent of Total	% Finer Total
Ret. on 1½"				
1½" - 1"				
1" - ¾"				100.0
¾" - ⅜"	36.91			97.0
⅜" - #4	45.60			93.3
#4 - #10	57.67			88.5
After Wash	39.22			
#10 - #20	3.54	6.18		83.1
#20 - #40	6.48	11.31		73.1
#40 - #60	9.86	17.21		57.8
#60 - #100	9.79	17.09		42.7
#100 - #200	8.90	15.53		28.9
Passing #200	0.65	32.68		

Hydrometer No. ____ Thermometer No. ____

Wt. Total Sample (air dry)	1230.22
Wt. Total Sample (oven dry)	1224.27
Wt. Passing #10 (air dry)	1090.04
Wt. Passing #10 (oven dry)	1084.09
Wt. Soil for Hyd Test (air dry)	57.60
Wt. Soil for Hyd Test (oven dry)	57.29

Time Soaked 3/4 11:50 ____ in 125mL of Sodium Hexametaphosphate Mixture

Time Stirred 3/5 1min ____

Remarks:

CYL# A JAR# A PAN# ____

~~Assumed~~ Gs = 2.69 a = 0.9911

Date	11:00 Time	Interval Minutes (T)	Temp °C.	Hyd Reading	Temp Corr.	Corr. Hyd. Rdg.	L (Chart C)	K (Chart B)	$D=K\sqrt{\frac{L}{T}}$	Per Cent Fine -#10	Per Cent Fine Total
3/5	11:02	2	26	16	-3.6	12.4	13.7	0.01253	0.0328		19.0
	11:05	5	26	14	-3.6	10.4	14.0		0.0210		15.9
	11:15	15	26	12	-3.6	8.4	14.3		0.0122		12.9
	11:30	30	26	10	-3.6	6.4	14.7		0.0088		9.8
	12:00	60	26	9	-3.6	5.4	14.8		0.0062		8.3
	15:10	250	26	8	-3.6	4.4	15.0		0.0031		6.7
3/6	11:00	1440	26	7	-3.6	3.4	15.2	0.01253	0.0013		5.2

Classification ____

twin city testing corporation

TESTS OF SOIL

PROJECT : CH2M-Hill Project DATE:

REPORTED TO: Twin City Testing FURNISHED BY:

St Louis, Mo COPIES TO:

Attn: Paul Smith

LABORATORY NO:

SAMPLE IDENTIFICATION FA-SB-C26 (0-6)

MECHANICAL ANALYSIS (See attached curve)

Passing 3/4"	100 %
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.003	~~5.2~~

ATTERBERG LIMITS

Liquid Limit	17	21
Plastic Limit	15	20
Plasticity Index	2	

MOISTURE CONTENT 13.7 %

REMARKS: This sample was received on Feb 28, 1992

Traffic Report & Chain of Custody Record

Pg 1 of 2

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.F A.SL	STEPAN COMPANY	2-24-92	Fed X

CH2M HILL

Client Name	Airbill Number
STEPAN COMPANY	9902904535

Project Manager	Copy to:	Ship To:
Mary Manto		TCT-St. Louis 1908 Innerbelt Bus. Center St. Louis, MO 63114

Requested Comp. Date	
Routine	

Sampler (Name:)	
L. Gavin	

Box No. 1 Preservation
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. Ice only
6. Other (Specify)
N. Not preserved

Box No. 2 Sample Description
1. Surface Water
2. Ground Wate
3. Rinsate
4. Soil/Sediment
5. Oil
6. Waste
7. Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med. High	Sample Type: Comp./ Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Cat. d-Lim. α-Phene	TCLP	TCL/CN	Radnuc	TOC	GEOTECH.	TAL metals	6 Mets	Antimony Limits Grain Size	Date	Time	Remarks
FA-SB-C34A (1-3)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1100	
FA-SB-C34D (1-3)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1100	
FA-SB-C34A (3-5)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1110	
FA-SB-C34 (5-7)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1120	
FA-SB-C26 (6)	4	L	GC	N									X			X	X	2-24-92	0905 to 0930	
~~FA-SB-C34 (5-7)~~	~~4~~	~~L~~	~~G~~	~~N~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~				~~X~~			~~2-24-92~~	~~1120~~	Per Lavin Gavin 2-25-92
FA-SB-C26A (0-2)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0905	
FA-SB-C26A (2-4)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0910	
FA-SB-C26 (4-6)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0920	

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
L. Gavin	2-24-92 | 1900	Fed X		2/25/92 | 800	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
nquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks	
			2/24/92 | 800	Is custody seal intact? (Y) one Yes

13

SAMPLE TRACKING FORM

Sample # FA-SB-C26(0-6') Project # NJO22948.FA.SL Station # C26(0-6')

Sample Matrix Soil Sample Type Composite Field VOC Reading 7-10 ppm

Date Sampled 2-24-92 Time Sampled 0905 to 0930 Field Rad Reading α = 0-2, β = 27-30$_p$

Logbook 2 Page # 64-66

Name of Sampler L. Gavin

Sample Description Field Sample

FSL Results:

Gross Alpha pCi/L 9.4 to 14.7 pCi/g

Gross Beta/Gamma pCi/L 1.2 to 2.1 pCi/g

ARE THESE RESULTS ABOVE MGM LIMITS? YES (NO)

Liquid Limits - Alpha = 30 pCi/L, Beta = 500 pCi/L

Solid Limits - Alpha = 15 pCi/g, Beta = 50 pCi/g

Analytical Fraction	Number of Containers	SDG #	Lab QC Sample	Container Lot #	LAB	Date Shipped	Airbill #	Requested Turn-around
FSL RAD SCREEN								
TCL VOC								
TCL BNA								
TCL PEST/PCB								
TAL METALS/CN								
d-LIMONENE, CAFFINE, α - PINENE								
RADIONUCLIDES								
TOC	1	2356		013150C				30
GEOTECH (Grainsize & Moisture, Atterberg Limits)	1	↓		013501C				↓

THE SHADED AREA SHOULD BE FILLED OUT BY THE SAMPLE MANAGER. THE FIELD SAMPLING CREW SHOULD FILL OUT THE REMAINDER OF THE FORM PRIOR TO SAMPLE DELIVERY TO THE SAMPLE MANAGER.

C31(8-10)

GEOTECH

REPORTED TO: Twin City Testing Corporation
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	94
#4	87
#10	81
#40	68
#100	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 11.5%

REMARKS: This sample was received on March 3, 1992.

twin city testing corporation
662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORTED TO: Twin City Testing Corporation
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

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MECHANICAL ANALYSIS: **(See Attached Curve)**

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#4	87
#10	81
#40	68
#100	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 11.5%

REMARKS: This sample was received on March 3, 1992.

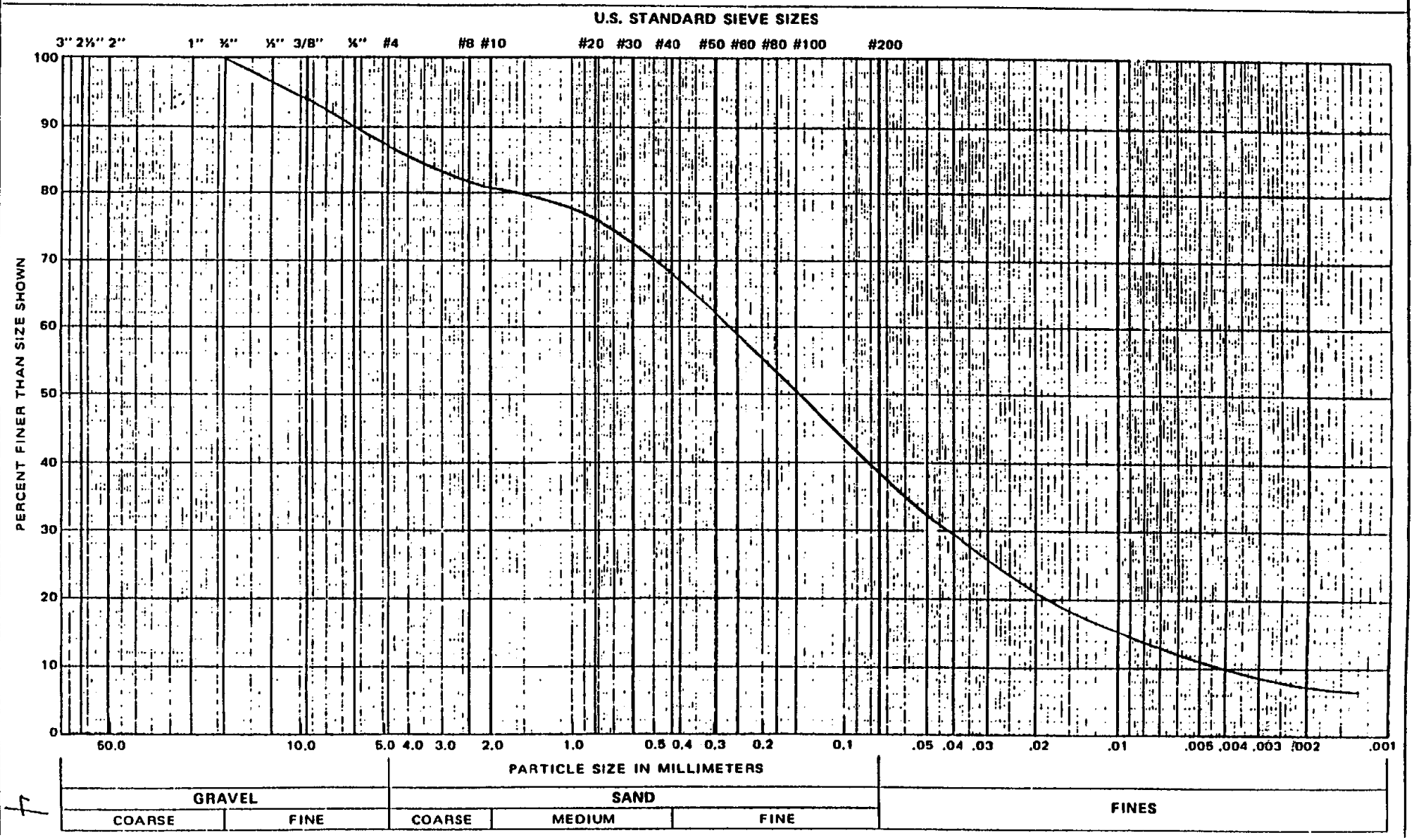
twin city testing corporation

Sample No. DS-SB-C31(8-10)

Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



SL-31 (75-B)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 4122-02-0055 Date 3/3/92 Project Eng. _____ Tech. AB/HR Time _____

Bc , No.													
Sample No.			Location:		FA SB-26C		0-6'						
BPF or Sample Type			Sample ID:		0131501C								
Depth (ft)													
Soil Type													

MOISTURE CONTENT (%)

Pan No.	2												
Wt. of Pan	7.96												
Wt. Pan & Wet Soil	230.08												
Wt. Pan & Dry Soil	203.29												
Moisture Loss	26.79												
Wt. Dry Soil	195.33												
% Moisture	13.7												

DRY DENSITY (PCF)

Wt. Dish													
Wt. Wet Sample													
Wt Dish & Hg													
W. g													
Vol. Sample													
Wt. Dry Soil													
Actual Density													
Curve Density													

LIQUID LIMIT (%) ← DS-SB-C31 8-10'

Blows (N)	25						22						
Pan No.	SL						ZB						
Wt. Pan	2.60						2.60						
Wt. Pan & Wet Soil	22.39						21.15						
Wt. Pan & Dry Soil	19.57						18.39						
Moisture Loss	2.82						2.76						
Wt. Dry Soil	16.97						15.79						
% Moisture	16.6						17.5						
Corrected LL	17						17.2						

PLASTIC LIMIT (%)

Pan No.	K 27						A0						
Wt. Pan	1.44						1.42						
W n & Wet Soil							10.39						
Wt. Pan & Dry Soil	Liquid						9.23						
Moisture Loss							1.16						
Wt. Dry Soil	Value						7.81						
% Moisture							14.9						

SPECIFIC GRAVITY TESTS

Job No. 4122 02-0055 Project Eng ____ Table No. ____ Technician ____ Date ____ Time ____

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft.
TW@ ____ to ____ Ft. TW@ ____ to ____ Ft.

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft.
TW@ ____ to ____ Ft. TW@ ____ to ____ Ft.

Sample No. ____ Boring No. ____ BPF @ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft.
TW @ ____ to ____ Ft. TW@ ____ to ____ Ft.

Sample No.	FA SB C-26		DS SB C-31			
Pycnometer No.	#43		#46			
WT. Pyc. (including CAP)						
Wt. Pyc. + Oven Dry Soil						
Wt. Oven Dry Soil (Wo)	72.87		52.41			
Wt. Pyc + H_2O @ 20° C (Wa)	343.03		343.03			
Wt. Pyc + H_2O + Soil @Tx(W_b)	388.80		376.05			
Temperature (Tx)	20°					
Correction Factor K	2.69		2.70			

Tx DEG. C	Relative H_2O Density	Corr., Factor K
18	0.998624	1.0004
19	0.998435	1.0002
20	0.998234	1.0000
21	0.9980233	0.9998
22	0.997802	0.9996
23	0.997570	0.9993
24	0.997329	0.9991
25	0.997077	0.9989
26	0.996816	0.9986
27	0.996545	0.9983
28	0.996626	0.9980
29	0.996598	0.9977
30	0.996678	0.9974

Pan = 46

1.99

$$Ge\ 20°C = \frac{W_o}{W_o + (W_a - W_b)}$$

GRAIN SIZE DISTRIBUTION TEST DATA — Test No.: 19

Date: 03/09/92
Project No.: 4122 02-0055
P ect: CH 2 M-Hill

Sample Data

Location of Sample: DS-SB-C31
Sample Description:
USCS Class: SM — Liquid limit: 17
AASHTO Class: — Plasticity index: 2

Notes

Remarks: DETH (08 - 10)

Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
0.75 inches	19.05	100.0
0.375 inches	9.53	94.2
# 4	4.760	86.7
# 10	2.000	80.7
# 20	0.840	74.6
# [illegible]	0.420	68.4
# [illegible]	0.250	59.8
# 100	0.149	50.3
# 200	0.074	38.2

Hydrometer Analysis Data

Size, mm	Percent finer
0.0422	31.9
0.0312	26.6
0.0203	22.8
0.0122	16.6
0.0088	14.7
0.0056	12.0
0.0031	9.2
0.0013	6.8

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 13.3 % SAND = 48.5
% SILT = 26.8 % CLAY = 11.4

D85= 3.89 D60= 0.251 D50= 0.146
D30= 0.0376 D15= 0.00933 D10= 0.00376
Cc = 1.4962 Cu = 66.8344

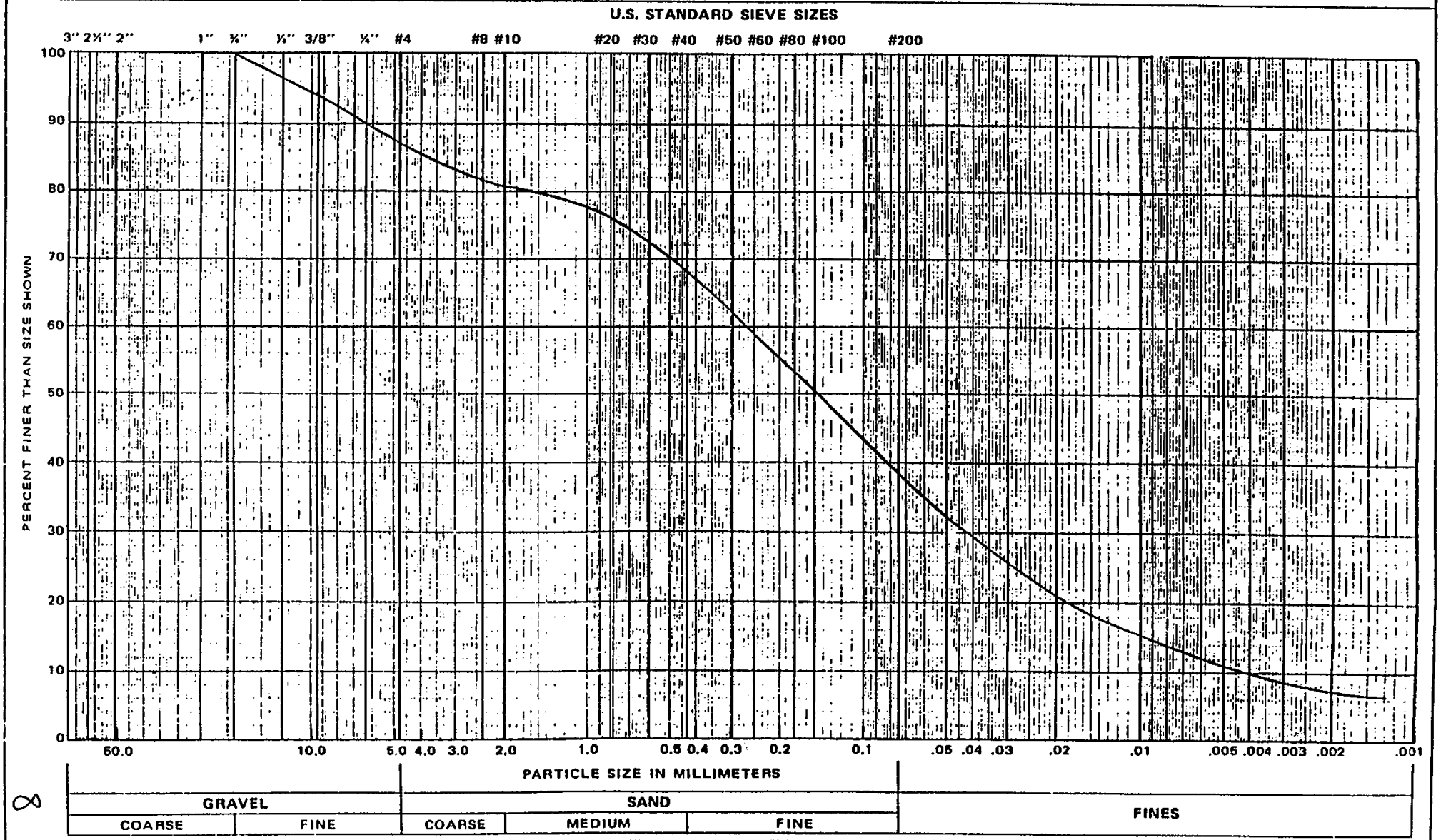
twin city testing corporation

Sample No. DS-SB-C31(8-10)

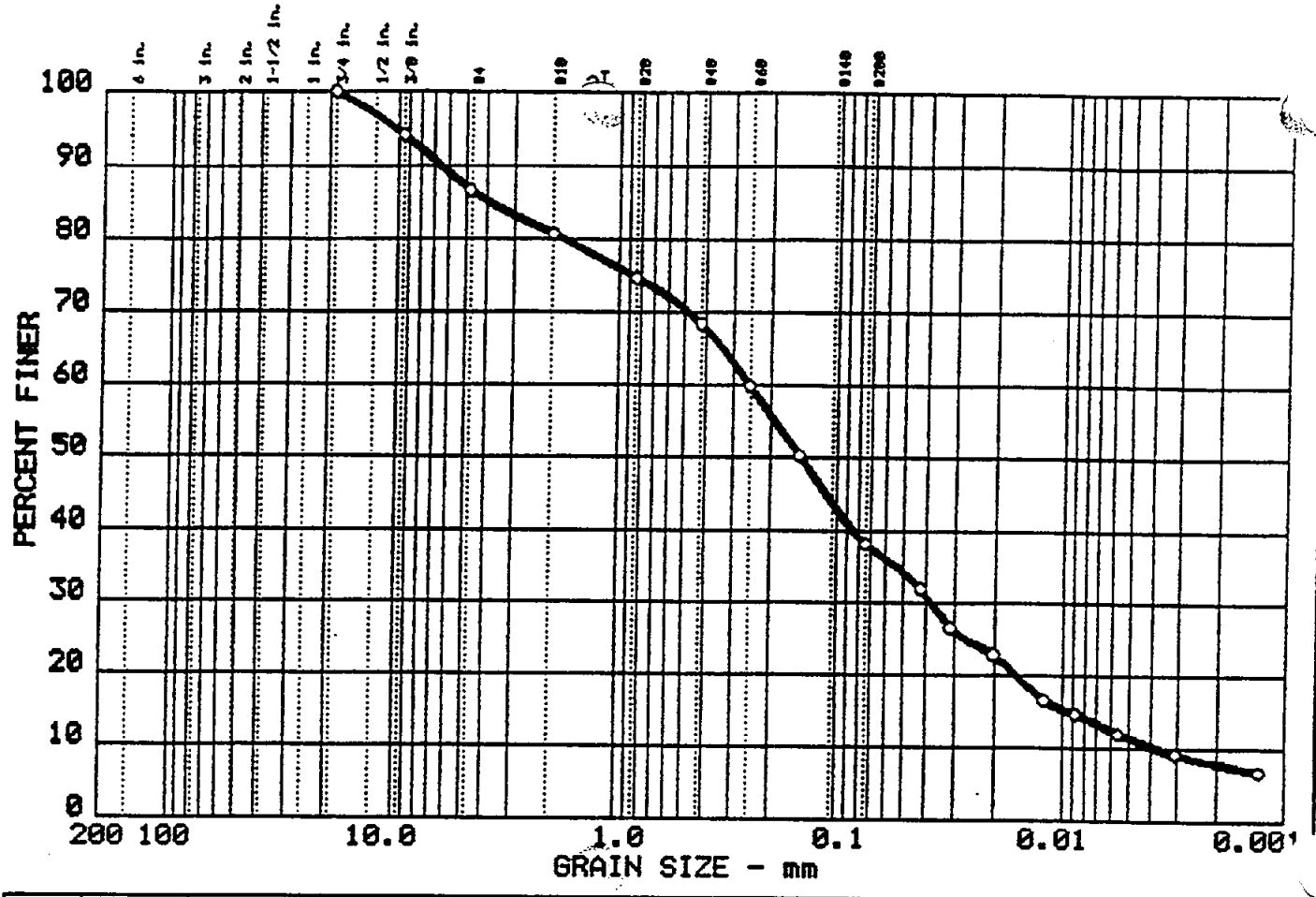
Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75㎜	% GRAVEL	% SAND	% SILT	% CLAY
○	19	0.0	13.3	48.5	26.8	11.4

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	17	2	3.89	0.25	0.15	0.038	0.0093	0.0038	1.50	66.8

MATERIAL DESCRIPTION	USCS	AASHTO
○	SM	

Project No.: 4122 02-0055
Project: CH 2 M-Hill
○ Location: DS-SB-C31

Date: 03/09/92

Remarks:

DETH (08 - 10)

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

twin city testing

HYDROMETER ANALYSIS OF SOIL (ASTM:D422)
(worksheet)

PROJECT CH2M-Hill 4122-02-0055 DATE 3/5/92
DRY WEIGHT OF SOIL (-#10) 83.58 HYDROMETER NO _____ SAMPLE NUMBER DS-SB-C31 (8-10)
SP GR OF SOIL 2.70 a = .9889 a/w x 100 = 1.193 OPERATOR Absente

Time	Interval T, (min)	Temp °C	Hyd Reading	Corr	Corr Reading	L	V L/T	K	D	Percent in Suspension	Percent of Total Sample
	1/2										
1106	1	21.5	37	3.6	33.4	10.2	3.194	.01320	.0424	39.5	31.9
1107	2	↓	31.5		27.9	11.1	2.361		.0312	33.0	26.6
1109	5	↓	27.5		23.9	11.8	1.536		.0203	28.3	22.8
1110	15	21.5	21		17.4	12.9	0.927		.0122	20.6	16.6
1125	30	21.5	19	↓	15.4	13.2	.1663	↓	.0088	18.2	14.7
1155	60	22	16	3.4	12.6	13.7	.427	.01312	.0056	14.9	12.0
1255	120	22	13	↓	9.6	14.2	.238	↓	.0031	11.4	9.2
1555	250	22	10.5	3.4	7.1	14.6	.101	↓	.0013	8.1	6.8
9:04	1440	22									

SIEVE ANALYSIS

TOTAL SAMPLE

On 2"	____	____	____
2 - 1 1/2	____	____	____
1 1/2 - 1	____	____	____
1 - 3/4	0	____	100
3/4 - 3/8	44.85	5.8	94.2
3/8 - #4	58.31	7.5	86.7
~~#4 Down~~	____	____	____
~~Check~~	____	____	____
~~Orig Wt~~	____	____	____
4-10	46.44	16.0	80.7
10 Down	699.93 621.74	80.7	____
Check	777.34	____	____
Orig Wt	____	____	____

HYDROMETER SAMPLE

	-#10	Overall
On #10	0	80.7
10-20	6.33	7.6
20-40	6.36	7.6
40-60	8.93	10.7
60-100	9.84	11.8
100-200	12.20	14.6
200-270	.21	47.7
270 Down	____	____
Check		
Orig Wt	83.58	
After Wash	43.86	
Loss	39.72	

L.L = 17.
P.L = 15
P.I = 2

MOISTURE CONTENT

t Wt 76.28 : 84.02
16.89

#200 2
76.29 94.53
2.21 18.55
78.50 (.02)

28.00 224.31
39.93 204.14
11.93 20.17

twin city testing corporation

TESTS OF SOIL

PROJECT : CH2M-Hill Project DATE:

REPORTED TO: Twin City Testing FURNISHED BY:

St. Louis MO COPIES TO:

Attn. Paul Smith

LABORATORY NO:

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

~~FS-SB-C1 (0-6)~~

MECHANICAL ANALYSIS: (See attached curve)

Passing 3/4"	100 %
3/8"	94
#4	87
#10	81
#40	68
#60	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS

Liquid Limit 17

Plastic Limit 15

Plasticity Index 2

11 c 01

1/10

1/10

Traffic Report & Chain of Custody Record 1 of 2

CH2M HILL

Project Number NJO 22948.[illegible].SL	Project Name STEPAN COMPANY	Date Shipped 2.27.92	Carrier FED-X
Client Name STEPAN COMPANY		Airbill Number 366702832 6	
Project Manager Mary Manto	Copy to:	Ship To: TCT ST. LOUIS 1908 INNERBELT BUSINESS CTR. ST. LOUIS, MO 63114	
Requested Comp. Date ROUTINE			
Sampler (Name:) C. GAVIN			

Box No. 1 Preservation
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. Ice only
6. Other (Specify)
N. Not preserved

Box No. 2 Sample Description
1. Surface Water
2. Ground Wate
3. Rinsate
4. Soil/Sediment
5. Oil
6. Waste
7. Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med. High	Sample Type: Comp./ Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Cstt. d-Lim. α-Pinene	TCLP	TCN/CN	Radnuc	TOC	GEOTECH.	TAL metals	Date	Time	Remarks
~~DS-SB-C31(8-10)~~	4	LOW	GRAB	5	X	X	X	X	X		X		X	X	X	~~2.25.92~~	~~0850~~	GEOTECH = ATTERBERG limit, POROSITY
SC-SB-C15(5-7)	4	LOW	GRAB	5	X	X	X	X	X		X				X	2.26.92	1430	
DS-SB-C31(8-10)	4	LOW	GRAB	5									X	X		2.25.92	0850	Grain size GEOTECH = ATTERBERG limit, POROSITY
DS-SS-BM-1	7*	*	GRAB	5	X	X	X	X	X		X					2.25.92	1400	*STRONG MATERIAL SMELL INDICATIVE OF ORGANIC OR PETROLEUM BASED CONTAMINANTS
SC-SB-FB10	3	LOW	GRAB	1	X											2.26.92	1800	
SC-SB-FB-10	3	LOW	GRAB	5		X	X	X	X						X per Jim 4	2.26.92	1800	
SC-SB-FB-10	3	LOW	GRAB	3							X				U 4	2.26.92	1800	
SC-SB-FB-10	3	LOW	GRAB	2											X	2.26.92	1800	
SC-SB-C15(3-5)	4	LOW	GRAB	5	X	X	X	X	X		X				X	2.26.92	1420	
SC-SB-C15(6-7)	4	LOW	GRAB	5	X	X	X	X	X		X				X	2.26.92	1480	
~~SC-SB-C15(7-8)~~																		

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Laura Gavin	2-27-92 2000	Fed X			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks	
			3/2/92 10:00	Is custody seal intact ? Y/N/~~none~~ Sample Temp. 15°C	

STEPAN NJO22948.WE.SM

SAMPLE TRACKING FORM

Sample # DS-SB-C31(8-10) Project # NJO22948DS.SL Station # C31(8-10)

Sample Matrix Soil Sample Type GRAB Field VOC Reading 1 ppm

Date Sampled 2.25.92 Time Sampled 08 : 50 Field Rad Reading α = 2 cpm

Logbook # 2 Page # 71 β/γ = 28 cpm

Name of Sampler L. GAVIN, M. SNIPE

Sample Description FIELD SAMPLE

FSL Results:

Gross Alpha pCi/L 10.5 pCi/g (Circle One)

Gross Beta/Gamma pCi/L 15 pCi/g

ARE THESE RESULTS ABOVE MGM LIMITS? YES (NO)

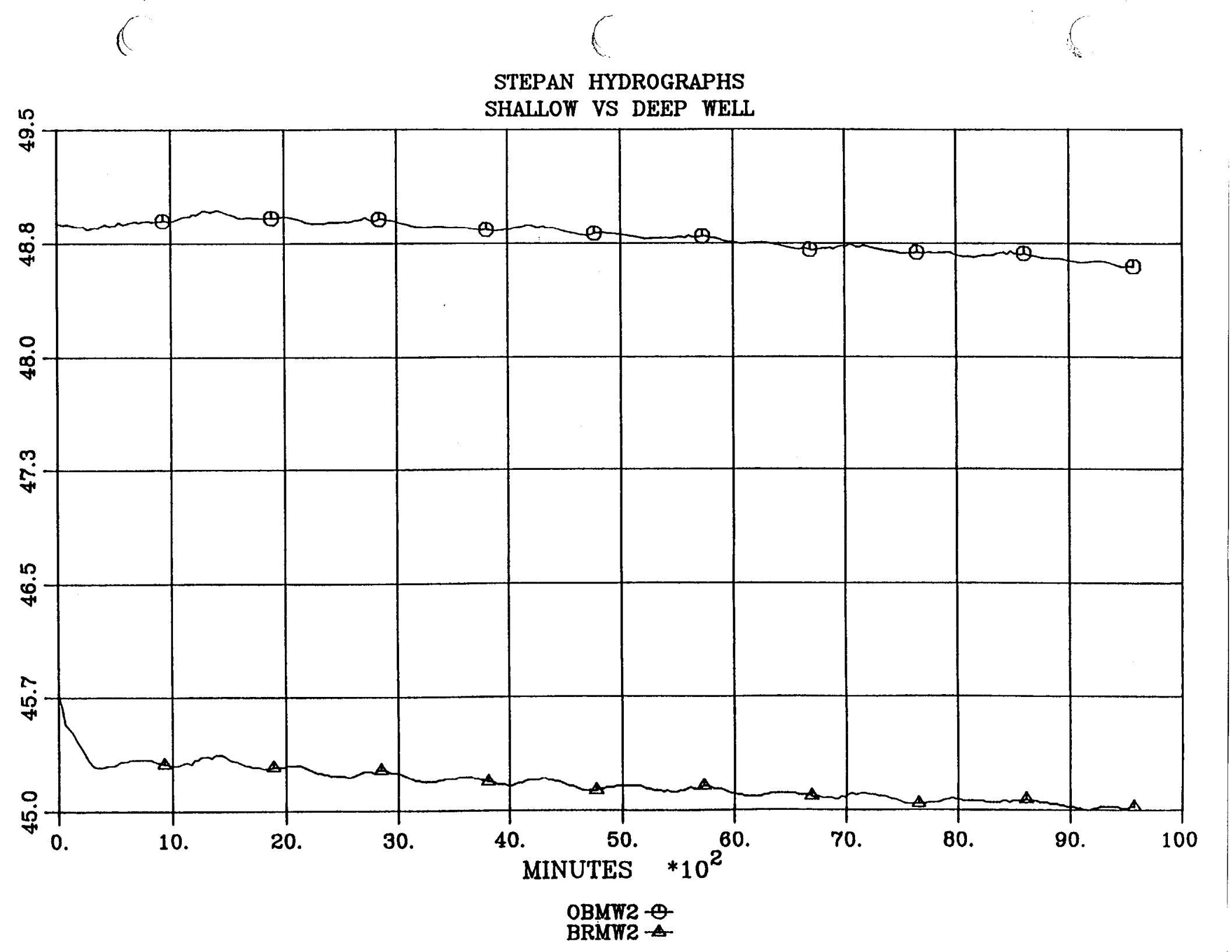
Liquid Limits - Alpha = 30 pCi/L, Beta = 500 pCi/L

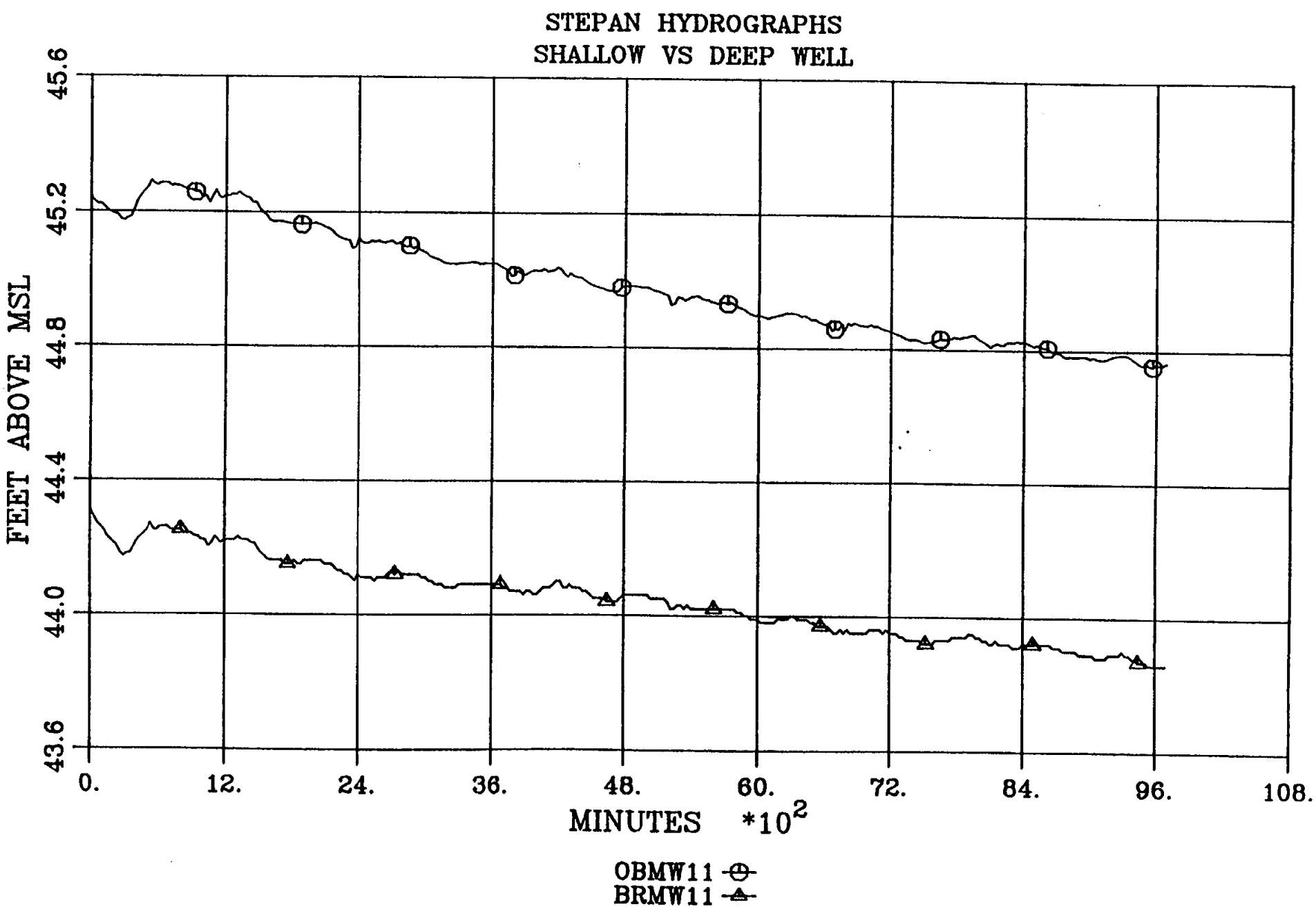
Solid Limits - Alpha = 15 pCi/g, Beta = 50 pCi/g

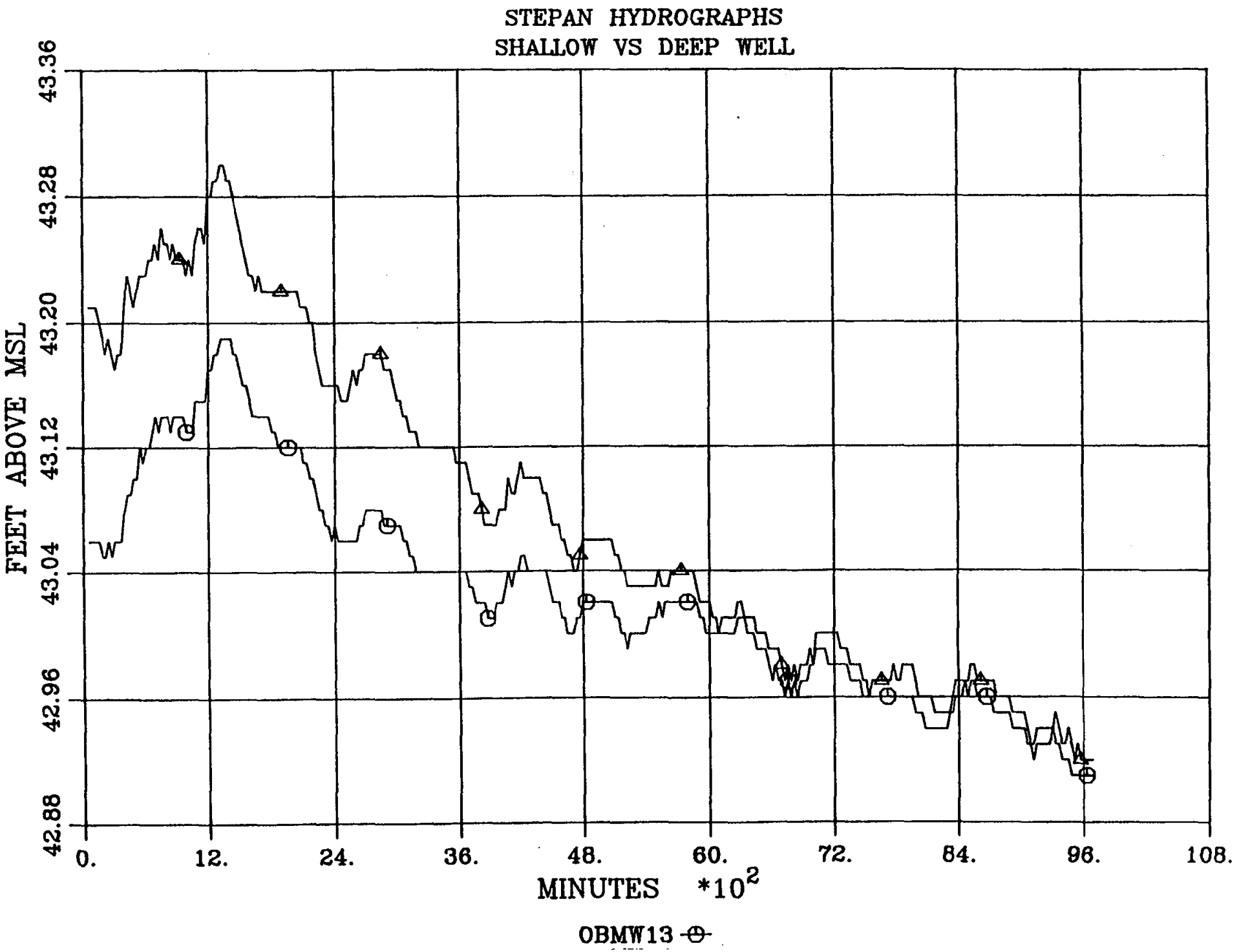
Analytical Fraction	Number of Containers	SDG #	Lab QC Sample	Container Lot #	LAB	Date Shipped	Airbill #	Requested Turnaround
FSL RAD SCREEN								
TCL VOC								
TCL BNA								
TCL PEST/PCB								
TAL METALS/CN								
d-LIMONENE, CAFFINE, α - PINENE								
RADIONUCLIDES								
TOC	1		NA	0131501C	TCT	2.27.92	3467148326	Routine
GEOTECH 1 - % moisture, 4 - Atterberg limit & grain size	5		↓	013150K	↓	↓	↓	↓

THE SHADED AREA SHOULD BE FILLED OUT BY THE SAMPLE MANAGER. THE FIELD SAMPLING CREW SHOULD FILL OUT THE REMAINDER OF THE FORM PRIOR TO SAMPLE DELIVERY TO THE SAMPLE MANAGER.

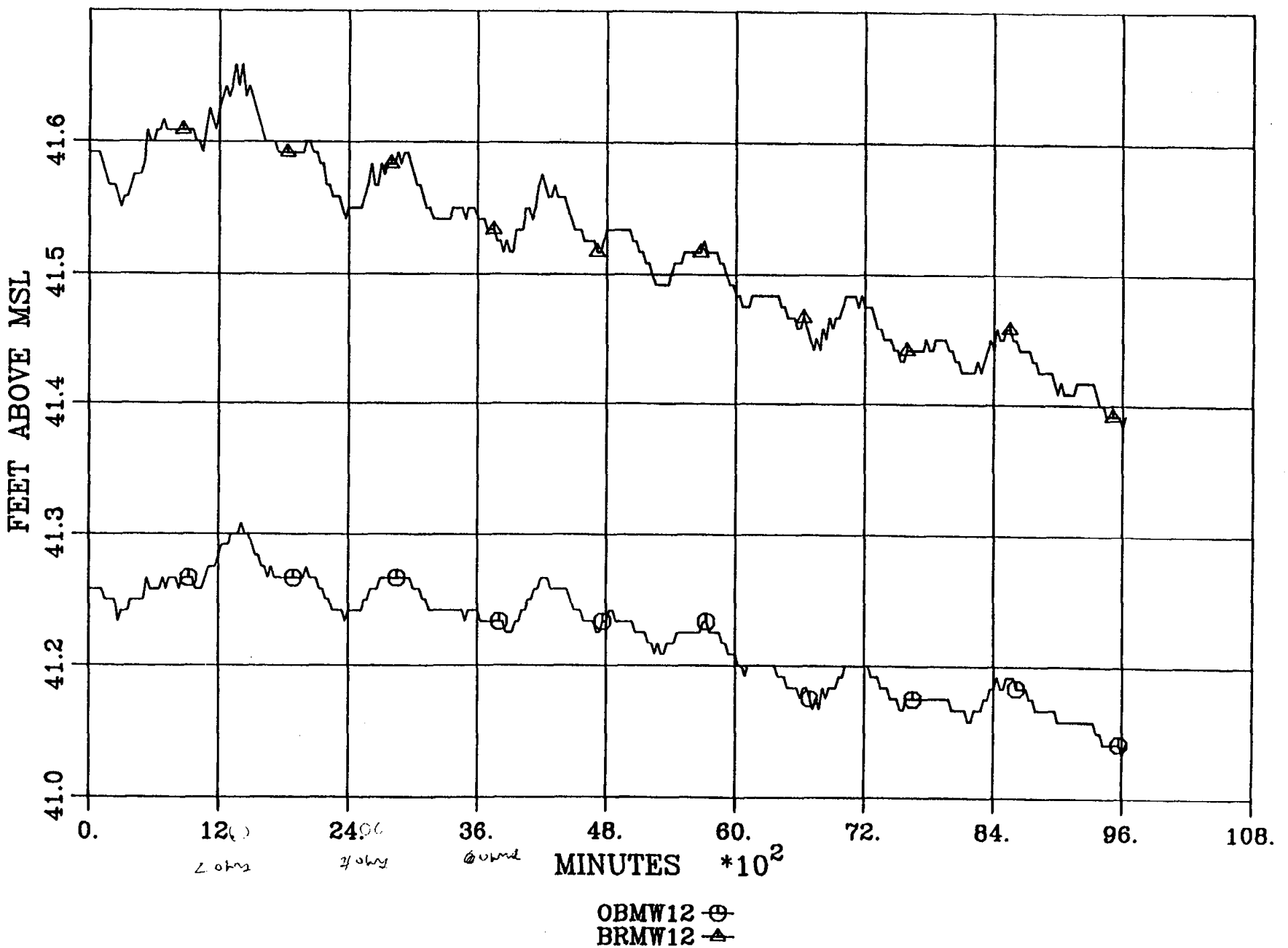
Appendix R
Water Level Hydrographs

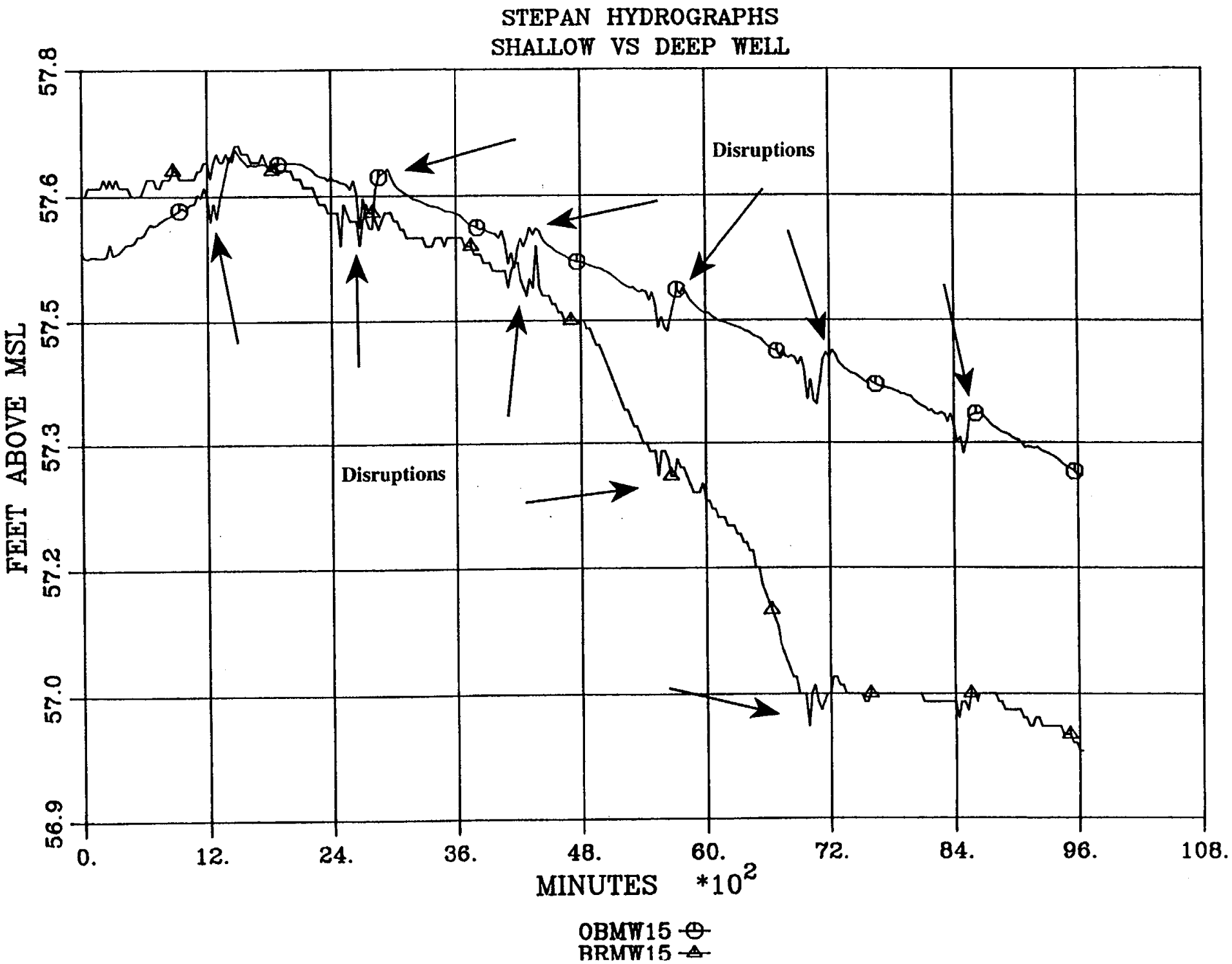

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL
49.5
48.8
48.0
47.3
46.5
45.7
45.0
0.
10.
20.
30.
40.
50.
60.
70.
80.
90.
100
MINUTES *10^2
OBMW2
BRMW2

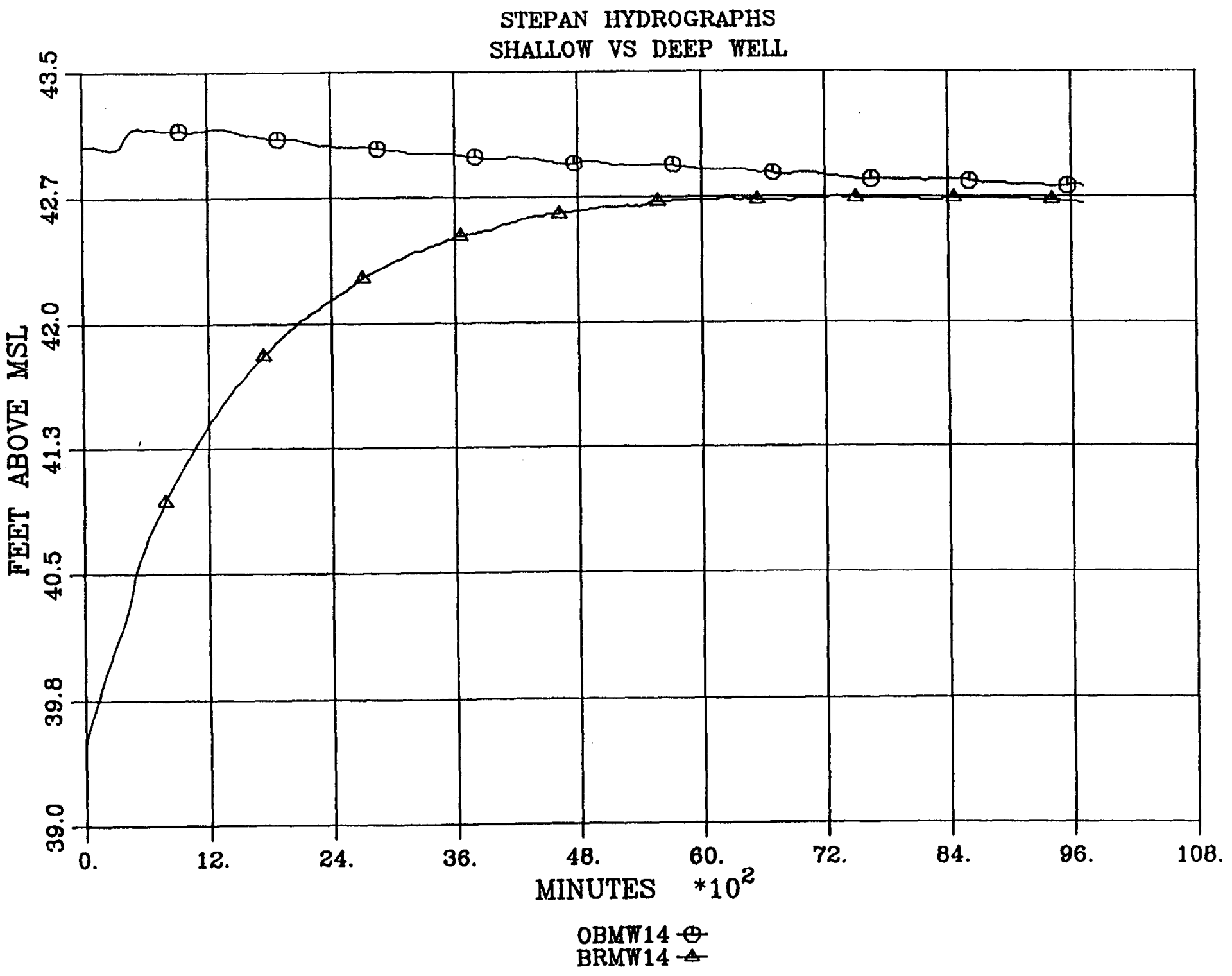

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL
FEET ABOVE MSL
45.6
45.2
44.8
44.4
44.0
43.6
0.
12.
24.
36.
48.
60.
72.
84.
96.
108.
MINUTES *10^2
OBMW11
BRMW11


STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL
FEET ABOVE MSL
43.36
43.28
43.20
43.12
43.04
42.96
42.88
0.
12.
24.
36.
48.
60.
72.
84.
96.
108.
MINUTES *10^2
OBMW13

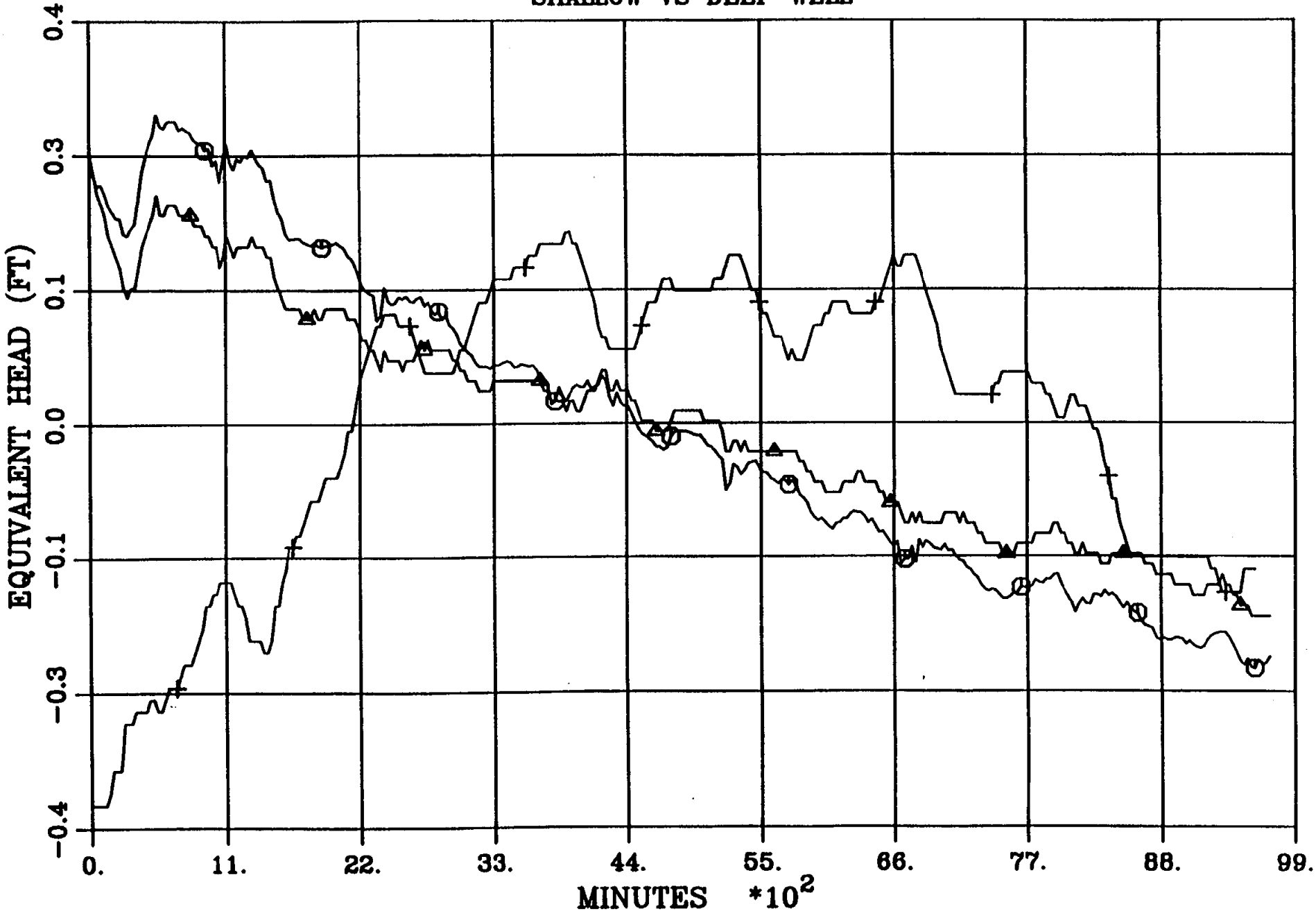
STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL




STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL
FEET ABOVE MSL
57.8
57.6
57.5
57.3
57.2
57.0
56.9
Disruptions
Disruptions
0.
12.
24.
36.
48.
60.
72.
84.
96.
108.
MINUTES *10^2
OBMW15
BRMW15

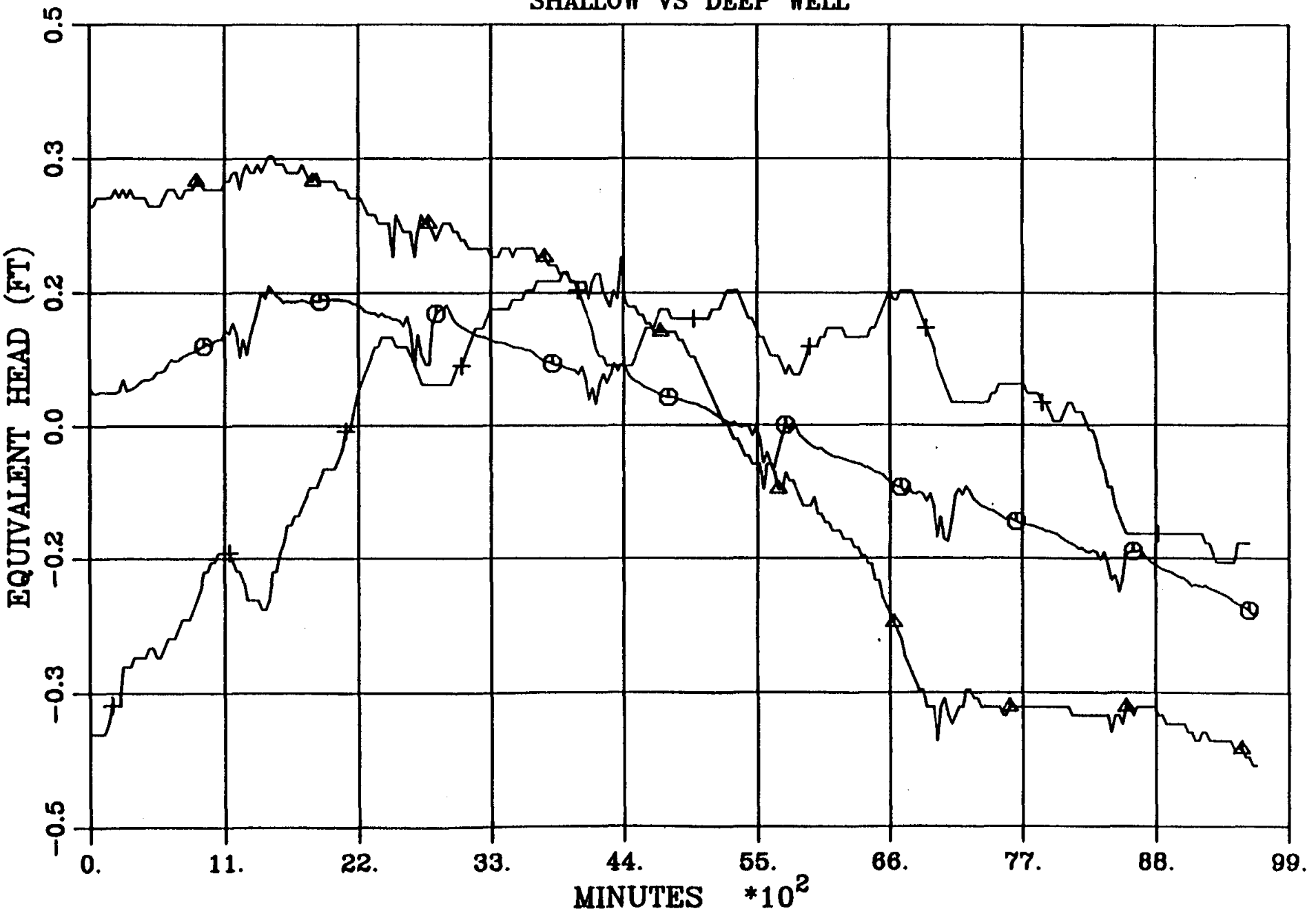

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL
FEET ABOVE MSL
43.5
42.7
42.0
41.3
40.5
39.8
39.0
0.
12.
24.
36.
48.
60.
72.
84.
96.
108.
MINUTES *10^2
OBMW14
BRMW14

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL

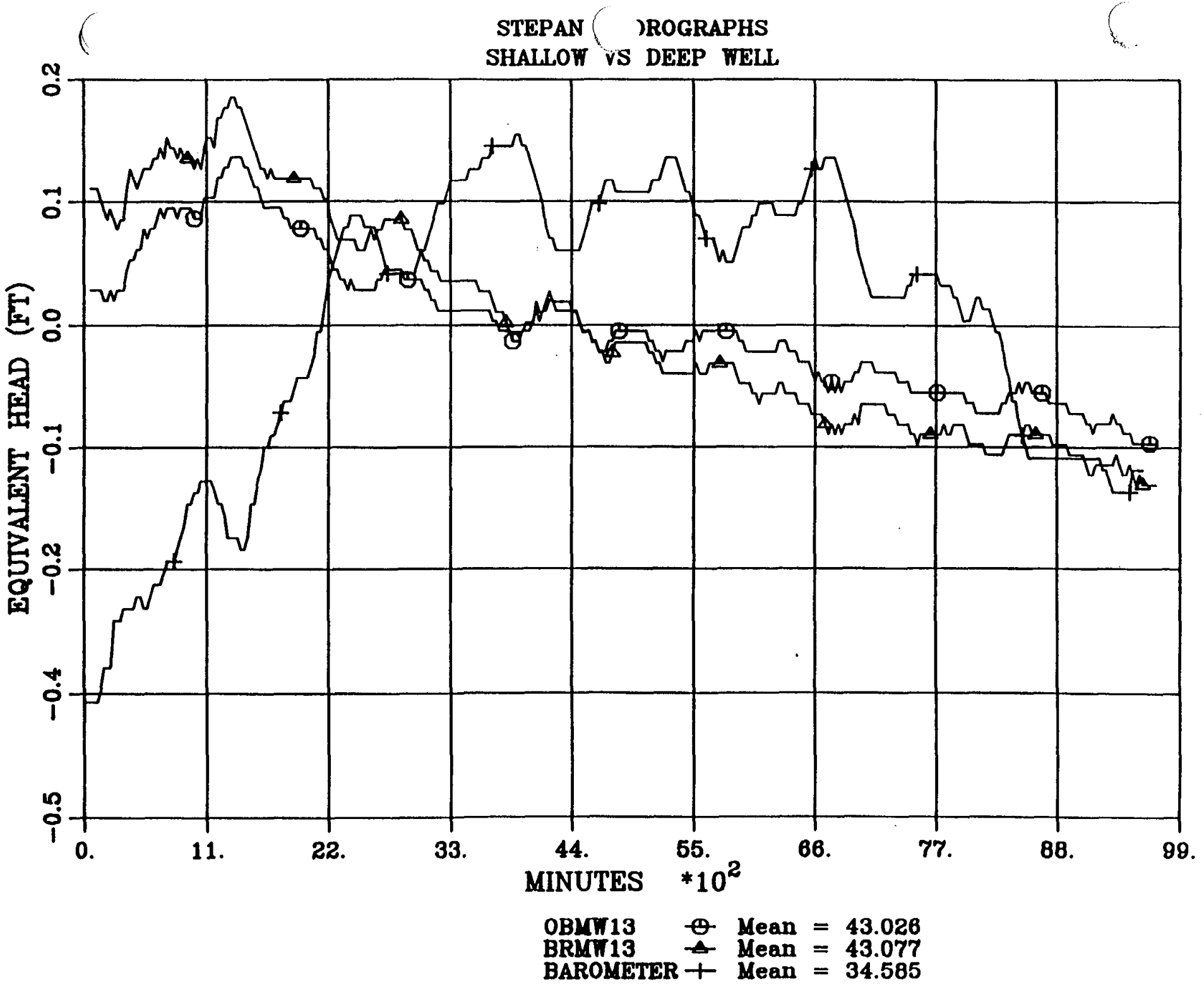


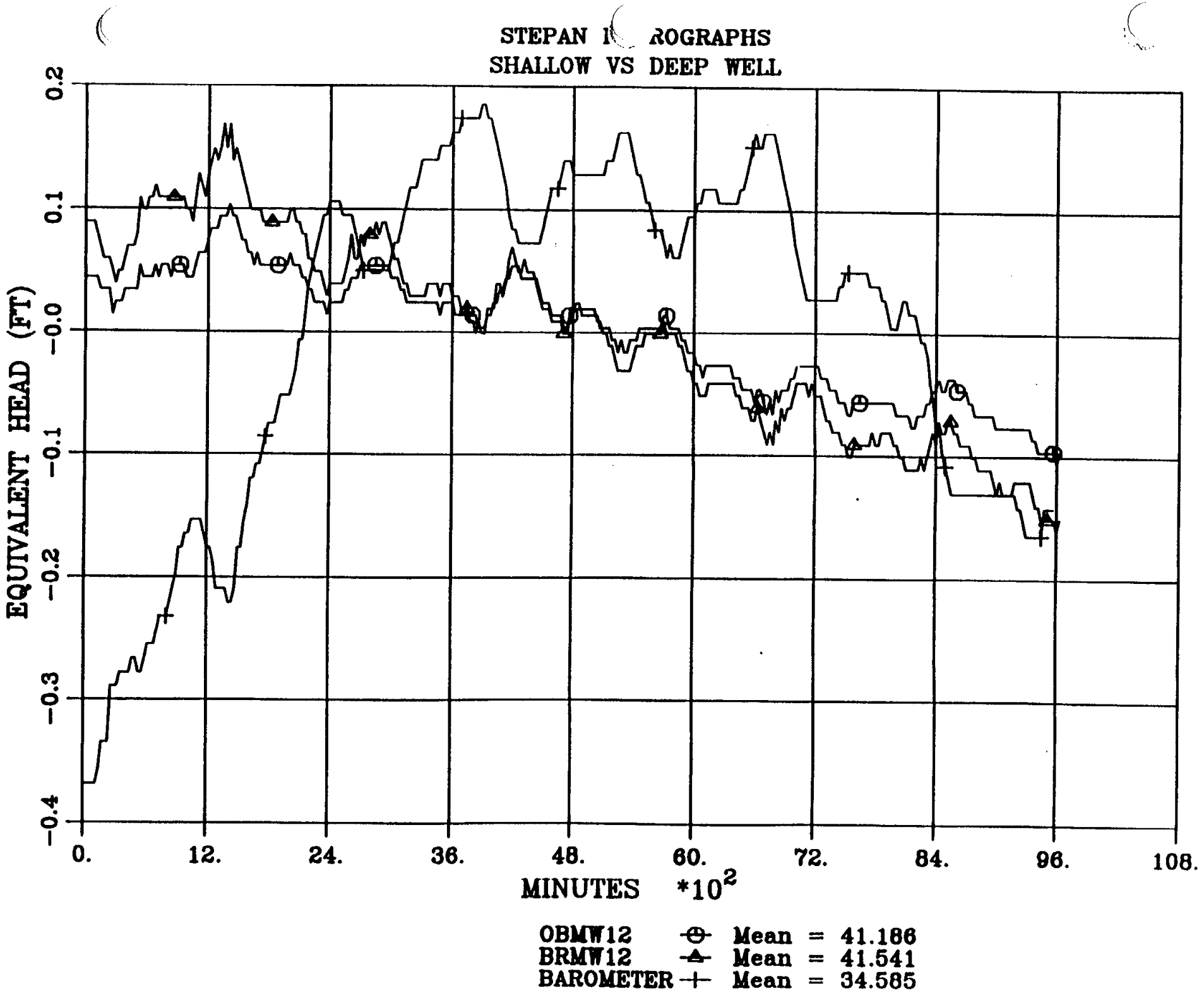
OBMW11 Mean = 44.992
BRMW11 Mean = 44.048
BAROMETER Mean = 34.585

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL

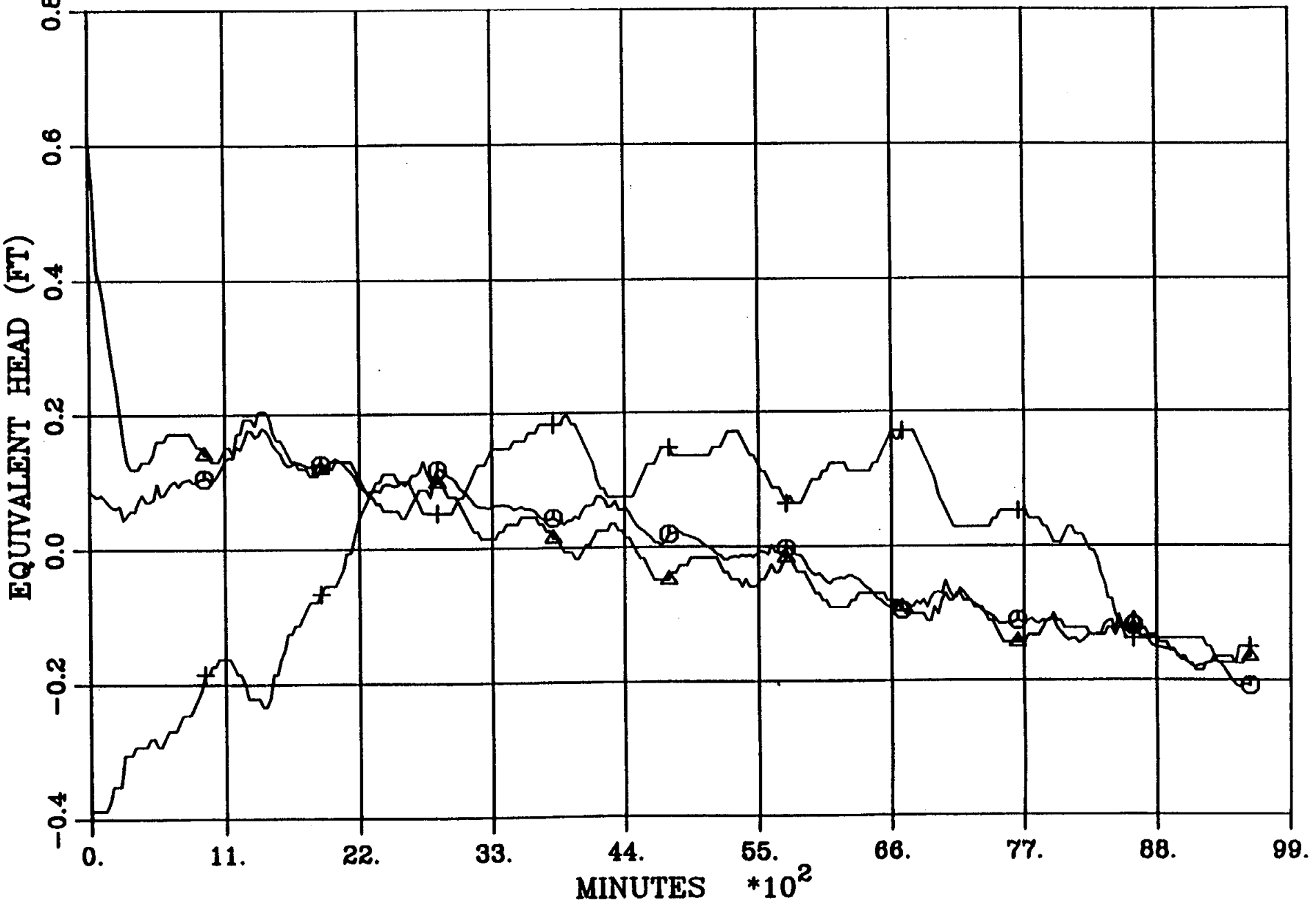


OBMW15 Mean = 57.487
BRMW15 Mean = 57.337
BAROMETER Mean = 34.585

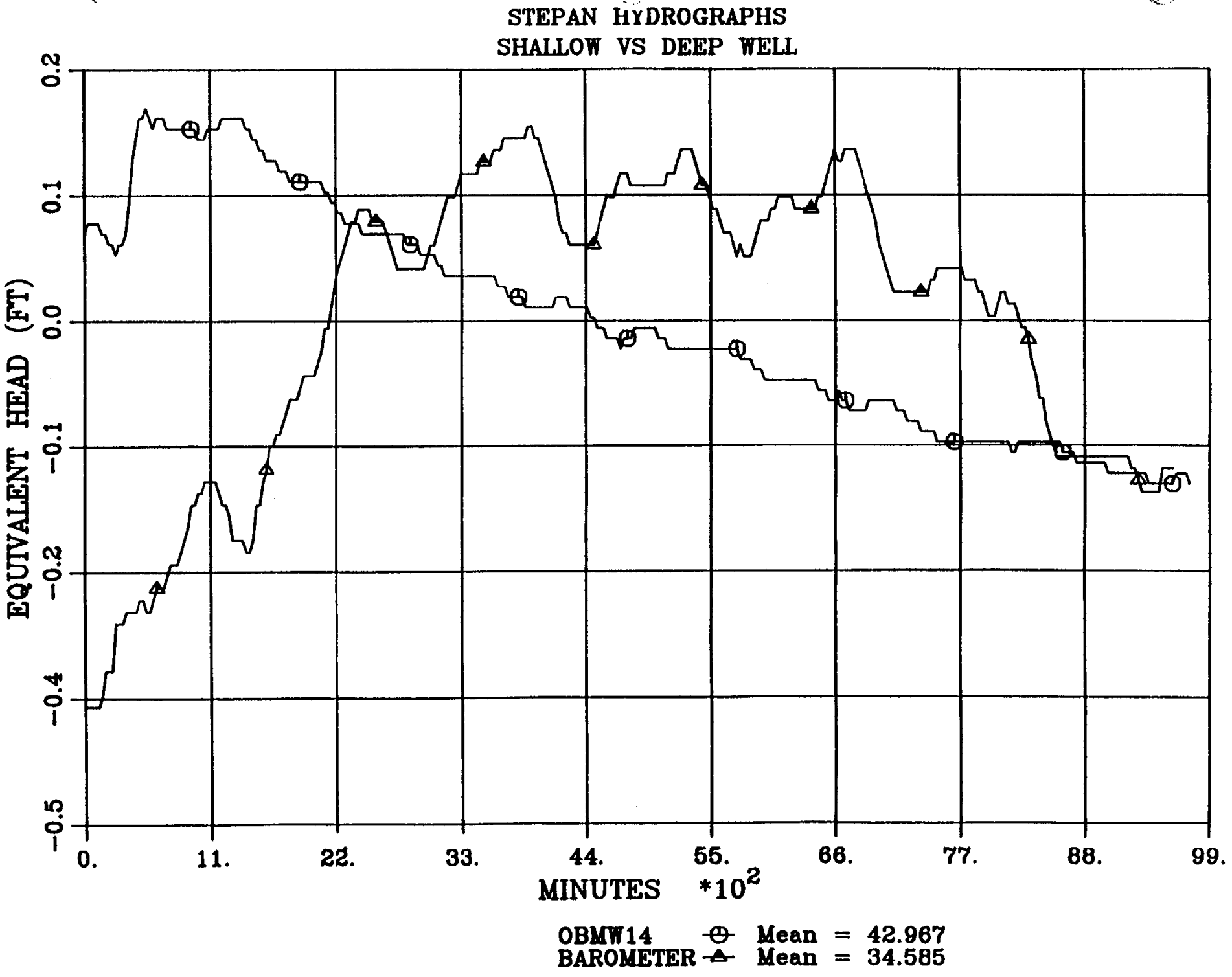

STEPAN OROGRAPHS
SHALLOW VS DEEP WELL
EQUIVALENT HEAD (FT)
0.2
0.1
0.0
-0.1
-0.2
-0.4
-0.5
0.
11.
22.
33.
44.
55.
66.
77.
88.
99.
MINUTES *10^2
OBMW13 Mean = 43.026
BRMW13 Mean = 43.077
BAROMETER Mean = 34.585


STEPAN I ROGRAPHS
SHALLOW VS DEEP WELL
EQUVALENT HEAD (FT)
0.2
0.1
-0.0
-0.1
-0.2
-0.3
-0.4
0.
12.
24.
36.
48.
60.
72.
84.
96.
108.
MINUTES *10^2
OBMW12 Mean = 41.166
BRMW12 Mean = 41.541
BAROMETER Mean = 34.585

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL

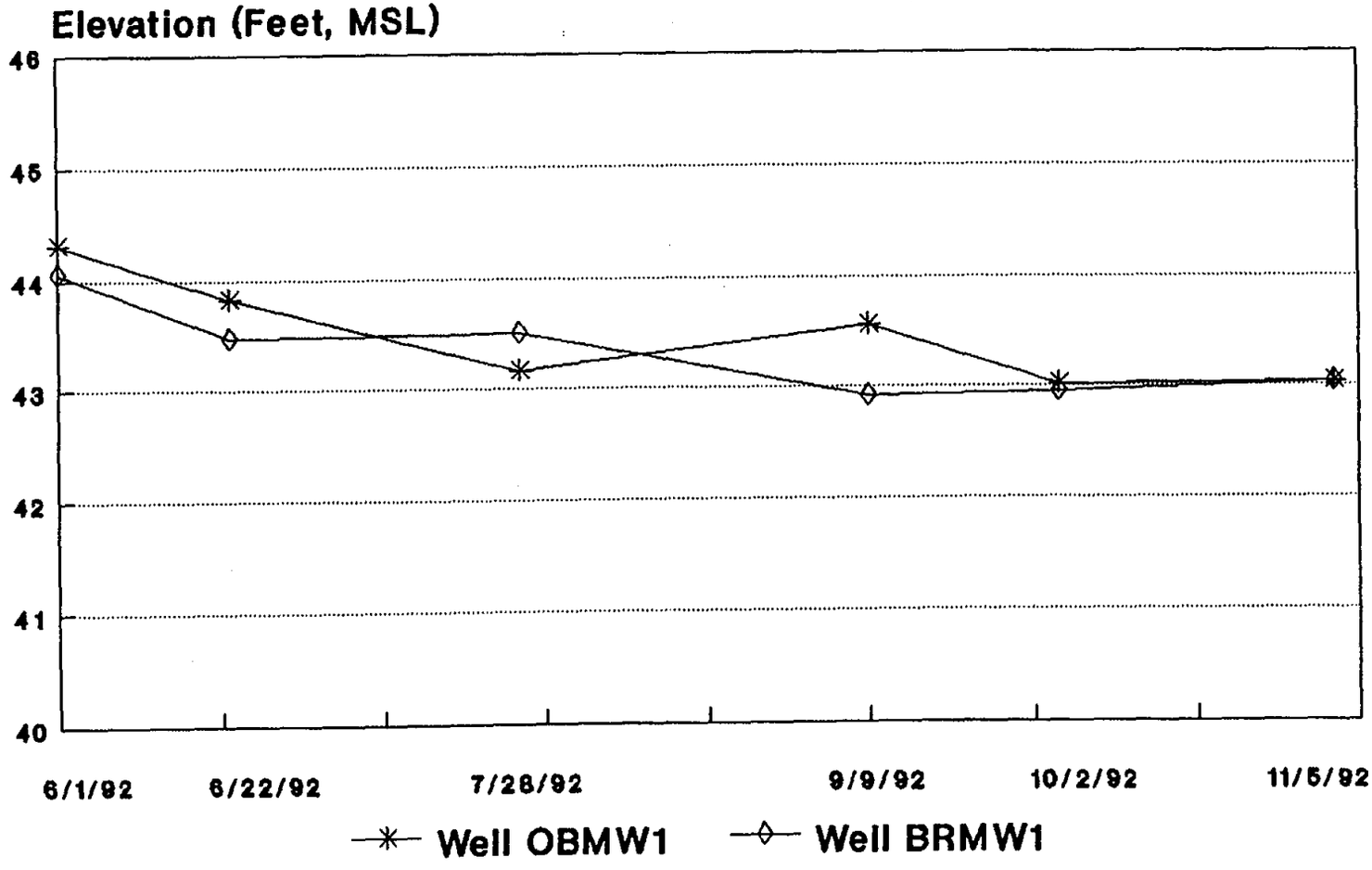


OBMW2	Mean	= 48.797
BRMW2	Mean	= 45.176
BAROMETER	Mean	= 34.585

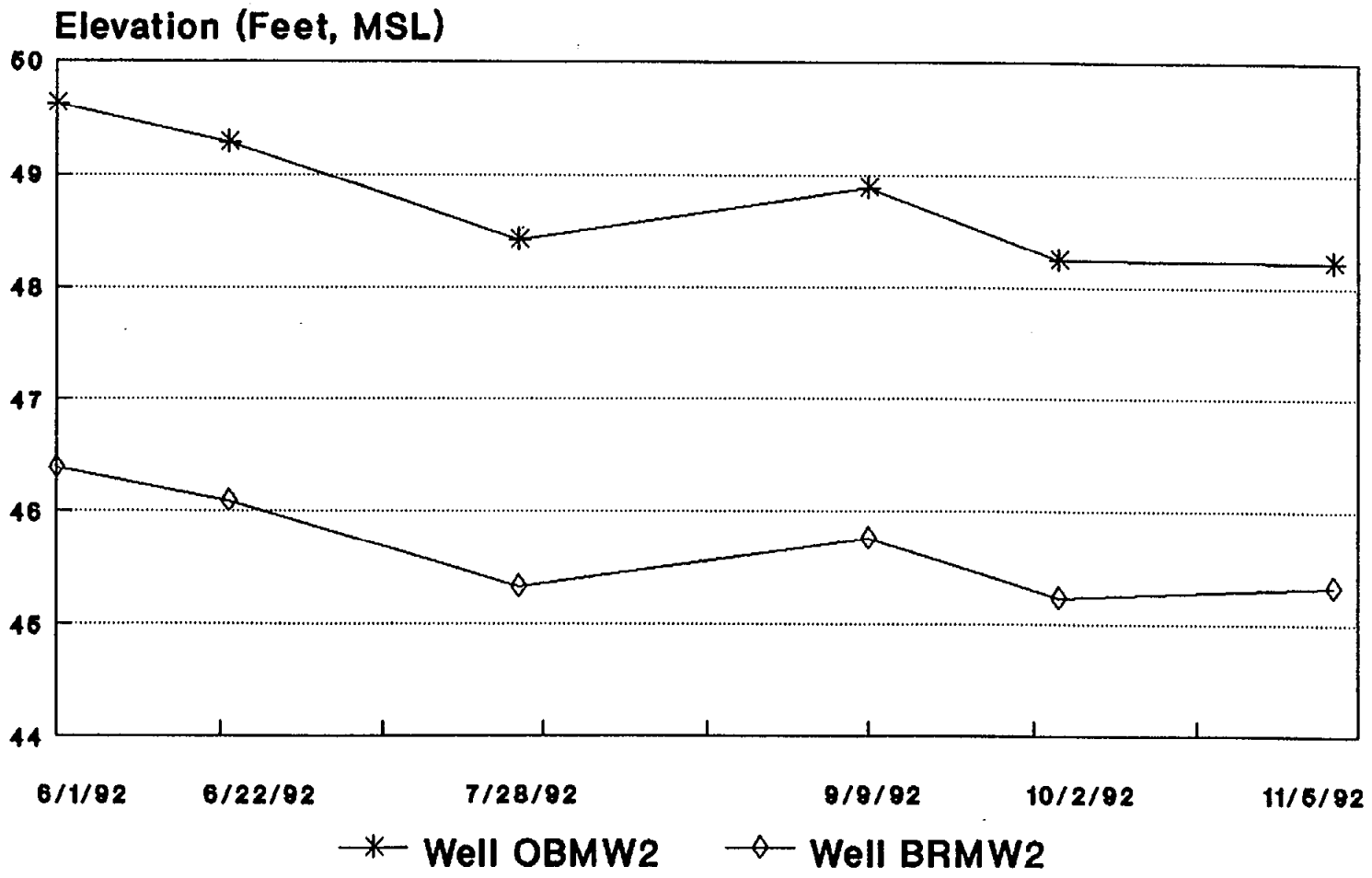

STEPAN HYDROGRAPHS
SHALLOW VS DEEP WELL
EQUIVALENT HEAD (FT)
0.2
0.1
0.0
-0.1
-0.2
-0.4
-0.5
0.
11.
22.
33.
44.
55.
66.
77.
88.
99.
MINUTES *10^2
OBMW14 Mean = 42.967
BAROMETER Mean = 34.585

Appendix S
Continuous Water Levels With and Without Barometric Pressure

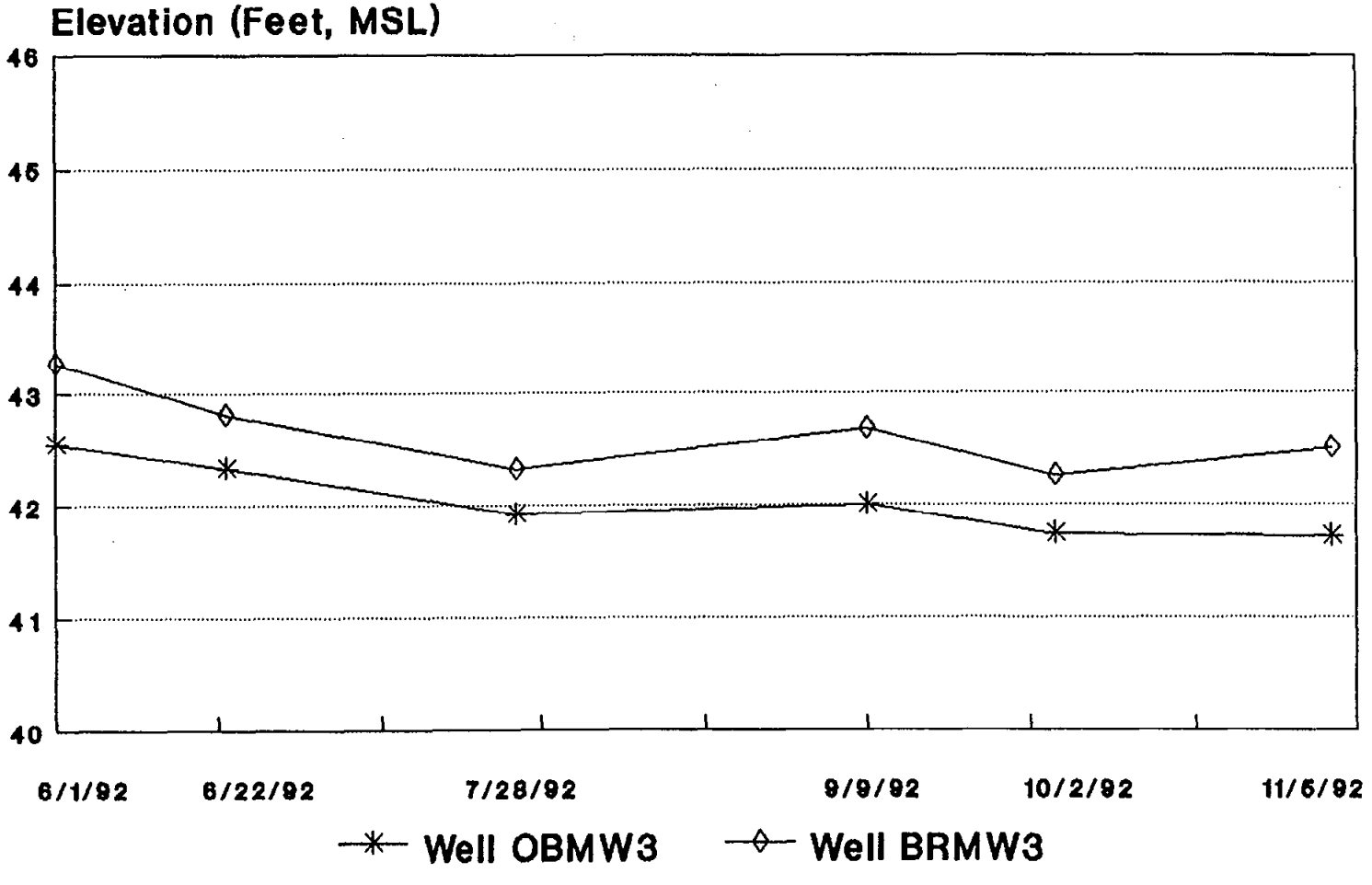
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW1 and BRMW1



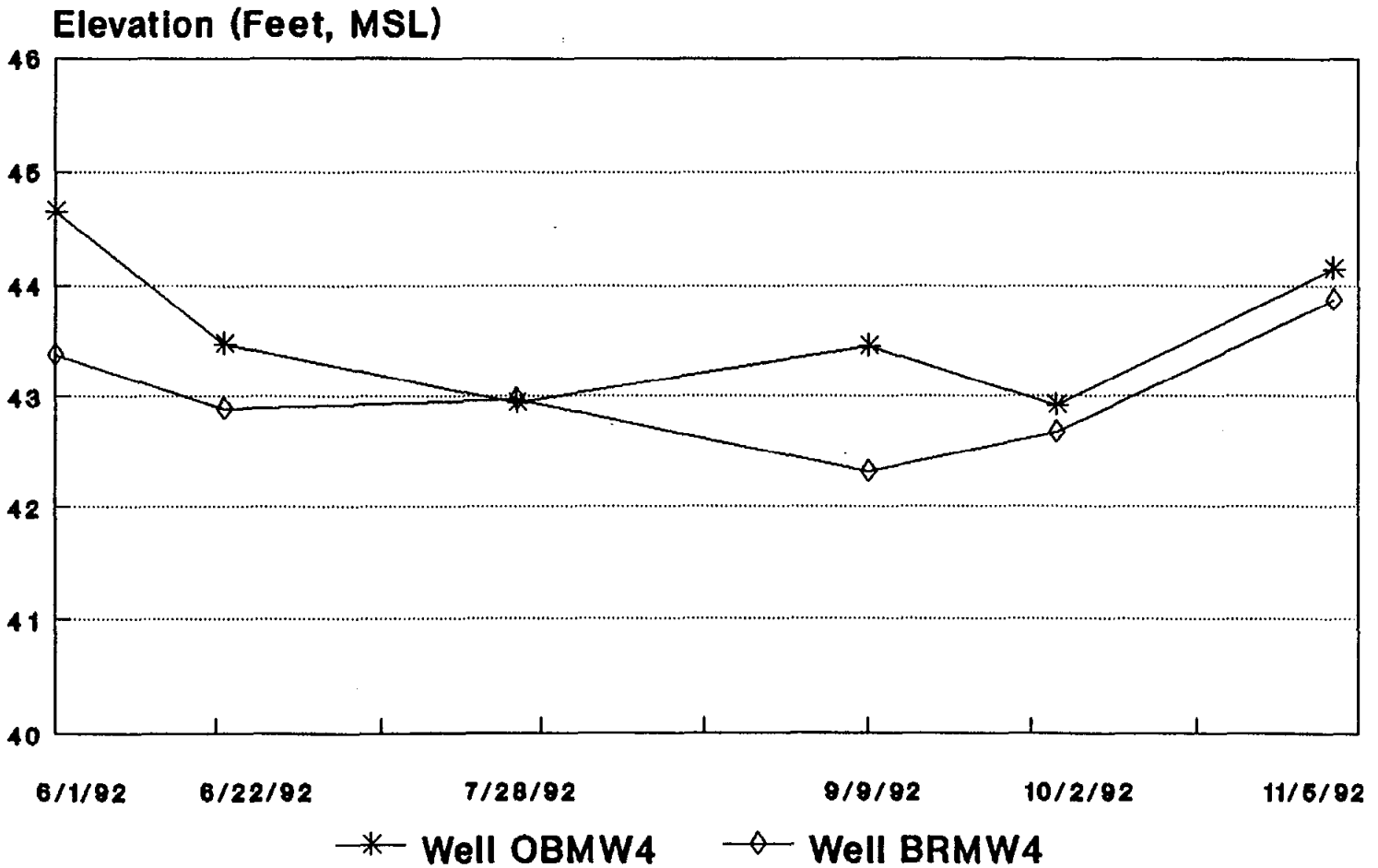
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW2 and BRMW2



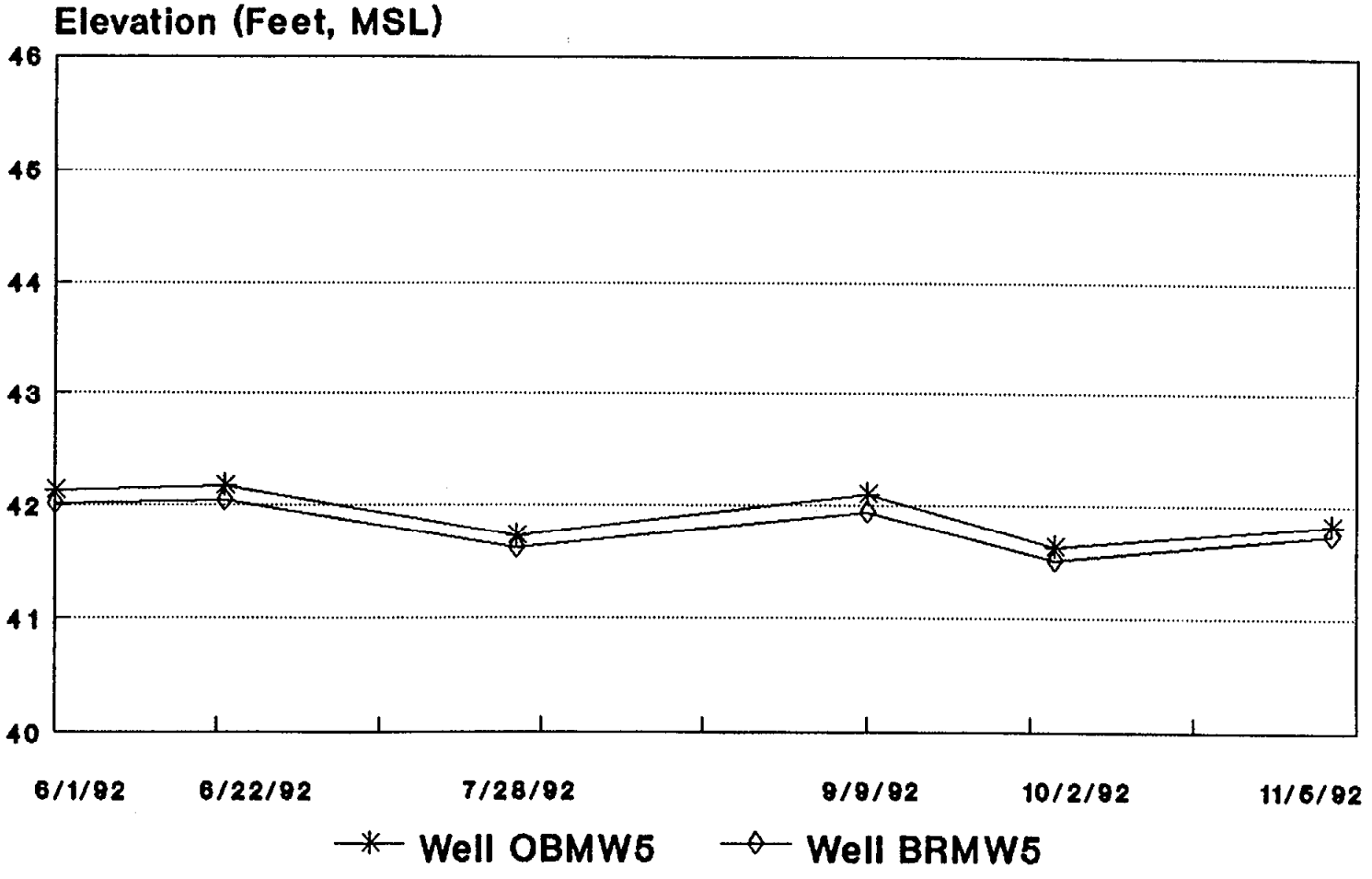
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW3 and BRMW3



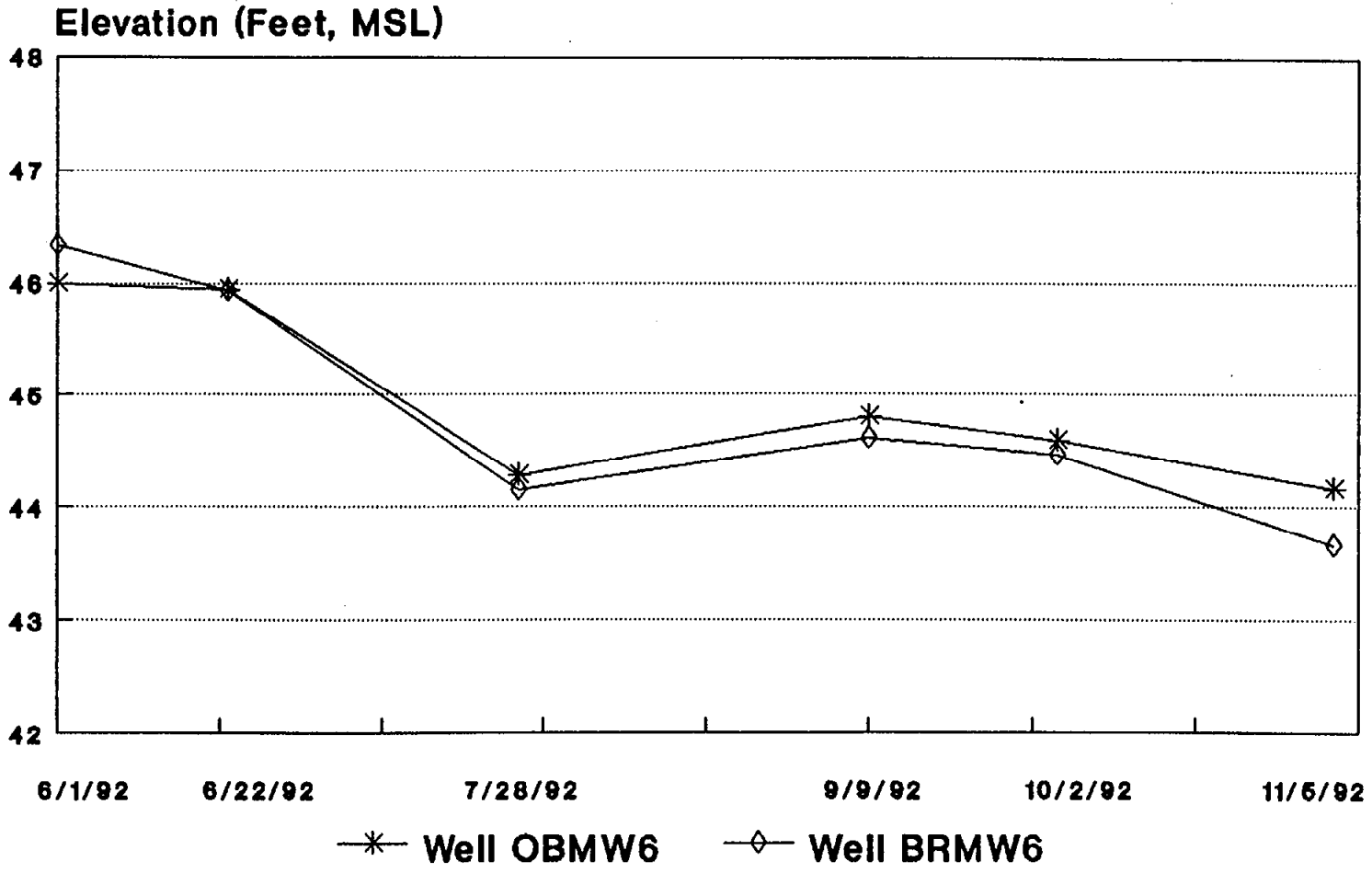
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW4 and BRMW4



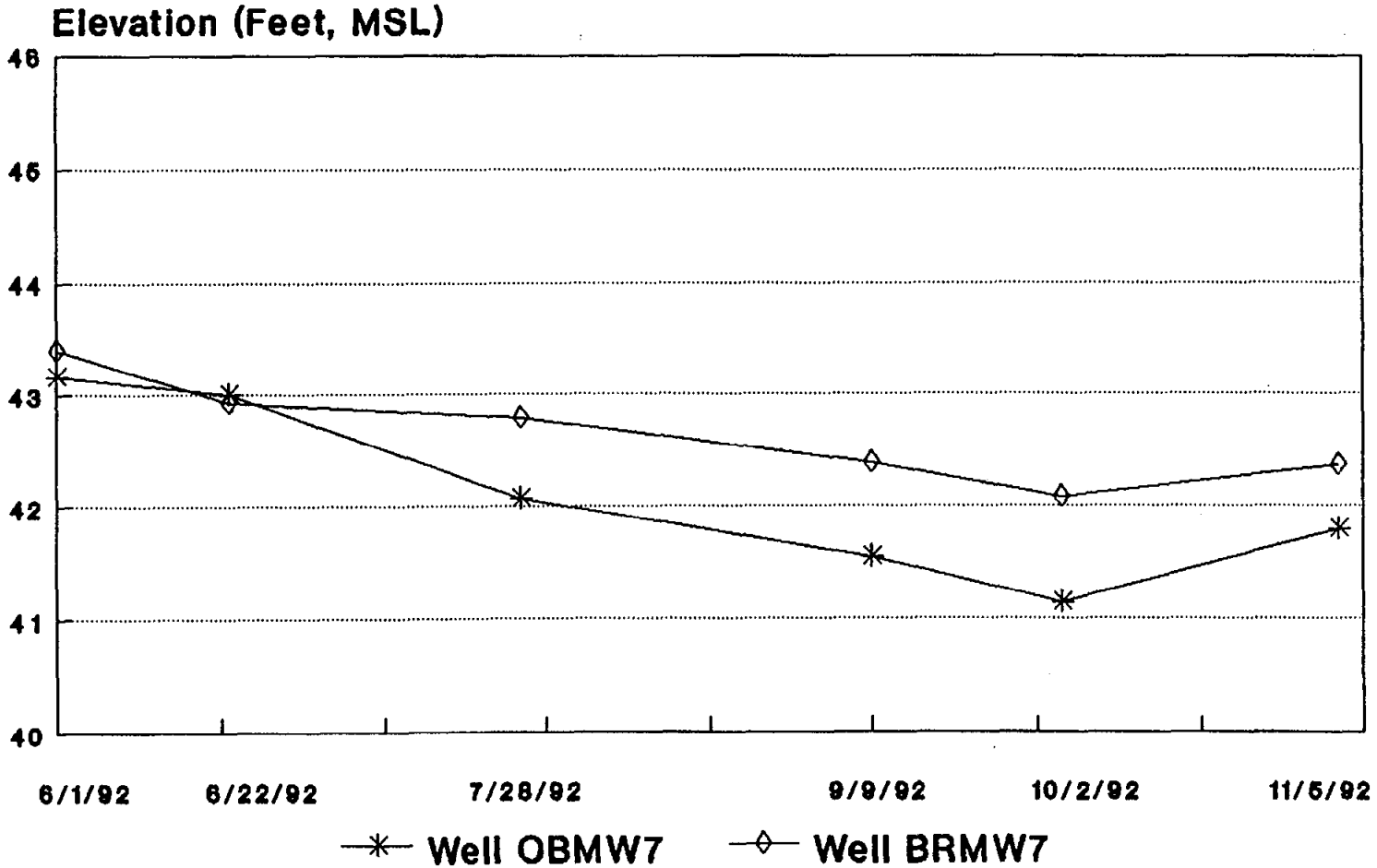
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW5 and BRMW5



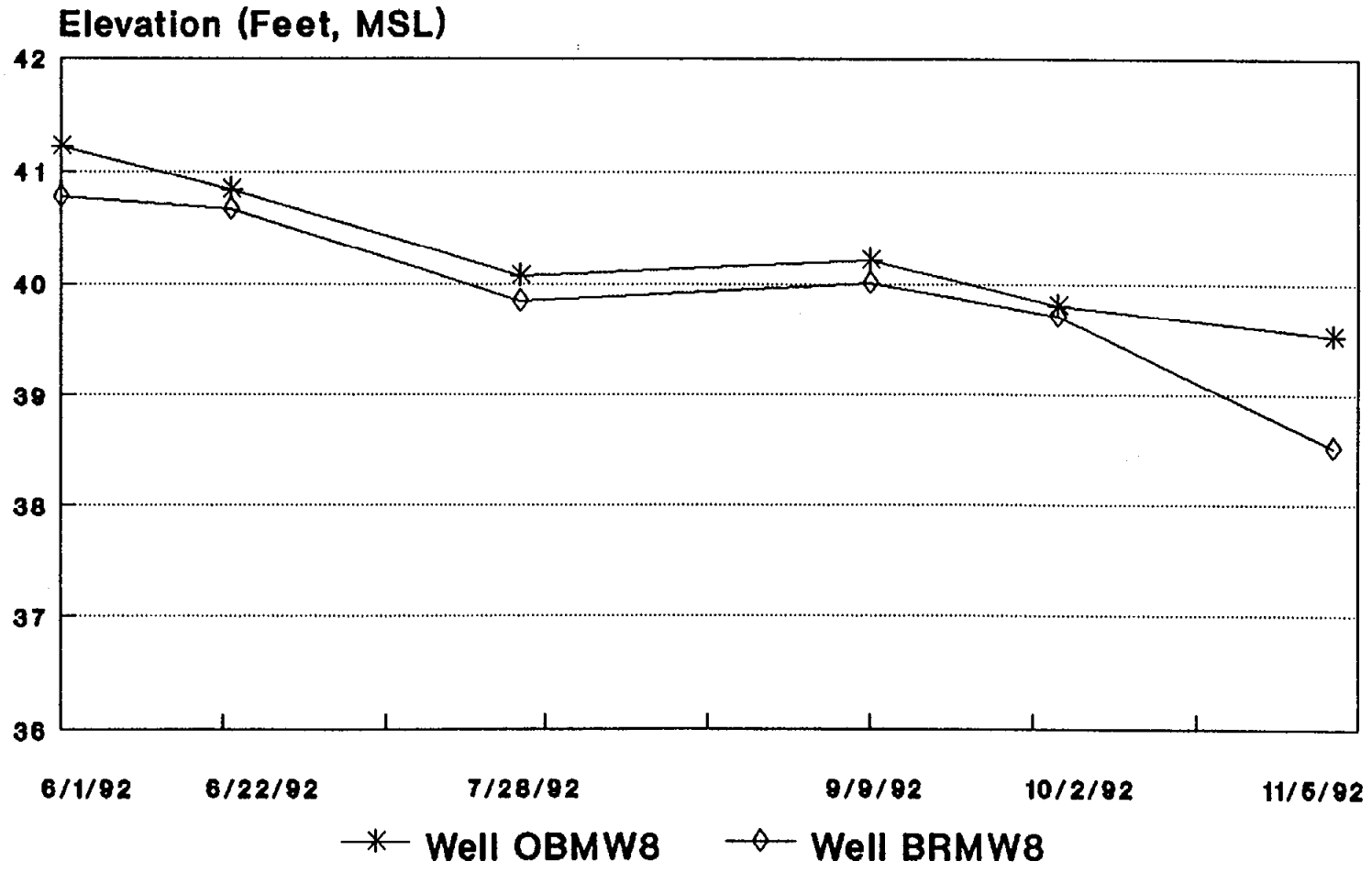
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW6 and BRMW6



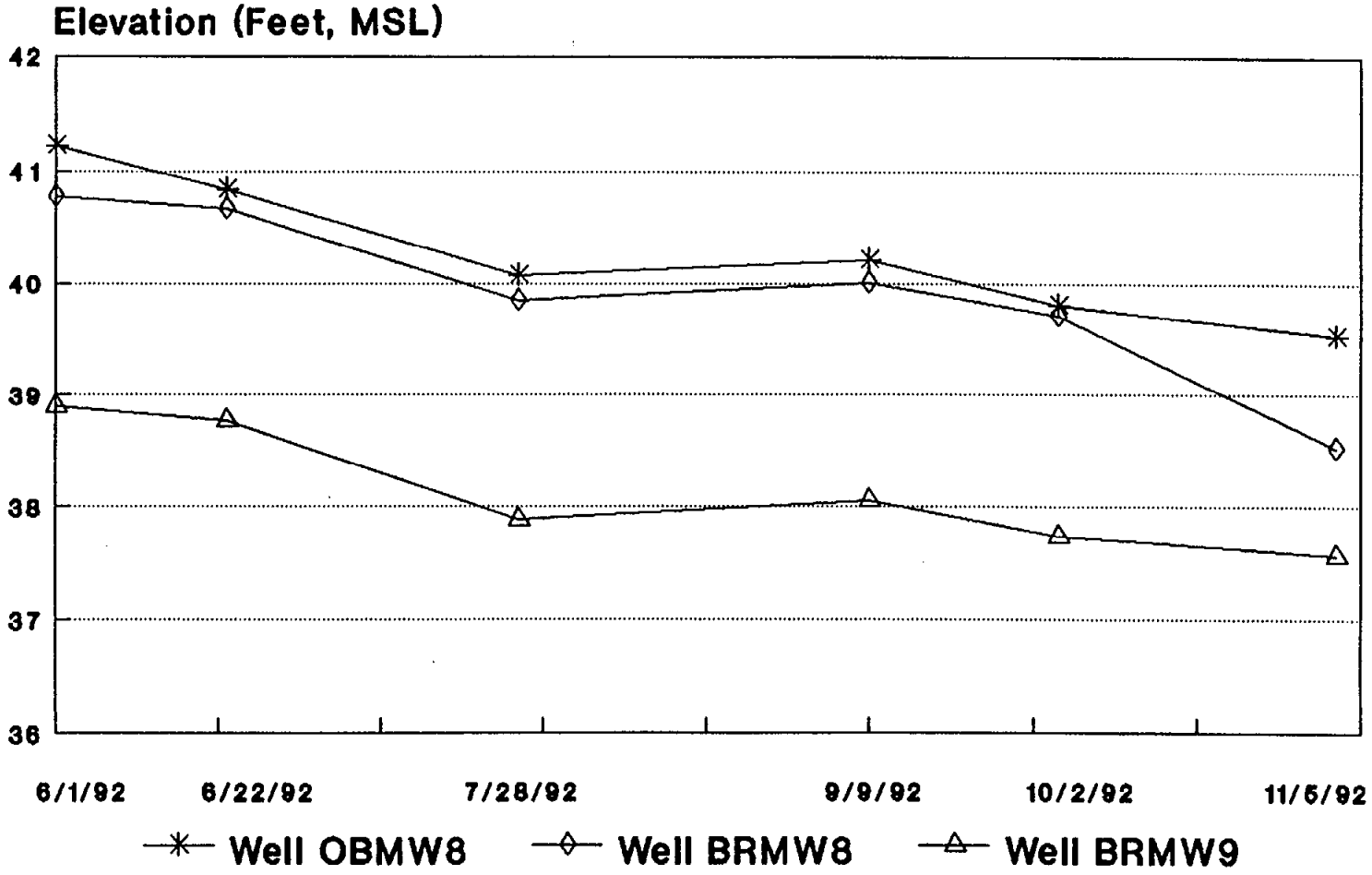
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW7 and BRMW7



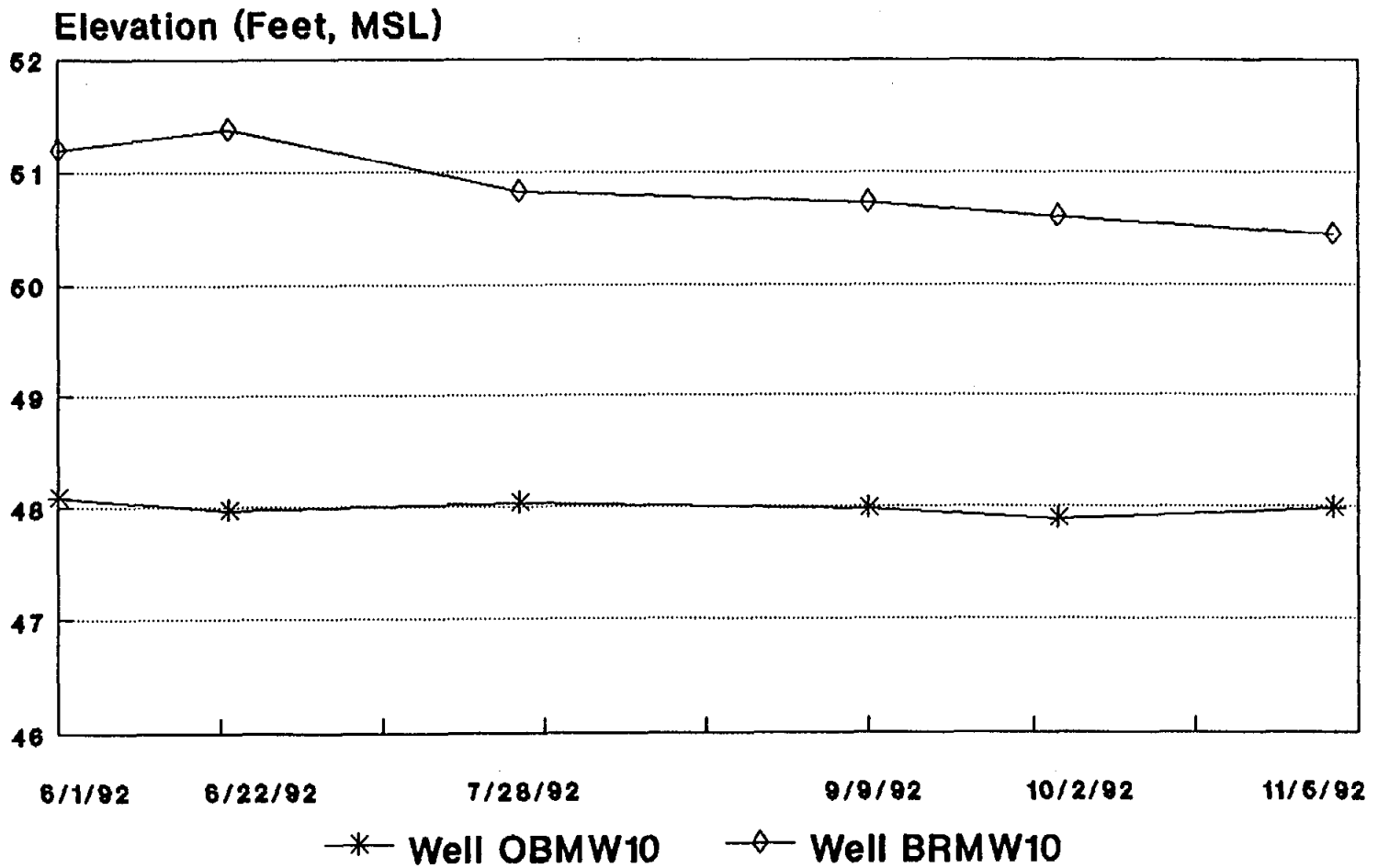
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW8 and BRMW8



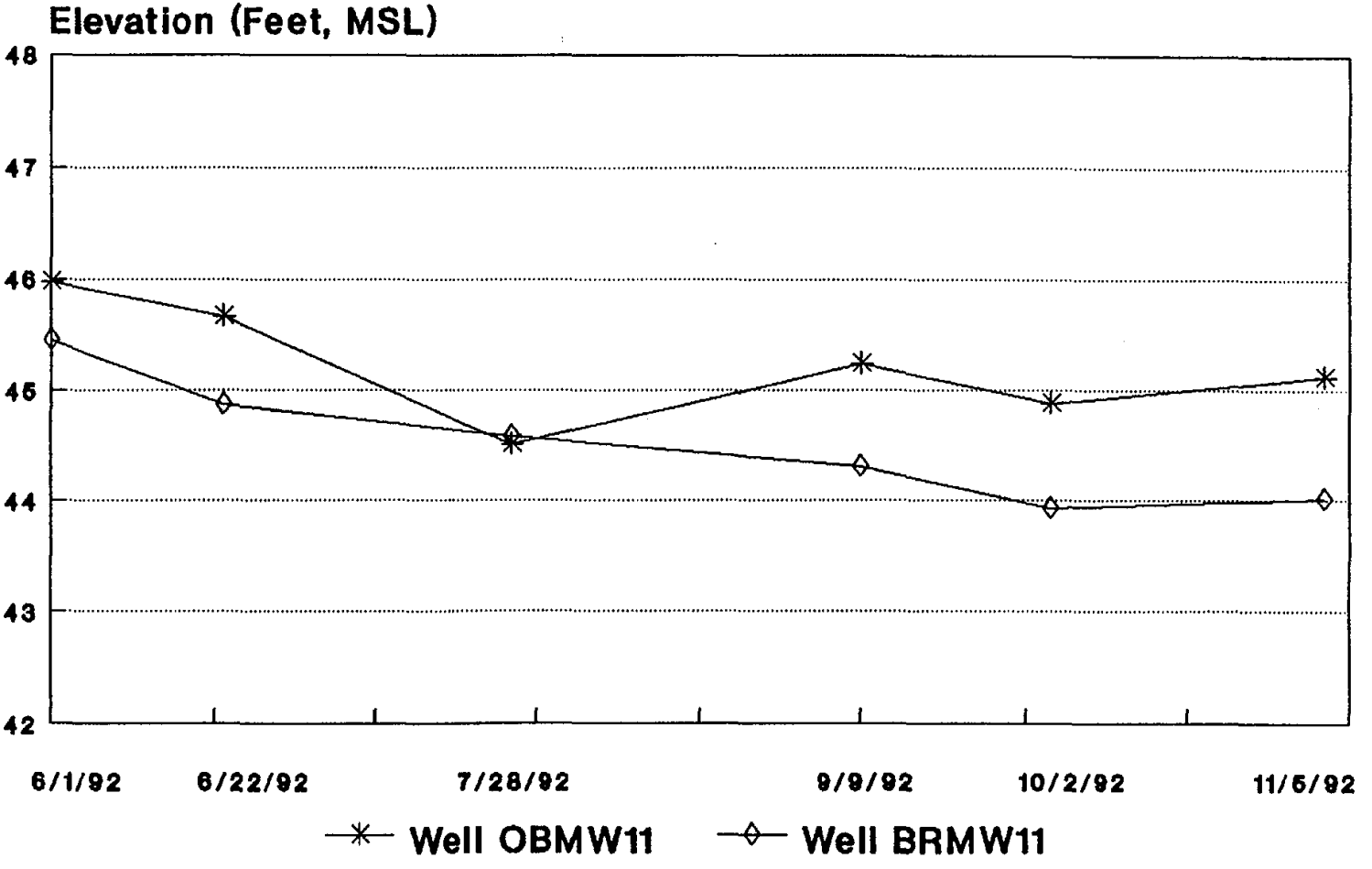
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW8, BRMW8, and BRMW9



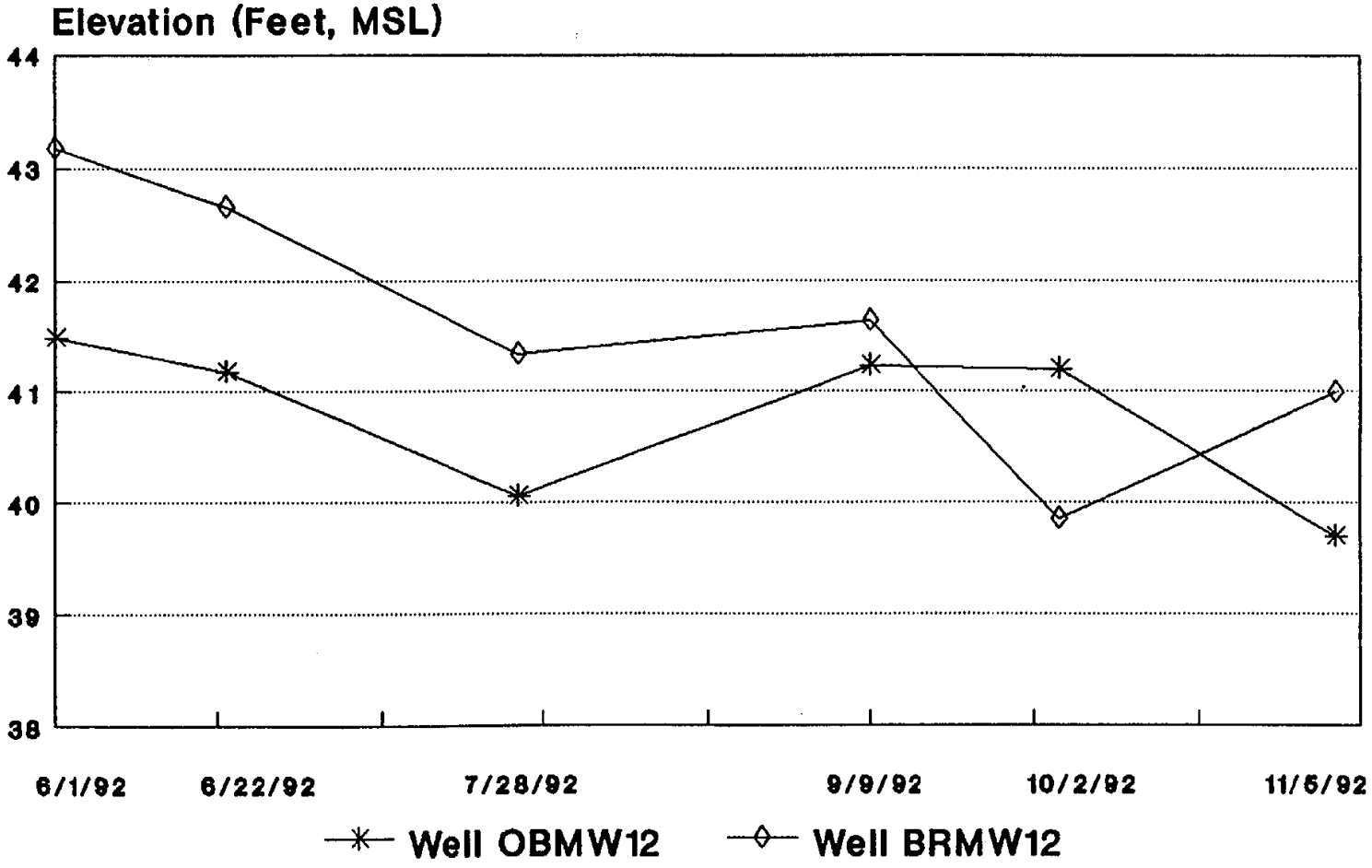
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW10 and BRMW10



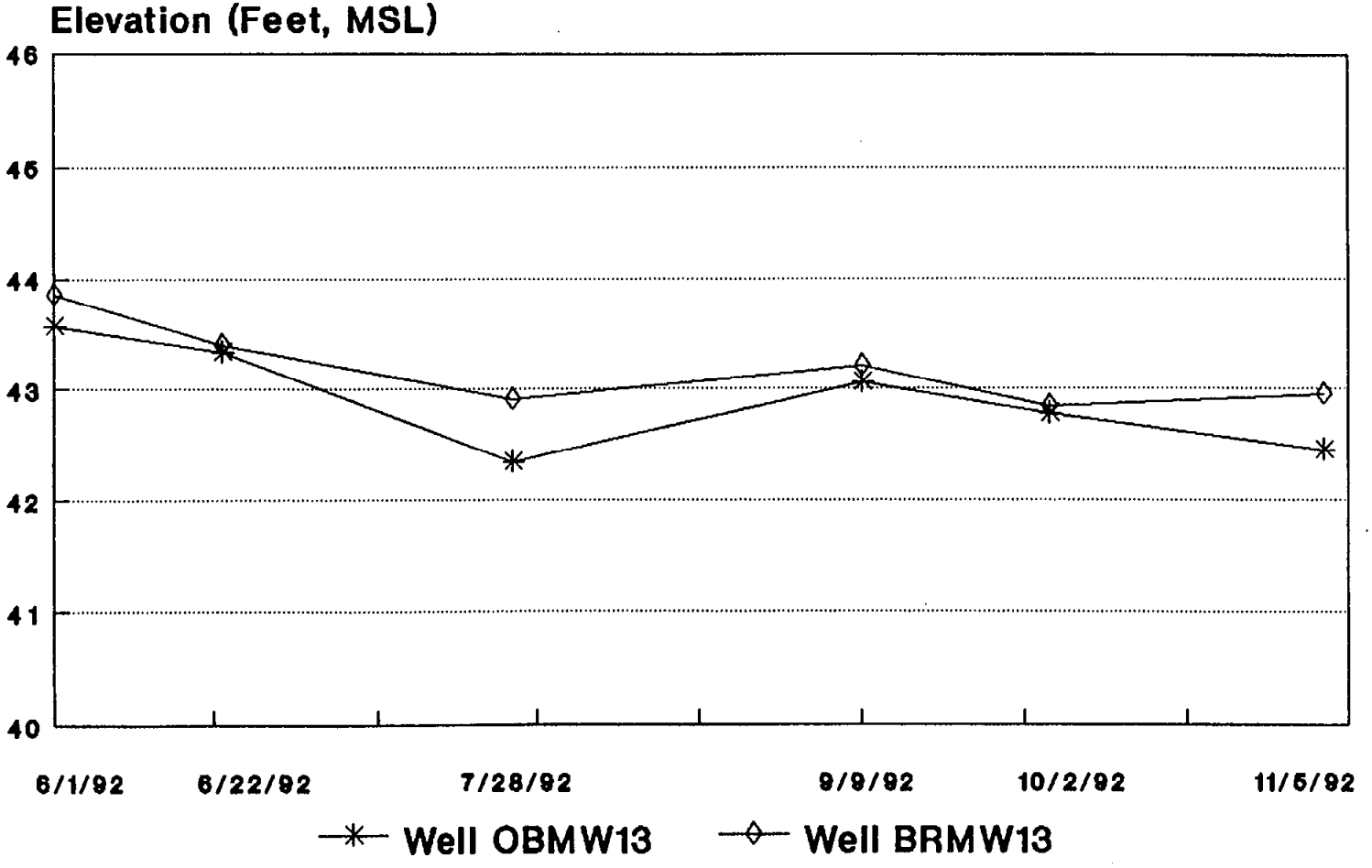
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW11 and BRMW11



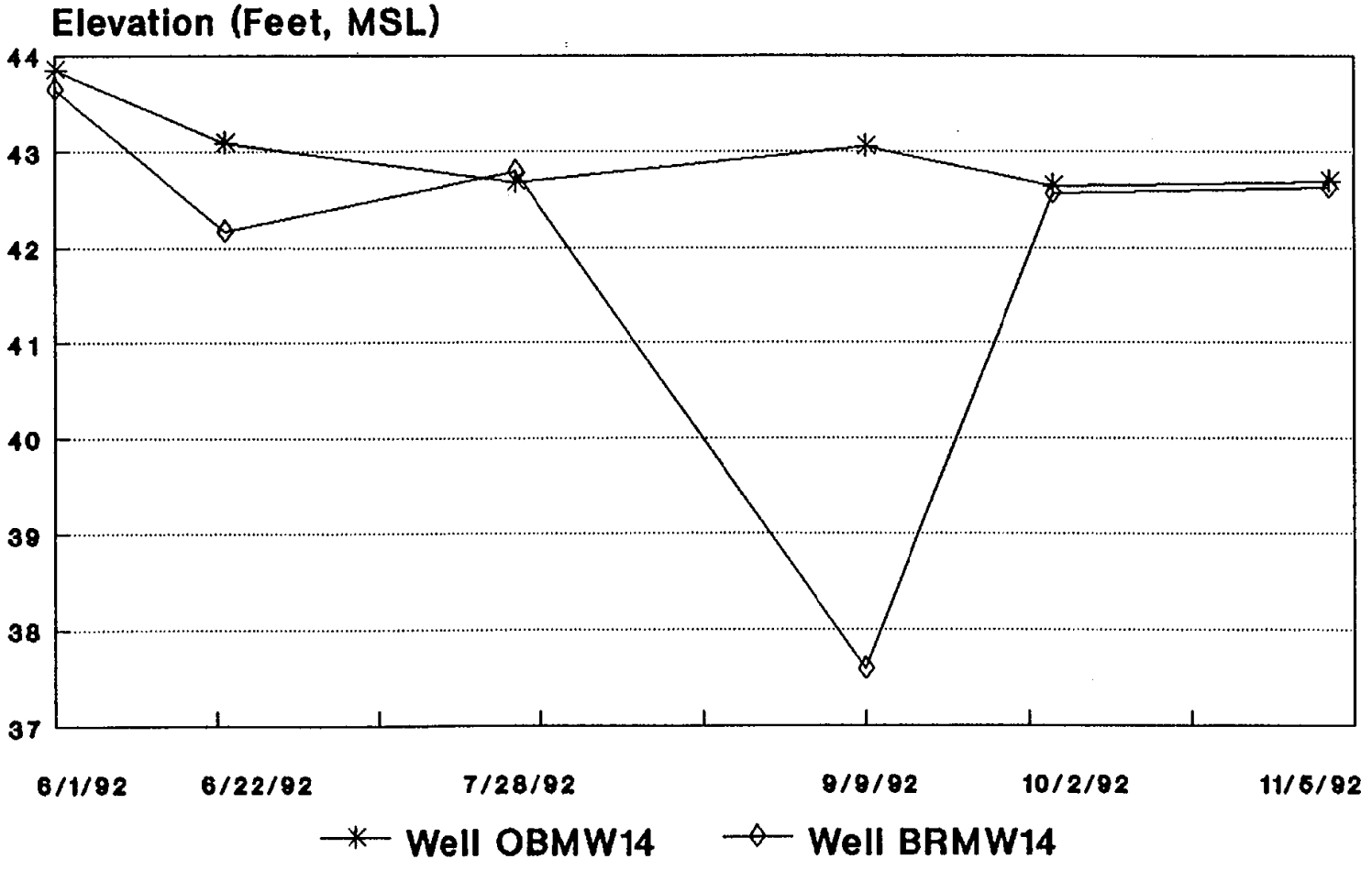
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW12 and BRMW12



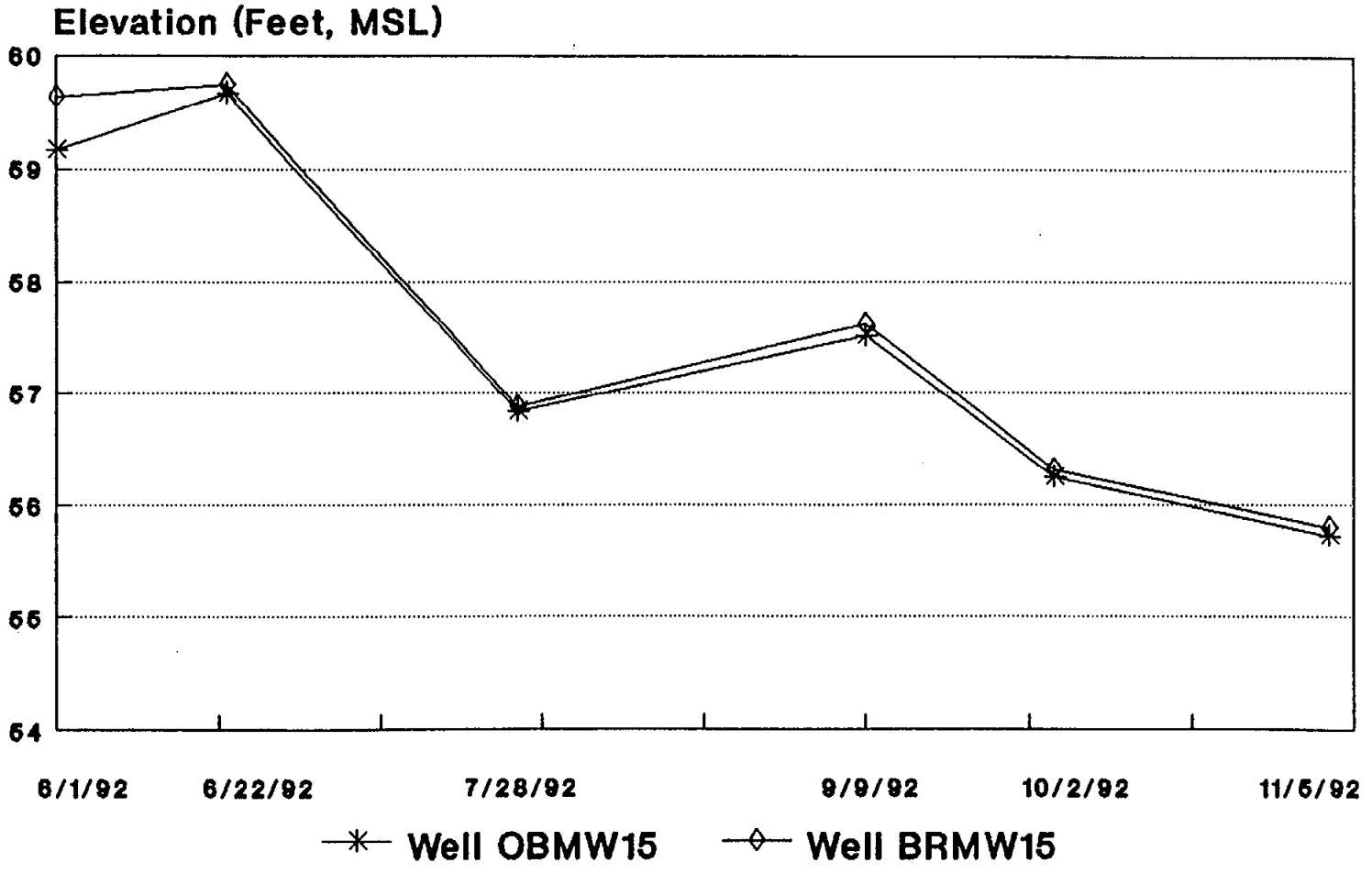
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW13 and BRMW13



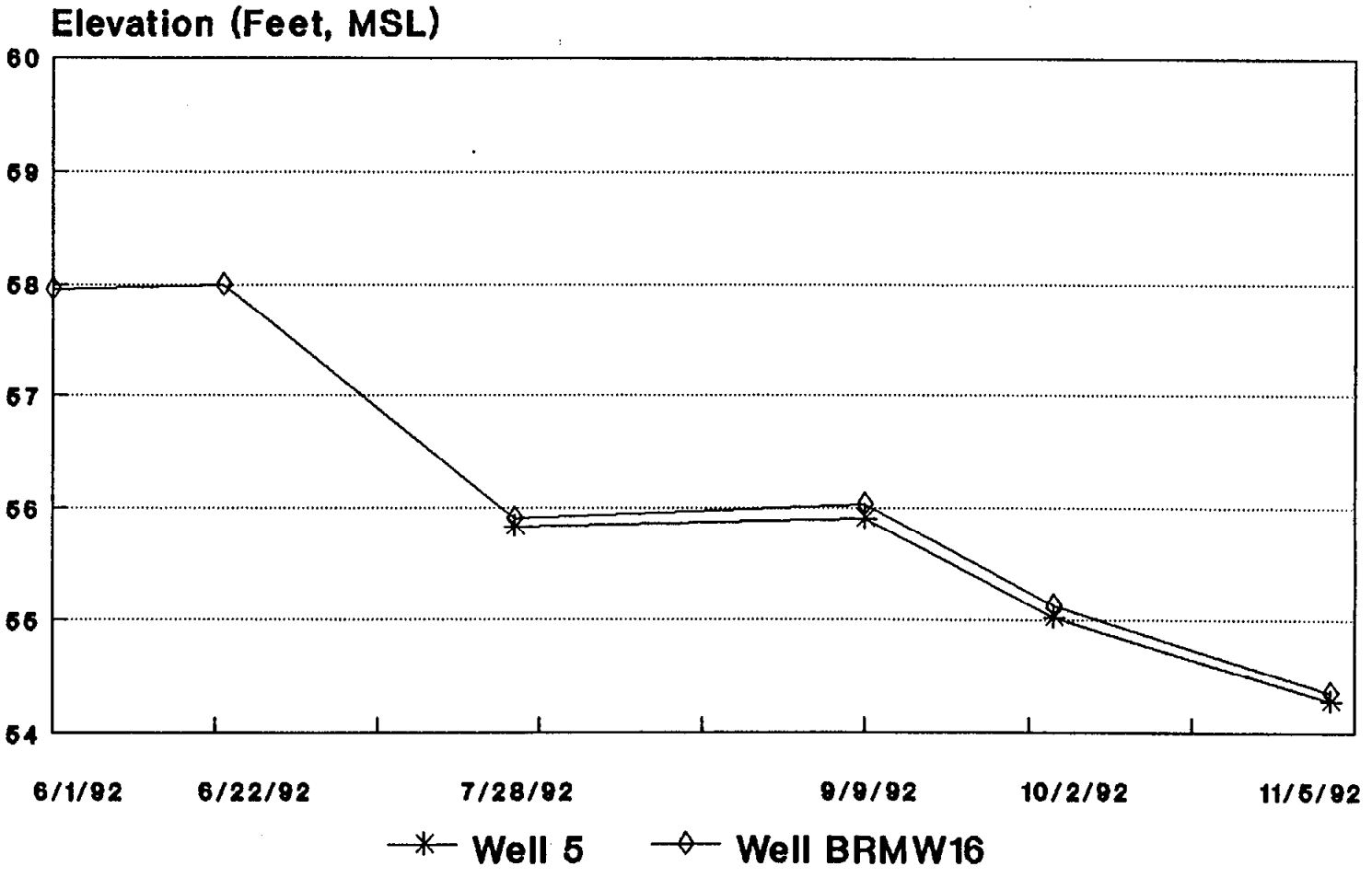
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW14 and BRMW14



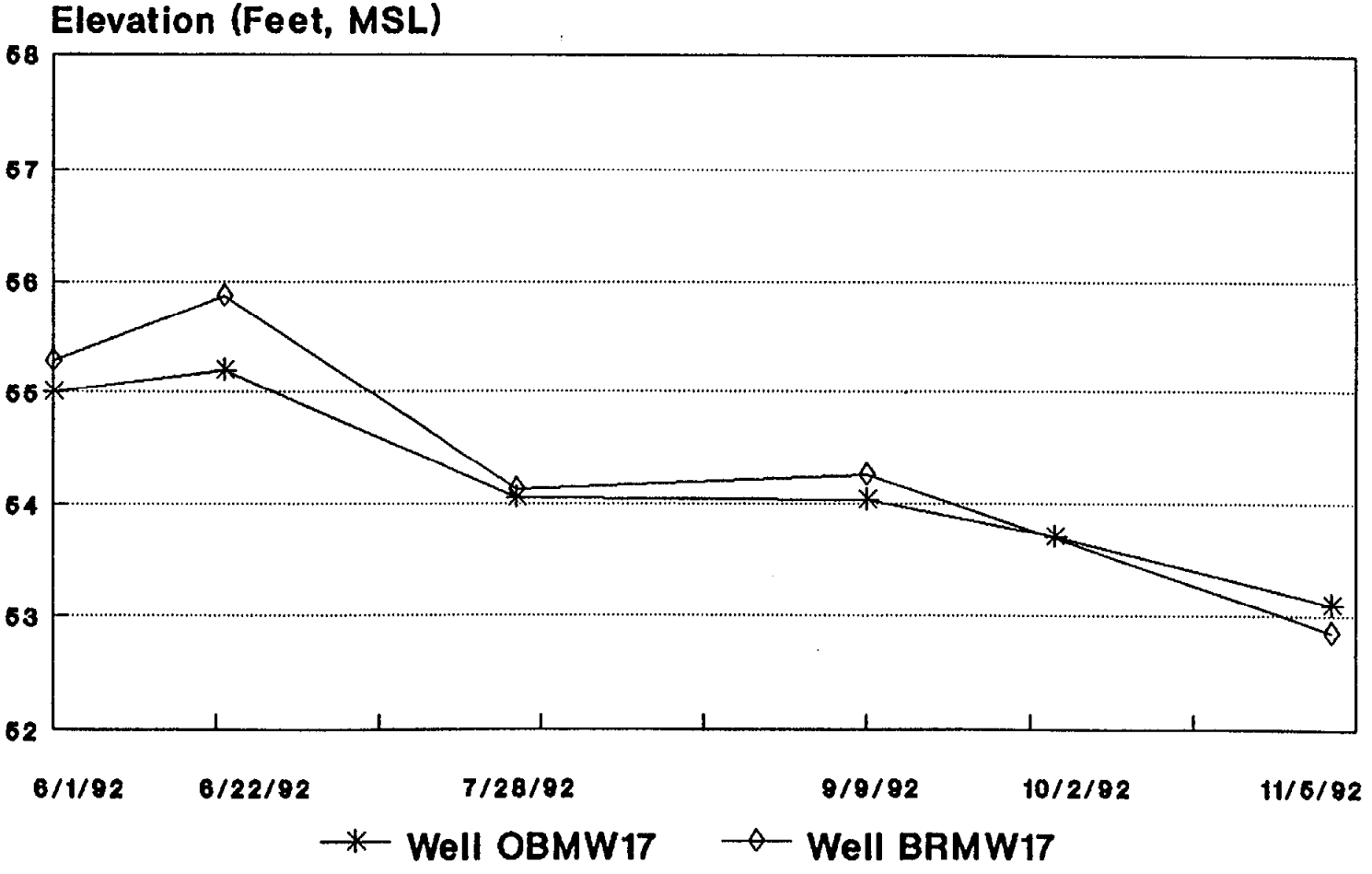
Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW15 and BRMW15



Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells 5 and BRMW16



Seasonal Water Level Variation
Stepan and Adjacent Properties RI
Wells OBMW17 and BRMW17



Appendix T
Radiological Data Validation Procedures

Radiological Data Review and Validation Guidelines
Ra-226 by Radon Emanation

Stepan Company and Sears and Adjacent Properties RI/FS

1.0 Scope and Applicability

This document provides guidance for the review of laboratory data packages and the validation of results for Ra-226 by radon emanation analyses of environmental samples.

2.0 Purpose

The purpose of review and validation is to assure that the quality of each data point is known, and that each data point is flagged with a qualifier indicating the quality of that data point. In addition, data validation provides a review of laboratory quality control (QC) measures so that corrections to laboratory procedures can be implemented, if necessary. It is assumed that field samplers and analytical laboratories have followed approved methods and adhere to good laboratory practices. This procedure provides guidelines for review and validation of radioanalytical data packages, and establishes criteria for applying appropriate data qualifiers to individual data points.

3.0 Criteria

This document provides criteria for evaluating Ra-226 by radon emanation data under the general categories of radiological data package completeness, holding times, calibration, blanks, lab replicates, laboratory control samples (LCSs), cell constants, result verification, minimum detectable activities (MDAs), and overall data assessment. The criteria for each of these categories are discussed in detail in the following sections.

3.1 Radiological Data Package Completeness

Each data package should be checked for completeness prior to initiating data validation. The data validator should request the laboratory to submit any missing information. A complete data package consists of a case narrative, a QC data package, and a sample results data package. The contents of these packages are described below.

3.1.1 Case Narrative

The case narrative should include the following items:

- Cross reference of sample and laboratory numbers.
- Problems encountered (reanalyses, broken sample containers, insufficient sample, excessive holding times, matrix problems, instrument problems, etc.).
- Descriptions of each out-of-control situation, corrective actions taken, and resolution.
- Signature of the laboratory manager or designee.

3.1.2 QC Package

The QC summary package should contain the following items:

- **Calibrations Data Summary.** This summary should include the identification number of each scintillation detector calibrated, calibration date, identification, activity, certification, and expiration date of standard material. The midpoint voltage of the plateau curve for the photomultiplier tube in each detector, and raw count rate data for calibrations of each detector should also be included.

  Continuing calibration verification data should include identification of each detector system checked, date of the check, identification and activity level of standard material used for the checks, and raw count rate data from the detectors checked.

  Instrument background data should also be included in the calibrations data summary, including detector identification, count duration, background counts, and any statistical evaluation results for background counts.

- **Reagent Blanks Data Summary.** The reagent blanks data summary should include blank identification (ID) numbers, ID of samples analyzed with the blank, type of method blank used, MDA calculated for each blank, and raw data associated with the blank analysis, including detector ID, aliquot size, date of analysis, and analyst's initials.

- **Duplicate/Replicate Data Summary.** This summary includes data on precision including ID of detector used, analyst's initials, date of analysis for sample and duplicate/replicate, sample ID, activity results for sample

and duplicate/replicate, count durations, and calculated uncertainties and MDAs for sample and duplicate/replicate.

- **LCS Data Summary.** The LCS summary should include date of LCS analyses, detector IDs, analyst's initials, LCS ID, activity, uncertainty and MDA for the LCS, with associated raw count data.

- **Cell Constants Data Summary.** This summary includes the identification of each cell/instrument combination, concentration in pCi/l of standards in solutions used to prepare "standard bubblers," time interval between initial and final deemanations, counts obtained for each cell/instrument combination, and efficiency or calibration factor for each cell/instrument combination. Background data including counts and count durations should also be shown for each cell.

3.1.3 Sample Results Package

The sample results data package should contain the following items:

- Summary page (Form 1 equivalent) showing the results for each sample (including blanks, duplicates/replicates, LCSs, and reruns), including counting error and detection level for results reported as less than the MDA.

- Raw data backup for sample results including chain-of-custody (COC), sample ID, date of analysis (counting), detector ID, raw sample count data, background counts, count duration, aliquot used, detector efficiency, sample activity, error, and MDA results. The raw data should include any count data (background counts or spectra) necessary to support calculated MDA values.

3.2 Holding Times

Sample holding time refers to the period from the time of sample collection to the time it is analyzed (counted). Sample collection dates appear on the COC record in the data package. This date should be compared with the analysis date on the raw data count sheet and also with the data summary form to make sure dates are consistent and that no sample mixup has occurred. Dates of receipt and signatures should be checked for continuity on the COC record. The sample holding time for water samples is 6 months (180 days). There is no standard holding time for soil samples.

Flag water samples with holding times greater than 180 days as "estimated" (J). Flag water samples with holding times greater than 270 days as "rejected" (R).

3.3 Calibration and Calibration Verification

Calibration of alpha scintillation counters should be conducted at least quarterly using a standard traceable to the National Institute of Standards and Technology (NIST).

Flag results "estimated" (J) if the calibration was conducted using an expired NIST traceable standard. Flag results "rejected" (R) if the calibration was conducted using a standard that is not traceable to NIST.

Flag results "rejected" (R) if the plateau curve and the "midpoint" of the plateau were not determined during calibration, or have changed dramatically since the last calibration.

Calibration verification of alpha scintillation counters should be conducted at least weekly using a check source that approximates typical sample activity. The source check count rate should be within 3 standard deviations (3σ) of the source check count rate determined at the time of calibration.

Results from a counter that has a calibration verification result outside of the 3σ range should be flagged "estimated" (J).

Background should be measured at least weekly for each photomultiplier tube. Weekly background checks should be within 3σ of the background determined at the time of calibration. Flag results from counters with background count rates outside of the 3σ control limits as "estimated" (J).

3.4 Reagent Blanks

Reagent blanks are used to determine background counts due to environmental and reagent radiation sources and to monitor instrument background contributions. In addition, reagent blanks are used to determine statistical errors.

Reagent blanks should have been prepared and analyzed at a frequency of 5% of the samples. Flag results as "estimated" (J) if blanks were not run at a frequency of 5% or greater.

The results for blanks should be reported and summarized on a QC chart. Control limits should be set at 3σ from the mean. Flag sample results as "estimated" (J) if the blank for that group of samples falls outside of the 3σ control limit.

If radionuclides are detected in blanks, then sample results for the same radionuclides should be considered as positive only if they exceed 5 times the blank concentration. Samples that show positive results less than 5 times the blank values (for radionuclides detected in blanks) should be flagged "estimated" (J).

Compare the blank activities and MDAs to the Contract Required Detection Limit (CRDL). If blank results are consistently greater than the CRDL, it may be an indication of laboratory contamination. If blank MDAs consistently exceed the CRDL, it may indicate unacceptable counting times. Use professional judgment to determine if the samples should be flagged "estimated" (J) for these conditions.

3.5 Duplicates/Replicates

Replicate analyses are defined as identifiable aliquots of the same sample taken through the entire procedure. They are a measure of laboratory precision or degree of agreement of repeated measurements about acceptable ranges of concentrations. One replicate should be analyzed for each batch of 20 samples.

Check the raw data and calculate the relative percent difference (RPD) for the sample and replicate using the following equation:

$$RPD = \frac{|S - R|}{(S + R)/2} \times 100$$

where:

S = Sample result
R = Replicate result

A control limit of $\pm$20% for water and $\pm$35% for soil samples for the RPD shall be used for sample results greater than 5 times the CRDL.

A control limit of $\pm$CRDL for water samples and $\pm$2x CRDL for soil samples shall be used for sample results less than 5 times the CRDL, including the case when only one of the sample/replicate pair results is less than 5 times the CRDL.

If replicate results for a particular radionuclide fall outside the appropriate control windows, qualify the results for that radionuclide in all associated samples of the same matrix as "estimated" (J).

3.6 LCSs

LCSs are defined as any quality assurance (QA)/QC internal laboratory standard, measurement control sample, or Environmental Protection Agency (EPA)-QC-crosscheck samples included in the daily analysis of regular samples. These samples have a known value, and a +/- value of uncertainty attached to them. Laboratory control samples should be run at a frequency of 1 per batch of 20 samples (5%). These samples provide an indication of laboratory accuracy.

A control limit of $\pm 3\sigma$ shall be used for LCSs with known values of less than 20 times the CRDL. The control limit will be based on the calculated counting error of the observed results for the LCS. Flag the results as "estimated" (J) if the known LCS value is outside of the range of $\pm 3\sigma$ of the observed LCS value.

A control limit of $\pm 2\sigma$ shall be used for LCSs with known values greater than 20 times the CRDL. Flag the results as "estimated" (J) if the known LCS value is outside of the range of $\pm 2\sigma$ of the observed LCS value. Flag the results as "rejected" (R) if the known LCS value is outside of the range of $\pm 3\sigma$ of the observed LCS value for known LCS results greater than 20 times the CRDL.

3.7 Cell Constants

The efficiency of each cell/instrument combination that is used in calculating activities, uncertainties, and MDAs must be reviewed by the data validator. In addition, background count rates for each cell should be verified.

The cell/instrument efficiency can be determined using the formula shown below:

$$E = \frac{C_N}{(A_S)(1 - e^{-\lambda t_1})(e^{-\lambda t_2})}$$

where:

C_N = Net count rate of standard (CPM)
A_S = Activity of Ra-226 in standard (DPM)
λ = Decay constant of Rn-222
t_1 = Ingrowth time of Rn-222 (time interval between initial and final deemanation)
t_2 = Decay time of Rn-222 (time interval between deemanation and beginning of count)

The control limit for cell/instrument efficiencies is 3σ of the mean of the last 10 efficiencies. The efficiency should be close to 5.3 CPM/pCi. Flag results as "estimated" (J) if the efficiency falls outside of the 3σ control limit.

The background for each cell/instrument should be determined immediately after a sample has been counted to determine if the background count rate has changed. The control limit for background count rate is 3σ of the average of the last 10 background measurements. Background typically should be less than 0.2 CPM for environmental samples. Flag results as "estimated" (J) if the background count rate falls outside of the 3σ control limits.

3.8 Verification of Sample Result and MDA Calculations

Manual calculations should be performed to verify sample result and MDA calculations performed by the laboratory. Errors or discrepancies should be addressed in the comments section of the data validation report. The following formulas should be used for calculating sample concentration, counting error, and MDA:

3.8.1 Sample Result

$$A = \frac{CPM_G - Bkg}{(2.22)(E)(Vol)(1 - e^{-\lambda t_1})(e^{-\lambda t_2})}\left[\frac{\lambda t_3}{(1 - e^{-\lambda t_3})}\right]$$

where:

A =	Ra-226 sample concentration (pCi/l or pCi/g)
CPM_G =	Gross sample count rate
Bkg =	Background count rate
2.22 =	Conversion factor (2.22 DPM = 1 pCi)
E =	Counting efficiency
Vol =	Sample mass or volume (grams for solids, liters for water)
λ =	Decay constant for Rn-222
t_1 =	Time interval between initial and final deemanation
t_2 =	Time interval between final deemanation and beginning of count
t_3 =	Sample count time

3.8.2 Counting Error

$$ER = \frac{1.96\left(\frac{CPM_G}{t_3} + \frac{Bkg}{t_{Bkg}}\right)^{0.5}(\lambda t_3)}{(2.22)(E)(Vol)(1 - e^{-\lambda t_1})(e^{-\lambda t_2})(1 - e^{-\lambda t_3})}$$

where:

ER =	2σ counting error (pCi/l or pCi/g)
CPM_G =	Gross sample count rate (CPM)
t_1 =	Time interval between initial and final deemanation
t_2 =	Time interval between final deemanation and beginning of count
t_3 =	Count time for sample (min)

Bkg =	Background count rate (CPM)
t_{Bkg} =	Count time for background (min)
2.22 =	Conversion factor (2.22 DPM = 1 pCi)
E =	Cell/instrument efficiency factor
Vol =	Sample mass or volume (grams for solids, liters for water)
λ =	Decay constant for Rn-222

3.8.3 MDA

$$MDA = \frac{4.66\ (Bkg/t_3)^{0.5}\ (\lambda t_3)}{(2.22)(E)(Vol)(1 - e^{-\lambda t_1})(e^{-\lambda t_2})(1 - e^{-\lambda t_3})}$$

where:

MDA =	Minimum detectable activity
Bkg =	Background count rate (CPM)
t_1 =	Time interval between initial and final deemanation
t_2 =	Time interval between final deemanation and beginning of count
t_3 =	Count time (min)
2.22 =	Conversion factor (2.22 DPM = 1 pCi)
λ =	Decay constant for Rn-222
E =	Cell/instrument efficiency factor

Verify that the calculations for activity, uncertainty, and MDA for each sample are correct. Address any errors or discrepancies in the comment section of the report.

3.9 Overall Data Assessment

As part of the overall data assessment, the results of the data validation process will be documented on the appropriate summary forms. The first step in the validation process is to review the case narrative, QC data package, and sample results data package using the checklist shown in Attachment 1. If the data packages are not complete, the data validator must contact the laboratory and have the appropriate data submitted.

After the data package review is completed, detailed review of sample results should begin. The summary report form shown in Attachment 2 should be completed for each batch of samples. A general assessment of data quality for sample batches should be provided on this form. The data quality flags for each sample should be listed on the Radiochemical Analysis Analytical Results form shown in Attachment 3. One form is required for each sample. The forms for each sample in a batch should be attached to the Summary Report Form for that batch.

The data quality flags used for radiological sample results are shown below:

J = Indicates the analyte is present, but the reported value may not be accurate or precise because the associated QA/QC was unacceptable. The result is considered "estimated."

R = Indicates the data is unusable. This flag is used when the result should not be used to support project decisions. The result is considered "rejected."

U = Indicates that the sample was analyzed, but the analyte was not detected above the stated concentration. The result is considered "undetected."

The following subqualifiers give further detail of the type and amount of qualification a given result has received.

-D = Qualified because laboratory duplicate control limits were exceeded.

-S = Qualified because matrix spike recovery control limits were exceeded.

-C = Qualified due to instrument calibration problems.

-B = Qualified due to blank contamination problems.

-Q = Qualified due to reasons not stated above–refer to the text of the report.

4.0 References

Sample Preparation Standard Operating Procedures (SOPs) from Controls for Environmental Pollution.

QA–Standard Operating Procedure for Accepting Spike and Duplicate Results (CEP-QA-102, revised January 20, 1989).

Radiochemical Data Validation Guidelines–Ra-226 Analysis of Soil and Water by Radon Emanation. Rocky Flats Plant, Golden, Colorado. Version 2.1. Revised September 1990.

Attachment 1

Radiochemical Data Completeness Checklist for Ra-226 Analysis by Radon Emanation of Soil and Water

1. ___ Case Narrative
   - ___ Abnormalities explained
   - ___ Matrix problems explained
   - ___ Instrument problems explained
   - ___ Improper collection, storage, preservation, container explained
   - ___ Hold times were met, explained if not met
   - ___ Signature of lab representative

2. ___ Quality Control (QC) Package

   A. ___ Calibrations Data Summary
   - ___ ID of each detector
   - ___ Dates of last efficiency factor check certificates and DPMs of check sources; counts obtained; count durations
   - ___ Midpoint voltage of plateau curve for photomultiplier tube in each detector
   - ___ Background counts obtained for each alpha scintillation detector with count times

   B. ___ Reagent Blanks Data Summary
   - ___ ID of each cell/instrument combination used
   - ___ Analyst initials
   - ___ Date reagent blanks were analyzed
   - ___ ID of samples analyzed with the reagent blanks
   - ___ Type of method blank used, minimum detectable activity (MDA) of method
   - ___ Volume of aliquot for reagent blanks

   C. ___ Replicate Sample Data Summary
   - ___ ID of each cell/instrument combination used
   - ___ Analyst initials
   - ___ Date sample and replicates were analyzed
   - ___ Sample IDs, values obtained for sample and replicates
   - ___ Count durations of sample and replicates
   - ___ Volume of aliquot for sample and replicates
   - ___ Calculated uncertainties and MDAs

   D. ___ Lab Control Samples (LCSs) Data Summary
   - ___ ID of each detector used
   - ___ Analyst initials
   - ___ Date LCSs were analyzed
   - ___ ID of LCSs
   - ___ Values obtained for LCSs with uncertainty and MDA
   - ___ True value of LCSs with uncertainty
   - ___ ID of samples analyzed with the LCSs

E. ___ Cell Constants Data Package

___ ID of each cell/instrument combination

___ Concentration in pCi/l of solutions used in "standard bubblers"

___ Time interval between initial and final deemanations

___ Count obtained and count durations for each cell/instrument combination

___ Background count rate and count duration for each cell

3. ___ Sample Results Package

A. ___ Sample Summary Data

___ Printed report of results and counting errors for samples and reruns

___ MDA calculated for each isotopic analysis for samples with activity less than MDA

B. ___ Sample/MDA Raw Data

___ Date of analysis

___ Background CPM

___ ID of each cell/instrument combination used

___ Calculated MDA

___ Calculation sheets including, sample ID, cell/instrument identification sample counts, background counts, count durations, sample aliquots used, cell constant values, time interval between initial and final deemanations, time interval between final deemanation and counting, calculated sample activity uncertainty, and MDA

Date: _____

Attachment 2

Stepan Company and Sears and Adjacent Properties
Radiological Data Assessment
Summary Report Form

Batch No.: _____ Site: _____

Laboratory: _____ No. of Samples/Matrix: _____

_____ Reviewer: _____

Sample Numbers: _____

Ra-226 Analysis by Radon Emanation Data Assessment Summary		
	Ra-226	**Comments**
1. Holding Times		
2. Calibrations/Calibration Verification		
3. Blanks		
4. Lab Replicates		
5. Lab Control Samples		
6. Recovery Factors		
7. Sample Calculations		
8. Overall Assessment		

V = Data had no problems.
J = Data acceptable, but qualified as estimated.
R = Data rejected.
X = Problems, but do not affect data. See comments.

Data Quality: _____

_____

_____

Action Items: _____

Comments: _____

Note: Data summary tables are attached.

_____ _____

Reviewer Signature Date

Radiological Data Review and Validation Guidelines
Isotopic Analyses by Gamma Spectroscopy

Stepan Company and Sears and Adjacent Properties RI/FS

1.0 Scope and Applicability

This document provides guidance for the review of laboratory data packages and the validation of results from gamma spectroscopy analyses of environmental samples.

2.0 Purpose

The purpose of review and validation is to assure that the quality of each data point is known, and that each data point is flagged with a qualifier indicating the quality of that data point. In addition, data validation provides a review of laboratory quality control (QC) measures so that corrections to laboratory procedures can be implemented, if necessary. It is assumed that field samplers and analytical laboratories have followed approved methods and adhere to good laboratory practices. This procedure provides guidelines for review and validation of radioanalytical data packages, and establishes criteria for applying appropriate data qualifiers to individual data points.

3.0 Criteria

This document provides criteria for evaluating gamma spectroscopy data under the general categories of radiological data package completeness, holding times, calibration, blanks, lab replicates, laboratory control samples (LCSs), chemical recovery, result verification, minimum detectable activities (MDAs), and overall data assessment. The criteria for each of these categories are discussed in detail in the following sections.

3.1 Radiological Data Package Completeness

Each data package should be checked for completeness prior to initiating data validation. The data validator should request the laboratory to submit any missing information. A complete data package consists of a case narrative, a QC data package, and a sample results data package. The contents of these packages are described below.

3.1.1 Case Narrative

The case narrative should include the following items:

- Cross reference of sample and laboratory numbers.
- Problems encountered (reanalyses, broken sample containers, insufficient sample, excessive holding times, matrix problems, instrument problems, etc.).
- Descriptions of each out-of-control situation, corrective actions taken, and resolution.
- Signature of the laboratory manager or designee.

3.1.2 QC Package

The QC summary package should contain the following items:

- **Calibrations Data Summary.** This summary should include energy vs channel, efficiency vs energy, resolution [Full-Width Half Maximum (FWHM)] vs energy, background data used in the calibration, and calibration verification process.

  The energy calibration documentation should include the detector and system identification numbers, date of calibration, calibration source geometry, energy range of the system (in KeV), memory (in channels) of the detector system, calibration results (equation for energy vs channel or system gain and offset), standard reference isotopes, and certificates and activity values for calibration standard.

  The efficiency calibration documentation should include detector and system identification numbers, date of calibrations, calibration geometries, efficiency results (plot of efficiency vs energy or equation for curve) standard reference isotopes and efficiencies, and certificates and activity values for standard calibration and reference sources.

  The resolution calibration documentation should include a listing of names and activities of the isotopes used to determine system resolution and results of resolution calculations for each system. FWHM for the Co-60 peak at 1,332 KeV should be specifically listed.

  Background documentation should include results of background checks for each system, including detector identification, date of background collection, count duration, and counts in each region of interest (ROI).

- **Reagent Blanks Data Summary.** The reagent blanks data summary should include blank identification (ID) numbers, ID of samples analyzed with the blank, type of method blank used, MDA calculated for each blank, and raw data associated with the blank analysis, including detector ID, aliquot size, date of analysis, and analyst's initials.

- **Duplicate/Replicate Data Summary.** This summary includes data on precision including ID of detector used, analyst's initials, date of analysis for sample and duplicate/replicate, sample ID, activity results for sample and duplicate/replicate, count durations, and calculated uncertainties and MDAs for sample and duplicate/replicate.

- **LCS Data Summary.** The LCS summary should include date of LCS analyses, detector ID, analyst's initials, LCS ID, activity of each nuclide in the LCS, and raw count data (counts in ROIs).

- **Chemical Recovery Data Summary.** This summary includes the activity of each tracer used, net counts for each isotope of interest, efficiency for each isotope of interest, count duration, and calculated chemical recovery for each sample analyzed.

3.1.3 Sample Results Package

The sample results data package should contain the following items:

- Summary page (Form 1 equivalent) showing the results for each sample (including blanks, duplicates/replicates, LCSs, and reruns), including counting error and detection level for results reported as less than the MDA.

- Raw data backup for sample results including chain-of-custody (COC), sample ID, date of analysis (counting), detector ID, raw counts for each isotope of interest, background counts, tracer counts and tracer activity, chemical recovery, count duration, aliquot used, detector efficiency, sample activity, error, and MDA results. The raw data should include any count data (background counts or spectra) necessary to support calculated MDA values.

3.2 Holding Times

Sample holding time refers to the period from the time of sample collection to the time it is analyzed (counted). Sample collection dates appear on the COC record in the data package. This date should be compared with the analysis date on the raw data count sheet and also with the data summary form to make sure dates are consistent and that no sample mixup has occurred. Dates of receipt and signatures

should be checked for continuity on the COC record. The sample holding time for water samples is 6 months (180 days). There is no standard holding time for soil samples.

Flag water samples with holding times greater than 180 days as "estimated" (J). Flag water samples with holding times greater than 270 days as "rejected" (R).

3.3 Calibration and Calibration Verification

3.3.1 Calibration

For gamma spectroscopy measurements, the detectors must be calibrated to obtain the counting efficiency for each of the radionuclides with a standard traceable to the National Institute of Standards and Technology (NIST). Each detector should have been calibrated with an gamma standard that covers the energy range of the nuclides of interest, and efficiencies should be determined using standards in the same geometries as the sample counting geometries. The calibration should have been conducted within one year of the analysis date. The annual calibration should include energy vs channel calibration and efficiency vs energy calibration. A calibration of FWHM vs energy calibration may also be necessary if required by the peak search and analysis software used for the system.

Verify that the standards used to prepare efficiency and calibration verification standards are unexpired and traceable to NIST. Flag the results "rejected" (R) if the standards are not traceable to NIST. Flag the results "estimated" (J) if they were obtained with expired NIST traceable standards.

Verify that calibrations have been performed at least annually. Flag results as "rejected" (R) if annual primary calibrations have not been performed. Verify that efficiency calibrations have been performed for each sample geometry. Flag results as "rejected" (R) if they were obtained using an incorrectly calibrated detector.

3.3.2 Calibration Verification

A calibration verification should have been performed weekly with an independently prepared verification standard. The calibration verification should verify the energy vs channel, efficiency vs energy, and FWHM vs energy (if appropriate) calibrations. As part of the calibration verification, a background spectrum should also be collected weekly. If the calibration verification was not performed, all results should be flagged "estimated" (J).

The energy vs channel system verification check should show that the system gain is 1.00 Kev/channel $\pm$ 0.03. Flag results as "estimated" (J) if the system gain falls outside of this range. Verify that the Co-60 1,332-Kev peak has not shifted more

than 2 channels from its position at the time of calibration. Flag results as "estimated" (J) if the peak has shifted more than 2 channels.

Verify from the efficiency vs energy plot for each detector that the latest efficiency value for a given energy is within 3σ of the efficiency at the same energy from the latest efficiency vs energy calibration. Flag the results "estimated" (J) if the efficiency has changed more than 3σ.

Verify that the latest background count for each peak of interest is within 3σ of the background at the time of calibration. Flag results "estimated" (J) if the current background is outside of the range of $\pm 3\sigma$ of the background established at the time of calibration.

3.4 Reagent Blanks

Reagent blanks are used to determine background counts due to environmental and reagent radiation sources and to monitor instrument background contributions. In addition, reagent blanks are used to determine statistical errors.

Reagent blanks should have been prepared and analyzed at a frequency of 5% of the samples. Flag results as "estimated" (J) if blanks were not run at a frequency of 5% or greater.

The results for blanks should be reported and summarized on a QC chart. Control limits should be set at 3σ from the mean. Flag sample results as "estimated" (J) if the blank for that group of samples falls outside of the 3σ control limit.

If radionuclides are detected in blanks, then sample results for the same radionuclides should be considered as positive only if they exceed 5 times the blank concentration. Samples that show positive results less than 5 times the blank values (for radionuclides detected in blanks) should be flagged "estimated" (J).

Compare the blank activities to the Contract Required Detection Limit (CRDL) for each nuclide. If blank samples consistently show concentrations greater than the CRDL for nuclides of interest, it may be an indication of laboratory contamination. If blank MDAs consistently exceed the CRDL, it may indicate unacceptable counting times. Use professional judgment to determine if the samples associated with such blanks should be flagged as "estimated" (J) for these conditions.

3.5 Duplicates/Replicates

Replicate analyses are defined as identifiable aliquots of the same sample taken through the entire procedure. They are a measure of laboratory precision or degree of agreement of repeated measurements about acceptable ranges of concentrations. One replicate should be analyzed for each batch of 20 samples.

Check the raw data and calculate the relative percent difference (RPD) for the sample and replicate using the following equation:

$$RPD = \frac{|S \quad R|}{(S \quad R)/2} \quad 100$$

where:

S = Sample result
R = Replicate result

A control limit of ±20% for water and ±35% for soil samples for the RPD shall be used for sample results greater than 5 times the CRDL.

A control limit of ±CRDL for water samples and ±2x CRDL for soil samples shall be used for sample results less than 5 times the CRDL, including the case when only one of the sample/replicate pair results is less than 5 times the CRDL.

If replicate results for a particular radionuclide fall outside the appropriate control windows, qualify the results for that radionuclide in all associated samples of the same matrix as "estimated" (J).

3.6 LCSs

LCSs are defined as any quality assurance (QA)/QC internal laboratory standard, measurement control sample, or Environmental Protection Agency (EPA)-QC-crosscheck samples included in the daily analysis of regular samples. These samples have a known value, and a +/- value of uncertainty attached to them. Laboratory control samples should be run at a frequency of 1 per batch of 20 samples (5%). These samples provide an indication of laboratory accuracy.

A control limit of ±3 shall be used for LCSs with known values of less than 20 times the CRDL. The 3 control limit will be based on the calculated counting error of the observed results for the LCS. Flag the results as "estimated" (J) if the known LCS value is outside of the range of ±3 of the observed LCS value.

A control limit of ±2 shall be used for LCSs with known values greater than 20 times the CRDL. Flag the results as "estimated" (J) if the known LCS value is outside of the range of ±2 of the observed LCS value. Flag the results as "rejected" (R) if the known LCS value is outside of the range of ±3 of the observed LCS value for known LCS results greater than 20 times the CRDL.

3.7 Verification of Sample Result and MDA Calculations

Manual calculations should be performed to verify sample result and MDA calculations performed by the laboratory. Errors or discrepancies should be addressed in the comments section of the data validation report. The following formulas should be used for calculating sample concentration, counting error, and MDA:

3.7.1 Sample Result

$$A = \frac{CPM_N}{(2.22)(E)(Vol)(AB)}$$

where:

CPM_N =	Net CPM in peak. Area of peak (counts) corrected for background and divided by count duration in minutes.
2.22 =	Conversion factor (2.22 DPM = 1 pCi).
E =	Counting efficiency.
Vol =	Volume or mass of sample (liters for water, grams for solids).
ABH =	Abundance (number of photons emitted per 100 atom decays of the radionuclide).

3.7.2 Counting Error

$$ER = \frac{1.96\left(\frac{CPM_G}{T_S} + \frac{Bkg}{T_{Bkg}}\right)^{0.5}}{(2.22)(E)(Vol)(AB)}$$

where:

ER =	2σ counting error
CPM_G =	Gross sample count rate (CPM)
T_S =	Count time for sample (min)
Bkg =	Background count rate (CPM)
T_{Bkg} =	Count time for background (min)
2.22 =	Conversion factor (2.22 DPM = 1 pCi)
E =	Counting efficiency

Vol = Volume or mass of sample (liters for water, grams for solids)
AB = Abundance (number of photons emitted per 100 atom decays of the radionuclide)

3.7.3 MDA

$$MDA = \frac{4.66\ (Bkg/T)^{0.5}}{(2.22)(E)(Vol)(AB)}$$

where:

MDA = Minimum detectable activity
Bkg = Background count rate (CPM)
E = Counting efficiency
Vol = Sample volume or mass (liters for water, grams for solids)
AB = Abundance (number of photons emitted per 100 atom decays of the radionuclide)

Verify that the calculations for activity, uncertainty, and MDA for each sample are correct. Address any errors or discrepancies in the comment section of the report.

3.8 Overall Data Assessment

As part of the overall data assessment, the results of the data validation process will be documented on the appropriate summary forms. The first step in the validation process is to review the case narrative, QC data package, and sample results data package using the checklist shown in Attachment 1. If the data packages are not complete, the data validator must contact the laboratory and have the appropriate data submitted.

After the data package review is completed, detailed review of sample results should begin. The summary report form shown in Attachment 2 should be completed for each batch of samples. A general assessment of data quality for sample batches should be provided on this form. The data quality flags for each sample should be listed on the Radiochemical Analysis Analytical Results form shown in Attachment 3. One form is required for each sample. The forms for each sample in a batch should be attached to the Summary Report Form for that batch.

The data quality flags used for radiological sample results are shown below:

J = Indicates the analyte is present, but the reported value may not be accurate or precise because the associated QA/QC was unacceptable. The result is considered "estimated."

R = Indicates the data is unusable. This flag is used when the result should not be used to support project decisions. The result is considered "rejected."

U = Indicates that the sample was analyzed, but the analyte was not detected above the stated concentration. The result is considered "undetected."

The following subqualifiers give further detail of the type and amount of qualification a given result has received.

-D = Qualified because laboratory duplicate control limits were exceeded.

-S = Qualified because matrix spike recovery control limits were exceeded.

-C = Qualified due to instrument calibration problems.

-B = Qualified due to blank contamination problems.

-Q = Qualified due to reasons not stated above–refer to the text of the report.

4.0 References

Sample Preparation Standard Operating Procedures (SOPs) from Controls for Environmental Pollution.

QA–Standard Operating Procedure for Accepting Spike and Duplicate Results (CEP-QA-102, revised January 20, 1989).

Radiochemical Data Validation Guidelines–Analyses by High Resolution Gamma Spectrometry. Rocky Flats Plant, Golden, Colorado. Version 1.1. Revised January 1991.

Attachment 1

Radiochemical Data Completeness Checklist for Gamma Spectrometric Analyses of Soil and Water

1. ___ Case Narrative
   - ___ Abnormalities explained
   - ___ Matrix problems explained
   - ___ Instrument problems explained
   - ___ Improper collection, storage, preservation, container explained
   - ___ Hold times were met, explained if not met
   - ___ Signature of lab representative

2. ___ Quality Control (QC) Package

   A. ___ Calibrations Data Summary
   - ___ ID of each detector
   - ___ Dates of the calibration check; channel by channel printout, certificates and DPS values of check sources; count durations; calibrated energy (in KeV) for each peak of interest; calibrated centroid channel number for each peak of interest; observed channel number for each peak of interest; offset value; and calculated slope from the lease squares fit of the calibration data
   - ___ Full-Width Half Maximum (FWHM) of the peaks
   - ___ Energy range of the gamma detection system in (KeV); channels of memory
   - ___ Geometry, matrix, weight that efficiency curve is constructed for; line intensity of each nuclide of interest; counts per second observed for each peak of interest; DPS value of each nuclide; observed efficiency, observed energy, observed channel number of each nuclide; and plot of energy vs efficiency
   - ___ Integrated area of the peak regions of interest (ROIs); count duration
   - ___ Dates of last background spectra including spectra and/or channel by channel printout; count durations; counts durations; counts obtained for the peak ROIs; and statistical evaluation of the latest background data compared to a long-term background spectra

   B. ___ Reagent Blanks Data Summary
   - ___ ID of each detector used
   - ___ ID of the blank (i.e., if Ottawa Sand for Soil, etc.)
   - ___ Integrated area of peak ROIs
   - ___ Count duration
   - ___ Date reagent blanks were analyzed
   - ___ ID of samples analyzed with the reagent blanks
   - ___ Type of method blank used, minimum detectable activity (MDA) of method
   - ___ Volume of aliquot, weight, matrix, and geometry for reagent blanks

C. ___ Replicate Sample Data Summary
- ___ ID of each detector used
- ___ Date sample and replicates were analyzed
- ___ Analyst initials
- ___ Sample IDs, values obtained for sample and replicates
- ___ Count durations of sample and replicates
- ___ Calculated uncertainties and MDAs

D. ___ Lab Control Samples (LCSs) Data Summary
- ___ ID of each detector used
- ___ Analyst initials
- ___ Date LCSs were analyzed
- ___ IDs, aliquot size, weight, and geometry of LCS
- ___ Integrated areas of LCS peaks
- ___ Background counts
- ___ Count duration
- ___ Values obtained for LCSs with uncertainty and MDA
- ___ Known value of LCSs with uncertainty
- ___ ID of samples analyzed with the LCSs
- ___ Results of statistical evaluation for accuracy

3. ___ Sample Results Package

A. ___ Sample Summary Data
- ___ Printed report of results for samples and reruns
- ___ MDA calculated for each nuclide of interest for samples with activity less than MDA

B. ___ Sample/MDA Raw Data
- ___ Background spectra for each detector showing background counts accumulated for each nuclide of interest
- ___ Count duration for background
- ___ Date of analysis
- ___ Computer calculations sheet including detector identification number; date of analysis; sample number; names of nuclides detected; count duration; energy and channel number for each analysis; integrated area for each peak ROI; FWHM of each peak of interest; peak width for each ROI; calculated counts per second for each nuclide of interest; weight, matrix, and geometry of the samples; and calculated activity and uncertainty of the samples

Date: _____

Attachment 2

Stepan Company and Sears and Adjacent Properties
Radiological Data Assessment
Summary Report Form

Batch No.: _____ Site: _____

Laboratory: _____ No. of Samples/Matrix: _____

_____ Reviewer: _____

Sample Numbers: _____

Gamma Spectrometric Analyses Data Assessment Summary	
	Comments
1. Holding Times	
2. Calibrations/Calibration Verification	
3. Blanks	
4. Lab Replicates	
5. Lab Control Samples	
6. Recovery Factors	
7. Sample Calculations	
8. Overall Assessment	

V = Data had no problems.
J = Data acceptable, but qualified as estimated.
R = Data rejected.
X = Problems, but do not affect data. See comments.

Data Quality: _____

_____

_____

Action Items: _____

Comments: _____

Note: Data summary tables are attached.

_____ _____

Reviewer Signature Date

Radiological Data Review and Validation Guidelines
Isotopic Analyses by Alpha Spectroscopy

Stepan Company and Sears and Adjacent Properties RI/FS

1.0 Scope and Applicability

This document provides guidance for the review of laboratory data packages and the validation of results from alpha spectroscopy analyses of environmental samples.

2.0 Purpose

The purpose of review and validation is to assure that the quality of each data point is known, and that each data point is flagged with a qualifier indicating the quality of that data point. In addition, data validation provides a review of laboratory quality control (QC) measures so that corrections to laboratory procedures can be implemented, if necessary. It is assumed that field samplers and analytical laboratories have followed approved methods and adhere to good laboratory practices. This procedure provides guidelines for review and validation of radioanalytical data packages, and establishes criteria for applying appropriate data qualifiers to individual data points.

3.0 Criteria

This document provides criteria for evaluating alpha spectroscopy data under the general categories of radiological data package completeness, holding times, calibration, blanks, lab replicates, laboratory control samples (LCSs), resolution, chemical recovery, result verification, minimum detectable activities (MDAs), and overall data assessment. The criteria for each of these categories are discussed in detail in the following sections.

3.1 Radiological Data Package Completeness

Each data package should be checked for completeness prior to initiating data validation. The data validator should request the laboratory to submit any missing information. A complete data package consists of a case narrative, a QC data package, and a sample results data package. The contents of these packages are described below.

3.1.1 Case Narrative

The case narrative should include the following items:

- Cross reference of sample and laboratory numbers.
- Problems encountered (reanalyses, broken sample containers, insufficient sample, excessive holding times, matrix problems, instrument problems, etc.).
- Descriptions of each out-of-control situation, corrective actions taken, and resolution.
- Signature of the laboratory manager or designee.

3.1.2 QC Package

The QC summary package should contain the following items:

- **Calibrations Data Summary.** This summary should include efficiency, resolution and background data used in the calibration, and calibration verification process.

  The efficiency documentation should include detector and system identification numbers, date of calibration, standard reference isotopes and efficiencies, and certificates and activity values for standard calibration and reference sources.

  The resolution documentation should include a listing of names and activities of the isotopes used to determine system resolution, range in alpha energy of the detector system(s), memory (in channels) of the detector system(s), and results of resolution calculations for each system.

  Background documentation should include results of background checks for each system, including counts in each region of interest (ROI) and count duration.

- **Reagent Blanks Data Summary.** The reagent blanks data summary should include blank identification (ID) numbers, ID of samples analyzed with the blank, type of method blank used, MDA calculated for each blank, and raw data associated with the blank analysis, including detector ID, aliquot size, date of analysis, and analyst's initials.

- **Duplicate/Replicate Data Summary.** This summary includes data on precision including ID of detector used, analyst's initials, date of analysis for sample and duplicate/replicate, sample ID, activity results for sample and duplicate/replicate, count durations, and calculated uncertainties and MDAs for sample and duplicate/replicate.

- **LCS Data Summary.** The LCS summary should include date of LCS analyses, detector ID, analyst's initials, LCS ID, activity of each nuclide in the LCS, and raw count data (counts in ROIs).

- **Chemical Recovery Data Summary.** This summary includes the activity of each tracer used, net counts for each isotope of interest, efficiency for each isotope of interest, count duration, and calculated chemical recovery for each sample analyzed.

3.1.3 Sample Results Package

The sample results data package should contain the following items:

- Summary page (Form 1 equivalent) showing the results for each sample (including blanks, duplicates/replicates, LCSs, and reruns), including counting error and detection level for results reported as less than the MDA.

- Raw data backup for sample results including chain-of-custody (COC), sample ID, date of analysis (counting), detector ID, raw counts for each isotope of interest, background counts, tracer counts and tracer activity, chemical recovery, count duration, aliquot used, detector efficiency, sample activity, error, and MDA results. The raw data should include any count data (background counts or spectra) necessary to support calculated MDA values.

3.2 Holding Times

Sample holding time refers to the period from the time of sample collection to the time it is analyzed (counted). Sample collection dates appear on the COC record in the data package. This date should be compared with the analysis date on the raw data count sheet and also with the data summary form to make sure dates are consistent and that no sample mixup has occurred. Dates of receipt and signatures should be checked for continuity on the COC record. The sample holding time for water samples is 6 months (180 days). There is no standard holding time for soil samples.

Flag water samples with holding times greater than 180 days as "estimated" (J). Flag water samples with holding times greater than 270 days as "rejected" (R).

3.3 Calibration and Calibration Verification

For alpha particle measurements, the detectors must be calibrated to obtain the counting efficiency for each of the radionuclides with a standard traceable to the National Institute of Standards and Technology (NIST). Each detector should have been calibrated with an alpha standard representative of the target radionuclides within one year of the analysis date. The standard should have been prepared in the geometry and weight ranges expected to be encountered.

Verify that the standards used to prepare efficiency and calibration verification standards are unexpired and traceable to NIST. Flag the results "rejected" (R) if the standards are not traceable to NIST. Flag the results "estimated" (J) if they were obtained with expired NIST-traceable standards.

A calibration verification should have been performed weekly with an independently prepared verification standard. The measured efficiency value should not be more than three standard deviations (3σ) from the value determined at the time of calibration. Results for samples analyzed after a verification beyond control limits and before the next adjacent acceptable verification should be flagged "estimated" (J). If the calibration verification was not performed, all results should be flagged "estimated" (J).

Alpha spectrometers require a weekly energy vs channel calibration verification, with a source having at least two alpha emitters. The results form any detector where the energy calibration is more than three channels out of calibration should be flagged "estimated" (J).

Background spectra should be collected on each detector at least monthly for alpha spectrometer systems. Flag results "estimated" (J) if the current background is outside of the range of $\pm 3\sigma$ of the background established at the time of calibration.

3.4 Reagent Blanks

Reagent blanks are used to determine background counts due to environmental and reagent radiation sources and to monitor instrument background contributions. In addition, reagent blanks are used to determine statistical errors.

Reagent blanks should have been prepared and analyzed at a frequency of 5% of the samples. Flag results as "estimated" (J) if blanks were not run at a frequency of 5% or greater.

The results for blanks should be reported and summarized on a QC chart. Control limits should be set at 3σ from the mean. Flag sample results as "estimated" (J) if the blank for that group of samples falls outside of the 3σ control limit.

If radionuclides are detected in blanks, then sample results for the same radionuclides should be considered as positive only if they exceed 5 times the blank concentration. Samples that show positive results less than 5 times the blank values (for radionuclides detected in blanks) should be flagged "estimated" (J).

Compare the blank activities to the Contract Required Detection Limit (CRDL). If blank results are consistently greater than the CRDL, it may be an indication of laboratory contamination. If blank MDAs consistently exceed the CRDL, it may indicate unacceptable counting times. Use professional judgment to determine if the samples should be flagged "estimated" (J) for these conditions.

3.5 Duplicates/Replicates

Replicate analyses are defined as identifiable aliquots of the same sample taken through the entire procedure. They are a measure of laboratory precision or degree of agreement of repeated measurements about acceptable ranges of concentrations. One replicate should be analyzed for each batch of 20 samples.

Check the raw data and calculate the relative percent difference (RPD) for the sample and replicate using the following equation:

$$RPD = \frac{|S - R|}{(S + R)/2} \times 100$$

where:

S = Sample result
R = Replicate result

A control limit of $\pm$20% for water and $\pm$35% for soil samples for the RPD shall be used for sample results greater than 5 times the CRDL.

A control limit of $\pm$CRDL for water samples and $\pm$2x CRDL for soil samples shall be used for sample results less than 5 times the CRDL, including the case when only one of the sample/replicate pair results is less than 5 times the CRDL.

If replicate results for a particular radionuclide fall outside the appropriate control windows, qualify the results for that radionuclide in all associated samples of the same matrix as "estimated" (J).

3.6 LCSs

LCSs are defined as any quality assurance (QA)/QC internal laboratory standard, measurement control sample, or Environmental Protection Agency (EPA)-QC-crosscheck samples included in the daily analysis of regular samples. These samples have a known value, and a +/- value of uncertainty attached to them. Laboratory control samples should be run at a frequency of 1 per batch of 20 samples (5%). These samples provide an indication of laboratory accuracy.

A control limit of $\pm 3\sigma$ shall be used for LCSs with known values of less than 20 times the CRDL. The control limit will be based on the calculated counting error of the observed results for the LCS. Flag the results as "estimated" (J) if the known LCS value is outside of the range of $\pm 3\sigma$ of the observed LCS value.

A control limit of $\pm 2\sigma$ shall be used for LCSs with known values greater than 20 times the CRDL. Flag the results as "estimated" (J) if the known LCS value is outside of the range of $\pm 2\sigma$ of the observed LCS value. Flag the results as "rejected" (R) if the known LCS value is outside of the range of $\pm 3\sigma$ of the observed LCS value for known LCS results greater than 20 times the CRDL.

3.7 Recovery Factors

An isotopic tracer solution is used to spike each sample prior to analysis by alpha spectroscopy. The tracer used should have chemical behavior similar to the target radionuclides. For most procedures, the recovery is determined using an isotope of the analyte of interest. This isotope is one that is not expected to occur in the samples to be analyzed.

The chemical recovery is calculated based on the net count rate (CPM) obtained from the tracer, the actual activity or disintegration rate (DPM) contained in the spike of the tracer solution, and the instrument efficiency. The above terms are related in the following formula:

$$\text{CPM tracer found/DPM} = \text{eff} \times \text{chem recovery}$$

Chemical recoveries for plutonium and americium analyses should be greater than 20%, but less than 105%. Chemical recoveries for isotopic uranium analyses should be greater than 30%, but less than 105%.

Flag results "rejected" (R) if these criteria are not met and the sample activity is below the MDA.

For plutonium and americium analyses, flag results "estimated" (J) if the chemical recovery is greater than 10%, but less than 20%, and the sample activity is greater

than the MDA. Flag these results "rejected" (R) if the chemical recovery is less than 10% and the sample activity is greater than the MDA.

For uranium analyses, flag results "estimated" (J) if the chemical recovery is greater than 20%, but less than 30%, and the sample activity is greater than the MDA. Flag uranium results "rejected" if the chemical recovery is less than 20% and the sample activity is greater than the MDA.

3.8 Verification of Sample Result and MDA Calculations

Manual calculations should be performed to verify sample result and MDA calculations performed by the laboratory. Errors or discrepancies should be addressed in the comments section of the data validation report. The following formulas should be used for calculating sample concentration, counting error, and MDA:

3.8.1 Sample Result

$$A = \frac{CPM_G - Bkg}{(2.22)(E)(Vol)(R)}$$

where:

A = Sample concentration (pCi/l or pCi/g)
CPM_G = Gross sample count rate
Bkg = Background count rate
2.22 = Conversion factor (2.22 DPM = 1 pCi)
E = Counting efficiency
Vol = Sample mass or volume (grams for solids, liters for water)
R = Chemical recovery

3.8.2 Counting Error

$$ER = \frac{1.96\left(\frac{CPM_G}{T_S} + \frac{Bkg}{T_{Bkg}}\right)^{0.5}}{(2.22)(E)(Vol)(R)}$$

where:

ER = 2σ counting error (pCi/l or pCi/g)
CPM_G = Gross sample count rate (CPM)
T_S = Count time for sample (min)
Bkg = Background count rate (CPM)
T_{Bkg} - Count time for background (min)
2.22 = Conversion factor (2.22 DPM = 1 pCi)
E = Counting efficiency
Vol = Sample mass or volume (grams for solids, liters for water)
R = Chemical recovery

3.8.3 MDA

$$MDA = \frac{4.66\ (Bkg/T)^{0.5}}{(2.22)(E)(Vol)(R)}$$

where:

MDA = Minimum detectable activity
Bkg = Background count rate (CPM)
T = Count time (min)
2.22 = Conversion factor (2.22 DPM = 1 pCi)
E = Counting efficiency
R = Chemical recovery

Verify that the calculations for activity, uncertainty, and MDA for each sample are correct. Address any errors or discrepancies in the comment section of the report.

3.9 Overall Data Assessment

As part of the overall data assessment, the results of the data validation process will be documented on the appropriate summary forms. The first step in the validation process is to review the case narrative, QC data package, and sample results data package using the checklist shown in Attachment 1. If the data packages are not complete, the data validator must contact the laboratory and have the appropriate data submitted.

After the data package review is completed, detailed review of sample results should begin. The summary report form shown in Attachment 2 should be completed for each batch of samples. A general assessment of data quality for sample batches should be provided on this form. The data quality flags for each sample should be listed on the Radiochemical Analysis Analytical Results form shown in Attachment 3.

One form is required for each sample. The forms for each sample in a batch should be attached to the Summary Report Form for that batch.

The data quality flags used for radiological sample results are shown below:

J = Indicates the analyte is present, but the reported value may not be accurate or precise because the associated QA/QC was unacceptable. The result is considered "estimated."

R = Indicates the data is unusable. This flag is used when the result should not be used to support project decisions. The result is considered "rejected."

U = Indicates that the sample was analyzed, but the analyte was not detected above the stated concentration. The result is considered "undetected."

The following subqualifiers give further detail of the type and amount of qualification a given result has received.

-D = Qualified because laboratory duplicate control limits were exceeded.

-S = Qualified because matrix spike recovery control limits were exceeded.

-C = Qualified due to instrument calibration problems.

-B = Qualified due to blank contamination problems.

-Q = Qualified due to reasons not stated above–refer to the text of the report.

4.0 References

Sample Preparation Standard Operating Procedures (SOPs) from Controls for Environmental Pollution.

QA–Standard Operating Procedure for Accepting Spike and Duplicate Results (CEP-QA-102, revised January 20, 1989).

Radiochemical Data Validation Guidelines–Isotopic Analysis by Alpha Spectrometry. Rocky Flats Plant, Golden, Colorado. Version 2.1. Revised September 1990.

Attachment 1

Radiochemical Data Completeness Checklist for Alpha Spectrometric Analyses of Soil and Water

1. ___ Case Narrative
   - ___ Abnormalities explained
   - ___ Matrix problems explained
   - ___ Instrument problems explained
   - ___ Improper collection, storage, preservation, container explained
   - ___ Hold times were met, explained if not met
   - ___ Signature of lab representative

2. ___ Quality Control (QC) Package

   A. ___ Calibrations Data Summary
   - ___ ID of each detector
   - ___ Dates of last efficiency check including spectra and/or channel by channel printout, certificates, and DPMs of check sources; counts obtained; count durations; and channels selected for regions of interest (ROIs)
   - ___ Proper channel numbers of isotopes of interest based on calibration of data of Pu, Am, and U standards
   - ___ Total memory (channels per detector)
   - ___ Energy range of the alpha detection system (KeV)
   - ___ Gain (KeV/channel) of the alpha detection system
   - ___ Dates of last background spectra including spectra and/or channel by channel printout; count durations; counts obtained; and channels selected for ROIs

   B. ___ Reagent Blanks Data Summary
   - ___ ID of each detector used
   - ___ Analyst initials
   - ___ Date reagent blanks were analyzed
   - ___ ID of samples analyzed with the reagent blanks
   - ___ Type of method blank used, minimum detectable activity (MDA) of method
   - ___ Volume of aliquot for reagent blanks

   C. ___ Replicate Sample Data Summary
   - ___ ID of each detector used
   - ___ Analyst initials
   - ___ Date sample and replicates were analyzed
   - ___ Sample IDs, values obtained for sample and replicates
   - ___ Count durations of sample and replicates
   - ___ Volume of aliquot for sample and replicates
   - ___ Calculated uncertainties and MDAs

D. ___ Lab Control Samples (LCSs) Data Summary

___ ID of each detector used
___ Analyst initials
___ Date LCSs were analyzed
___ ID of LCSs
___ Values obtained for LCSs with uncertainty and MDA
___ True value of LCSs with uncertainty
___ ID of samples analyzed with the LCSs

E. ___ Chemical Recovery Data Summary

___ Efficiency factor provided for each detector used
___ ID of each detector used
___ Net counts obtained for each isotopic tracer used
___ Count duration
___ DPM value of each isotopic tracer
___ Calculated chemical recovery

3. ___ Sample Results Package

A. ___ Sample Summary Data

___ Printed report of results and counting errors for samples and reruns
___ MDA calculated for each isotopic analysis for samples with activity less than MDA

B. ___ Sample/MDA Raw Data

___ Background measurements including counts and count durations of samples and backgrounds taken during the same weekly time period
___ Date of analysis
___ Background CPM
___ Computer calculations sheet including sample IDs, detector IDs, isotopes of interest, counts obtained for samples, background counts obtained, isotopic tracer counts obtained, count durations, DPMs of tracer used, aliquots of sample and tracer, detector efficiency, chemical recovery, activities obtained for samples, uncertainties, and MDAs

Date: _____

Attachment 2

Stepan Company and Sears and Adjacent Properties
Radiological Data Assessment
Summary Report Form

Batch No.: _____ Site: _____

Laboratory: _____ No. of Samples/Matrix: _____

_____ Reviewer: _____

Sample Numbers: _____

Alpha Spectrometric Analyses Data Assessment Summary				
	Isotopic Uranium	**Isotopic Plutonium**	**Am-241**	**Comments**
1. Holding Times				
2. Calibrations/Calibration Verification				
3. Blanks				
4. Lab Replicates				
5. Lab Control Samples				
6. Recovery Factors				
7. Sample Calculations				
8. Overall Assessment				

V = Data had no problems.
J = Data acceptable, but qualified as estimated.
R = Data rejected.
X = Problems, but do not affect data. See comments.

Data Quality: _____

_____

_____

Appendix U
Soil Boring Analytical Data

Soil Boring Samples

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
12H	122-66-7	1,2-DIPHENYLHYDRAZINE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BBK		BENZO (B&K) FLUORANTHENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL) ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
AP1	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE

his report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
S01		GROSS ALPHA, TOTAL
S02		GROSS BETA, TOTAL
S03		RADIUM 226, TOTAL
S04		RADIUM 228, TOTAL
S05		THORIUM 230, TOTAL
S06		THORIUM 232, TOTAL
S10		TOTAL THORIUM, BY ALPHA SCINT.
S07		URANIUM 234, TOTAL
S08		URANIUM 235, TOTAL
S09		URANIUM 238, TOTAL

is report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

Volatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOIL BORINGS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
111	1,1,1-TRICHLOROETHANE	UG/KG	128	9	0.0703	1.000	480.000	56.556	149.723
112	1,1,2-TRICHLOROETHANE	UG/KG	128	1	0.0078	320.000	320.000	320.000	0.000
1DE	1,1-DICHLOROETHENE	UG/KG	128	1	0.0078	12.000	12.000	12.000	0.000
DCE	1,2-DICHLOROETHENE (TOTAL)	UG/KG	128	2	0.0156	9.000	22.000	15.500	6.500
2BU	2-BUTANONE	UG/KG	57	25	0.4386	3.000	130.000	32.000	36.766
4M2	4-METHYL-2-PENTANONE	UG/KG	128	1	0.0078	2,100.000	2,100.000	2,100.000	0.000
ACT	ACETONE	UG/KG	128	49	0.3828	5.000	880.000	138.490	188.461
BEN	BENZENE	UG/KG	128	8	0.0625	2.000	4,700.000	1,011.625	1,501.566
BFM	BROMOFORM	UG/KG	128	1	0.0078	480.000	480.000	480.000	0.000
CDS	CARBON DISULFIDE	UG/KG	125	10	0.0800	2.000	48.000	8.100	13.405
CBN	CHLOROBENZENE	UG/KG	128	1	0.0078	14.000	14.000	14.000	0.000
CFM	CHLOROFORM	UG/KG	127	4	0.0315	1.000	2.000	1.500	0.500
EBN	ETHYLBENZENE	UG/KG	127	8	0.0630	12.000	39,000.000	5,565.875	12,685.891
MCL	METHYLENE CHLORIDE	UG/KG	128	12	0.0938	1.000	78.000	24.417	25.201
PCE	TETRACHLOROETHENE	UG/KG	128	1	0.0078	14.000	14.000	14.000	0.000
TOL	TOLUENE	UG/KG	128	17	0.1328	1.000	77,000.000	5,057.118	18,092.956
TCE	TRICHLOROETHENE	UG/KG	128	1	0.0078	13.000	13.000	13.000	0.000
XY	XYLENE (TOTAL)	UG/KG	128	18	0.1406	1.000	220,000.000	14,243.833	50,156.691

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:		A	A	A	B	DUP
STATION ID:		BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:		02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:		1.00	1.00	3.00	4.00	3.00
1,1,1-TRICHLOROETHANE	UG/KG	5DYJ	7UY	10UY	14UYJ	9UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
1,1,2-TRICHLOROETHANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
1,1-DICHLOROETHANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
1,1-DICHLOROETHENE	UG/KG	9UYJ	7UY	10UY	12DYJ	9UY
1,2-DICHLOROETHANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
1,2-DICHLOROPROPANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
2-BUTANONE	UG/KG	19UYJ	UYR	UYR	UYR	UYR
2-HEXANONE	UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
4-METHYL-2-PENTANONE	UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
ACETONE	UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
BENZENE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
BROMODICHLOROMETHANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
BROMOFORM	UG/KG	9UYJ	7UY	10UYJ	14UYJ	9UYJ
BROMOMETHANE	UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
CARBON DISULFIDE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
CARBON TETRACHLORIDE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
CHLOROBENZENE	UG/KG	9UYJ	7UY	10UY	14DYJ	9UY
CHLOROETHANE	UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
CHLOROFORM	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
CHLOROMETHANE	UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
CIS-1,3-DICHLOROPROPENE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
DIBROMOCHLOROMETHANE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
ETHYLBENZENE	UG/KG	9UYJ	7UY	10UY	12DYJ	9UY
METHYLENE CHLORIDE	UG/KG	5UYJ	7UY	10UY	27DYJ	3DYJ
STYRENE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
TETRACHLOROETHENE	UG/KG	9UYJ	7UY	10UY	14DYJ	9UY
TOLUENE	UG/KG	9UYJ	7UY	10UY	22DYJ	9UY
TRANS-1,3-DICHLOROPROPENE	UG/KG	9UYJ	7UY	10UY	14UYJ	9UY

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:	A	A	A	B	DUP
STATION ID:	BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:	02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:	1.00	1.00	3.00	4.00	3.00
TRICHLOROETHENE UG/KG	9UYJ	7UY	10UY	14UYJ	9UY
VINYL ACETATE UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
VINYL CHLORIDE UG/KG	19UYJ	14UY	19UY	29UYJ	19UY
XYLENE (TOTAL) UG/KG	9UYJ	7UY	10UY	11DYJ	9UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, F=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C01	C01	C01	C01	C02
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	2.00
1,1,1-TRICHLOROETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,1-DICHLOROETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,1-DICHLOROETHENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,2-DICHLOROETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UY	6UY	6UY	6UY	6UYJ
1,2-DICHLOROPROPANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
2-BUTANONE UG/KG	27DY	11DYJ	11UY	20DY	UYR
2-HEXANONE UG/KG	12UY	11UY	11UY	13UY	12UYJ
4-METHYL-2-PENTANONE UG/KG	12UY	11UY	11UY	13UY	12UYJ
ACETONE UG/KG	170DY	37DYJ	21DYJ	190DY	17DYJ
BENZENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
BROMODICHLOROMETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
BROMOFORM UG/KG	6UY	6UY	6UY	6UY	6UYJ
BROMOMETHANE UG/KG	12UY	11UY	11UY	13UY	12UYJ
CARBON DISULFIDE UG/KG	6UY	6UY	6UY	6UY	6UYJ
CARBON TETRACHLORIDE UG/KG	6UY	6UY	6UY	6UY	6UYJ
CHLOROBENZENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
CHLOROETHANE UG/KG	12UY	11UY	11UY	13UY	12UYJ
CHLOROFORM UG/KG	6UY	2DYJ	1DYJ	6UY	6UYJ
CHLOROMETHANE UG/KG	12UY	11UY	11UY	13UY	12UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
DIBROMOCHLOROMETHANE UG/KG	6UY	6UY	6UY	6UY	6UYJ
ETHYLBENZENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
METHYLENE CHLORIDE UG/KG	6UY	19DYJ	16DYJ	14UY	6UYJ
STYRENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
TETRACHLOROETHENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
TOLUENE UG/KG	6UY	6UY	6UY	1DYJ	6UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	6UY	6UY	6UY	6UY	6UYJ

NNN+/- XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C01	C01	C01	C01	C02
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	2.00
TRICHLOROETHENE UG/KG	6UY	6UY	6UY	6UY	6UYJ
VINYL ACETATE UG/KG	12UY	11UY	11UY	13UY	12UYJ
VINYL CHLORIDE UG/KG	12UY	11UY	11UY	13UY	12UYJ
XYLENE (TOTAL) UG/KG	6UY	6UY	6UY	6UY	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:		B	A	B	A	B
STATION ID:		C02	C03	C03	C04	C04
SAMPLE DATE:		04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:		4.00	2.00	4.00	5.00	7.00
1,1,1-TRICHLOROETHANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
1,1,2-TRICHLOROETHANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
1,1-DICHLOROETHANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
1,1-DICHLOROETHENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
1,2-DICHLOROETHANE	UG/KG	6UYJ	6UY	6UY	UYR	UYR
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
1,2-DICHLOROPROPANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
2-BUTANONE	UG/KG	UYR	12UY	9DYJ	11UYJ	10UYJ
2-HEXANONE	UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
4-METHYL-2-PENTANONE	UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
ACETONE	UG/KG	13DYJ	15UY	30UY	11UYJ	10UYJ
BENZENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
BROMODICHLOROMETHANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
BROMOFORM	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
BROMOMETHANE	UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
CARBON DISULFIDE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
CARBON TETRACHLORIDE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
CHLOROBENZENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
CHLOROETHANE	UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
CHLOROFORM	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
CHLOROMETHANE	UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
CIS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
DIBROMOCHLOROMETHANE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
ETHYLBENZENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
METHYLENE CHLORIDE	UG/KG	6UYJ	13UY	19UY	8UYJ	11UYJ
STYRENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
TETRACHLOROETHENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
TOLUENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
TRANS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ

NNN / XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:	B	A	B	A	B
STATION ID:	C02	C03	C03	C04	C04
SAMPLE DATE:	04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:	4.00	2.00	4.00	5.00	7.00
TRICHLOROETHENE UG/KG	6UYJ	6UY	6UY	5UYJ	5UYJ
VINYL ACETATE UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
VINYL CHLORIDE UG/KG	12UYJ	12UY	12UY	11UYJ	10UYJ
XYLENE (TOTAL) UG/KG	6UYJ	6UY	6UY	5UYJ	1DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:	C	A	B	A	A
STATION ID:	C04	C05	C05	C06	C07
SAMPLE DATE:	02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:	9.00	2.00	4.00	2.00	4.00
1,1,1-TRICHLOROETHANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
1,1,2,2-TETRACHLOROETHANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
1,1,2-TRICHLOROETHANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
1,1-DICHLOROETHANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
1,1-DICHLOROETHENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
1,2 DICHLOROETHANE UG/KG	UYR	6UY	6UY	6UYJ	8UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
1,2-DICHLOROPROPANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
2-BUTANONE UG/KG	11UYJ	11UY	11UY	UYR	18DYJ
2-HEXANONE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
4-METHYL-2-PENTANONE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
ACETONE UG/KG	11UYJ	11UY	18DYJ	12UYJ	92DY
BENZENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
BROMODICHLOROMETHANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
BROMOFORM UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
BROMOMETHANE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
CARBON DISULFIDE UG/KG	5UYJ	6UY	2DYJ	6UYJ	8UY
CARBON TETRACHLORIDE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
CHLOROBENZENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
CHLOROETHANE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
CHLOROFORM UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
CHLOROMETHANE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
CIS-1,3-DICHLOROPROPENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
DIBROMOCHLOROMETHANE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
ETHYLBENZENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
METHYLENE CHLORIDE UG/KG	20UYJ	22UYJ	23UYJ	6UYJ	8UY
STYRENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
TETRACHLOROETHENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
TOLUENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
TRANS-1,3 DICHLOROPROPENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX:ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:	C	A	B	A	A
STATION ID:	C04	C05	C05	C06	C07
SAMPLE DATE:	02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:	9.00	2.00	4.00	2.00	4.00
TRICHLOROETHENE UG/KG	5UYJ	6UY	6UY	6UYJ	8UY
VINYL ACETATE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
VINYL CHLORIDE UG/KG	11UYJ	11UY	11UY	12UYJ	15UY
XYLENE (TOTAL) UG/KG	5UYJ	1DYJ	1DYJ	6UYJ	8UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		C07-01	C07-01	C08-01	C08-01	C09-01
SUB-SAMPLE ID:		B	C	A	B	A
STATION ID:		C07	C07	C08	C08	C09
SAMPLE DATE:		03/31/1992	03/31/1992	03/31/1992	03/31/1992	04/03/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	5.00	0.00	2.00	0.00
LOWER DEPTH:		5.00	7.00	2.00	4.00	2.00
1,1,1-TRICHLOROETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
1,1,2-TRICHLOROETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
1,1-DICHLOROETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
1,1-DICHLOROETHENE	UG/KG	7UY	6UY	6UY	6UY	7UY
1,2-DICHLOROETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	7UY	6UY	6UY	6UY	7UY
1,2-DICHLOROPROPANE	UG/KG	7UY	6UY	6UY	6UY	7UY
2-BUTANONE	UG/KG	UYR	UYR	UYR	UYR	120DY
2-HEXANONE	UG/KG	14UY	11UY	12UY	13UY	13UY
4-METHYL-2-PENTANONE	UG/KG	14UY	11UY	12UY	13UY	13UY
ACETONE	UG/KG	55UY	72DY	106DY	67DY	460DY
BENZENE	UG/KG	7UY	6UY	6UY	6UY	7UY
BROMODICHLOROMETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
BROMOFORM	UG/KG	7UY	6UY	6UY	6UY	7UY
BROMOMETHANE	UG/KG	14UY	11UY	12UY	13UY	13UY
CARBON DISULFIDE	UG/KG	7UY	6UY	6UY	6UY	7UY
CARBON TETRACHLORIDE	UG/KG	7UY	6UY	6UY	6UY	7UY
CHLOROBENZENE	UG/KG	7UY	6UY	6UY	6UY	7UY
CHLOROETHANE	UG/KG	14UY	11UY	12UY	13UY	13UY
CHLOROFORM	UG/KG	7UY	6UY	6UY	6UY	7UY
CHLOROMETHANE	UG/KG	14UY	11UY	12UY	13UY	13UY
CIS-1,3-DICHLOROPROPENE	UG/KG	7UY	6UY	6UY	6UY	7UY
DIBROMOCHLOROMETHANE	UG/KG	7UY	6UY	6UY	6UY	7UY
ETHYLBENZENE	UG/KG	7UY	6UY	6UY	6UY	7UY
METHYLENE CHLORIDE	UG/KG	7UY	6UY	6UY	6UY	39DY
STYRENE	UG/KG	7UY	6UY	6UY	6UY	7UY
TETRACHLOROETHENE	UG/KG	7UY	6UY	6UY	6UY	7UY
TOLUENE	UG/KG	7UY	6UY	10YJ	6UY	10YJ
TRANS-1,3-DICHLOROPROPENE	UG/KG	7UY	6UY	6UY	6UY	7UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C07-01	C07-01	C08-01	C08-01	C09-01
SUB-SAMPLE ID:	B	C	A	B	A
STATION ID:	C07	C07	C08	C08	C09
SAMPLE DATE:	03/31/1992	03/31/1992	03/31/1992	03/31/1992	04/03/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	5.00	0.00	2.00	0.00
LOWER DEPTH:	5.00	7.00	2.00	4.00	2.00
TRICHLOROETHENE UG/KG	7UY	6UY	6UY	6UY	7UY
VINYL ACETATE UG/KG	14UY	11UY	12UY	13UY	13UY
VINYL CHLORIDE UG/KG	14UY	11UY	12UY	13UY	13UY
XYLENE (TOTAL) UG/KG	7UY	6UY	6UY	6UY	7UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN - tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C09-01	C10-01	C10-01	C10-01	C11-01
SUB-SAMPLE ID:		B	A	B	C	A
STATION ID:		C09	C10	C10	C10	C11
SAMPLE DATE:		04/03/1992	04/03/1992	04/03/1992	04/03/1992	02/27/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	2.00	4.00	6.00	3.00
LOWER DEPTH:		6.00	3.00	6.00	8.00	5.00
1,1,1-TRICHLOROETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	3DYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
1,1,2-TRICHLOROETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
1,1-DICHLOROETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
1,1-DICHLOROETHENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
1,2-DICHLOROETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	J
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
1,2-DICHLOROPROPANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
2-BUTANONE	UG/KG	12UY	UYR	11UYJ	11UYJ	UYR
2-HEXANONE	UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
4-METHYL-2-PENTANONE	UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
ACETONE	UG/KG	46DY	310DYJ	21UYJ	14UYJ	7DYJ
BENZENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UY J
BROMODICHLOROMETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
BROMOFORM	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
BROMOMETHANE	UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
CARBON DISULFIDE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
CARBON TETRACHLORIDE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
CHLOROBENZENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
CHLOROETHANE	UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
CHLOROFORM	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
CHLOROMETHANE	UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
CIS-1,3-DICHLOROPROPENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
DIBROMOCHLOROMETHANE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
ETHYLBENZENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
METHYLENE CHLORIDE	UG/KG	8UY	34UYJ	14UYJ	13UYJ	6UYJ
STYRENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
TETRACHLOROETHENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
TOLUENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
TRANS-1,3-DICHLOROPROPENE	UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than [illegible] tion limit, D=detected, J=estimated, R=unusable, N= evidence of presence of mat[illegible]l
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C09-01	C10-01	C10-01	C10-01	C11-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C09	C10	C10	C10	C11
SAMPLE DATE:	04/03/1992	04/03/1992	04/03/1992	04/03/1992	02/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	2.00	4.00	6.00	3.00
LOWER DEPTH:	6.00	3.00	6.00	8.00	5.00
TRICHLOROETHENE UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ
VINYL ACETATE UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
VINYL CHLORIDE UG/KG	12UY	67UYJ	11UYJ	11UYJ	13UYJ
XYLENE (TOTAL) UG/KG	6UY	34UYJ	6UYJ	6UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		C11-01	C11-01	C11-01D	C12-01	C12-01
SUB-SAMPLE ID:		B	C	DUP	A	B
STATION ID:		C11	C11	C11	C12	C12
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		5.00	7.00	5.00	0.50	2.50
LOWER DEPTH:		7.00	9.00	7.00	2.50	4.50
1,1,1-TRICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,1,2-TRICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,1-DICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,1-DICHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,2-DICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
1,2-DICHLOROPROPANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
2-BUTANONE	UG/KG	UYR	UYR	UYR	8DYJ	11UY
2-HEXANONE	UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
4-METHYL-2-PENTANONE	UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
ACETONE	UG/KG	14DYJ	22DYJ	16DYJ	30UY	32UY
BENZENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
BROMODICHLOROMETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
BROMOFORM	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
BROMOMETHANE	UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
CARBON DISULFIDE	UG/KG	6UYJ	6UYJ	6UYJ	2DYJ	2DYJ
CARBON TETRACHLORIDE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
CHLOROBENZENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
CHLOROETHANE	UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
CHLOROFORM	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
CHLOROMETHANE	UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
CIS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
DIBROMOCHLOROMETHANE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
ETHYLBENZENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
METHYLENE CHLORIDE	UG/KG	1DYJ	6UYJ	1DYJ	18UY	22UY
STYRENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
TETRACHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
TOLUENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
TRANS-1,3 DICHLOROPROPENE	UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C11-01	C11-01	C11-01D	C12-01	C12-01
SUB-SAMPLE ID:	B	C	DUP	A	B
STATION ID:	C11	C11	C11	C12	C12
SAMPLE DATE:	02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	7.00	5.00	0.50	2.50
LOWER DEPTH:	7.00	9.00	7.00	2.50	4.50
TRICHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	5UY	5UY
VINYL ACETATE UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
VINYL CHLORIDE UG/KG	12UYJ	12UYJ	12UYJ	11UY	11UY
XYLENE (TOTAL) UG/KG	6UYJ	6UYJ	6UYJ	2DYJ	2DYJ

NNJ+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C13-01	C13-01	C13-01	C14-01	C14-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C13	C13	C13	C14	C14
SAMPLE DATE:		03/30/1992	03/30/1992	03/30/1992	03/31/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	2.00	4.00
LOWER DEPTH:		3.00	5.00	7.00	4.00	6.00
1,1,1-TRICHLOROETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
1,1,2-TRICHLOROETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
1,1-DICHLOROETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
1,1-DICHLOROETHENE	UG/KG	6UY	6UY	5UY	8UY	6UY
1,2-DICHLOROETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UY	6UY	5UY	8UY	6UY
1,2-DICHLOROPROPANE	UG/KG	6UY	6UY	5UY	8UY	6UY
2-BUTANONE	UG/KG	30DY	20DY	11DY	UYR	10DYJ
2-HEXANONE	UG/KG	12UY	11UY	11UY	16UY	11UY
4-METHYL-2-PENTANONE	UG/KG	12UY	11UY	11UY	16UY	11UY
ACETONE	UG/KG	140DYJ	65DYJ	24UY	20UY	44UY
BENZENE	UG/KG	6UY	6UY	5UY	8UY	6UY
BROMODICHLOROMETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
BROMOFORM	UG/KG	6UY	6UY	5UY	8UY	6UY
BROMOMETHANE	UG/KG	12UY	11UY	11UY	16UY	11UY
CARBON DISULFIDE	UG/KG	8UY	4DYJ	5UY	8UY	6UY
CARBON TETRACHLORIDE	UG/KG	6UY	6UY	5UY	8UY	6UY
CHLOROBENZENE	UG/KG	6UY	6UY	5UY	8UY	6UY
CHLOROETHANE	UG/KG	12UY	11UY	11UY	16UY	11UY
CHLOROFORM	UG/KG	2DYJ	1DYJ	5U[illegible]	8U[illegible]	6UY
CHLOROMETHANE	UG/KG	12UY	11UY	11UY	16UY	11UY
CIS-1,3-DICHLOROPROPENE	UG/KG	6UY	6UY	5UY	8UY	6UY
DIBROMOCHLOROMETHANE	UG/KG	6UY	6UY	5UY	8UY	6UY
ETHYLBENZENE	UG/KG	6UY	6UY	5UY	8UY	6UY
METHYLENE CHLORIDE	UG/KG	78DYJ	38DYJ	16UY	8UY	6UY
STYRENE	UG/KG	6UY	6UY	5UY	8UY	6UY
TETRACHLOROETHENE	UG/KG	6UY	6UY	5UY	8UY	6UY
TOLUENE	UG/KG	2DYJ	6UY	5UY	8UY	6UY
TRANS-1,3 DICHLOROPROPENE	UG/KG	6UY	6UY	5UY	8UY	6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C13-01	C13-01	C13-01	C14-01	C14-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C13	C13	C13	C14	C14
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/31/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	2.00	4.00
LOWER DEPTH:	3.00	5.00	7.00	4.00	6.00
TRICHLOROETHENE UG/KG	6UY	6UY	5UY	8UY	6UY
VINYL ACETATE UG/KG	12UY	11UY	11UY	16UY	11UY
VINYL CHLORIDE UG/KG	12UY	11UY	11UY	16UY	11UY
XYLENE (TOTAL) UG/KG	8DY	3DYJ	5UY	8UY	6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U - less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN - tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C15-01	C15-01	C15-01	C16-01	C16-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C15	C15	C15	C16	C16
SAMPLE DATE:	02/26/1992	02/26/1992	02/26/1992	04/01/1992	04/01/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	3.00	5.00	1.50	2.50
LOWER DEPTH:	2.00	5.00	7.00	2.50	4.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,1-DICHLOROETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,1-DICHLOROETHENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,2-DICHLOROETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
1,2-DICHLOROPROPANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
2-BUTANONE UG/KG	11UYJ	120DYJ	4DYJ	UYR	15UY
2-HEXANONE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
4-METHYL-2-PENTANONE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
ACETONE UG/KG	11UYJ	530DYJ	39UYJ	15UY	15UY
BENZENE UG/KG	6UYJ	130DYJ	3DYJ	8UY	8UY
BROMODICHLOROMETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
BROMOFORM UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
BROMOMETHANE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
CARBON DISULFIDE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
CARBON TETRACHLORIDE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
CHLOROBENZENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
CHLOROETHANE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
CHLOROFORM UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
CHLOROMETHANE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
CIS-1,3-DICHLOROPROPENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
DIBROMOCHLOROMETHANE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
ETHYLBENZENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
METHYLENE CHLORIDE UG/KG	6UYJ	37UYJ	5UYJ	8UY	8UY
STYRENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
TETRACHLOROETHENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
TOLUENE UG/KG	6UYJ	30DYJ	1DYJ	8UY	8UY
TRANS-1,3-DICHLOROPROPENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY

NNN+/ XXABCCOD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C15-01	C15-01	C15-01	C16-01	C16-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C15	C15	C15	C16	C16
SAMPLE DATE:	02/26/1992	02/26/1992	02/26/1992	04/01/1992	04/01/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	3.00	5.00	1.50	2.50
LOWER DEPTH:	2.00	5.00	7.00	2.50	4.00
TRICHLOROETHENE UG/KG	6UYJ	37UYJ	6UYJ	8UY	8UY
VINYL ACETATE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
VINYL CHLORIDE UG/KG	11UYJ	74UYJ	11UYJ	15UY	15UY
XYLENE (TOTAL) UG/KG	6UYJ	39DYJ	6UYJ	8UY	8UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C16-01	C17-01	C17-01	C18 01	C18-01
SUB-SAMPLE ID:		C	A	B	A	B
STATION ID:		C16	C17	C17	C18	C18
SAMPLE DATE:		04/01/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	0.00	2.00	0.00	2.00
LOWER DEPTH:		5.50	2.00	3.00	2.00	4.00
1,1,1-TRICHLOROETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
1,1,2-TRICHLOROETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
1,1-DICHLOROETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
1,1-DICHLOROETHENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
1,2-DICHLOROETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UY		8UYJ	9UYJ	6UYJ
1,2-DICHLOROPROPANE	UG/KG	6UY		8UYJ	7UYJ	6UYJ
2-BUTANONE	UG/KG	12UY	UYR	UYR	UYR	UYR
2-HEXANONE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
4-METHYL-2-PENTANONE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
ACETONE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	14UYJ
BENZENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
BROMODICHLOROMETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
BROMOFORM	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
BROMOMETHANE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
CARBON DISULFIDE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
CARBON TETRACHLORIDE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
CHLOROBENZENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
CHLOROETHANE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
CHLOROFORM	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
CHLOROMETHANE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
CIS-1,3-DICHLOROPROPENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
DIBROMOCHLOROMETHANE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
ETHYLBENZENE	UG/KG	6UY	7UYJ	8UYJ		6UYJ
METHYLENE CHLORIDE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
STYRENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
TETRACHLOROETHENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
TOLUENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
TRANS 1,3 DICHLOROPROPENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C16-01	C17-01	C17-01	C18-01	C18-01
SUB-SAMPLE ID:		C	A	B	A	B
STATION ID:		C16	C17	C17	C18	C18
SAMPLE DATE:		04/01/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	0.00	2.00	0.00	2.00
LOWER DEPTH:		5.50	2.00	3.00	2.00	4.00
TRICHLOROETHENE	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ
VINYL ACETATE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
VINYL CHLORIDE	UG/KG	12UY	14UYJ	15UYJ	13UYJ	11UYJ
XYLENE (TOTAL)	UG/KG	6UY	7UYJ	8UYJ	7UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEFAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C19-01	C19-01	C19-01	C20-01	C20-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C19	C19	C19	C20	C20
SAMPLE DATE:	04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	4.00	2.50	4.50
LOWER DEPTH:	2.00	4.00	6.00	4.50	6.50
1,1,1-TRICHLOROETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,1,2-TRICHLOROETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,1-DICHLOROETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,1-DICHLOROETHENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,2-DICHLOROETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
1,2-DICHLOROPROPANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
2-BUTANONE UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
4-METHYL 2 PENTANONE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
ACETONE UG/KG	390DYJ	20DYJ	16DYJ	9UYJ	1400UYJ
BENZENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
BROMODICHLOROMETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
BROMOFORM UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
BROMOMETHANE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
CARBON DISULFIDE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
CARBON TETRACHLORIDE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
CHLOROBENZENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
CHLOROETHANE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
CHLOROFORM UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
CHLOROMETHANE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
DIBROMOCHLOROMETHANE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
ETHYLBENZENE UG/KG	37UYJ	6UY	6UY	6UYJ	390DYJ
METHYLENE CHLORIDE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
STYRENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
TETRACHLOROETHENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
TOLUENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C19-01	C19-01	C19-01	C20-01	C20-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C19	C19	C19	C20	C20
SAMPLE DATE:	04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	4.00	2.50	4.50
LOWER DEPTH:	2.00	4.00	6.00	4.50	6.50
TRICHLOROETHENE UG/KG	37UYJ	6UY	6UY	6UYJ	680UYJ
VINYL ACETATE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
VINYL CHLORIDE UG/KG	74UYJ	12UY	11UY	11UYJ	1400UYJ
XYLENE (TOTAL) UG/KG	37UYJ	6UYJ	6UYJ	6UYJ	9600DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C20-01	C21-01	C21-01	C22-01	C22-01
SUB-SAMPLE ID:	C	A	B	A	B
STATION ID:	C20	C21	C21	C22	C22
SAMPLE DATE:	02/18/1992	04/07/1992	04/07/1992	02/27/1992	02/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.50	0.00	2.00	1.00	3.00
LOWER DEPTH:	8.50	2.00	4.00	3.00	5.00
1,1,1-TRICHLOROETHANE UG/KG	480UYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	320DYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,1-DICHLOROETHANE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,1-DICHLOROETHENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,2-DICHLOROETHANE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
1,2-DICHLOROPROPANE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
2-BUTANONE UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	1600UYJ	15UYJ	15UYJ	11UYJ	11UYJ
4-METHYL-2-PENTANONE UG/KG	2100DYJ	15UYJ	15UYJ	11UYJ	11UYJ
ACETONE UG/KG	1600UYJ	16UYJ	15UYJ	11UYJ	11UYJ
BENZENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
BROMODICHLOROMETHANE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
BROMOFORM UG/KG	480DYJ	8UYJ	8UYJ	6UYJ	6UYJ
BROMOMETHANE UG/KG	1600UYJ	15UYJ	15UYJ	11UYJ	11UYJ
CARBON DISULFIDE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
CARBON TETRACHLORIDE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
CHLOROBENZENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
CHLOROETHANE UG/KG	1600UYJ	15UYJ	15UYJ	11UYJ	11UYJ
CHLOROFORM UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
CHLOROMETHANE UG/KG	1600UYJ	15UYJ	15UYJ	11UYJ	11UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
DIBROMOCHLOROMETHANE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
ETHYLBENZENE UG/KG	480DYJ	8UYJ	8UYJ	6UYJ	6UYJ
METHYLENE CHLORIDE UG/KG	790UYJ	8UYJ	11UYJ	2DYJ	6UYJ
STYRENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
TETRACHLOROETHENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
TOLUENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
TRANS-1,3 DICHLOROPROPENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C20-01	C21-01	C21-01	C22-01	C22-01
SUB-SAMPLE ID:	C	A	B	A	B
STATION ID:	C20	C21	C21	C22	C22
SAMPLE DATE:	02/18/1992	04/07/1992	04/07/1992	02/27/1992	02/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.50	0.00	2.00	1.00	3.00
LOWER DEPTH:	8.50	2.00	4.00	3.00	5.00
TRICHLOROETHENE UG/KG	790UYJ	8UYJ	8UYJ	6UYJ	6UYJ
VINYL ACETATE UG/KG	1600UYJ	15UYJ	15UYJ	11UYJ	11UYJ
VINYL CHLORIDE UG/KG	1600UYJ	15UYJ	15UYJ	11UYJ	11UYJ
XYLENE (TOTAL) UG/KG	2200UYJ	8UYJ	8UYJ	6UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C22-01	C23-01	C23-01	C23-01D	C24-01
SUB-SAMPLE ID:	C	A	B	DUP	A
STATION ID:	C22	C23	C23	C23	C24
SAMPLE DATE:	02/27/1992	04/02/1992	04/02/1992	04/02/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	0.00	4.00	4.00	2.00
LOWER DEPTH:	7.00	2.00	6.00	6.00	4.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,1-DICHLOROETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,1-DICHLOROETHENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,2-DICHLOROETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
1,2-DICHLOROPROPANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
2-BUTANONE UG/KG	UYR	13UYJ	11UY	11UY	38DYJ
2-HEXANONE UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
4-METHYL-2-PENTANONE UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
ACETONE UG/KG	15UYJ	13UYJ	21UY	15UY	200DYJ
BENZENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
BROMODICHLOROMETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
BROMOFORM UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
BROMOMETHANE UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
CARBON DISULFIDE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
CARBON TETRACHLORIDE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
CHLOROBENZENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
CHLOROETHANE UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
CHLOROFORM UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
CHLOROMETHANE UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
CIS-1,3 DICHLOROPROPENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
DIBROMOCHLOROMETHANE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
ETHYLBENZENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
METHYLENE CHLORIDE UG/KG	3DYJ	28UYJ	18UY	17UY	8UYJ
STYRENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
TETRACHLOROETHENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
TOLUENE UG/KG	6UYJ	6UYJ	6UY	6UY	2DYJ
TRANS-1,3 DICHLOROPROPENE UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ

NNN+/-XXABCCCDD POSITIONALLY N-VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		C22-01	C23-01	C23-01	C23-01D	C24-01
SUB-SAMPLE ID:		C	A	B	DUP	A
STATION ID:		C22	C23	C23	C23	C24
SAMPLE DATE:		02/27/1992	04/02/1992	04/02/1992	04/02/1992	04/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		5.00	0.00	4.00	4.00	2.00
LOWER DEPTH:		7.00	2.00	6.00	6.00	4.00
TRICHLOROETHENE	UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ
VINYL ACETATE	UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
VINYL CHLORIDE	UG/KG	11UYJ	13UYJ	11UY	11UY	16UYJ
XYLENE (TOTAL)	UG/KG	6UYJ	6UYJ	6UY	6UY	8UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C24-01	C25-01	C25-01	C25-01	C26-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C24	C25	C25	C25	C26
SAMPLE DATE:	04/07/1992	02/26/1992	02/26/1992	02/26/1992	02/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	0.50	4.50	8.50	0.00
LOWER DEPTH:	6.00	2.50	6.50	10.50	2.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	4DYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
1,1-DICHLOROETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
1,1-DICHLOROETHENE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
1,2-DICHLOROETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
1,2-DICHLOROPROPANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
2-BUTANONE UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
4-METHYL-2-PENTANONE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
ACETONE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
BENZENE UG/KG	6UYJ	740UYJ	660DYJ	1700DYJ	6UY
BROMODICHLOROMETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
BROMOFORM UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
BROMOMETHANE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
CARBON DISULFIDE UG/KG	6UYJ	UYR	UYR	UYR	6UY
CARBON TETRACHLORIDE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
CHLOROBENZENE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
CHLOROETHANE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
CHLOROFORM UG/KG	6UYJ	740UYJ	720UYJ	3600UY	6UY
CHLOROMETHANE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
CIS-1,3 DICHLOROPROPENE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
DIBROMOCHLOROMETHANE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
ETHYLBENZENE UG/KG	6UYJ	970DYJ	3600DYJ	39000DYJ	6UY
METHYLENE CHLORIDE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	12UY
STYRENE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
TETRACHLOROETHENE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
TOLUENE UG/KG	6UYJ	490DYJ	8400DYJ	77000DYJ	6UY
TRANS-1,3-DICHLOROPROPENE UG/KG	6UYJ	UYR	UYR	UYR	6UY

NNN+/-XXABCDEOD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FI
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C24-01	C25-01	C25-01	C25-01	C26-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C24	C25	C25	C25	C26
SAMPLE DATE:	04/07/1992	02/26/1992	02/26/1992	02/26/1992	02/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	0.50	4.50	8.50	0.00
LOWER DEPTH:	6.00	2.50	6.50	10.50	2.00
TRICHLOROETHENE UG/KG	6UYJ	740UYJ	720UYJ	3600UYJ	6UY
VINYL ACETATE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
VINYL CHLORIDE UG/KG	12UYJ	1500UYJ	1400UYJ	7200UYJ	12UY
XYLENE (TOTAL) UG/KG	6UYJ	6500DYJ	20000DYJ	220000DYJ	6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C26-01	C26-01	C27-01	C27-01	C27-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C26	C26	C27	C27	C27
SAMPLE DATE:	02/24/1992	02/24/1992	02/25/1992	02/25/1992	02/25/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.00	4.00	2.00	4.00	6.00
LOWER DEPTH:	4.00	6.00	4.00	6.00	8.00
1,1,1-TRICHLOROETHANE UG/KG	6UY	1DYJ	9UYJ	6UY	6UY
1,1,2,2-TETRACHLOROETHANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
1,1,2-TRICHLOROETHANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
1,1-DICHLOROETHANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
1,1-DICHLOROETHENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
1,2-DICHLOROETHANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
1,2-DICHLOROPROPANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
2-BUTANONE UG/KG	10DYJ	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	11UY	11UYJ	18UYJ	12UYJ	12UY
4-METHYL-2-PENTANONE UG/KG	11UY	11UYJ	18UYJ	12UY	12UY
ACETONE UG/KG	63UY	12DYJ	18UYJ	14DYJ	25UY
BENZENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
BROMODICHLOROMETHANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
BROMOFORM UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
BROMOMETHANE UG/KG	11UY	11UYJ	18UYJ	12UY	12UY
CARBON DISULFIDE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
CARBON TETRACHLORIDE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
CHLOROBENZENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
CHLOROETHANE UG/KG	11UY	11UYJ	18UYJ	12UY	12UY
CHLOROFORM UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
CHLOROMETHANE UG/KG	11UY	11UYJ	18UYJ	12UY	12UY
CIS-1,3-DICHLOROPROPENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
DIBROMOCHLOROMETHANE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
ETHYLBENZENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
METHYLENE CHLORIDE UG/KG	11UY	11UYJ	9UYJ	12UY	14UY
STYRENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
TETRACHLOROETHENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
TOLUENE UG/KG	1DYJ	6UYJ	9UYJ	6UY	6UY
TRANS 1,3 DICHLOROPROPENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C26-01	C26-01	C27-01	C27-01	C27-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C26	C26	C27	C27	C27
SAMPLE DATE:	02/24/1992	02/24/1992	02/25/1992	02/25/1992	02/25/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.00	4.00	2.00	4.00	6.00
LOWER DEPTH:	4.00	6.00	4.00	6.00	8.00
TRICHLOROETHENE UG/KG	6UY	6UYJ	9UYJ	6UY	6UY
VINYL ACETATE UG/KG	11UY	11UYJ	18UYJ	12UY	12UY
VINYL CHLORIDE UG/KG	11UY	11UYJ	18UYJ	12UY	12UY
XYLENE (TOTAL) UG/KG	6UY	6UYJ	9UYJ	6UY	6UY

NNN*/ XXABCCCDD POSITIONALLY N=VALUE, (*/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C28-01	C28-01	C28-01	C29-01	C29-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C28	C28	C28	C29	C29
SAMPLE DATE:		02/20/1992	02/20/1992	02/20/1992	04/01/1992	04/01/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	5.00	7.00	1.00	5.00
LOWER DEPTH:		5.00	7.00	9.00	3.00	7.00
1,1,1-TRICHLOROETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,1,2-TRICHLOROETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,1-DICHLOROETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,1-DICHLOROETHENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,2-DICHLOROETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
1,2-DICHLOROPROPANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
2-BUTANONE	UG/KG	30YJ	UYR	UYR	72UY	11UY
2-HEXANONE	UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
4-METHYL-2-PENTANONE	UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
ACETONE	UG/KG	41DYJ	29DYJ	22UYJ	300DY	29DY
BENZENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
BROMODICHLOROMETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
BROMOFORM	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
BROMOMETHANE	UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
CARBON DISULFIDE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
CARBON TETRACHLORIDE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
CHLOROBENZENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
CHLOROETHANE	UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
CHLOROFORM	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
CHLOROMETHANE	UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
CIS-1,3-DICHLOROPROPENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
DIBROMOCHLOROMETHANE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
ETHYLBENZENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
METHYLENE CHLORIDE	UG/KG	11UYJ	11UYJ	11UYJ	36UY	6UY
STYRENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
TETRACHLOROETHENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
TOLUENE	UG/KG	3DYJ	2DYJ	6UYJ	36UY	6UY
TRANS 1,3 DICHLOROPROPENE	UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C28-01	C28-01	C28-01	C29-01	C29-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C28	C28	C28	C29	C29
SAMPLE DATE:	02/20/1992	02/20/1992	02/20/1992	04/01/1992	04/01/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	5.00	7.00	1.00	5.00
LOWER DEPTH:	5.00	7.00	9.00	3.00	7.00
TRICHLOROETHENE UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY
VINYL ACETATE UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
VINYL CHLORIDE UG/KG	11UYJ	11UYJ	11UYJ	72UY	11UY
XYLENE (TOTAL) UG/KG	5UYJ	6UYJ	6UYJ	36UY	6UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C29-01	C29-01D	C30-01	C31-01	C31-01
SUB-SAMPLE ID:	C	DUP	A	A	B
STATION ID:	C29	C29	C30	C31	C31
SAMPLE DATE:	04/01/1992	04/01/1992	02/21/1992	02/25/1992	02/25/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	5.00	1.00	2.00	4.00
LOWER DEPTH:	9.00	7.00	3.00	4.00	6.00
1,1,1-TRICHLOROETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,1-DICHLOROETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,1-DICHLOROETHENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,2-DICHLOROETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
1,2-DICHLOROPROPANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
2-BUTANONE UG/KG	7DYJ	11UY	UYR	UYR	UYR
2-HEXANONE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
4-METHYL-2-PENTANONE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
ACETONE UG/KG	29UY	32DY	11UYJ	11UYJ	11UYJ
BENZENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
BROMODICHLOROMETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
BROMOFORM UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
BROMOMETHANE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
CARBON DISULFIDE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
CARBON TETRACHLORIDE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
CHLOROBENZENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
CHLOROETHANE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
CHLOROFORM UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
CHLOROMETHANE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
DIBROMOCHLOROMETHANE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
ETHYLBENZENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
METHYLENE CHLORIDE UG/KG	15UY	6UY	11UYJ	6UYJ	6UYJ
STYRENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
TETRACHLOROETHENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
TOLUENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C29-01	C29-01D	C30-01	C31-01	C31-01
SUB-SAMPLE ID:	C	DUP	A	A	B
STATION ID:	C29	C29	C30	C31	C31
SAMPLE DATE:	04/01/1992	04/01/1992	02/21/1992	02/25/1992	02/25/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	5.00	1.00	2.00	4.00
LOWER DEPTH:	9.00	7.00	3.00	4.00	6.00
TRICHLOROETHENE UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ
VINYL ACETATE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
VINYL CHLORIDE UG/KG	12UY	11UY	11UYJ	11UYJ	11UYJ
XYLENE (TOTAL) UG/KG	6UY	6UY	6UYJ	6UYJ	6UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C31-01	C32-01	C32-01	C32-01	C32-01D
SUB-SAMPLE ID:	C	A	B	C	DUP
STATION ID:	C31	C32	C32	C32	C32
SAMPLE DATE:	02/25/1992	02/21/1992	02/21/1992	02/21/1992	02/21/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	1.00	3.00	5.00	1.00
LOWER DEPTH:	8.00	3.00	5.00	7.00	3.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	5UYJ	YJ	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
1,1-DICHLOROETHANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
1,1-DICHLOROETHENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
1,2-DICHLOROETHANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
1,2-DICHLOROPROPANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
2-BUTANONE UG/KG	UYR	11UYJ	UYR	UYR	11UYJ
2-HEXANONE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
4-METHYL-2-PENTANONE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
ACETONE UG/KG	7DYJ	6DYJ	16UYJ	13UYJ	11UYJ
BENZENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
BROMODICHLOROMETHANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
BROMOFORM UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
BROMOMETHANE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
CARBON DISULFIDE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	3DYJ
CARBON TETRACHLORIDE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
CHLOROBENZENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
CHLOROETHANE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
CHLOROFORM UG/KG	6UYJ	1UYJ	5UYJ	6UYJ	1UYJ
CHLOROMETHANE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
DIBROMOCHLOROMETHANE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
ETHYLBENZENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
METHYLENE CHLORIDE UG/KG	UYJ	14UYJ	11UYJ	12UYJ	18UYJ
STYRENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
TETRACHLOROETHENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
TOLUENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ

NNN+/ XXABCCCDD POSITIONALLY N-VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C31-01	C32-01	C32-01	C32-01	C32-01D
SUB-SAMPLE ID:	C	A	B	C	DUP
STATION ID:	C31	C32	C32	C32	C32
SAMPLE DATE:	02/25/1992	02/21/1992	02/21/1992	02/21/1992	02/21/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	1.00	3.00	5.00	1.00
LOWER DEPTH:	8.00	3.00	5.00	7.00	3.00
TRICHLOROETHENE UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	6UYJ
VINYL ACETATE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
VINYL CHLORIDE UG/KG	12UYJ	11UYJ	11UYJ	11UYJ	11UYJ
XYLENE (TOTAL) UG/KG	6UYJ	6UYJ	5UYJ	6UYJ	3DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C33-01	C33-01	C33-01	C34-01	C34-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C33	C33	C33	C34	C34
SAMPLE DATE:		02/26/1992	02/26/1992	02/26/1992	02/24/1992	02/24/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	7.00	1.00	3.00
LOWER DEPTH:		3.00	5.00	9.00	3.00	5.00
1,1,1-TRICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	2DYJ	4DYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
1,1,2-TRICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
1,1-DICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
1,1-DICHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
1,2-DICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
1,2-DICHLOROPROPANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
2-BUTANONE	UG/KG	UYR	UYR	11UYJ	42DYJ	UYR
2-HEXANONE	UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
4-METHYL-2-PENTANONE	UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
ACETONE	UG/KG	11UYJ	12UYJ	11UYJ	220DY	11UY
BENZENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
BROMODICHLOROMETHANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
BROMOFORM	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
BROMOMETHANE	UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
CARBON DISULFIDE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
CARBON TETRACHLORIDE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
CHLOROBENZENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
CHLOROETHANE	UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
CHLOROFORM	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
CHLOROMETHANE	UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
CIS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
DIBROMOCHLOROMETHANE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
ETHYLBENZENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
METHYLENE CHLORIDE	UG/KG	6UYJ	6UYJ	6UYJ	14UY	11UY
STYRENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
TETRACHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
TOLUENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
TRANS 1,3 DICHLOROPROPENE	UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY

NNN+/ XXABCCCOD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C33-01	C33-01	C33-01	C34-01	C34-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C33	C33	C33	C34	C34
SAMPLE DATE:	02/26/1992	02/26/1992	02/26/1992	02/24/1992	02/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	7.00	1.00	3.00
LOWER DEPTH:	3.00	5.00	9.00	3.00	5.00
TRICHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY
VINYL ACETATE UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
VINYL CHLORIDE UG/KG	11UYJ	12UYJ	11UYJ	14UY	11UY
XYLENE (TOTAL) UG/KG	6UYJ	6UYJ	6UYJ	7UY	6UY

NN%+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C34-01	C34-01D	C35-01	C35-01	C35-01
SUB-SAMPLE ID:	C	DUP	A	B	C
STATION ID:	C34	C34	C35	C35	C35
SAMPLE DATE:	02/24/1992	02/24/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	1.00	3.00	5.00	7.00
LOWER DEPTH:	7.00	3.00	5.00	7.00	9.00
1,1,1-TRICHLOROETHANE UG/KG	2DYJ	8DY	6UYJ	5UY	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
1,1-DICHLOROETHANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
1,1-DICHLOROETHENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
1,2-DICHLOROETHANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
1,2-DICHLOROPROPANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
2-BUTANONE UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
4-METHYL-2-PENTANONE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
ACETONE UG/KG	12UY	110DY	35DYJ	17DY	15DYJ
BENZENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
BROMODICHLOROMETHANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
BROMOFORM UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
BROMOMETHANE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
CARBON DISULFIDE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
CARBON TETRACHLORIDE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
CHLOROBENZENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
CHLOROETHANE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
CHLOROFORM UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
CHLOROMETHANE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
DIBROMOCHLOROMETHANE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
ETHYLBENZENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
METHYLENE CHLORIDE UG/KG	12UY	14UY	6UYJ	11UY	11UYJ
STYRENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
TETRACHLOROETHENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
TOLUENE UG/KG	6UY	2DYJ	6UYJ	5UY	6UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=UGS.
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C34-01	C34-01D	C35-01	C35-01	C35-01
SUB-SAMPLE ID:	C	DUP	A	B	C
STATION ID:	C34	C34	C35	C35	C35
SAMPLE DATE:	02/24/1992	02/24/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	1.00	3.00	5.00	7.00
LOWER DEPTH:	7.00	3.00	5.00	7.00	9.00
TRICHLOROETHENE UG/KG	6UY	7UY	6UYJ	5UY	6UYJ
VINYL ACETATE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
VINYL CHLORIDE UG/KG	12UY	14UY	11UYJ	11UY	11UYJ
XYLENE (TOTAL) UG/KG	6UY	7UY	6UYJ	5UY	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C36-01	C36-01	C36-01	C37-01	C37-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C36	C36	C36	C37	C37
SAMPLE DATE:		04/07/1992	04/07/1992	04/07/1992	04/08/1992	04/08/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	2.00	4.00	0.00	2.00
LOWER DEPTH:		2.00	4.00	6.00	2.00	4.00
1,1,1-TRICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,1,2-TRICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,1-DICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,1-DICHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,2-DICHLOROETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
1,2-DICHLOROPROPANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
2-BUTANONE	UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
4-METHYL-2-PENTANONE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
ACETONE	UG/KG	13UYJ	11UYJ	10DYJ	12UYJ	14UYJ
BENZENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
BROMODICHLOROMETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
BROMOFORM	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
BROMOMETHANE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
CARBON DISULFIDE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
CARBON TETRACHLORIDE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
CHLOROBENZENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
CHLOROETHANE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
CHLOROFORM	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
CHLOROMETHANE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
CIS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
DIBROMOCHLOROMETHANE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
ETHYLBENZENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
METHYLENE CHLORIDE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
STYRENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
TETRACHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
TOLUENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
TRANS 1,3-DICHLOROPROPENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		C36-01	C36-01	C36-01	C37-01	C37-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C36	C36	C36	C37	C37
SAMPLE DATE:		04/07/1992	04/07/1992	04/07/1992	04/08/1992	04/08/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	2.00	4.00	0.00	2.00
LOWER DEPTH:		2.00	4.00	6.00	2.00	4.00
TRICHLOROETHENE	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ
VINYL ACETATE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
VINYL CHLORIDE	UG/KG	13UYJ	11UYJ	11UYJ	12UYJ	14UYJ
XYLENE (TOTAL)	UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	7UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C37-01D	C38-01	C38-01	C38-01	C39-01
SUB-SAMPLE ID:		DUP	A	B	C	A
STATION ID:		C37	C38	C38	C38	C39
SAMPLE DATE:		04/08/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	8.00	10.00	12.00	0.00
LOWER DEPTH:		2.00	10.00	12.00	14.00	2.00
1,1,1-TRICHLOROETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,1,2-TRICHLOROETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,1-DICHLOROETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,1-DICHLOROETHENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,2-DICHLOROETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
1,2-DICHLOROPROPANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
2-BUTANONE	UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE	UG/KG	12UYJ	15UYJ	16UYJ	12UYJ	11UYJ
4-METHYL-2-PENTANONE	UG/KG	12UYJ	15UYJ	16UYJ	12UYJ	11UYJ
ACETONE	UG/KG	5DYJ	23UYJ	29UYJ	6UYJ	11UYJ
BENZENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
BROMODICHLOROMETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
BROMOFORM	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
BROMOMETHANE	UG/KG	12UYJ	15UYJ	16UYJ	12UYJ	11UYJ
CARBON DISULFIDE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
CARBON TETRACHLORIDE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
CHLOROBENZENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
CHLOROETHANE	UG/KG	12UYJ	15UYJ	16UYJ	12UYJ	11UYJ
CHLOROFORM	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
CHLOROMETHANE	UG/KG	12UYJ	15UYJ	16UYJ	12UYJ	11UYJ
CIS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
DIBROMOCHLOROMETHANE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
ETHYLBENZENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
METHYLENE CHLORIDE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
STYRENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
TETRACHLOROETHENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
TOLUENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
TRANS-1,3-DICHLOROPROPENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C37-01D	C38-01	C38-01	C38-01	C39-01
SUB-SAMPLE ID:		DUP	A	B	C	A
STATION ID:		C37	C38	C38	C38	C39
SAMPLE DATE:		04/08/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	8.00	10.00	12.00	0.00
LOWER DEPTH:		2.00	10.00	12.00	14.00	2.00
TRICHLOROETHENE	UG/KG	6UYJ	7UYJ	8UYJ	6UYJ	6UYJ
VINYL ACETATE	UG/KG	12JYJ	15UYJ	16UYJ	12UYJ	11UYJ
VINYL CHLORIDE	UG/KG	12UYJ	15UYJ	16UYJ	12UYJ	11UYJ
XYLENE (TOTAL)	UG/KG	6UYJ	7UYJ	8UYJ	2DYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C39-01	C39-01	C39-01D	C40-01	C40-01
SUB-SAMPLE ID:	B	C	DUP	A	B
STATION ID:	C39	C39	C39	C40	C40
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	02/13/1992	02/13/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	6.00	6.00	2.00	4.00
LOWER DEPTH:	6.00	8.00	8.00	4.00	6.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,1-DICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,1-DICHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,2-DICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
1,2-DICHLOROPROPANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
2-BUTANONE UG/KG	11UYJ	UYR	UYR	11UYJ	12UYJ
2-HEXANONE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
4-METHYL-2-PENTANONE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
ACETONE UG/KG	6UYJ	11UYJ	13UYJ	11UYJ	21UYJ
BENZENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
BROMODICHLOROMETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
BROMOFORM UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
BROMOMETHANE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
CARBON DISULFIDE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
CARBON TETRACHLORIDE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
CHLOROBENZENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
CHLOROETHANE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
CHLOROFORM UG/KG	UYR	6UYJ	6UYJ	6UYJ	6UYJ
CHLOROMETHANE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
CIS-1,3 DICHLOROPROPENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
DIBROMOCHLOROMETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
ETHYLBENZENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
METHYLENE CHLORIDE UG/KG	6UYJ	6UYJ	6UYJ	11UYJ	13UYJ
STYRENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
TETRACHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
TOLUENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
TRANS-1,3 DICHLOROPROPENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C39-01	C39-01	C39-01D	C40-01	C40-01
SUB-SAMPLE ID:	B	C	DUP	A	B
STATION ID:	C39	C39	C39	C40	C40
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	02/13/1992	02/13/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	6.00	6.00	2.00	4.00
LOWER DEPTH:	6.00	8.00	8.00	4.00	6.00
TRICHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	6UYJ
VINYL ACETATE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
VINYL CHLORIDE UG/KG	11UYJ	11UYJ	13UYJ	11UYJ	12UYJ
XYLENE (TOTAL) UG/KG	2DYJ	6UYJ	6UYJ	6UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEFAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS .

SAMPLE ID:	C40-01	C41-01	C41-01	C41-01	C42-01
SUB-SAMPLE ID:	C	A	B	C	A
STATION ID:	C40	C41	C41	C41	C42
SAMPLE DATE:	02/13/1992	02/12/1992	02/12/1992	02/12/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	0.00	4.00	6.00	4.00
LOWER DEPTH:	8.00	2.00	6.00	8.00	6.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,1-DICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,1-DICHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,2-DICHLOROETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
1,2 DICHLOROPROPANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
2-BUTANONE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	73DYJ
2-HEXANONE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
4-METHYL-2-PENTANONE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
ACETONE UG/KG	22UYJ	12UYJ	12UYJ	43UYJ	880DYJ
BENZENE UG/KG	6UYJ	6UYJ	2DYJ	6UYJ	35UYJ
BROMODICHLOROMETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
BROMOFORM UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
BROMOMETHANE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
CARBON DISULFIDE UG/KG	6UYJ	6UYJ	4DYJ	4DYJ	35UYJ
CARBON TETRACHLORIDE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
CHLOROBENZENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
CHLOROETHANE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
CHLOROFORM UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
CHLOROMETHANE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
DIBROMOCHLOROMETHANE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
ETHYLBENZENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
METHYLENE CHLORIDE UG/KG	11UYJ	66DY	29UYJ	9UYJ	35UYJ
STYRENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
TETRACHLOROETHENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ
TOLUENE UG/KG	6UYJ	6UYJ	3DYJ	6UYJ	35UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS.
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C40-01	C41-01	C41-01	C41-01	C42-01
SUB-SAMPLE ID:	C	A	B	C	A
STATION ID:	C40	C41	C41	C41	C42
SAMPLE DATE:	02/13/1992	02/12/1992	02/12/1992	02/12/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	0.00	4.00	6.00	4.00
LOWER DEPTH:	8.00	2.00	6.00	8.00	6.00
TRICHLOROETHENE UG/KG	6UYJ	13DYJ	6UYJ	6UYJ	35UYJ
VINYL ACETATE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
VINYL CHLORIDE UG/KG	11UYJ	12UYJ	12UYJ	12UYJ	70UYJ
XYLENE (TOTAL) UG/KG	6UYJ	6UYJ	6UYJ	6UYJ	35UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C42-01	C42-01	C43-01	C43-01	C43-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C42	C42	C43	C43	C43
SAMPLE DATE:	02/19/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	10.00	3.00	7.00	11.00
LOWER DEPTH:	8.00	12.00	5.00	9.00	13.00
1,1,1-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,1-DICHLOROETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,1-DICHLOROETHENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,2-DICHLOROETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
1,2-DICHLOROPROPANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
2-BUTANONE UG/KG	11DYJ	UYR	130DYJ	22DYJ	11DYJ
2-HEXANONE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
4-METHYL-2-PENTANONE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
ACETONE UG/KG	210DYJ	75DYJ	730DYJ	220DYJ	130DYJ
BENZENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
BROMODICHLOROMETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
BROMOFORM UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
BROMOMETHANE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
CARBON DISULFIDE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
CARBON TETRACHLORIDE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
CHLOROBENZENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
CHLOROETHANE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
CHLOROFORM UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
CHLOROMETHANE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
DIBROMOCHLOROMETHANE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
ETHYLBENZENE UG/KG	6UYJ	6UYJ	39DYJ	5UYJ	6UYJ
METHYLENE CHLORIDE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
STYRENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
TETRACHLOROETHENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
TOLUENE UG/KG	6UYJ	6UYJ	10DYJ	5UYJ	6UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ

NNN+/ XXABCCCOD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C42-01	C42-01	C43-01	C43-01	C43-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C42	C42	C43	C43	C43
SAMPLE DATE:	02/19/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	10.00	3.00	7.00	11.00
LOWER DEPTH:	8.00	12.00	5.00	9.00	13.00
TRICHLOROETHENE UG/KG	6UYJ	6UYJ	28UYJ	5UYJ	6UYJ
VINYL ACETATE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
VINYL CHLORIDE UG/KG	12UYJ	12UYJ	56UYJ	11UYJ	11UYJ
XYLENE (TOTAL) UG/KG	6UYJ	6UYJ	190DYJ	5UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C44-01	C44-01	C44-01
SUB-SAMPLE ID:	A	B	C
STATION ID:	C44	C44	C44
SAMPLE DATE:	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	4.00	6.00	8.00
LOWER DEPTH:	6.00	8.00	10.00
1,1,1-TRICHLOROETHANE UG/KG	780UYJ	11UYJ	15UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	780UYJ	11UYJ	15UYJ
1,1,2-TRICHLOROETHANE UG/KG	780UYJ	11UYJ	15UYJ
1,1-DICHLOROETHANE UG/KG	780UYJ	11UYJ	15UYJ
1,1-DICHLOROETHENE UG/KG	780UYJ	11UYJ	15UYJ
1,2-DICHLOROETHANE UG/KG	780UYJ	11UYJ	15UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	780UYJ	11UYJ	22DYJ
1,2-DICHLOROPROPANE UG/KG	780UYJ	11UYJ	15UYJ
2-BUTANONE UG/KG	1600UYJ	21DYJ	24DYJ
2-HEXANONE UG/KG	1600UYJ	23UYJ	29UYJ
4-METHYL-2-PENTANONE UG/KG	1600UYJ	23UYJ	29UYJ
ACETONE UG/KG	1600UYJ	350DYJ	270DYJ
BENZENE UG/KG	4700DYJ	8DYJ	890DYJ
BROMODICHLOROMETHANE UG/KG	780UYJ	11UYJ	15UYJ
BROMOFORM UG/KG	780UYJ	11UYJ	15UYJ
BROMOMETHANE UG/KG	1600UYJ	23UYJ	29UYJ
CARBON DISULFIDE UG/KG	780UYJ	4DYJ	48DYJ
CARBON TETRACHLORIDE UG/KG	780UYJ	11UYJ	15UYJ
CHLOROBENZENE UG/KG	780UYJ	11UYJ	15UYJ
CHLOROETHANE UG/KG	1600UYJ	23UYJ	29UYJ
CHLOROFORM UG/KG	780UYJ	11UYJ	15UYJ
CHLOROMETHANE UG/KG	1600UYJ	23UYJ	29UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	780UYJ	11UYJ	15UYJ
DIBROMOCHLOROMETHANE UG/KG	780UYJ	11UYJ	15UYJ
ETHYLBENZENE UG/KG	780UYJ	11UYJ	36DYJ
METHYLENE CHLORIDE UG/KG	1600UYJ	18UYJ	15UYJ
STYRENE UG/KG	780UYJ	11UYJ	15UYJ
TETRACHLOROETHENE UG/KG	780UYJ	11UYJ	15UYJ
TOLUENE UG/KG	780UYJ	11UYJ	15UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	780UYJ	11UYJ	15UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	C44-01	C44-01	C44-01
SUB-SAMPLE ID:	A	B	C
STATION ID:	C44	C44	C44
SAMPLE DATE:	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	4.00	6.00	8.00
LOWER DEPTH:	6.00	8.00	10.00
TRICHLOROETHENE UG/KG	780UYJ	11UYJ	15UYJ
VINYL ACETATE UG/KG	1600UYJ	23UYJ	29UYJ
VINYL CHLORIDE UG/KG	1600UYJ	23UYJ	29UYJ
XYLENE (TOTAL) UG/KG	780UYJ	11UYJ	24DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOIL BORINGS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
12H	1,2-DIPHENYLHYDRAZINE	UG/KG	15	1	0.0667	63.000	63.000	63.000	0.000
24M	2,4-DIMETHYLPHENOL	UG/KG	130	2	0.0154	69.000	77.000	73.000	4.000
2MN	2-METHYLNAPHTHALENE	UG/KG	130	18	0.1385	50.000	13,000.000	1,228.278	2,976.965
2MP	2-METHYLPHENOL	UG/KG	130	2	0.0154	50.000	300.000	175.000	125.000
33B	3,3'-DICHLOROBENZIDINE	UG/KG	127	1	0.0079	160.000	160.000	160.000	0.000
4C3	4-CHLORO-3-METHYLPHENOL	UG/KG	130	1	0.0077	87.000	87.000	87.000	0.000
4MP	4-METHYLPHENOL	UG/KG	130	4	0.0308	90.000	600.000	245.000	206.942
4NP	4-NITROPHENOL	UG/KG	130	1	0.0077	70.000	70.000	70.000	0.000
ACN	ACENAPHTHENE	UG/KG	130	11	0.0846	49.000	2,800.000	455.909	753.145
ACY	ACENAPHTHYLENE	UG/KG	130	12	0.0923	53.000	1,040.000	401.167	385.800
ATR	ANTHRACENE	UG/KG	130	13	0.1000	58.000	3,900.000	667.308	999.795
BBK	BENZO (B&K) FLUORANTHENE	UG/KG	11	11	1.0000	58.000	18,000.000	2,273.000	5,029.943
BAA	BENZO(A)ANTHRACENE	UG/KG	130	32	0.2462	39.000	12,000.000	868.375	2,161.665
BAP	BENZO(A)PYRENE	UG/KG	130	32	0.2462	46.000	12,000.000	915.375	2,163.432
BBF	BENZO(B)FLUORANTHENE	UG/KG	119	36	0.3025	38.000	5,200.000	648.583	1,244.383
BGP	BENZO(GHI)PERYLENE	UG/KG	129	20	0.1550	42.000	7,500.000	829.600	1,676.015
BKF	BENZO(K)FLUORANTHENE	UG/KG	118	3	0.0254	49.000	4,100.000	1,469.667	1,861.920
BZA	BENZOIC ACID	UG/KG	130	1	0.0077	730.000	730.000	730.000	0.000
BBP	BENZYL BUTYL PHTHALATE	UG/KG	130	10	0.0769	58.000	2,500.000	543.100	674.423
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	130	31	0.2385	37.000	2,600.000	477.806	666.454
CAF	CAFFEINE	UG/KG	130	12	0.0923	44.000	2,100.000	645.833	644.006
CRY	CHRYSENE	UG/KG	130	38	0.2923	41.000	14,000.000	859.500	2,312.917
DBP	DI-N-BUTYL PHTHALATE	UG/KG	130	34	0.2615	38.000	520.000	88.294	84.438
DOP	DI-N-OCTYL PHTHALATE	UG/KG	130	7	0.0538	59.000	790.000	201.571	242.678
DBA	DIBENZO(A,H)ANTHRACENE	UG/KG	129	14	0.1085	38.000	2,600.000	390.571	675.689
DBF	DIBENZOFURAN	UG/KG	130	8	0.0615	80.000	1,300.000	316.250	377.887
DEP	DIETHYL PHTHALATE	UG/KG	130	7	0.0538	37.000	110.000	60.429	22.219
FLA	FLUORANTHENE	UG/KG	130	48	0.3692	41.000	28,000.000	1,251.167	4,127.218
FLE	FLUORENE	UG/KG	130	12	0.0923	41.000	4,000.000	552.583	1,051.574
ICP	INDENO(1,2,3-CD)PYRENE	UG/KG	130	25	0.1923	39.000	6,700.000	783.960	1,430.046
NPH	N-NITROSODIPHENYLAMINE	UG/KG	130	1	0.0077	610.000	610.000	610.000	0.000
NAP	NAPHTHALENE	UG/KG	130	16	0.1231	49.000	10,800.000	1,391.625	2,691.802
NTB	NITROBENZENE	UG/KG	130	2	0.0154	140.000	290.000	215.000	75.000
PCP	PENTACHLOROPHENOL	UG/KG	130	1	0.0077	220.000	220.000	220.000	0.000
PAN	PHENANTHRENE	UG/KG	130	38	0.2923	38.000	25,000.000	1,199.842	4,056.656
PHE	PHENOL	UG/KG	130	10	0.0769	98.000	2,200.000	996.800	783.645

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOIL BORINGS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
PYR	PYRENE	UG/KG	130	50	0.3846	42.000	34,000.000	1,350.060	4,853.699
DLI	d-LIMONENE	UG/KG	130	1	0.0077	590.000	590.000	590.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:	A	A	A	B	DUP
STATION ID:	BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:	02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:	1.00	1.00	3.00	4.00	3.00
1,2,4-TRICHLOROBENZENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
1,2-DICHLOROBENZENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
1,4-DICHLOROBENZENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2,4,5-TRICHLOROPHENOL UG/KG	3000UYJ	2200UY	3100UY	4600UYJ	3000UY
2,4,6-TRICHLOROPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2,4-DICHLOROPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2,4-DIMETHYLPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2,4-DINITROPHENOL UG/KG	3000UYJ	2200UY	3100UY	4600UYJ	3000UY
2,4-DINITROTOLUENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2,6-DINITROTOLUENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2-CHLORONAPHTHALENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2-CHLOROPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2-METHYLNAPHTHALENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2-METHYLPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
2-NITROANILINE UG/KG	3000UYJ	2200UY	3100UY	4600UYJ	3000UY
2-NITROPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
3,3'-DICHLOROBENZIDINE UG/KG	1200UYJ	890UY	1300UY	1900UYJ	1200UY
3-NITROANILINE UG/KG	620UYJ	2200UY	3100UY	4600UYJ	3000UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	3000UYJ	2200UY	3100UY	4600UYJ	3000UY
4-BROMOPHENYL PHENYL ETHER UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
4-CHLORO-3-METHYLPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
4-CHLOROANILINE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
4-METHYLPHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
4-NITROANILINE UG/KG	3000UYJ	2200UY	3100UY	4600UYJ	3000UY
4-NITROPHENOL UG/KG	3000UYJ	2200UY	3100UY	4600UYJ	3000UY
ACENAPHTHENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
ACENAPHTHYLENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY

NNN.*/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:		A	A	A	B	DUP
STATION ID:		BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:		02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:		1.00	1.00	3.00	4.00	3.00
ANTHRACENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	620UYJ	93DYJ	630UY	200DYJ	610UY
BENZO(A)PYRENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BENZO(B)FLUORANTHENE	UG/KG	620UYJ	90DYJ	630UY	280DYJ	610UY
BENZO(GHI)PERYLENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BENZO(K)FLUORANTHENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BENZOIC ACID	UG/KG	3000UYJ	2200UY	3100UY	730DYJ	3000UY
BENZYL ALCOHOL	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BENZYL BUTYL PHTHALATE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	620UYJ	63DYJ	630UY	940UYJ	64DYJ
CAFFEINE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
CHRYSENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
DI-N-BUTYL PHTHALATE	UG/KG	620UYJ	46DYJ	87DYJ	103DYJ	92DYJ
DI-N-OCTYL PHTHALATE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
DIBENZO(A,H)ANTHRACENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
DIBENZOFURAN	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
DIETHYL PHTHALATE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
DIMETHYL PHTHALATE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
FLUORANTHENE	UG/KG	620UYJ	190DYJ	630UY	420DYJ	610UY
FLUORENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
HEXACHLOROBENZENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
HEXACHLOROBUTADIENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
HEXACHLOROETHANE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
INDENO(1,2,3 CD)PYRENE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
ISOPHORONE	UG/KG	620UYJ	450UY	630UY	940UYJ	610UY

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:	A	A	A	B	DUP
STATION ID:	BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:	02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:	1.00	1.00	3.00	4.00	3.00
N-NITROSODINPROPYLAMINE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
N-NITROSODIPHENYLAMINE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
NAPHTHALENE UG/KG	62(UYJ	450UY	630UY	940UYJ	610UY
NITROBENZENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
PENTACHLOROPHENOL UG/KG	620UYJ	2200UY	3100UY	4600UYJ	3000UY
PHENANTHRENE UG/KG	3000UYJ	79DYJ	630UY	170DYJ	610UY
PHENOL UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
PYRENE UG/KG	620UYJ	106DYJ	630UY	240DYJ	610UY
a-PINENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY
d-LIMONENE UG/KG	620UYJ	450UY	630UY	940UYJ	610UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C01	C01	C01	C01	C02
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	2.00
1,2,4-TRICHLOROBENZENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
1,2-DICHLOROBENZENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
1,4 DICHLOROBENZENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
2,4,6-TRICHLOROPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2,4-DICHLOROPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2,4-DIMETHYLPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2,4-DINITROPHENOL UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
2,4-DINITROTOLUENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2,6-DINITROTOLUENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2-CHLORONAPHTHALENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2-CHLOROPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2-METHYLNAPHTHALENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2-METHYLPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
2-NITROANILINE UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
2-NITROPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
3,3'-DICHLOROBENZIDINE UG/KG	770UYJ	740UY	750UY	830UYJ	760UYJ
3-NITROANILINE UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
4,6-DINITRO 2-METHYLPHENOL UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
4-CHLORO-3 METHYLPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
4-CHLOROANILINE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
4-METHYLPHENOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
4-NITROANILINE UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
4-NITROPHENOL UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
ACENAPHTHENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
ACENAPHTHYLENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ

NNN+/ XXABCEDD POSITIONALLY N VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A-DETECTED, B-VALIDATED, C=FLAGS.
U = less than detection limit, D=detected, J estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C01	C01	C01	C01	C02
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	2.00
ANTHRACENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
BENZO (B&K) FLUORANTHENE UG/KG					58DYJ
BENZO(A)ANTHRACENE UG/KG	72DYJ	370UY	370UY	140DYJ	380UYJ
BENZO(A)PYRENE UG/KG	76DYJ	370UY	370UY	150DYJ	380UYJ
BENZO(B)FLUORANTHENE UG/KG	140DYJ	370UY	370UY	260DYJ	
BENZO(GHI)PERYLENE UG/KG	49DYJ	370UY	370UY	97DYJ	380UYJ
BENZO(K)FLUORANTHENE UG/KG	380UYJ	370UY	370UY	420UYJ	
BENZOIC ACID UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
BENZYL ALCOHOL UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
BENZYL BUTYL PHTHALATE UG/KG	2100UYJ	370UY	370UY	420UYJ	470DYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
BIS(2-CHLOROETHYL)ETHER UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	1900UYJ	370UY	370UY	420UYJ	520DYJ
CAFFEINE UG/KG	380UYJ	110DYJ	370UY	420UYJ	380UYJ
CHRYSENE UG/KG	89DYJ	370UY	370UY	150DYJ	380UYJ
DI-N-BUTYL PHTHALATE UG/KG	380UYJ	370UY	370UY	420UYJ	69DYJ
DI-N-OCTYL PHTHALATE UG/KG	710UYJ	370UY	370UY	420UYJ	150DYJ
DIBENZO(A,H)ANTHRACENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
DIBENZOFURAN UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
DIETHYL PHTHALATE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
DIMETHYL PHTHALATE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
FLUORANTHENE UG/KG	200DYJ	370UY	370UY	350DYJ	54DYJ
FLUORENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
HEXACHLOROBENZENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
HEXACHLOROBUTADIENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
HEXACHLOROCYCLOPENTADIENE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
HEXACHLOROETHANE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
INDENO(1,2,3-CD)PYRENE UG/KG	61DYJ	370UY	370UY	107DYJ	380UYJ
ISOPHORONE UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ

KNN+/-XXABLCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C01	C01	C01	C01	C02
SAMPLE DATE:		03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:		3.00	5.00	7.00	3.00	2.00
N-NITROSODINPROPYLAMINE	UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
N-NITROSODIPHENYLAMINE	UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
NAPHTHALENE	UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
NITROBENZENE	UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ
PENTACHLOROPHENOL	UG/KG	1900UYJ	1800UY	1800UY	2000UYJ	1800UYJ
PHENANTHRENE	UG/KG	130DYJ	370UY	370UY	190DYJ	380UYJ
PHENOL	UG/KG	490DYJ	370UY	370UY	1200DYJ	380UYJ
PYRENE	UG/KG	170DYJ	370UY	370UY	90DYJ	65DYJ
a-PINENE	UG/KG	380UYJ	370UYJ	370UYJ	420UYJ	380UYJ
d-LIMONENE	UG/KG	380UYJ	370UY	370UY	420UYJ	380UYJ

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:	B	A	B	A	B
STATION ID:	C02	C03	C03	C04	C04
SAMPLE DATE:	04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:	4.00	2.00	4.00	5.00	7.00
1,2,4-TRICHLOROBENZENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
1,2-DICHLOROBENZENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
1,2-DIPHENYLHYDRAZINE UG/KG				340UYJ	340UYJ
1,3-DICHLOROBENZENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
1,4-DICHLOROBENZENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
2,4,6-TRICHLOROPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2,4-DICHLOROPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2,4-DIMETHYLPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2,4-DINITROPHENOL UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
2,4-DINITROTOLUENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2,6-DINITROTOLUENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2-CHLORONAPHTHALENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2-CHLOROPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2-METHYLNAPHTHALENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2-METHYLPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
2-NITROANILINE UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
2-NITROPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
3,3'-DICHLOROBENZIDINE UG/KG	770UYJ	770UY	750UY	690UYJ	690UYJ
3-NITROANILINE UG/KG	UYR	1900UY	1800UY	1700UYJ	1700UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
4-CHLOROANILINE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
4-METHYLPHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
4-NITROANILINE UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
4-NITROPHENOL UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
ACENAPHTHENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
ACENAPHTHYLENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:	B	A	B	A	B
STATION ID:	C02	C03	C03	C04	C04
SAMPLE DATE:	04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:	4.00	2.00	4.00	5.00	7.00
ANTHRACENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BENZO (B&K) FLUORANTHENE					
BENZO(A)ANTHRACENE UG/KG	380UYJ	380UY	370UY	340UYJ	58DYJ
BENZO(A)PYRENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BENZO(B)FLUORANTHENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BENZO(GHI)PERYLENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BENZO(K)FLUORANTHENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BENZOIC ACID UG/KG	1900UYJ	1900UY	1800UY	1700UYJ	1700UYJ
BENZYL ALCOHOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BENZYL BUTYL PHTHALATE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BIS(2-CHLOROETHYL)ETHER UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	380UYJ	380UY	370UY	55DYJ	63DYJ
CAFFEINE UG/KG	380UYJ	380UY	370UY	340UY	340UY
CHRYSENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
DI-N-BUTYL PHTHALATE UG/KG	380UYJ	380UY	370UY	50DYJ	73DYJ
DI-N-OCTYL PHTHALATE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
DIBENZO(A,H)ANTHRACENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
DIBENZOFURAN UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
DIETHYL PHTHALATE UG/KG	380UYJ	380UY	370UY	340UYJ	61DYJ
DIMETHYL PHTHALATE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
FLUORANTHENE UG/KG	380UYJ	380UY	370UY	340UYJ	51DYJ
FLUORENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
HEXACHLOROBENZENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
HEXACHLOROBUTADIENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
HEXACHLOROCYCLOPENTADIENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
HEXACHLOROETHANE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
INDENO(1,2,3-CD)PYRENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
ISOPHORONE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ

NNN-/ XXABCCCDD POSITIONALLY N=VALUE, (-/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:	B	A	B	A	B
STATION ID:	C02	C03	C03	C04	C04
SAMPLE DATE:	04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:	4.00	2.00	4.00	5.00	7.00
N-NITROSODINPROPYLAMINE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
N-NITROSODIPHENYLAMINE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
NAPHTHALENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
NITROBENZENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
PENTACHLOROPHENOL UG/KG	1900UYJ	1900UY	1800UY	340UYJ	340UYJ
PHENANTHRENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
PHENOL UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
PYRENE UG/KG	380UYJ	380UY	370UY	340UYJ	56DYJ
a-PINENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ
d-LIMONENE UG/KG	380UYJ	380UY	370UY	340UYJ	340UYJ

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:	C	A	B	A	A
STATION ID:	C04	C05	C05	C06	C07
SAMPLE DATE:	02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:	9.00	2.00	4.00	2.00	4.00
1,2,4-TRICHLOROBENZENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
1,2-DICHLOROBENZENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
1,2-DIPHENYLHYDRAZINE UG/KG	350UYJ	63DYJ	360UY		
1,3-DICHLOROBENZENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
1,4-DICHLOROBENZENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1700UYJ	180[illegible]	1700UY	1900UYJ	2400UYJ
2,4,6-TRICHLOROPHENOL UG/KG	350UYJ	380[illegible]	360UY	390UYJ	500UYJ
2,4-DICHLOROPHENOL UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2,4-DIMETHYLPHENOL UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2,4-DINITROPHENOL UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	2400UYJ
2,4 DINITROTOLUENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2,6-DINITROTOLUENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2-CHLORONAPHTHALENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2-CHLOROPHENOL UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2-METHYLNAPHTHALENE UG/KG	350UYJ	380UY	360UY	61DYJ	500UYJ
2 METHYLPHENOL UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
2-NITROANILINE UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	2400UYJ
2-NITROPHENOL UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
3,3'-DICHLOROBENZIDINE UG/KG	690UYJ	760UY	720UY	780UYJ	1000UYJ
3-NITROANILINE UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	2400UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	2400UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	350UYJ	380UY	360UY	390[illegible]	500UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	350UYJ	380UY	360UY	390[illegible]	500UYJ
4-CHLOROANILINE UG/KG	350UYJ	380UY	360UY	390[illegible]	500UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
4 METHYLPHENOL UG/KG	350UYJ	120DYJ	360UY	390UYJ	500UYJ
4-NITROANILINE UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	2400UYJ
4-NITROPHENOL UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	700DYJ
ACENAPHTHENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
ACENAPHTHYLENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:		C	A	B	A	A
STATION ID:		C04	C05	C05	C06	C07
SAMPLE DATE:		02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:		9.00	2.00	4.00	2.00	4.00
ANTHRACENE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	350UYJ	270DYJ	360UY	390UYJ	73DYJ
BENZO(A)PYRENE	UG/KG	350UYJ	220DYJ	360UY	390UYJ	90DYJ
BENZO(B)FLUORANTHENE	UG/KG	350UYJ	340DYJ	360UY	48DYJ	170DYJ
BENZO(GHI)PERYLENE	UG/KG	350UYJ	380UY	360UY	390UYJ	63DYJ
BENZO(K)FLUORANTHENE	UG/KG	350UYJ	260DYJ	360UY	390UYJ	500UYJ
BENZOIC ACID	UG/KG	1700UYJ	1800UY	1700UY	1900UYJ	2400UYJ
BENZYL ALCOHOL	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
BENZYL BUTYL PHTHALATE	UG/KG	350UYJ	380UY	360UY	390UYJ	2100UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	37DYJ	100DYJ	44DYJ	390UYJ	1900UYJ
CAFFEINE	UG/KG	350UY	380UY	360UY	390UYJ	230DYJ
CHRYSENE	UG/KG	350UYJ	410DY	360UY	60DYJ	130DYJ
DI-N-BUTYL PHTHALATE	UG/KG	190DYJ	380UYJ	360UY	390UYJ	500UYJ
DI-N-OCTYL PHTHALATE	UG/KG	350UYJ	380UY	360UY	390UYJ	730UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
DIBENZOFURAN	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
DIETHYL PHTHALATE	UG/KG	37DYJ	380UY	360UY	390UYJ	500UYJ
DIMETHYL PHTHALATE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
FLUORANTHENE	UG/KG	350UYJ	420DY	360UY	44DYJ	150DYJ
FLUORENE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
HEXACHLOROBENZENE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
HEXACHLOROBUTADIENE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
HEXACHLOROETHANE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	350UYJ	210DYJ	360UY	390UYJ	66DYJ
ISOPHORONE	UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:	C	A	B	A	A
STATION ID:	C04	C05	C05	C06	C07
SAMPLE DATE:	02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:	9.00	2.00	4.00	2.00	4.00
N-NITROSODINPROPYLAMINE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
N-NITROSODIPHENYLAMINE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
NAPHTHALENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
NITROBENZENE UG/KG	350UYJ	140DYJ	360UY	390UYJ	500UYJ
PENTACHLOROPHENOL UG/KG	350UYJ	1800UY	1700UY	1900UYJ	2400UYJ
PHENANTHRENE UG/KG	350UYJ	270DYJ	38DYJ	89DYJ	150DYJ
PHENOL UG/KG	350UYJ	380UY	360UY	390UYJ	980YJ
PYRENE UG/KG	350UYJ	420DY	360UY	63DYJ	200DYJ
a-PINENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ
d-LIMONENE UG/KG	350UYJ	380UY	360UY	390UYJ	500UYJ

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C07-01	C07-01	C07-01	C08-01	C08-01
SUB-SAMPLE ID:	B	C	D	A	B
STATION ID:	C07	C07	C07	C08	C08
SAMPLE DATE:	03/31/1992	03/31/1992	03/31/1992	03/31/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	5.00	7.00	0.00	2.00
LOWER DEPTH:	5.00	7.00	8.00	2.00	4.00
1,2,4-TRICHLOROBENZENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
1,2-DICHLOROBENZENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
1,4-DICHLOROBENZENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2,4,5-TRICHLOROPHENOL UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
2,4,6-TRICHLOROPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2,4-DICHLOROPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2,4-DIMETHYLPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2,4-DINITROPHENOL UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
2,4-DINITROTOLUENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2,6-DINITROTOLUENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2-CHLORONAPHTHALENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2-CHLOROPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2-METHYLNAPHTHALENE UG/KG	450UYJ	370UYJ	390UY	50DYJ	430UYJ
2-METHYLPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
2-NITROANILINE UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
2-NITROPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
3,3'-DICHLOROBENZIDINE UG/KG	910UYJ	740UYJ	790UY	160DYJ	860UYJ
3-NITROANILINE UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
4-CHLOROANILINE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
4-METHYLPHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
4-NITROANILINE UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
4-NITROPHENOL UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
ACENAPHTHENE UG/KG	450UYJ	370UYJ	390UY	49DYJ	430UYJ
ACENAPHTHYLENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ

NNN+/- XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C07-01	C07-01	C07-01	C08 01	C08-01
SUB-SAMPLE ID:		B	C	D	A	B
STATION ID:		C07	C07	C07	C08	C08
SAMPLE DATE:		03/31/1992	03/31/1992	03/31/1992	03/31/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	5.00	7.00	0.00	2.00
LOWER DEPTH:		5.00	7.00	8.00	2.00	4.00
ANTHRACENE	UG/KG	450UYJ	370UYJ	390UY	1030YJ	430UYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	450UYJ	370UYJ	390UY	380DYJ	430UYJ
BENZO(A)PYRENE	UG/KG	450UYJ	370UYJ	390UY	370DYJ	430UYJ
BENZO(B)FLUORANTHENE	UG/KG	58DYJ	370UYJ	390UY	600DYJ	430UYJ
BENZO(GHI)PERYLENE	UG/KG	450UYJ	370UYJ	390UY	240DYJ	430UYJ
BENZO(K)FLUORANTHENE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
BENZOIC ACID	UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
BENZYL ALCOHOL	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
BENZYL BUTYL PHTHALATE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
BIS(2 CHLOROETHOXY) METHANE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
CAFFEINE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
CHRYSENE	UG/KG	450UYJ	370UYJ	390UY	450DYJ	430UYJ
DI-N-BUTYL PHTHALATE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
DI N-OCTYL PHTHALATE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	450UYJ	370UYJ	390UY	130DYJ	430UYJ
DIBENZOFURAN	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
DIETHYL PHTHALATE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
DIMETHYL PHTHALATE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
FLUORANTHENE	UG/KG	52DYJ	370UYJ	390UY	890DYJ	430UYJ
FLUORENE	UG/KG	450UYJ	370UYJ	390UY	82DYJ	430UYJ
HEXACHLOROBENZENE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
HEXACHLOROBUTADIENE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
HEXACHLOROETHANE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	450UYJ	370UYJ	390UY	250DYJ	430UYJ
ISOPHORONE	UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/ XX ERROR FACTOR FOR RADS ONLY), A-DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C07-01	C07-01	C07-01	C08-01	C08-01
SUB-SAMPLE ID:	B	C	D	A	B
STATION ID:	C07	C07	C07	C08	C08
SAMPLE DATE:	03/31/1992	03/31/1992	03/31/1992	03/31/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	5.00	7.00	0.00	2.00
LOWER DEPTH:	5.00	7.00	8.00	2.00	4.00
N-NITROSODINPROPYLAMINE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
N-NITROSODIPHENYLAMINE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
NAPHTHALENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
NITROBENZENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
PENTACHLOROPHENOL UG/KG	2200UYJ	1800UYJ	1900UY	2000UYJ	2100UYJ
PHENANTHRENE UG/KG	450UYJ	370UYJ	390UY	720DYJ	430UYJ
PHENOL UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
PYRENE UG/KG	60DYJ	370UYJ	390UY	970DYJ	430UYJ
a-PINENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ
d-LIMONENE UG/KG	450UYJ	370UYJ	390UY	410UYJ	430UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C09-01	C09-01	C10-01	C10-01	C10-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C09	C09	C10	C10	C10
SAMPLE DATE:	04/03/1992	04/03/1992	04/03/1992	04/03/1992	04/03/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	4.00	2.00	4.00	6.00
LOWER DEPTH:	2.00	6.00	3.00	6.00	8.00
1,2,4-TRICHLOROBENZENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
1,2-DICHLOROBENZENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
1,4-DICHLOROBENZENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2,4,5-TRICHLOROPHENOL UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
2,4,6-TRICHLOROPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2,4-DICHLOROPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2,4-DIMETHYLPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2,4-DINITROPHENOL UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
2,4-DINITROTOLUENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2,6 DINITROTOLUENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2-CHLORONAPHTHALENE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2-CHLOROPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2 METHYLNAPHTHALENE UG/KG	320DYJ	380UYJ	440UYJ	370UY	370UY
2 METHYLPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
2-NITROANILINE UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
2 NITROPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
3,3'-DICHLOROBENZIDINE UG/KG	UYR	UYR	UYR	750UY	740UY
3 NITROANILINE UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
4-BROMOPHENYL PHENYL ETHER UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
4-CHLORO-3 METHYLPHENOL UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
4-CHLOROANILINE UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
4 METHYLPHENOL UG/KG	1700YJ	380UYJ	440UYJ	370UY	370UY
4-NITROANILINE UG/KG	UYR	UYR	UYR	1800UY	1800UY
4 NITROPHENOL UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
ACENAPHTHENE UG/KG	810YJ	380UYJ	440UYJ	370UY	370UY
ACENAPHTHYLENE UG/KG	670YJ	380UYJ	440UYJ	370UY	370UY

NNN+/ XXABCCCDD POSITIONALLY N-VALUE, (+/ XX:ERROR FACTOR FOR RADS ONLY), A=DETECTED, B-VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C09-01	C09-01	C10-01	C10-01	C10-01
SUB-SAMPLE ID:		A	B	A	B	C
STATION ID:		C09	C09	C10	C10	C10
SAMPLE DATE:		04/03/1992	04/03/1992	04/03/1992	04/03/1992	04/03/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	4.00	2.00	4.00	6.00
LOWER DEPTH:		2.00	6.00	3.00	6.00	8.00
ANTHRACENE	UG/KG	210DYJ	380UYJ	440UYJ	370UY	370UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	770DYJ	39DYJ	51DYJ	370UY	370UY
BENZO(A)PYRENE	UG/KG	610DYJ	380UYJ	54DYJ	370UY	370UY
BENZO(B)FLUORANTHENE	UG/KG	1300DYJ	62DYJ	110DYJ	370UY	370UY
BENZO(GHI)PERYLENE	UG/KG	400DYJ	380UYJ	440UYJ	370UY	370UY
BENZO(K)FLUORANTHENE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
BENZOIC ACID	UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
BENZYL ALCOHOL	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
BENZYL BUTYL PHTHALATE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
CAFFEINE	UG/KG	2100DYJ	110DYJ	440UYJ	370UY	370UY
CHRYSENE	UG/KG	1020DYJ	55DYJ	87DYJ	370UY	370UY
DI-N-BUTYL PHTHALATE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
DI-N-OCTYL PHTHALATE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
DIBENZO(A,H)ANTHRACENE	UG/KG	96DYJ	380UYJ	440UYJ	370UY	370UY
DIBENZOFURAN	UG/KG	150DYJ	380UYJ	440UYJ	370UY	370UY
DIETHYL PHTHALATE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
DIMETHYL PHTHALATE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
FLUORANTHENE	UG/KG	1600DYJ	99DYJ	110DYJ	370UY	370UY
FLUORENE	UG/KG	170DYJ	380UYJ	440UYJ	370UY	370UY
HEXACHLOROBENZENE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
HEXACHLOROBUTADIENE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
HEXACHLOROETHANE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
INDENO(1,2,3-CD)PYRENE	UG/KG	430DYJ	380UYJ	440UYJ	370UY	370UY
ISOPHORONE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C09-01	C09-01	C10-01	C10-01	C10-01
SUB-SAMPLE ID:		A	B	A	B	C
STATION ID:		C09	C09	C10	C10	C10
SAMPLE DATE:		04/03/1992	04/03/1992	04/03/1992	04/03/1992	04/03/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	4.00	2.00	4.00	6.00
LOWER DEPTH:		2.00	6.00	3.00	6.00	8.00
N-NITROSODINPROPYLAMINE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
N-NITROSODIPHENYLAMINE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
NAPHTHALENE	UG/KG	210DYJ	380UYJ	440UYJ	370UY	370UY
NITROBENZENE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
PENTACHLOROPHENOL	UG/KG	2100UYJ	1900UYJ	2100UYJ	1800UY	1800UY
PHENANTHRENE	UG/KG	1300DYJ	63DYJ	89DYJ	370UY	370UY
PHENOL	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
PYRENE	UG/KG	1800DYJ	101DYJ	130DYJ	370UY	370UY
a-PINENE	UG/KG	430UYJ	380UYJ	440UYJ	370UY	370UY
d-LIMONENE	UG/KG	590DYJ	380UYJ	440UYJ	370UY	370UY

N.N+/ XXABCCEDD POSITIONALLY N=VALUE, (+/ xx ERROR FACTOR FOR RADS ONLY), E=EJECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
Y = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C11-01	C11-01	C11-01	C11-01D	C12-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C11	C11	C11	C11	C12
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	02/27/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	5.00	7.00	5.00	0.50
LOWER DEPTH:		5.00	7.00	9.00	7.00	2.50
1,2,4-TRICHLOROBENZENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
1,2-DICHLOROBENZENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
1,4-DICHLOROBENZENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2,4,5-TRICHLOROPHENOL	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
2,4,6-TRICHLOROPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2,4-DICHLOROPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2,4-DIMETHYLPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2,4-DINITROPHENOL	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
2,4-DINITROTOLUENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2,6-DINITROTOLUENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2-CHLORONAPHTHALENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2-CHLOROPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2-METHYLNAPHTHALENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2-METHYLPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
2-NITROANILINE	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
2-NITROPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
3,3'-DICHLOROBENZIDINE	UG/KG	830UYJ	780UYJ	780UYJ	770UYJ	720UY
3-NITROANILINE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	1700UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
4-CHLORO-3-METHYLPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
4-CHLOROANILINE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
4-METHYLPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
4-NITROANILINE	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
4-NITROPHENOL	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
ACENAPHTHENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
ACENAPHTHYLENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C11-01	C11-01	C11-01	C11-01D	C12-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C11	C11	C11	C11	C12
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	02/27/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	5.00	7.00	5.00	0.50
LOWER DEPTH:		5.00	7.00	9.00	7.00	2.50
ANTHRACENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BENZO(A)PYRENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BENZO(B)FLUORANTHENE	UG/KG	120DYJ	390UYJ	390UYJ	390UYJ	360UY
BENZO(GHI)PERYLENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BENZO(K)FLUORANTHENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BENZOIC ACID	UG/KG	2000UYJ	1900UYJ	1900UYJ	1900UYJ	1700UY
BENZYL ALCOHOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BENZYL BUTYL PHTHALATE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
CAFFEINE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
CHRYSENE	UG/KG	57DYJ	390UYJ	390UYJ	390UYJ	360UY
DI-N-BUTYL PHTHALATE	UG/KG	65DYJ	390UYJ	390UYJ	50DYJ	360UY
DI-N-OCTYL PHTHALATE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
DIBENZO(A,H)ANTHRACENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
DIBENZOFURAN	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
DIETHYL PHTHALATE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
DIMETHYL PHTHALATE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
FLUORANTHENE	UG/KG	84DYJ	390UYJ	390UYJ	390UYJ	360UY
FLUORENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
HEXACHLOROBENZENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
HEXACHLOROBUTADIENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
HEXACHLOROETHANE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
INDENO(1,2,3-CD)PYRENE	UG/KG	43DYJ	390UYJ	390UYJ	390UYJ	360UY
ISOPHORONE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	[illegible]UY

SAMPLE ID:		C11-01	C11-01	C11-01	C11-01D	C12-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C11	C11	C11	C11	C12
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	02/27/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	5.00	7.00	5.00	0.50
LOWER DEPTH:		5.00	7.00	9.00	7.00	2.50
N-NITROSODINPROPYLAMINE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
N-NITROSODIPHENYLAMINE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
NAPHTHALENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
NITROBENZENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
PENTACHLOROPHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	1700UY
PHENANTHRENE	UG/KG	45DYJ	1900UYJ	1900UYJ	1900UYJ	360UY
PHENOL	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
PYRENE	UG/KG	87DYJ	390UYJ	390UYJ	390UYJ	360UY
a-PINENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY
d-LIMONENE	UG/KG	420UYJ	390UYJ	390UYJ	390UYJ	360UY

NNN+/-XXABCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C12-01	C13-01	C13-01	C13-01	C14-01
SUB-SAMPLE ID:		B	A	B	C	A
STATION ID:		C12	C13	C13	C13	C14
SAMPLE DATE:		04/02/1992	03/30/1992	03/30/1992	03/30/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.50	1.00	3.00	5.00	2.00
LOWER DEPTH:		4.50	3.00	5.00	7.00	4.00
1,2,4-TRICHLOROBENZENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
1,2-DICHLOROBENZENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
1,4-DICHLOROBENZENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2,4-DICHLOROPHENOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2,4-DIMETHYLPHENOL	UG/KG	360UY	370UY	370UY	360UY	69DYJ
2,4-DINITROPHENOL	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
2,4-DINITROTOLUENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2,6-DINITROTOLUENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2-CHLORONAPHTHALENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2-CHLOROPHENOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2-METHYLNAPHTHALENE	UG/KG	360UY	370UY	370UY	360UY	240DYJ
2-METHYLPHENOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
2-NITROANILINE	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
2-NITROPHENOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	720UY	750UY	730UY	720UY	1100UYJ
3-NITROANILINE	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	360UY	370UY	370UY	360UY	540UYJ
4-CHLORO-3-METHYLPHENOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
4-CHLOROANILINE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	360UY	370UY	370UY	360UY	540UYJ
4-METHYLPHENOL	UG/KG	360UY	370UY	370UY	360UY	90DYJ
4-NITROANILINE	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
4-NITROPHENOL	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
ACENAPHTHENE	UG/KG	360UY	370UY	370UY	360UY	390DYJ
ACENAPHTHYLENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C12-01	C13-01	C13-01	C13-01	C14-01
SUB-SAMPLE ID:		B	A	B	C	A
STATION ID:		C12	C13	C13	C13	C14
SAMPLE DATE:		04/02/1992	03/30/1992	03/30/1992	03/30/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.50	1.00	3.00	5.00	2.00
LOWER DEPTH:		4.50	3.00	5.00	7.00	4.00
ANTHRACENE	UG/KG	360UY	370UY	370UY	360UY	610DYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	360UY	370UY	370UY	360UY	970DYJ
BENZO(A)PYRENE	UG/KG	360UY	370UY	370UY	360UY	870DYJ
BENZO(B)FLUORANTHENE	UG/KG	360UY	370UY	370UY	360UY	1600DYJ
BENZO(GHI)PERYLENE	UG/KG	360UY	370UY	370UY	360UY	410DYJ
BENZO(K)FLUORANTHENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
BENZOIC ACID	UG/KG	1700UY	1800UY	1800UY	1700UY	2600UYJ
BENZYL ALCOHOL	UG/KG	360UY	370UY	370UY	360UY	540UYJ
BENZYL BUTYL PHTHALATE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	360UY	370UY	370UY	360UY	540UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	360UY	370UY	370UY	360UY	540UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
CAFFEINE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
CHRYSENE	UG/KG	360UY	370UY	370UY	360UY	950DYJ
DI-N-BUTYL PHTHALATE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
DI-N-OCTYL PHTHALATE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	360UY	370UY	370UY	360UY	150DYJ
DIBENZOFURAN	UG/KG	360UY	370UY	370UY	360UY	310DYJ
DIETHYL PHTHALATE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
DIMETHYL PHTHALATE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
FLUORANTHENE	UG/KG	360UY	370UY	370UY	360UY	2400DYJ
FLUORENE	UG/KG	360UY	370UY	370UY	360UY	400DYJ
HEXACHLOROBENZENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
HEXACHLOROBUTADIENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
HEXACHLOROETHANE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	360UY	370UY	370UY	360UY	460DYJ
ISOPHORONE	UG/KG	360UY	370UY	370UY	360UY	540UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C12-01	C13-01	C13-01	C13-01	C14-01
SUB-SAMPLE ID:		B	A	B	C	A
STATION ID:		C12	C13	C13	C13	C14
SAMPLE DATE:		04/02/1992	03/30/1992	03/30/1992	03/30/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.50	1.00	3.00	5.00	2.00
LOWER DEPTH:		4.50	3.00	5.00	7.00	4.00
N-NITROSODINPROPYLAMINE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
N-NITROSODIPHENYLAMINE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
NAPHTHALENE	UG/KG	360UY	370UY	370UY	360UY	520DYJ
NITROBENZENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ
PENTACHLOROPHENOL	UG/KG	1700UY	1800UY	1800UY	1700UY	540UYJ
PHENANTHRENE	UG/KG	360UY	370UY	370UY	360UY	2700UYJ
PHENOL	UG/KG	360UY	370UY	370UY	360UY	150DYJ
PYRENE	UG/KG	360UY	370UY	370UY	360UY	1600DYJ
a-PINENE	UG/KG	360UY	370UYJ	370UY	360UY	540UYJ
d-LIMONENE	UG/KG	360UY	370UY	370UY	360UY	540UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C14-01	C15-01	C15-01	C15-01	C16-01
SUB-SAMPLE ID:		B	A	B	C	A
STATION ID:		C14	C15	C15	C15	C16
SAMPLE DATE:		03/31/1992	02/26/1992	02/26/1992	02/26/1992	04/01/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	0.00	3.00	5.00	1.50
LOWER DEPTH:		6.00	2.00	5.00	7.00	2.50
1,2,4-TRICHLOROBENZENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
1,2-DICHLOROBENZENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
1,4-DICHLOROBENZENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2,4,5-TRICHLOROPHENOL	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
2,4,6-TRICHLOROPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2,4-DICHLOROPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2,4-DIMETHYLPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2,4-DINITROPHENOL	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
2,4-DINITROTOLUENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2,6-DINITROTOLUENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2-CHLORONAPHTHALENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2-CHLOROPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2-METHYLNAPHTHALENE	UG/KG	370UY	360UYJ	53DYJ	380UYJ	500UY
2-METHYLPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
2-NITROANILINE	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
2-NITROPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
3,3'-DICHLOROBENZIDINE	UG/KG	740UY	730UYJ	970UYJ	750UYJ	1000UY
3-NITROANILINE	UG/KG	1800UY	360UYJ	480UYJ	380UYJ	2400UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
4-CHLORO-3-METHYLPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
4-CHLOROANILINE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
4-METHYLPHENOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
4-NITROANILINE	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
4-NITROPHENOL	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
ACENAPHTHENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
ACENAPHTHYLENE	UG/KG	370UY	360UYJ	53DYJ	380UYJ	500UY

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C14-01	C15-01	C15-01	C15-01	C16-01
SUB-SAMPLE ID:		B	A	B	C	A
STATION ID:		C14	C15	C15	C15	C16
SAMPLE DATE:		03/31/1992	02/26/1992	02/26/1992	02/26/1992	04/01/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	0.00	3.00	5.00	1.50
LOWER DEPTH:		6.00	2.00	5.00	7.00	2.50
ANTHRACENE	UG/KG	370UY	360UYJ	62DYJ	380UYJ	500UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	370UY	44DYJ	290DYJ	380UYJ	62DYJ
BENZO(A)PYRENE	UG/KG	370UY	51DYJ	300DYJ	380UYJ	51DYJ
BENZO(B)FLUORANTHENE	UG/KG	370UY	90DYJ	510DYJ	380UYJ	120DYJ
BENZO(GHI)PERYLENE	UG/KG	370UY	360UYJ	210DYJ	380UYJ	500UY
BENZO(K)FLUORANTHENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
BENZOIC ACID	UG/KG	1800UY	1800UYJ	2300UYJ	1800UYJ	2400UY
BENZYL ALCOHOL	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
BENZYL BUTYL PHTHALATE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	370UY	2600DYJ	480UYJ	380UYJ	500UY
CAFFEINE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	310DYJ
CHRYSENE	UG/KG	370UY	64DYJ	420DYJ	380UYJ	75DYJ
DI-N-BUTYL PHTHALATE	UG/KG	370UY	69DYJ	520DYJ	380UYJ	500UY
DI-N-OCTYL PHTHALATE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
DIBENZO(A,H)ANTHRACENE	UG/KG	370UY	360UYJ	76DYJ	380UYJ	500UY
DIBENZOFURAN	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
DIETHYL PHTHALATE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
DIMETHYL PHTHALATE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
FLUORANTHENE	UG/KG	370UY	93DYJ	590DYJ	380UYJ	140DYJ
FLUORENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
HEXACHLOROBENZENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
HEXACHLOROBUTADIENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
HEXACHLOROETHANE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
INDENO(1,2,3-CD)PYRENE	UG/KG	370UY	39DYJ	200DYJ	380UYJ	500UY
ISOPHORONE	UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C14-01	C15-01	C15-01	C15-01	C16-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C14	C15	C15	C15	C16
SAMPLE DATE:	03/31/1992	02/26/1992	02/26/1992	02/26/1992	04/01/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	0.00	3.00	5.00	1.50
LOWER DEPTH:	6.00	2.00	5.00	7.00	2.50
N-NITROSODINPROPYLAMINE UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
N-NITROSODIPHENYLAMINE UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
NAPHTHALENE UG/KG	370UY	360UYJ	54DYJ	380UYJ	500UY
NITROBENZENE UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UY
PENTACHLOROPHENOL UG/KG	1800UY	360UYJ	480UYJ	380UYJ	2400UY
PHENANTHRENE UG/KG	370UY	60DYJ	320DYJ	1800UYJ	100DYJ
PHENOL UG/KG	370UY	360UYJ	480UYJ	380UYJ	430DYJ
PYRENE UG/KG	370UY	140DYJ	620DYJ	380UYJ	110DYJ
a-PINENE UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UYJ
d-LIMONENE UG/KG	370UY	360UYJ	480UYJ	380UYJ	500UYJ

NNN+/ XXABCCCDD POSITIONALLY N VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C16-01	C16-01	C17-01	C17-01	C17-01
SUB-SAMPLE ID:		B	C	A	B	C
STATION ID:		C16	C16	C17	C17	C17
SAMPLE DATE:		04/01/1992	04/01/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.50	4.00	0.00	2.00	3.00
LOWER DEPTH:		4.00	5.50	2.00	3.00	4.00
1,2,4-TRICHLOROBENZENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
1,2-DICHLOROBENZENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
1,4-DICHLOROBENZENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2,4-DICHLOROPHENOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2,4-DIMETHYLPHENOL	UG/KG	630UY	400UY	77DYJ	510UYJ	390UYJ
2,4-DINITROPHENOL	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
2,4-DINITROTOLUENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2,6-DINITROTOLUENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2-CHLORONAPHTHALENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2-CHLOROPHENOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2-METHYLNAPHTHALENE	UG/KG	630UY	400UY	56DYJ	510UYJ	390UYJ
2-METHYLPHENOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
2-NITROANILINE	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
2-NITROPHENOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	1300UY	790UY	930UYJ	1000UYJ	780UYJ
3-NITROANILINE	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
4-CHLORO-3-METHYLPHENOL	UG/KG	630UY	400UY	87DYJ	510UYJ	390UYJ
4-CHLOROANILINE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
4-METHYLPHENOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
4-NITROANILINE	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
4-NITROPHENOL	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
ACENAPHTHENE	UG/KG	630UY	400UY	55DYJ	510UYJ	390UYJ
ACENAPHTHYLENE	UG/KG	630UY	400UY	190DYJ	140DYJ	390UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C16-01	C16-01	C17-01	C17-01	C17-01
SUB-SAMPLE ID:		B	C	A	B	C
STATION ID:		C16	C16	C17	C17	C17
SAMPLE DATE:		04/01/1992	04/01/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.50	4.00	0.00	2.00	3.00
LOWER DEPTH:		4.00	5.50	2.00	3.00	4.00
ANTHRACENE	UG/KG	630UY	400UY	460UYJ	58DYJ	390UYJ
BENZO (B&K) FLUORANTHENE	UG/KG			1100DYJ	540DYJ	
BENZO(A)ANTHRACENE	UG/KG	140DYJ	400UY	440DYJ	200DYJ	390UYJ
BENZO(A)PYRENE	UG/KG	140DYJ	400UY	530DYJ	270DYJ	390UYJ
BENZO(B)FLUORANTHENE	UG/KG	300DYJ	400UY			390UYJ
BENZO(GHI)PERYLENE	UG/KG	110UY	400UY	490DYJ	270DYJ	390UYJ
BENZO(K)FLUORANTHENE	UG/KG	630UY	400UY			390UYJ
BENZOIC ACID	UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
BENZYL ALCOHOL	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
BENZYL BUTYL PHTHALATE	UG/KG	630UY	400UY	360DYJ	560DYJ	2500DYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	630UY	400UY	430DYJ	620DYJ	2500DYJ
CAFFEINE	UG/KG	860DYJ	400UY	460UYJ	510UYJ	390UYJ
CHRYSENE	UG/KG	190DYJ	400UY	630DYJ	320DYJ	390UYJ
DI-N-BUTYL PHTHALATE	UG/KG	630UY	400UY	460UYJ	120DYJ	220DYJ
DI-N-OCTYL PHTHALATE	UG/KG	630UY	400UY	70DYJ	130DYJ	790DYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	630UY	400UY	200DYJ	70DYJ	390UYJ
DIBENZOFURAN	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
DIETHYL PHTHALATE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
DIMETHYL PHTHALATE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
FLUORANTHENE	UG/KG	380DYJ	400UY	630DYJ	430DYJ	390UYJ
FLUORENE	UG/KG	630UY	400UY	58DYJ	510UYJ	390UYJ
HEXACHLOROBENZENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
HEXACHLOROBUTADIENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
HEXACHLOROETHANE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	100DYJ	400UY	440DYJ	230DYJ	390UYJ
ISOPHORONE	UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C16-01	C16-01	C17-01	C17-01	C17-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C16	C16	C17	C17	C17
SAMPLE DATE:	04/01/1992	04/01/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.00	0.00	2.00	3.00
LOWER DEPTH:	4.00	5.50	2.00	3.00	4.00
N-NITROSODINPROPYLAMINE UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
N-NITROSODIPHENYLAMINE UG/KG	630UY	400UY	610DYJ	510UYJ	390UYJ
NAPHTHALENE UG/KG	630UY	400UY	49DYJ	510UYJ	390UYJ
NITROBENZENE UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
PENTACHLOROPHENOL UG/KG	3000UY	1900UY	2200UYJ	2500UYJ	1900UYJ
PHENANTHRENE UG/KG	260DYJ	400UY	450DYJ	220DYJ	390UYJ
PHENOL UG/KG	630UY	400UY	460UYJ	510UYJ	390UYJ
PYRENE UG/KG	270DYJ	400UY	1100DYJ	610DYJ	390UYJ
a-PINENE UG/KG	630UYJ	400UYJ	460UYJ	510UYJ	390UYJ
d-LIMONENE UG/KG	630UYJ	400UYJ	460UYJ	510UYJ	390UYJ

NNN+/-XXABCCCDD = ITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C18-01	C18-01	C19-01	C19-01	C19-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C18	C18	C19	C19	C19
SAMPLE DATE:	04/07/1992	04/07/1992	04/08/1992	04/08/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	0.00	2.00	4.00
LOWER DEPTH:	2.00	4.00	2.00	4.00	6.00
1,2,4-TRICHLOROBENZENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
1,2-DICHLOROBENZENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
1,4-DICHLOROBENZENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2,4,5-TRICHLOROPHENOL UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
2,4,6-TRICHLOROPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2,4-DICHLOROPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2,4-DIMETHYLPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2,4-DINITROPHENOL UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
2,4-DINITROTOLUENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2,6-DINITROTOLUENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2-CHLORONAPHTHALENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2-CHLOROPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2-METHYLNAPHTHALENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2-METHYLPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
2-NITROANILINE UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
2-NITROPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
3,3'-DICHLOROBENZIDINE UG/KG	880UYJ	730UYJ	970UYJ	760UYJ	760UYJ
3-NITROANILINE UG/KG	2100UYJ	UYR	UYR	1800UYJ	1800UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
4-CHLOROANILINE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
4-METHYLPHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
4-NITROANILINE UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
4-NITROPHENOL UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
ACENAPHTHENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
ACENAPHTHYLENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ

NNN*/ XXABCCCDD POSITIONALLY N-VALUE, (*/ XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C18-01	C18-01	C19-01	C19-01	C19-01
SUB-SAMPLE ID:		A	B	A	B	C
STATION ID:		C18	C18	C19	C19	C19
SAMPLE DATE:		04/07/1992	04/07/1992	04/08/1992	04/08/1992	04/08/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	2.00	0.00	2.00	4.00
LOWER DEPTH:		2.00	4.00	2.00	4.00	6.00
ANTHRACENE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
BENZO (B&K) FLUORANTHENE	UG/KG			190DYJ		
BENZO(A)ANTHRACENE	UG/KG	57DYJ	370UYJ	480UYJ	380UYJ	380UYJ
BENZO(A)PYRENE	UG/KG	54DYJ	370UYJ	85DYJ	380UYJ	380UYJ
BENZO(B)FLUORANTHENE	UG/KG	130DYJ	370UYJ		380UYJ	380UYJ
BENZO(GHI)PERYLENE	UG/KG	440UYJ	42DYJ	53DYJ	380UYJ	380UYJ
BENZO(K)FLUORANTHENE	UG/KG	UYR	370UYJ		380UYJ	380UYJ
BENZOIC ACID	UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
BENZYL ALCOHOL	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
BENZYL BUTYL PHTHALATE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	74DYJ	780DYJ	110DYJ	380UYJ	110DYJ
CAFFEINE	UG/KG	1600DYJ	370UYJ	1200DYJ	380UY'	380UYJ
CHRYSENE	UG/KG	81DYJ	370UYJ	130DYJ	380UYJ	380UYJ
DI-N-BUTYL PHTHALATE	UG/KG	49DYJ	370UYJ	69DYJ	51DYJ	110DYJ
DI-N-OCTYL PHTHALATE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	440UYJ	38DYJ	480UYJ	380UYJ	380UYJ
DIBENZOFURAN	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
DIETHYL PHTHALATE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
DIMETHYL PHTHALATE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
FLUORANTHENE	UG/KG	120DYJ	370UYJ	230DYJ	380UYJ	380UYJ
FLUORENE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
HEXACHLOROBENZENE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
HEXACHLOROBUTADIENE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
HEXACHLOROETHANE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
ISOPHORONE	UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C18-01	C18-01	C19-01	C19-01	C19-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C18	C18	C19	C19	C19
SAMPLE DATE:	04/07/1992	04/07/1992	04/08/1992	04/08/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	0.00	2.00	4.00
LOWER DEPTH:	2.00	4.00	2.00	4.00	6.00
N-NITROSODINPROPYLAMINE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
N-NITROSODIPHENYLAMINE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
NAPHTHALENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
NITROBENZENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
PENTACHLOROPHENOL UG/KG	2100UYJ	1800UYJ	2300UYJ	1800UYJ	1800UYJ
PHENANTHRENE UG/KG	94DYJ	370UYJ	170DYJ	380UYJ	380UYJ
PHENOL UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
PYRENE UG/KG	150DYJ	370UYJ	250DYJ	380UYJ	380UYJ
a-PINENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ
d-LIMONENE UG/KG	440UYJ	370UYJ	480UYJ	380UYJ	380UYJ

NNN+/ XXABCCCOD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C20-01	C20-01	C20-01	C21-01	C21-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C20	C20	C20	C21	C21
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.50	6.50	0.00	2.00
LOWER DEPTH:	4.50	6.50	8.50	2.00	4.00
1,2,4-TRICHLOROBENZENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
1,2-DICHLOROBENZENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
1,4-DICHLOROBENZENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2,4,5-TRICHLOROPHENOL UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
2,4,6-TRICHLOROPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2,4-DICHLOROPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2,4-DIMETHYLPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2,4-DINITROPHENOL UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
2,4-DINITROTOLUENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2,6-DINITROTOLUENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2-CHLORONAPHTHALENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2-CHLOROPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2-METHYLNAPHTHALENE UG/KG	740UY	130DYJ	1700DY	510UYJ	500UYJ
2-METHYLPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
2-NITROANILINE UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
2-NITROPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
3,3'-DICHLOROBENZIDINE UG/KG	1500UY	1400UY	1400UY	1000UYJ	1000UYJ
3-NITROANILINE UG/KG	740UY	720UY	840UY	2500UYJ	UYR
4,6-DINITRO-2-METHYLPHENOL UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
4-CHLOROANILINE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
4-METHYLPHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
4-NITROANILINE UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
4-NITROPHENOL UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
ACENAPHTHENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
ANTHRACENE UG/KG	740UY	1000DY	840UY	510UYJ	69DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C20-01	C20-01	C20-01	C21-01	C21-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C20	C20	C20	C21	C21
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.50	6.50	0.00	2.00
LOWER DEPTH:	4.50	6.50	8.50	2.00	4.00
ANTHRACENE UG/KG	740UY	140DYJ	840UY	510UYJ	62DYJ
BENZO (B&K) FLUORANTHENE UG/KG				110DYJ	390DYJ
BENZO(A)ANTHRACENE UG/KG	740UY	800DY	840UY	510UYJ	150DYJ
BENZO(A)PYRENE UG/KG	740UY	2300DY	840UY	65DYJ	190DYJ
BENZO(B)FLUORANTHENE UG/KG	740UY	4500DY	109DYJ		
BENZO(GHI)PERYLENE UG/KG	740UY	720UY	840UY	510UYJ	130DYJ
BENZO(K)FLUORANTHENE UG/KG	740UY	720UY	840UY		
BENZOIC ACID UG/KG	3700UY	3500UY	4100UY	2500UYJ	2400UYJ
BENZYL ALCOHOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
BENZYL BUTYL PHTHALATE UG/KG	740UY	720UY	840UY	510UYJ	260DYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
BIS(2-CHLOROETHYL)ETHER UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	740UY	720UY	840UY	110DYJ	310DYJ
CAFFEINE UG/KG	740UYJ	720UYJ	840UYJ	510UYJ	86DYJ
CHRYSENE UG/KG	740UY	1200DY	840UY	79DYJ	240DYJ
DI-N-BUTYL PHTHALATE UG/KG	740UY	720UY	840UY	510UYJ	100DYJ
DI-N-OCTYL PHTHALATE UG/KG	740UY	720UY	840UY	510UYJ	72DYJ
DIBENZO(A,H)ANTHRACENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
DIBENZOFURAN UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
DIETHYL PHTHALATE UG/KG	740UY	720UY	840UY	510UYJ	59DYJ
DIMETHYL PHTHALATE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
FLUORANTHENE UG/KG	740UY	560DYJ	840UY	89DYJ	300DYJ
FLUORENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
HEXACHLOROBENZENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
HEXACHLOROBUTADIENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
HEXACHLOROCYCLOPENTADIENE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
HEXACHLOROETHANE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
INDENO(1,2,3-CD)PYRENE UG/KG	740UY	2400DY	840UY	510UYJ	130DYJ
ISOPHORONE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C20-01	C20-01	C20-01	C21-01	C21-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C20	C20	C20	C21	C21
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.50	6.50	0.00	2.00
LOWER DEPTH:	4.50	6.50	8.50	2.00	4.00
N-NITROSODINPROPYLAMINE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
N-NITROSODIPHENYLAMINE UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
NAPHTHALENE UG/KG	740UY	170DYJ	2500DY	510UYJ	500UYJ
NITROBENZENE UG/KG	740UY	290DYJ	840UY	510UYJ	500UYJ
PENTACHLOROPHENOL UG/KG	740UY	720UY	840UY	2500UYJ	2400UYJ
PHENANTHRENE UG/KG	3700UY	96DYJ	4100UY	79DYJ	230DYJ
PHENOL UG/KG	740UY	720UY	840UY	510UYJ	500UYJ
PYRENE UG/KG	740UY	1300DY	840UY	110DYJ	360DYJ
a-PINENE UG/KG	740UYJ	720UYJ	840UYJ	510UYJ	500UYJ
d-LIMONENE UG/KG	740UYJ	720UYJ	840UYJ	510UYJ	500UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C22-01	C22-01	C22-01	C23-01	C23-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C22	C22	C22	C23	C23
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	0.00	4.00
LOWER DEPTH:		3.00	5.00	7.00	2.00	6.00
1,2,4-TRICHLOROBENZENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
1,2-DICHLOROBENZENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
1,4-DICHLOROBENZENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2,4,5-TRICHLOROPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
2,4,6-TRICHLOROPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2,4-DICHLOROPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2,4-DIMETHYLPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2,4-DINITROPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
2,4-DINITROTOLUENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2,6-DINITROTOLUENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2-CHLORONAPHTHALENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2-CHLOROPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2-METHYLNAPHTHALENE	UG/KG	360UYJ	370UYJ	370UYJ	130DYJ	380UY
2-METHYLPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
2-NITROANILINE	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
2-NITROPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
3,3'-DICHLOROBENZIDINE	UG/KG	730UYJ	740UYJ	730UYJ	850UY	760UY
3-NITROANILINE	UG/KG	360UYJ	370UYJ	370UYJ	2100UY	1800UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
4-CHLORO-3-METHYLPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
4-CHLOROANILINE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
4-METHYLPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
4-NITROANILINE	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
4-NITROPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
ACENAPHTHENE	UG/KG	360UYJ	370UYJ	370UYJ	450DY	380UY
ACENAPHTHYLENE	UG/KG	360UYJ	370UYJ	370UYJ	940DY	380UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C22-01	C22-01	C22-01	C23-01	C23-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C22	C22	C22	C23	C23
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	0.00	4.00
LOWER DEPTH:		3.00	5.00	7.00	2.00	6.00
ANTHRACENE	UG/KG	360UYJ	370UYJ	370UYJ	1200DY	380UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	360UYJ	41DYJ	370UYJ	3400DY	380UY
BENZO(A)PYRENE	UG/KG	360UYJ	370UYJ	370UYJ	3100DY	380UY
BENZO(B)FLUORANTHENE	UG/KG	360UYJ	60DYJ	370UYJ	3500DY	42DYJ
BENZO(GHI)PERYLENE	UG/KG	360UYJ	370UYJ	370UYJ	2700DY	380UY
BENZO(K)FLUORANTHENE	UG/KG	360UYJ	370UYJ	370UYJ	4100DY	49DYJ
BENZOIC ACID	UG/KG	1800UYJ	1800UYJ	1800UYJ	2100UY	1800UY
BENZYL ALCOHOL	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
BENZYL BUTYL PHTHALATE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	360UYJ	370UYJ	370UYJ	93DYJ	380UY
CAFFEINE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
CHRYSENE	UG/KG	360UYJ	41DYJ	370UYJ	3600DY	49DYJ
DI-N-BUTYL PHTHALATE	UG/KG	360UYJ	54DYJ	38DYJ	420UY	380UY
DI-N-OCTYL PHTHALATE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
DIBENZO(A,H)ANTHRACENE	UG/KG	360UYJ	370UYJ	370UYJ	1200DY	380UY
DIBENZOFURAN	UG/KG	360UYJ	370UYJ	370UYJ	230DYJ	380UY
DIETHYL PHTHALATE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
DIMETHYL PHTHALATE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
FLUORANTHENE	UG/KG	360UYJ	55DYJ	370UYJ	6400DY	48DYJ
FLUORENE	UG/KG	360UYJ	370UYJ	370UYJ	590DY	380UY
HEXACHLOROBENZENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
HEXACHLOROBUTADIENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
HEXACHLOROETHANE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
INDENO(1,2,3-CD)PYRENE	UG/KG	360UYJ	370UYJ	370UYJ	2900DY	380UY
ISOPHORONE	UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C22-01	C22-01	C22-01	C23-01	C23-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C22	C22	C22	C23	C23
SAMPLE DATE:	02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	0.00	4.00
LOWER DEPTH:	3.00	5.00	7.00	2.00	6.00
N-NITROSODINPROPYLAMINE UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
N-NITROSODIPHENYLAMINE UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
NAPHTHALENE UG/KG	360UYJ	370UYJ	370UYJ	85DYJ	380UY
NITROBENZENE UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
PENTACHLOROPHENOL UG/KG	360UYJ	370UYJ	370UYJ	2100UY	1800UY
PHENANTHRENE UG/KG	1800UYJ	1800UYJ	1800UYJ	5100DY	380UY
PHENOL UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
PYRENE UG/KG	360UYJ	59DYJ	370UYJ	6800DYJ	57DYJ
a-PINENE UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY
d-LIMONENE UG/KG	360UYJ	370UYJ	370UYJ	420UY	380UY

NNN*/ XXABCCCDD POSITIONALLY N=VALUE, (*/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C23-01D	C24-01	C24-01	C25-01	C25-01
SUB-SAMPLE ID:		DUP	A	B	A	B
STATION ID:		C23	C24	C24	C25	C25
SAMPLE DATE:		04/02/1992	04/07/1992	04/07/1992	02/26/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	2.00	4.00	0.50	4.50
LOWER DEPTH:		6.00	4.00	6.00	2.50	6.50
1,2,4-TRICHLOROBENZENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
1,2-DICHLOROBENZENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
1,4-DICHLOROBENZENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2,4-DICHLOROPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2,4-DIMETHYLPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2,4-DINITROPHENOL	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
2,4-DINITROTOLUENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2,6-DINITROTOLUENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2-CHLORONAPHTHALENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2-CHLOROPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
2-METHYLNAPHTHALENE	UG/KG	370UY	520UYJ	380UYJ	2600DYJ	2700DYJ
2-METHYLPHENOL	UG/KG	370UY	300DYJ	380UYJ	390UYJ	380UYJ
2-NITROANILINE	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
2-NITROPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	740UY	1000UYJ	770UYJ	780UYJ	760UYJ
3-NITROANILINE	UG/KG	1800UY	UYR	1900UYJ	390UYJ	380UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
4-CHLORO-3-METHYLPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
4-CHLOROANILINE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
4-METHYLPHENOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
4-NITROANILINE	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
4-NITROPHENOL	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
ACENAPHTHENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
ACENAPHTHYLENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C23-01D	C24-01	C24-01	C25-01	C25-01
SUB-SAMPLE ID:		DUP	A	B	A	B
STATION ID:		C23	C24	C24	C25	C25
SAMPLE DATE:		04/02/1992	04/07/1992	04/07/1992	02/26/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	2.00	4.00	0.50	4.50
LOWER DEPTH:		6.00	4.00	6.00	2.50	6.50
ANTHRACENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BENZO (B&K) FLUORANTHENE	UG/KG		85DYJ			
BENZO(A)ANTHRACENE	UG/KG	370UY	520UYJ	380UYJ	46DYJ	380UYJ
BENZO(A)PYRENE	UG/KG	370UY	520UYJ	380UYJ	55DYJ	380UYJ
BENZO(B)FLUORANTHENE	UG/KG	370UY		380UYJ	93DYJ	380UYJ
BENZO(GHI)PERYLENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BENZO(K)FLUORANTHENE	UG/KG	370UY		380UYJ	390UYJ	380UYJ
BENZOIC ACID	UG/KG	1800UY	2500UYJ	1900UYJ	1900UYJ	1800UYJ
BENZYL ALCOHOL	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BENZYL BUTYL PHTHALATE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	370UY	130DYJ	380UYJ	390UYJ	380UYJ
CAFFEINE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
CHRYSENE	UG/KG	370UY	520UYJ	380UYJ	75DYJ	380UYJ
DI-N-BUTYL PHTHALATE	UG/KG	370UY	58DYJ	380UYJ	390UYJ	55DYJ
DI-N-OCTYL PHTHALATE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
DIBENZOFURAN	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
DIETHYL PHTHALATE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
DIMETHYL PHTHALATE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
FLUORANTHENE	UG/KG	41DYJ	97DYJ	380UYJ	120DYJ	380UYJ
FLUORENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	41DYJ
HEXACHLOROBENZENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
HEXACHLOROBUTADIENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
HEXACHLOROETHANE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
ISOPHORONE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, undetected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C23-01D	C24-01	C24-01	C25-01	C25-01
SUB-SAMPLE ID:		DUP	A	B	A	B
STATION ID:		C23	C24	C24	C25	C25
SAMPLE DATE:		04/02/1992	04/07/1992	04/07/1992	02/26/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	2.00	4.00	0.50	4.50
LOWER DEPTH:		6.00	4.00	6.00	2.50	6.50
N-NITROSODINPROPYLAMINE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
N-NITROSODIPHENYLAMINE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
NAPHTHALENE	UG/KG	370UY	520UYJ	380UYJ	3500DYJ	3300DYJ
NITROBENZENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
PENTACHLOROPHENOL	UG/KG	1800UY	2500UYJ	1900UYJ	390UYJ	380UYJ
PHENANTHRENE	UG/KG	370UY	57DYJ	380UYJ	91DYJ	40DYJ
PHENOL	UG/KG	370UY	2200DYJ	380UYJ	390UYJ	380UYJ
PYRENE	UG/KG	42DYJ	89DYJ	380UYJ	120DYJ	380UYJ
a-PINENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ
d-LIMONENE	UG/KG	370UY	520UYJ	380UYJ	390UYJ	380UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C25-01	C26-01	C26-01	C26-01	C27-01
SUB-SAMPLE ID:	C	A	B	C	A
STATION ID:	C25	C26	C26	C26	C27
SAMPLE DATE:	02/26/1992	02/24/1992	02/24/1992	02/24/1992	02/25/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	8.50	0.00	2.00	4.00	2.00
LOWER DEPTH:	10.50	2.00	4.00	6.00	4.00
1,2,4-TRICHLOROBENZENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
1,2-DICHLOROBENZENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
1,4-DICHLOROBENZENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1900UYJ	1900UYJ	1800UYJ	1800UYJ	2900UYJ
2,4,6-TRICHLOROPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2,4-DICHLOROPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2,4-DIMETHYLPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2,4-DINITROPHENOL UG/KG	1900UY	1900UYJ	1800UYJ	1800UYJ	2900UYJ
2,4-DINITROTOLUENE UG/KG	380UY,	390UYJ	370UYJ	360UYJ	600UYJ
2,6-DINITROTOLUENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2-CHLORONAPHTHALENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2-CHLOROPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2-METHYLNAPHTHALENE UG/KG	13000DYJ	390UYJ	370UYJ	360UYJ	70DYJ
2-METHYLPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
2-NITROANILINE UG/KG	1900UYJ	1900UYJ	1800UYJ	1800UYJ	2900UYJ
2-NITROPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
3,3'-DICHLOROBENZIDINE UG/KG	760UYJ	780UYJ	730UYJ	730UYJ	1200UYJ
3-NITROANILINE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	1900UYJ	1900UYJ	1800UYJ	1800UYJ	2900UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
4-CHLOROANILINE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
4-METHYLPHENOL UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
4-NITROANILINE UG/KG	1900UYJ	1900UYJ	1800UYJ	1800UYJ	2900UYJ
4-NITROPHENOL UG/KG	1900UYJ	1900UYJ	1800UYJ	1800UYJ	2900UYJ
ACENAPHTHENE UG/KG	400DYJ	390UYJ	370UYJ	360UYJ	240DYJ
ACENAPHTHYLENE UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	1040DYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C25-01	C26-01	C26-01	C26-01	C27-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C25	C26	C26	C26	C27
SAMPLE DATE:		02/26/1992	02/24/1992	02/24/1992	02/24/1992	02/25/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		8.50	0.00	2.00	4.00	2.00
LOWER DEPTH:		10.50	2.00	4.00	6.00	4.00
ANTHRACENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	1060DYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	3400DYJ
BENZO(A)PYRENE	UG/KG	380UYJ	52DYJ	370UYJ	360UYJ	3300DYJ
BENZO(B)FLUORANTHENE	UG/KG	380UYJ	130DYJ	370UYJ	360UYJ	5200DYJ
BENZO(GHI)PERYLENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	2100DYJ
BENZO(K)FLUORANTHENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
BENZOIC ACID	UG/KG	1900UYJ	1900UYJ	1800UYJ	1800UYJ	2900UYJ
BENZYL ALCOHOL	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
BENZYL BUTYL PHTHALATE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
BIS(2-CHLOROETHYL) ETHER	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
CAFFEINE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
CHRYSENE	UG/KG	380UYJ	56DYJ	370UYJ	360UYJ	3600DYJ
DI-N-BUTYL PHTHALATE	UG/KG	60DYJ	760UYJ	470UYJ	580UYJ	120UYJ
DI-N-OCTYL PHTHALATE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	180DYJ
DIBENZOFURAN	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	200DYJ
DIETHYL PHTHALATE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	110DYJ
DIMETHYL PHTHALATE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
FLUORANTHENE	UG/KG	380UYJ	97DYJ	370UYJ	360UYJ	6300DYJ
FLUORENE	UG/KG	110DYJ	390UYJ	370UYJ	360UYJ	430DYJ
HEXACHLOROBENZENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
HEXACHLOROBUTADIENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
HEXACHLOROETHANE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	2200DYJ
ISOPHORONE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C25-01	C26-01	C26-01	C26-01	C27-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C25	C26	C26	C26	C27
SAMPLE DATE:		02/26/1992	02/24/1992	02/24/1992	02/24/1992	02/25/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		8.50	0.00	2.00	4.00	2.00
LOWER DEPTH:		10.50	2.00	4.00	6.00	4.00
N-NITROSODINPROPYLAMINE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
N-NITROSODIPHENYLAMINE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
NAPHTHALENE	UG/KG	10800DYJ	390UYJ	370UYJ	360UYJ	86DYJ
NITROBENZENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
PENTACHLOROPHENOL	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
PHENANTHRENE	UG/KG	90DYJ	1900UYJ	1800UYJ	1800UYJ	4100DYJ
PHENOL	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
PYRENE	UG/KG	52DYJ	390UYJ	370UYJ	360UYJ	5900DYJ
a-PINENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ
d-LIMONENE	UG/KG	380UYJ	390UYJ	370UYJ	360UYJ	600UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C27-01	C27-01	C28-01	C28-01	C28-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C27	C27	C28	C28	C28
SAMPLE DATE:	02/25/1992	02/25/1992	02/20/1992	02/20/1992	02/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	6.00	3.00	5.00	7.00
LOWER DEPTH:	6.00	8.00	5.00	7.00	9.00
1,2,4-TRICHLOROBENZENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
1,2-DICHLOROBENZENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
1,4-DICHLOROBENZENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2,4,5-TRICHLOROPHENOL UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
2,4,6-TRICHLOROPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2,4-DICHLOROPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2,4-DIMETHYLPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2,4-DINITROPHENOL UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
2,4-DINITROTOLUENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2,6-DINITROTOLUENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2-CHLORONAPHTHALENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2-CHLOROPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2-METHYLNAPHTHALENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2-METHYLPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
2-NITROANILINE UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
2-NITROPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
3,3'-DICHLOROBENZIDINE UG/KG	780UYJ	760UYJ	710UY	730UY	730UY
3-NITROANILINE UG/KG	390UYJ	380UYJ	360UY	370UYJ	370UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
4-BROMOPHENYL PHENYL ETHER UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
4-CHLORO-METHYLPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
CHLOROANILINE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
4-METHYLPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
4-NITROANILINE UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
4-NITROPHENOL UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
ACENAPHTHENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
ACENAPHTHYLENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C27-01	C27-01	C28-01	C28-01	C28-01
SUB-SAMPLE ID:		B	C	A	B	C
STATION ID:		C27	C27	C28	C28	C28
SAMPLE DATE:		02/25/1992	02/25/1992	02/20/1992	02/20/1992	02/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	6.00	3.00	5.00	7.00
LOWER DEPTH:		6.00	8.00	5.00	7.00	9.00
ANTHRACENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	390UYJ	109DYJ	360UY	370UY	370UY
BENZO(A)PYRENE	UG/KG	390UYJ	110DYJ	360UY	370UY	370UY
BENZO(B)FLUORANTHENE	UG/KG	390UYJ	180DYJ	360UY	370UY	370UY
BENZO(GHI)PERYLENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BENZO(K)FLUORANTHENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BENZOIC ACID	UG/KG	1900UYJ	1800UYJ	1700UY	1800UY	1800UY
BENZYL ALCOHOL	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BENZYL BUTYL PHTHALATE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	390UYJ	380UYJ	360UY	370UYJ	370UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	390UYJ	54DYJ	360UY	370UY	370UY
CAFFEINE	UG/KG	390UYJ	380UYJ	360UYJ	370UYJ	370UYJ
CHRYSENE	UG/KG	390UYJ	120DYJ	360UY	370UY	370UY
DI-N-BUTYL PHTHALATE	UG/KG	59DYJ	46DYJ	360UY	370UY	370UY
DI-N-OCTYL PHTHALATE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
DIBENZO(A,H)ANTHRACENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
DIBENZOFURAN	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
DIETHYL PHTHALATE	UG/KG	40DYJ	380UYJ	360UY	370UY	370UY
DIMETHYL PHTHALATE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
FLUORANTHENE	UG/KG	390UYJ	180DYJ	360UY	370UY	370UY
FLUORENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
HEXACHLOROBENZENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
HEXACHLOROBUTADIENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
HEXACHLOROETHANE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
INDENO(1,2,3 CD)PYRENE	UG/KG	390UYJ	97DYJ	360UY	370UY	370UY
ISOPHORONE	UG/KG	390UYJ	380UYJ	360UY	370UY	370UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C27-01	C27-01	C28-01	C28-01	C28-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C27	C27	C28	C28	C28
SAMPLE DATE:	02/25/1992	02/25/1992	02/20/1992	02/20/1992	02/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	6.00	3.00	5.00	7.00
LOWER DEPTH:	6.00	8.00	5.00	7.00	9.00
N-NITROSODINPROPYLAMINE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
N-NITROSODIPHENYLAMINE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
NAPHTHALENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
NITROBENZENE UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
PENTACHLOROPHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
PHENANTHRENE UG/KG	1900UYJ	58DYJ	1700UY	1800UY	1800UY
PHENOL UG/KG	390UYJ	380UYJ	360UY	370UY	370UY
PYRENE UG/KG	390UYJ	160DYJ	360UY	370UY	43DYJ
a-PINENE UG/KG	390UYJ	380UYJ	360UY	370UYJ	370UY
d-LIMONENE UG/KG	390UYJ	380UYJ	360UYJ	370UYJ	370UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C29-01	C29-01	C29-01	C29-01D	C30-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C29	C29	C29	C29	C30
SAMPLE DATE:		04/01/1992	04/01/1992	04/01/1992	04/01/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	5.00	7.00	5.00	1.00
LOWER DEPTH:		3.00	7.00	9.00	7.00	3.00
1,2,4-TRICHLOROBENZENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
1,2-DICHLOROBENZENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
1,4-DICHLOROBENZENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2,4-DICHLOROPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2,4-DIMETHYLPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2,4-DINITROPHENOL	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
2,4-DINITROTOLUENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2,6-DINITROTOLUENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2-CHLORONAPHTHALENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2-CHLOROPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2-METHYLNAPHTHALENE	UG/KG	59DYJ	370UY	380UY	370UY	360UYJ
2-METHYLPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
2-NITROANILINE	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
2-NITROPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	940UY	750UY	770UY	750UYJ	730UYJ
3-NITROANILINE	UG/KG	2300UY	1800UY	1900UY	1800UY	360UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	470UY	370UY	380UY	370UY	360UYJ
4 CHLORO-3-METHYLPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
4-CHLOROANILINE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	470UY	370UY	380UY	370UY	360UYJ
4-METHYLPHENOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
4-NITROANILINE	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
4 NITROPHENOL	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
ACENAPHTHENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
ACENAPHTHYLENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ

NNN+/ XXABCCCDD POSITIONALLY N VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C29-01	C29-01	C29-01	C29-01D	C30-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C29	C29	C29	C29	C30
SAMPLE DATE:		04/01/1992	04/01/1992	04/01/1992	04/01/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	5.00	7.00	5.00	1.00
LOWER DEPTH:		3.00	7.00	9.00	7.00	3.00
ANTHRACENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	160DYJ	370UY	380UY	370UY	360UYJ
BENZO(A)PYRENE	UG/KG	160DYJ	370UY	380UY	370UYJ	360UYJ
BENZO(B)FLUORANTHENE	UG/KG	340DYJ	370UY	380UY	370UYJ	360UYJ
BENZO(GHI)PERYLENE	UG/KG	140DYJ	370UY	380UY	370UYJ	360UYJ
BENZO(K)FLUORANTHENE	UG/KG	470UY	370UY	380UY	370UYJ	360UYJ
BENZOIC ACID	UG/KG	2300UY	1800UY	1900UY	1800UY	1800UYJ
BENZYL ALCOHOL	UG/KG	470UY	370UY	380UY	370UY	360UYJ
BENZYL BUTYL PHTHALATE	UG/KG	470UY	370UY	380UY	820UYJ	360UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	470UY	370UY	380UY	370UY	360UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	470UY	370UY	380UY	370UY	360UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	470UY	370UY	380UY	850UYJ	360UYJ
CAFFEINE	UG/KG	700DYJ	370UY	380UY	370UY	360UYJ
CHRYSENE	UG/KG	220DYJ	370UY	380UY	370UYJ	360UYJ
DI-N-BUTYL PHTHALATE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
DI-N-OCTYL PHTHALATE	UG/KG	470UY	370UY	380UY	370UYJ	360UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	56DYJ	370UY	380UY	370UYJ	360UYJ
DIBENZOFURAN	UG/KG	470UY	370UY	380UY	370UY	360UYJ
DIETHYL PHTHALATE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
DIMETHYL PHTHALATE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
FLUORANTHENE	UG/KG	550DY	370UY	380UY	370UY	360UYJ
FLUORENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
HEXACHLOROBENZENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
HEXACHLOROBUTADIENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
HEXACHLOROETHANE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	130DYJ	370UY	380UY	370UYJ	360UYJ
ISOPHORONE	UG/KG	470UY	370UY	380UY	370UY	360UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
IN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C29-01	C29-01	C29-01	C29-01D	C30-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C29	C29	C29	C29	C30
SAMPLE DATE:		04/01/1992	04/01/1992	04/01/1992	04/01/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	5.00	7.00	5.00	1.00
LOWER DEPTH:		3.00	7.00	9.00	7.00	3.00
N-NITROSODINPROPYLAMINE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
N-NITROSODIPHENYLAMINE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
NAPHTHALENE	UG/KG	62DYJ	370UY	380UY	370UY	360UYJ
NITROBENZENE	UG/KG	470UY	370UY	380UY	370UY	360UYJ
PENTACHLOROPHENOL	UG/KG	2300UY	1800UY	1900UY	1800UY	360UYJ
PHENANTHRENE	UG/KG	320DYJ	370UY	380UY	370UY	1800UYJ
PHENOL	UG/KG	800DY	370UY	380UY	370UY	360UYJ
PYRENE	UG/KG	280DYJ	370UY	380UY	370UYJ	360UYJ
a-PINENE	UG/KG	470UYJ	370UYJ	380UY	370UYJ	360UYJ
d-LIMONENE	UG/KG	470UYJ	370UYJ	380UY	370UYJ	360UYJ

NNN+/-XXABCCCDD POSITIONALLY N-VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C31-01	C31-01	C31-01	C32-01	C32-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C31	C31	C31	C32	C32
SAMPLE DATE:		02/25/1992	02/25/1992	02/25/1992	02/21/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	1.00	3.00
LOWER DEPTH:		4.00	6.00	8.00	3.00	5.00
1,2,4-TRICHLOROBENZENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
1,2-DICHLOROBENZENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
1,2-DIPHENYLHYDRAZINE	UG/KG				370UY	
1,3-DICHLOROBENZENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
1,4-DICHLOROBENZENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2,4-DICHLOROPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2,4-DIMETHYLPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2,4-DINITROPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
2,4-DINITROTOLUENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2,6-DINITROTOLUENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2-CHLORONAPHTHALENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2-CHLOROPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2-METHYLNAPHTHALENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2-METHYLPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
2-NITROANILINE	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
2-NITROPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	740UYJ	740UYJ	760UYJ	740UY	720UYJ
3-NITROANILINE	UG/KG	370UYJ	370UYJ	380UYJ	1800UY	360UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
4-CHLORO-3-METHYLPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
4-CHLOROANILINE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
4-METHYLPHENOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
4-NITROANILINE	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
4-NITROPHENOL	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
ACENAPHTHENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
ACENAPHTHYLENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ

NN*-, XXABCCCDD POSITIONALLY N VALUE, (*/ XX:ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C31-01	C31-01	C31-01	C32-01	C32-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C31	C31	C31	C32	C32
SAMPLE DATE:		02/25/1992	02/25/1992	02/25/1992	02/21/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	1.00	3.00
LOWER DEPTH:		4.00	6.00	8.00	3.00	5.00
ANTHRACENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BENZO(A)PYRENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BENZO(B)FLUORANTHENE	UG/KG	370UYJ	370UYJ	50DYJ	370UY	360UYJ
BENZO(GHI)PERYLENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BENZO(K)FLUORANTHENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BENZOIC ACID	UG/KG	1800UYJ	1800UYJ	1800UYJ	1800UY	1700UYJ
BENZYL ALCOHOL	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BENZYL BUTYL PHTHALATE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
CAFFEINE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
CHRYSENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
DI-N-BUTYL PHTHALATE	UG/KG	41DYJ	370UYJ	56DYJ	62DYJ	360UYJ
DI-N-OCTYL PHTHALATE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
DIBENZOFURAN	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
DIETHYL PHTHALATE	UG/KG	370UYJ	370UYJ	380UYJ	55DYJ	360UYJ
DIMETHYL PHTHALATE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
FLUORANTHENE	UG/KG	370UYJ	370UYJ	49DYJ	370UY	360UYJ
FLUORENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
HEXACHLOROBENZENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
HEXACHLOROBUTADIENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
HEXACHLOROETHANE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
ISOPHORONE	UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C31-01	C31-01	C31-01	C32-01	C32-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C31	C31	C31	C32	C32
SAMPLE DATE:	02/25/1992	02/25/1992	02/25/1992	02/21/1992	02/21/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.00	4.00	6.00	1.00	3.00
LOWER DEPTH:	4.00	6.00	8.00	3.00	5.00
N-NITROSODINPROPYLAMINE UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
N-NITROSODIPHENYLAMINE UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
NAPHTHALENE UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
NITROBENZENE UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
PENTACHLOROPHENOL UG/KG	370UYJ	370UYJ	380UYJ	370UYJ	360UYJ
PHENANTHRENE UG/KG	1800UYJ	1800UYJ	1800UYJ	370UY	360UYJ
PHENOL UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
PYRENE UG/KG	370UYJ	370UYJ	460YJ	370UY	360UYJ
a-PINENE UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ
d-LIMONENE UG/KG	370UYJ	370UYJ	380UYJ	370UY	360UYJ

NN... XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED FLAGS,
U... s than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of mat...
...tatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C32-01	C32-01D	C33-01	C33-01	C33-01
SUB-SAMPLE ID:	C	DUP	A	B	C
STATION ID:	C32	C32	C33	C33	C33
SAMPLE DATE:	02/21/1992	02/21/1992	02/26/1992	02/26/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	1.00	1.00	3.00	7.00
LOWER DEPTH:	7.00	3.00	3.00	5.00	9.00
1,2,4-TRICHLOROBENZENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
1,2-DICHLOROBENZENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
1,2-DIPHENYLHYDRAZINE UG/KG		370UY			
1,3-DICHLOROBENZENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
1,4-DICHLOROBENZENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
2,4,6-TRICHLOROPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2,4-DICHLOROPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2,4-DIMETHYLPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2,4-DINITROPHENOL UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
2,4-DINITROTOLUENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2,6-DINITROTOLUENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2-CHLORONAPHTHALENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2-CHLOROPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2-METHYLNAPHTHALENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2-METHYLPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
2-NITROANILINE UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
2-NITROPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
3,3'-DICHLOROBENZIDINE UG/KG	720UYJ	740UY	730UYJ	770UYJ	740UYJ
3-NITROANILINE UG/KG	360UYJ	1800UY	1700UYJ	390UYJ	370UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
4-CHLOROANILINE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
4-METHYLPHENOL UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
4-NITROANILINE UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
4-NITROPHENOL UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
ACENAPHTHENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
ACENAPHTHYLENE UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ

NNN*/ XXABCCCDD POSITIONALLY N-VALUE, (*/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
UJ = less than detection limit, U detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C32-01	C32-01D	C33-01	C33-01	C33-01
SUB-SAMPLE ID:		C	DUP	A	B	C
STATION ID:		C32	C32	C33	C33	C33
SAMPLE DATE:		02/21/1992	02/21/1992	02/26/1992	02/26/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		5.00	1.00	1.00	3.00	7.00
LOWER DEPTH:		7.00	3.00	3.00	5.00	9.00
ANTHRACENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BENZO(A)PYRENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BENZO(B)FLUORANTHENE	UG/KG	360UYJ	370UY	370UYJ	41DYJ	370UYJ
BENZO(GHI)PERYLENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BENZO(K)FLUORANTHENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BENZOIC ACID	UG/KG	1800UYJ	1800UY	1700UYJ	1900UYJ	1800UYJ
BENZYL ALCOHOL	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BENZYL BUTYL PHTHALATE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	360UYJ	370UY	1400DYJ	840DYJ	1400DYJ
CAFFEINE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
CHRYSENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
DI-N-BUTYL PHTHALATE	UG/KG	360UYJ	100DYJ	50DYJ	390UYJ	49DYJ
DI-N-OCTYL PHTHALATE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
DIBENZOFURAN	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
DIETHYL PHTHALATE	UG/KG	360UYJ	61DYJ	370UYJ	390UYJ	370UYJ
DIMETHYL PHTHALATE	UG/KG	360UYJ	370UY	370UYJ	390UY	370UYJ
FLUORANTHENE	UG/KG	360UYJ	370UY	370UYJ	47DYJ	370UYJ
FLUORENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
HEXACHLOROBENZENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
HEXACHLOROBUTADIENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
HEXACHLOROETHANE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
ISOPHORONE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ

NNN*/-XXABCCCDD POSITIONALLY N=VALUE, (*/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C32-01	C32-01D	C33-01	C33-01	C33-01
SUB-SAMPLE ID:		C	DUP	A	B	C
STATION ID:		C32	C32	C33	C33	C33
SAMPLE DATE:		02/21/1992	02/21/1992	02/26/1992	02/26/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		5.00	1.00	1.00	3.00	7.00
LOWER DEPTH:		7.00	3.00	3.00	5.00	9.00
N-NITROSODINPROPYLAMINE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
N-NITROSODIPHENYLAMINE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
NAPHTHALENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
NITROBENZENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
PENTACHLOROPHENOL	UG/KG	360UYJ	370UYJ	370UYJ	390UYJ	370UYJ
PHENANTHRENE	UG/KG	1800UYJ	370UY	1700UYJ	1900UYJ	1800UYJ
PHENOL	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
PYRENE	UG/KG	360UYJ	370UY	370UYJ	60DYJ	370UYJ
a-PINENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ
d-LIMONENE	UG/KG	360UYJ	370UY	370UYJ	390UYJ	370UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C34-01	C34-01	C34-01	C34-01D	C35-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C34	C34	C34	C34	C35
SAMPLE DATE:		02/24/1992	02/24/1992	02/24/1992	02/24/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	1.00	3.00
LOWER DEPTH:		3.00	5.00	7.00	3.00	5.00
1,2,4-TRICHLOROBENZENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
1,2-DICHLOROBENZENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
1,4-DICHLOROBENZENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2,4,5-TRICHLOROPHENOL	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
2,4,6-TRICHLOROPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2,4-DICHLOROPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2,4-DIMETHYLPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2,4-DINITROPHENOL	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
2,4-DINITROTOLUENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2,6-DINITROTOLUENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2-CHLORONAPHTHALENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2-CHLOROPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2-METHYLNAPHTHALENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2-METHYLPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
2-NITROANILINE	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
2 NITROPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
3,3'-DICHLOROBENZIDINE	UG/KG	900UYJ	730UYJ	760UYJ	900UYJ	730UY
3-NITROANILINE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
4-CHLORO-3-METHYLPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
4-CHLOROANILINE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
4-METHYLPHENOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
4-NITROANILINE	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
4-NITROPHENOL	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
ACENAPHTHENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
ACENAPHTHYLENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	[illegible]Y

NNN*/ XXABCCCDD POSITIONALLY N=VALUE, (*/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C34-01	C34-01	C34-01	C34-01D	C35-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C34	C34	C34	C34	C35
SAMPLE DATE:		02/24/1992	02/24/1992	02/24/1992	02/24/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	1.00	3.00
LOWER DEPTH:		3.00	5.00	7.00	3.00	5.00
ANTHRACENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BENZO(A)PYRENE	UG/KG	46DYJ	360UYJ	380UYJ	450UYJ	360UY
BENZO(B)FLUORANTHENE	UG/KG	103DYJ	360UYJ	380UYJ	95DYJ	360UY
BENZO(GHI)PERYLENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BENZO(K)FLUORANTHENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BENZOIC ACID	UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
BENZYL ALCOHOL	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BENZYL BUTYL PHTHALATE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
CAFFEINE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UYJ
CHRYSENE	UG/KG	49DYJ	360UYJ	380UYJ	46DYJ	360UY
DI-N-BUTYL PHTHALATE	UG/KG	480UYJ	550UYJ	750UYJ	450UYJ	360UY
DI-N-OCTYL PHTHALATE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
DIBENZO(A,H)ANTHRACENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
DIBENZOFURAN	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
DIETHYL PHTHALATE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
DIMETHYL PHTHALATE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
FLUORANTHENE	UG/KG	65DYJ	360UYJ	380UYJ	60DYJ	360UY
FLUORENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
HEXACHLOROBENZENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
HEXACHLOROBUTADIENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
HEXACHLOROETHANE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
INDENO(1,2,3-CD)PYRENE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
ISOPHORONE	UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY

NNN.+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C34-01	C34-01	C34-01	C34-01D	C35-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C34	C34	C34	C34	C35
SAMPLE DATE:	02/24/1992	02/24/1992	02/24/1992	02/24/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	3.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	5.00
N-NITROSODINPROPYLAMINE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
N-NITROSODIPHENYLAMINE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
NAPHTHALENE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
NITROBENZENE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
PENTACHLOROPHENOL UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
PHENANTHRENE UG/KG	2200UYJ	1800UYJ	1800UYJ	2200UYJ	1800UY
PHENOL UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
PYRENE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
a-PINENE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UY
d-LIMONENE UG/KG	450UYJ	360UYJ	380UYJ	450UYJ	360UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C35-01	C35-01	C36-01	C36-01	C36-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C35	C35	C36	C36	C36
SAMPLE DATE:	02/19/1992	02/19/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	7.00	0.00	2.00	4.00
LOWER DEPTH:	7.00	9.00	2.00	4.00	6.00
1,2,4-TRICHLOROBENZENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
1,2-DICHLOROBENZENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
1,2-DIPHENYLHYDRAZINE					
1,3-DICHLOROBENZENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
1,4-DICHLOROBENZENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
2,4,6-TRICHLOROPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2,4-DICHLOROPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2,4-DIMETHYLPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2,4-DINITROPHENOL UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
2,4-DINITROTOLUENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2,6-DINITROTOLUENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2-CHLORONAPHTHALENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2-CHLOROPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2-METHYLNAPHTHALENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2-METHYLPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
2-NITROANILINE UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
2-NITROPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
3,3'-DICHLOROBENZIDINE UG/KG	720UY	730UY	840UYJ	740UYJ	750UYJ
3-NITROANILINE UG/KG	360UY	370UY	UYR	1800UYJ	UYR
4,6-DINITRO-2-METHYLPHENOL UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
4-CHLOROANILINE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
4-METHYLPHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
4-NITROANILINE UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
4-NITROPHENOL UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
ACENAPHTHENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
ACENAPHTHYLENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C35-01	C35-01	C36-01	C36-01	C36-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C35	C35	C36	C36	C36
SAMPLE DATE:	02/19/1992	02/19/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	7.00	0.00	2.00	4.00
LOWER DEPTH:	7.00	9.00	2.00	4.00	6.00
ANTHRACENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
BENZO (B&K) FLUORANTHENE UG/KG			230DYJ		
BENZO(A)ANTHRACENE UG/KG	360UY	370UY	63DYJ	370UYJ	370UYJ
BENZO(A)PYRENE UG/KG	360UY	370UY	110DYJ	370UYJ	370UYJ
BENZO(B)FLUORANTHENE UG/KG	360UY	370UY		370UYJ	370UYJ
BENZO(GHI)PERYLENE UG/KG	360UY	370UY	120DYJ	370UYJ	370UYJ
BENZO(K)FLUORANTHENE UG/KG	360UY	370UY	UYR	370UYJ	370UYJ
BENZOIC ACID UG/KG	1700UY	1800UY	2000UYJ	1800UYJ	1800UYJ
BENZYL ALCOHOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
BENZYL BUTYL PHTHALATE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
BIS(2-CHLOROETHYL)ETHER UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
BIS(2-ETHYLHEXYL PHTHALATE UG/KG	360UY	370UY	68DYJ	370UYJ	370UYJ
CAFFEINE UG/KG	360UYJ	370UYJ	44DYJ	370UYJ	370UYJ
CHRYSENE UG/KG	360UY	370UY	110DYJ	370UYJ	370UYJ
DI-N-BUTYL PHTHALATE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
DI-N-OCTYL PHTHALATE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
DIBENZO(A,H)ANTHRACENE UG/KG	360UY	370UY	62DYJ	370UYJ	370UYJ
DIBENZOFURAN UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
DIETHYL PHTHALATE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
DIMETHYL PHTHALATE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
FLUORANTHENE UG/KG	360UY	370UY	140DYJ	370UYJ	370UYJ
FLUORENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
HEXACHLOROBENZENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
HEXACHLOROBUTADIENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
HEXACHLOROCYCLOPENTADIENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
HEXACHLOROETHANE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
INDENO(1,2,3-CD)PYRENE UG/KG	360UY	370UY	94DYJ	370UYJ	370UYJ
ISOPHORONE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ

NNN+/-XXABCCCDD POSITIONALLY N VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C35-01	C35-01	C36-01	C36-01	C36-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C35	C35	C36	C36	C36
SAMPLE DATE:	02/19/1992	02/19/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	7.00	0.00	2.00	4.00
LOWER DEPTH:	7.00	9.00	2.00	4.00	6.00
N-NITROSODINPROPYLAMINE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
N-NITROSODIPHENYLAMINE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
NAPHTHALENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
NITROBENZENE UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
PENTACHLOROPHENOL UG/KG	360UY	370UY	2000UYJ	1800UYJ	1800UYJ
PHENANTHRENE UG/KG	1700UY	1800UY	70DYJ	370UYJ	370UYJ
PHENOL UG/KG	360UY	370UY	420UYJ	370UYJ	370UYJ
PYRENE UG/KG	360UY	370UY	130DYJ	370UYJ	370UYJ
a-PINENE UG/KG	360UYJ	370UY	420UYJ	370UYJ	370UYJ
d-LIMONENE UG/KG	360UYJ	370UYJ	420UYJ	370UYJ	370UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C37-01	C37-01	C37-01D	C38-01	C38-01
SUB-SAMPLE ID:		A	B	DUP	A	B
STATION ID:		C37	C37	C37	C38	C38
SAMPLE DATE:		04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	2.00	0.00	8.00	10.00
LOWER DEPTH:		2.00	4.00	2.00	10.00	12.00
1,2,4-TRICHLOROBENZENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
1,2-DICHLOROBENZENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
1,4-DICHLOROBENZENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2,4,5-TRICHLOROPHENOL	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
2,4,6-TRICHLOROPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2,4-DICHLOROPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2,4-DIMETHYLPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2,4-DINITROPHENOL	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
2,4-DINITROTOLUENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2,6-DINITROTOLUENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2-CHLORONAPHTHALENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2-CHLOROPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
2-METHYLNAPHTHALENE	UG/KG	59DYJ	710DYJ	61DYJ	980UY	1100UY
2-METHYLPHENOL	UG/KG	400UYJ	4400UYJ	50DYJ	980UY	1100UY
2-NITROANILINE	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
2-NITROPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
3,3'-DICHLOROBENZIDINE	UG/KG	800UYJ	8900UY	790UYJ	2000UY	2100UY
3-NITROANILINE	UG/KG	UYR	22000UYJ	1900UYJ	980UY	1100UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
4-CHLORO-3-METHYLPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
4-CHLOROANILINE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
4-METHYLPHENOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
4-NITROANILINE	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
4-NITROPHENOL	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
ACENAPHTHENE	UG/KG	160DYJ	2800DYJ	200DYJ	980UY	1100UY
ACENAPHTHYLENE	UG/KG	230DYJ	760DYJ	170DYJ	980UY	1100UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C37-01	C37-01	C37-01D	C38-01	C38-01
SUB-SAMPLE ID:		A	B	DUP	A	B
STATION ID:		C37	C37	C37	C38	C38
SAMPLE DATE:		04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	2.00	0.00	8.00	10.00
LOWER DEPTH:		2.00	4.00	2.00	10.00	12.00
ANTHRACENE	UG/KG	330DYJ	3900DYJ	440DYJ	980UY	1100UY
BENZO (B&K) FLUORANTHENE	UG/KG	1900DYJ	18000DYJ	2400DYJ		
BENZO(A)ANTHRACENE	UG/KG	1080DYJ	12000DYJ	1300DYJ	980UY	1100UY
BENZO(A)PYRENE	UG/KG	1100DYJ	12000DYJ	1400DYJ	980UY	1100UY
BENZO(B)FLUORANTHENE	UG/KG				980UY	1100UY
BENZO(GHI)PERYLENE	UG/KG	700DYJ	7500DYJ	830DYJ	980UY	1100UY
BENZO(K)FLUORANTHENE	UG/KG				980UY	1100UY
BENZOIC ACID	UG/KG	1900UYJ	22000UYJ	1900UYJ	4800UY	5100UY
BENZYL ALCOHOL	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
BENZYL BUTYL PHTHALATE	UG/KG	190DYJ	520DYJ	450DYJ	980UY	1100UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	310DYJ	990DYJ	680DYJ	980UY	1100UY
CAFFEINE	UG/KG	400UYJ	4400UYJ	390UYJ	980UYJ	1100UYJ
CHRYSENE	UG/KG	1300DYJ	14000DYJ	1400DYJ	980UY	1100UY
DI-N BUTYL PHTHALATE	UG/KG	74DYJ	4400UYJ	67DYJ	980UY	1100UY
DI-N-OCTYL PHTHALATE	UG/KG	400UYJ	4400UYJ	140DYJ	980UY	1100UY
DIBENZO(A,H)ANTHRACENE	UG/KG	280DYJ	2600DYJ	330DYJ	980UY	1100UY
DIBENZOFURAN	UG/KG	80DYJ	1300DYJ	110DYJ	980UY	1100UY
DIETHYL PHTHALATE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
DIMETHYL PHTHALATE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
FLUORANTHENE	UG/KG	2300DYJ	28000DYJ	2800DYJ	980UY	1100UY
FLUORENE	UG/KG	240DYJ	4000DYJ	270DYJ	980UY	1100UY
HEXACHLOROBENZENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
HEXACHLOROBUTADIENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
HEXACHLOROETHANE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
INDENO(1,2,3 CD)PYRENE	UG/KG	670DYJ	6700DYJ	780DYJ	980UY	1100UY
ISOPHORONE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN - tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C37-01	C37-01	C37-01D	C38-01	C38-01
SUB-SAMPLE ID:		A	B	DUP	A	B
STATION ID:		C37	C37	C37	C38	C38
SAMPLE DATE:		04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	2.00	0.00	8.00	10.00
LOWER DEPTH:		2.00	4.00	2.00	10.00	12.00
N-NITROSODINPROPYLAMINE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
N-NITROSODIPHENYLAMINE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
NAPHTHALENE	UG/KG	56DYJ	710DYJ	63DYJ	980UY	1100UY
NITROBENZENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
PENTACHLOROPHENOL	UG/KG	1900UYJ	22000UYJ	1900UYJ	980UY	1100UY
PHENANTHRENE	UG/KG	1700DYJ	25000DYJ	2000DYJ	4800UY	5100UY
PHENOL	UG/KG	2200DYJ	500DYJ	1900DYJ	980UY	1100UY
PYRENE	UG/KG	2600DYJ	34000DYJ	3000DYJ	980UY	1100UY
a-PINENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UY	1100UY
d-LIMONENE	UG/KG	400UYJ	4400UYJ	390UYJ	980UYJ	1100UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C38-01	C39-01	C39-01	C39-01	C39-01D
SUB-SAMPLE ID:		C	A	B	C	DUP
STATION ID:		C38	C39	C39	C39	C39
SAMPLE DATE:		02/18/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		12.00	0.00	4.00	6.00	6.00
LOWER DEPTH:		14.00	2.00	6.00	8.00	8.00
1,2,4-TRICHLOROBENZENE	UG/KG	380UY	370UY	370UY	370UY	420UY
1,2-DICHLOROBENZENE	UG/KG	380UY	370UY	370UY	370UY	420UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/KG	380UY	370UY	370UY	370UY	420UY
1,4-DICHLOROBENZENE	UG/KG	380UY	370UY	370UY	370UY	420UY
2,4,5-TRICHLOROPHENOL	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
2,4,6-TRICHLOROPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
2,4-DICHLOROPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
2,4-DIMETHYLPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
2,4-DINITROPHENOL	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
2,4-DINITROTOLUENE	UG/KG	380UY	370UY	370UY	370UY	420UY
2,6-DINITROTOLUENE	UG/KG	380UY	370UY	370UY	370UY	420UY
2-CHLORONAPHTHALENE	UG/KG	380UY	370UY	370UY	370UY	420UY
2-CHLOROPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
2-METHYLNAPHTHALENE	UG/KG	380UY	370UY	370UY	370UY	420UY
2-METHYLPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
2-NITROANILINE	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
2-NITROPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
3,3'-DICHLOROBENZIDINE	UG/KG	760UY	730UY	740UY	740UY	840UY
3-NITROANILINE	UG/KG	380UY	370UY	370UY	370UYJ	420UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	380UY	370UY	370UY	370UY	420UY
4-CHLORO-3-METHYLPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
4-CHLOROANILINE	UG/KG	380UY	370UY	370UY	370UY	420UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	380UY	370UY	370UY	370UY	420UY
4-METHYLPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
4-NITROANILINE	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
4-NITROPHENOL	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
ACENAPHTHENE	UG/KG	380UY	370UY	370UY	370UY	420UY
ACENAPHTHYLENE	UG/KG	380UY	370UY	370UY	370UY	420UY

NNN+/ XXABCCCDD POSITIONALLY N VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C38-01	C39-01	C39-01	C39-01	C39-01D
SUB-SAMPLE ID:		C	A	B	C	DUP
STATION ID:		C38	C39	C39	C39	C39
SAMPLE DATE:		02/18/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		12.00	0.00	4.00	6.00	6.00
LOWER DEPTH:		14.00	2.00	6.00	8.00	8.00
ANTHRACENE	UG/KG	380UY	370UY	370UY	370UY	420UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	380UY	370UY	370UY	370UY	420UY
BENZO(A)PYRENE	UG/KG	380UY	370UY	370UY	370UY	420UY
BENZO(B)FLUORANTHENE	UG/KG	380UY	38DYJ	370UY	370UY	420UY
BENZO(GHI)PERYLENE	UG/KG	380UY	370UY	370UY	370UY	420UY
BENZO(K)FLUORANTHENE	UG/KG	380UY	370UY	370UY	370UY	420UY
BENZOIC ACID	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
BENZYL ALCOHOL	UG/KG	380UY	370UY	370UY	370UY	420UY
BENZYL BUTYL PHTHALATE	UG/KG	380UY	370UY	63DYJ	370UY	420UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	380UY	370UY	370UY	370UY	420UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	380UY	370UY	370UY	370UY	420UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	380UY	370UY	370UY	370UYJ	420UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	380UY	370UY	640UY	370UY	420UY
CAFFEINE	UG/KG	380UYJ	370UYJ	370UYJ	370UYJ	420UYJ
CHRYSENE	UG/KG	380UY	370UY	370UY	370UY	420UY
DI-N-BUTYL PHTHALATE	UG/KG	380UY	370UY	370UY	370UY	420UY
DI-N-OCTYL PHTHALATE	UG/KG	380UY	370UY	370UY	370UY	59DYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	380UY	370UY	370UY	370UY	420UY
DIBENZOFURAN	UG/KG	380UY	370UY	370UY	370UY	420UY
DIETHYL PHTHALATE	UG/KG	380UY	370UY	370UY	370UY	420UY
DIMETHYL PHTHALATE	UG/KG	380UY	370UY	370UY	370UY	420UY
FLUORANTHENE	UG/KG	380UY	51DYJ	370UY	370UY	420UY
FLUORENE	UG/KG	380UY	370UY	370UY	370UY	420UY
HEXACHLOROBENZENE	UG/KG	380UY	370UY	370UY	370UY	420UY
HEXACHLOROBUTADIENE	UG/KG	380UY	370UY	370UY	370UY	420UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	380UY	370UY	370UY	370UY	420UY
HEXACHLOROETHANE	UG/KG	380UY	370UY	370UY	370UY	420UY
INDENO(1,2,3-CD)PYRENE	UG/KG	380UY	370UY	370UY	370UY	420UY
ISOPHORONE	UG/KG	380UY	370UY	370UY	370UY	420UY

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C38-01	C39-01	C39-01	C39-01	C39-01D
SUB-SAMPLE ID:		C	A	B	C	DUP
STATION ID:		C38	C39	C39	C39	C39
SAMPLE DATE:		02/18/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		12.00	0.00	4.00	6.00	6.00
LOWER DEPTH:		14.00	2.00	6.00	8.00	8.00
N-NITROSODINPROPYLAMINE	UG/KG	380UY	370UY	370UY	370UY	420UY
N-NITROSODIPHENYLAMINE	UG/KG	380UY	370UY	370UY	370UY	420UY
NAPHTHALENE	UG/KG	380UY	370UY	370UY	370UY	420UY
NITROBENZENE	UG/KG	380UY	370UY	370UY	370UY	420UY
PENTACHLOROPHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
PHENANTHRENE	UG/KG	1800UY	1800UY	1800UY	1800UY	2000UY
PHENOL	UG/KG	380UY	370UY	370UY	370UY	420UY
PYRENE	UG/KG	380UY	52DYJ	370UY	370UY	420UY
a-PINENE	UG/KG	380UYJ	370UYJ	370UYJ	370UYJ	420UYJ
d-LIMONENE	UG/KG	380UYJ	370UYJ	370UYJ	370UYJ	420UYJ

NNN+/ XXABCCCDD POSITIONALLY N VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	C40-01	C40-01	C40-01	C41-01	C41-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C40	C40	C40	C41	C41
SAMPLE DATE:	02/13/1992	02/13/1992	02/13/1992	02/12/1992	02/12/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.00	4.00	6.00	0.00	4.00
LOWER DEPTH:	4.00	6.00	8.00	2.00	6.00
1,2,4-TRICHLOROBENZENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
1,2-DICHLOROBENZENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
1,2-DIPHENYLHYDRAZINE UG/KG	370UY	370UY	370UY		3900UY
1,3-DICHLOROBENZENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
1,4-DICHLOROBENZENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2,4,5-TRICHLOROPHENOL UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
2,4,6-TRICHLOROPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2,4-DICHLOROPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2,4-DIMETHYLPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2,4-DINITROPHENOL UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
2,4-DINITROTOLUENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2,6-DINITROTOLUENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2-CHLORONAPHTHALENE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2-CHLOROPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2-METHYLNAPHTHALENE UG/KG	370UY	370UY	370UY	110DYJ	3900UY
2-METHYLPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
2-NITROANILINE UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
2-NITROPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
3,3'-DICHLOROBENZIDINE UG/KG	740UY	740UY	740UY	1600UYJ	7800UY
3-NITROANILINE UG/KG	1800UY	1800UY	1800UY	820UYJ	19000UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
4-BR[illegible]YL PHENYL ETHER UG/KG	370UY	370UY	370UY	820UYJ	3900UY
4[illegible]-3-METHYLPHENOL UG/KG	370UY	370UY	370UY	820UYJ	3900UY
4-CHLOROANILINE UG/KG	370UY	370UY	370UY	820UYJ	3900UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	370UY	370UY	370UY	820UYJ	3900UY
4-METHYLPHENOL UG/KG	370UY	370UY	370UY	600DYJ	3900UY
4-NITROANILINE UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
4-NITROPHENOL UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
ACENAPHTHENE UG/KG	370UY	370UY	370UY	190DYJ	3900UY
A[illegible]ACENAPHTHYLENE UG/KG	370UY	370UY	370UY	160DYJ	3900UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C40-01	C40-01	C40-01	C41-01	C41-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C40	C40	C40	C41	C41
SAMPLE DATE:		02/13/1992	02/13/1992	02/13/1992	02/12/1992	02/12/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	0.00	4.00
LOWER DEPTH:		4.00	6.00	8.00	2.00	6.00
ANTHRACENE	UG/KG	370UY	370UY	370UY	500DYJ	3900UY
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	370UY	370UY	370UY	890DYJ	3900UY
BENZO(A)PYRENE	UG/KG	370UY	370UY	370UY	1300DYJ	3900UY
BENZO(B)FLUORANTHENE	UG/KG	370UY	370UY	370UY	2400DYJ	3900UY
BENZO(GHI)PERYLENE	UG/KG	370UY	370UY	370UY		3900UY
BENZO(K)FLUORANTHENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
BENZOIC ACID	UG/KG	1800UY	1800UY	1800UY	4000UYJ	19000UY
BENZYL ALCOHOL	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
BENZYL BUTYL PHTHALATE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
BIS(2-CHLOROETHOXY) METHANE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	370UY	370UY	48DYJ	120DYJ	3900UY
CAFFEINE	UG/KG	370UY	370UY	370UY	400DYJ	3900UY
CHRYSENE	UG/KG	370UY	370UY	370UY	1030DYJ	3900UY
DI-N-BUTYL PHTHALATE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
DI-N-OCTYL PHTHALATE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
DIBENZO(A,H)ANTHRACENE	UG/KG	370UY	370UY	370UY		3900UY
DIBENZOFURAN	UG/KG	370UY	370UY	370UY	150DYJ	3900UY
DIETHYL PHTHALATE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
DIMETHYL PHTHALATE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
FLUORANTHENE	UG/KG	370UY	370UY	370UY	1800DYJ	3900UY
FLUORENE	UG/KG	370UY	370UY	370UY	240DYJ	3900UY
HEXACHLOROBENZENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
HEXACHLOROBUTADIENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
HEXACHLOROETHANE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
INDENO(1,2,3-CD)PYRENE	UG/KG	370UY	370UY	370UY	810DYJ	3900UY
ISOPHORONE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY

NNN*/ XXABCCEDD POSITIONALLY N VALUE, (*/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		C40-01	C40-01	C40-01	C41-01	C41-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C40	C40	C40	C41	C41
SAMPLE DATE:		02/13/1992	02/13/1992	02/13/1992	02/12/1992	02/12/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	0.00	4.00
LOWER DEPTH:		4.00	6.00	8.00	2.00	6.00
N-NITROSODINPROPYLAMINE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
N-NITROSODIPHENYLAMINE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
NAPHTHALENE	UG/KG	370UY	370UY	370UY	102DYJ	3900UY
NITROBENZENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
PENTACHLOROPHENOL	UG/KG	1800UY	1800UY	1800UY	220DYJ	19000UY
PHENANTHRENE	UG/KG	370UY	370UY	370UY	1500DYJ	3900UY
PHENOL	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
PYRENE	UG/KG	370UY	370UY	370UY	2200DYJ	3900UY
a-PINENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY
d-LIMONENE	UG/KG	370UY	370UY	370UY	820UYJ	3900UY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C41-01	C42-01	C42-01	C42-01	C43-01
SUB-SAMPLE ID:	C	A	B	C	A
STATION ID:	C41	C42	C42	C42	C43
SAMPLE DATE:	02/12/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	4.00	6.00	10.00	3.00
LOWER DEPTH:	8.00	6.00	8.00	12.00	5.00
1,2,4-TRICHLOROBENZENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
1,2-DICHLOROBENZENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
1,2-DIPHENYLHYDRAZINE UG/KG	380UY				
1,3-DICHLOROBENZENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
1,4-DICHLOROBENZENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2,4,5-TRICHLOROPHENOL UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
2,4,6-TRICHLOROPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2,4-DICHLOROPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2,4-DIMETHYLPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2,4-DINITROPHENOL UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
2,4 DINITROTOLUENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2,6 DINITROTOLUENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2-CHLORONAPHTHALENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2-CHLOROPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2 METHYLNAPHTHALENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2-METHYLPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
2-NITROANILINE UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
2-NITROPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
3,3' DICHLOROBENZIDINE UG/KG	770UY	910UYJ	770UYJ	760UYJ	740UYJ
3-NITROANILINE UG/KG	1900UY	450UYJ	390UYJ	380UYJ	370UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
4-CHLORO-3 METHYLPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
4-CHLOROANILINE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
4 METHYLPHENOL UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
4 NITROANILINE UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
4-NITROPHENOL UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
ACENAPHTHENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
ACENAPHTHYLENE UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ

NNN+/ XXABCDDD POSITIONALLY N VALUE, +/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, P=duplicate, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C41-01	C42-01	C42-01	C42-01	C43-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C41	C42	C42	C42	C43
SAMPLE DATE:		02/12/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		6.00	4.00	6.00	10.00	3.00
LOWER DEPTH:		8.00	6.00	8.00	12.00	5.00
ANTHRACENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BENZO(A)PYRENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	83DYJ
BENZO(B)FLUORANTHENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	140DYJ
BENZO(GHI)PERYLENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	48DYJ
BENZO(K)FLUORANTHENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BENZOIC ACID	UG/KG	1900UY	2200UYJ	1900UYJ	1800UYJ	1800UYJ
BENZYL ALCOHOL	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BENZYL BUTYL PHTHALATE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	89DYJ	450UYJ	390UYJ	380UYJ	370UYJ
CAFFEINE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
CHRYSENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	78DYJ
DI-N-BUTYL PHTHALATE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
DI-N-OCTYL PHTHALATE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
DIBENZOFURAN	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
DIETHYL PHTHALATE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
DIMETHYL PHTHALATE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
FLUORANTHENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	180DYJ
FLUORENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
HEXACHLOROBENZENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
HEXACHLOROBUTADIENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
HEXACHLOROETHANE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	52DYJ
ISOPHORONE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified - estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C41-01	C42-01	C42-01	C42-01	C43-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C41	C42	C42	C42	C43
SAMPLE DATE:		02/12/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		6.00	4.00	6.00	10.00	3.00
LOWER DEPTH:		8.00	6.00	8.00	12.00	5.00
N-NITROSODINPROPYLAMINE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
N-NITROSODIPHENYLAMINE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
NAPHTHALENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
NITROBENZENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
PENTACHLOROPHENOL	UG/KG	1900UY	450UYJ	390UYJ	380UYJ	370UYJ
PHENANTHRENE	UG/KG	380UY	2200UYJ	1900UYJ	1800UYJ	56DYJ
PHENOL	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
PYRENE	UG/KG	380UY	92DYJ	390UYJ	57DYJ	210DYJ
a-PINENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UYJ
d LIMONENE	UG/KG	380UY	450UYJ	390UYJ	380UYJ	370UY

SAMPLE ID:		C43-01	C43-01	C44-01	C44-01	C44-01
SUB-SAMPLE ID:		B	C	A	B	C
STATION ID:		C43	C43	C44	C44	C44
SAMPLE DATE:		02/19/1992	02/19/1992	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		7.00	11.00	4.00	6.00	8.00
LOWER DEPTH:		9.00	13.00	6.00	8.00	10.00
1,2,4-TRICHLOROBENZENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
1,2-DICHLOROBENZENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
1,2-DIPHENYLHYDRAZINE	UG/KG			400UY	370UY	390UY
1,3-DICHLOROBENZENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
1,4-DICHLOROBENZENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2,4,5-TRICHLOROPHENOL	UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
2,4,6-TRICHLOROPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2,4-DICHLOROPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2,4-DIMETHYLPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2,4-DINITROPHENOL	UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
2,4-DINITROTOLUENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2,6-DINITROTOLUENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2-CHLORONAPHTHALENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2-CHLOROPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2-METHYLNAPHTHALENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2-METHYLPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
2-NITROANILINE	UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
2-NITROPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
3,3'-DICHLOROBENZIDINE	UG/KG	710UYJ	740UYJ	800UY	740UY	790UY
3-NITROANILINE	UG/KG	360UYJ	370UYJ	1900UY	1800UY	1900UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
4-CHLORO-3-METHYLPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
4-CHLOROANILINE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
4-METHYLPHENOL	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
4-NITROANILINE	UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
4-NITROPHENOL	UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
ACENAPHTHENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
ACENAPHTHYLENE	UG/KG	360UYJ	370UYJ	400UY	370UY	390UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C43-01	C43-01	C44-01	C44-01	C44-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C43	C43	C44	C44	C44
SAMPLE DATE:	02/19/1992	02/19/1992	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	11.00	4.00	6.00	8.00
LOWER DEPTH:	9.00	13.00	6.00	8.00	10.00
ANTHRACENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZO (B&K) FLUORANTHENE					
BENZO(A)ANTHRACENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZO(A)PYRENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZO(B)FLUORANTHENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZO(GHI)PERYLENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZO(K)FLUORANTHENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZOIC ACID UG/KG	1800UYJ	1800UYJ	1900UY	1800UY	1900UY
BENZYL ALCOHOL UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BENZYL BUTYL PHTHALATE UG/KG	360UYJ	58DYJ	400UY	370UY	390UY
BIS(2-CHLOROETHOXY) METHANE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BIS(2-CHLOROETHYL)ETHER UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BIS(2 CHLOROISOPROPYL) ETHER UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
CAFFEINE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
CHRYSENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
DI N BUTYL PHTHALATE UG/KG	360UYJ	370UYJ	400UY	370UYJ	390UY
DI-N-OCTYL PHTHALATE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
DIBENZO(A,H)ANTHRACENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
DIBENZOFURAN UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
DIETHYL PHTHALATE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
DIMETHYL PHTHALATE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
FLUORANTHENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
FLUORENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
HEXACHLOROBENZENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
HEXACHLOROBUTADIENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
HEXACHLOROCYCLOPENTADIENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
HEXACHLOROETHANE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
INDENO(1,2,3-CD)PYRENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
ISOPHORONE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY

SAMPLE ID:	C43-01	C43-01	C44-01	C44-01	C44-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C43	C43	C44	C44	C44
SAMPLE DATE:	02/19/1992	02/19/1992	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	11.00	4.00	6.00	8.00
LOWER DEPTH:	9.00	13.00	6.00	8.00	10.00
N-NITROSODINPROPYLAMINE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
N-NITROSODIPHENYLAMINE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
NAPHTHALENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
NITROBENZENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
PENTACHLOROPHENOL UG/KG	360UYJ	370UYJ	1900UY	1800UY	1900UY
PHENANTHRENE UG/KG	1800UYJ	1800UYJ	400UY	370UY	390UY
PHENOL UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
PYRENE UG/KG	360UYJ	76DYJ	400UY	370UY	390UY
a-PINENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY
d-LIMONENE UG/KG	360UYJ	370UYJ	400UY	370UY	390UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Pesticides and PCBs

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOIL BORINGS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: PEST

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
DDD	4,4'-DDD	UG/KG	130	1	0.0077	710.000	710.000	710.000	0.000
DDE	4,4'-DDE	UG/KG	130	1	0.0077	38.000	38.000	38.000	0.000
DDT	4,4'-DDT	UG/KG	130	2	0.0154	59.000	190.000	124.500	65.500
ES1	ENDOSULFAN I	UG/KG	130	1	0.0077	17.000	17.000	17.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:		A	A	A	B	DUP
STATION ID:		BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:		02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:		1.00	1.00	3.00	4.00	3.00
4,4'-DDD	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
4,4'-DDE	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
4,4'-DDT	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
ALDRIN	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
ALPHA-CHLORDANE	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
AROCLOR-1016	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
AROCLOR-1221	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
AROCLOR-1232	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
AROCLOR-1242	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
AROCLOR-1248	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
AROCLOR-1254	UG/KG	300UYJ	220UY	310UY	440UYJ	300UY
AROCLOR-1260	UG/KG	300UYJ	220UY	310UY	440UYJ	300UY
BHC-ALPHA	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
BHC-BETA	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
BHC-DELTA	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
BHC-GAMMA(LINDANE)	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
DIELDRIN	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
ENDOSULFAN I	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
ENDOSULFAN II	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
ENDOSULFAN SULFATE	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
ENDRIN	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
ENDRIN KETONE	UG/KG	30UYJ	22UY	31UY	44UYJ	30UY
GAMMA-CHLORDANE	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
HEPTACHLOR	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
HEPTACHLOR EPOXIDE	UG/KG	15UYJ	11UY	15UY	22UYJ	15UY
METHOXYCHLOR	UG/KG	150UYJ	110UY	150UY	220UYJ	150UY
TOXAPHENE	UG/KG	300UYJ	220UY	310UY	440UYJ	300UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C01	C01	C01	C01	C02
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	2.00
4,4'-DDD UG/KG	93UYJ	8.3UY	8.4UY	200UYJ	18UYJ
4,4'-DDE UG/KG	93UYJ	3UY	3.1UY	200UYJ	18UYJ
4,4'-DDT UG/KG	93UYJ	9UY	9.1UY	200UYJ	18UYJ
ALDRIN UG/KG	UYR	3UY	3.1UY	UYR	9.2UYJ
ALPHA-CHLORDANE UG/KG	470UYJ	3.7UY	3.7UY	1000UYJ	92UYJ
AROCLOR-1016 UG/KG	470UYJ	36UY	36UY	1000UYJ	92UYJ
AROCLOR-1221 UG/KG	470UYJ	90UY	91UY	1000UYJ	92UYJ
AROCLOR-1232 UG/KG	470UYJ	90UY	91UY	1000UYJ	92UYJ
AROCLOR-1242 UG/KG	470UYJ	36UY	36UY	1000UYJ	92UYJ
AROCLOR-1248 UG/KG	470UYJ	18UY	18UY	1000UYJ	92UYJ
AROCLOR-1254 UG/KG	930UYJ	18UY	18UY	2000UYJ	180UYJ
AROCLOR-1260 UG/KG	930UYJ	18UY	18UY	2000UYJ	180UYJ
BHC-ALPHA UG/KG	47UYJ	2.2UY	2.3UY	100UYJ	9.2UYJ
BHC-BETA UG/KG	47UYJ	4.5UY	4.5UY	100UYJ	9.2UYJ
BHC-DELTA UG/KG	47UYJ	4.5UY	4.5UY	100UYJ	9.2UYJ
BHC-GAMMA(LINDANE) UG/KG	47UYJ	3UY	3.1UY	100UYJ	9.2UYJ
DIELDRIN UG/KG	93UYJ	1.5UY	1.5UY	200UYJ	18UYJ
ENDOSULFAN I UG/KG	47UYJ	4.5UY	4.5UY	100UYJ	9.2UYJ
ENDOSULFAN II UG/KG	93UYJ	3UY	3.1UY	200UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	93UYJ	9UY	9.1UY	200UYJ	18UYJ
ENDRIN UG/KG	93UYJ	4.5UY	4.5UY	200UYJ	18UYJ
ENDRIN KETONE UG/KG	93UYJ	9UY	9.1UY	200UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	470UYJ	3.7UY	3.7UY	1000UYJ	92UYJ
HEPTACHLOR UG/KG	47UYJ	2.2UY	2.3UY	100UYJ	9.2UYJ
HEPTACHLOR EPOXIDE UG/KG	47UYJ	4.5UY	4.5UY	100UYJ	9.2UYJ
METHOXYCHLOR UG/KG	470UYJ	18UY	18UY	1000UYJ	92UYJ
TOXAPHENE UG/KG	930UYJ	75UY	76UY	2000UYJ	180UYJ

NNN*/ XXABCCCDD POSITIONALLY N=VALUE, (*/ XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:	B	A	B	A	B
STATION ID:	C02	C03	C03	C04	C04
SAMPLE DATE:	04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:	4.00	2.00	4.00	5.00	7.00
4,4'-DDD UG/KG	19UYJ	8.6UY	8.4UY	7.7UYJ	7.7UYJ
4,4'-DDE UG/KG	19UYJ	3.1UY	3.1UY	2.8UYJ	2.8UYJ
4,4'-DDT UG/KG	19UYJ	9.3UY	9.1UY	8.3UYJ	8.3UYJ
ALDRIN UG/KG	93UYJ	3.1UY	3.1UY	2.8UYJ	2.8UYJ
ALPHA-CHLORDANE UG/KG	930UYJ	3.8UY	3.7UY	3.4UYJ	3.4UYJ
AROCLOR-1016 UG/KG	930UYJ	37UY	36UY	33UYJ	33UYJ
AROCLOR-1221 UG/KG	930UYJ	93UY	91UY	83UYJ	83UYJ
AROCLOR-1232 UG/KG	930UYJ	93UY	91UY	83UYJ	83UYJ
AROCLOR-1242 UG/KG	930UYJ	37UY	36UY	33UYJ	33UYJ
AROCLOR-1248 UG/KG	930UYJ	19UY	18UY	17UYJ	17UYJ
AROCLOR-1254 UG/KG	190UYJ	19UY	18UY	17UYJ	17UYJ
AROCLOR-1260 UG/KG	190UYJ	19UY	18UY	17UYJ	17UYJ
BHC-ALPHA UG/KG	93UYJ	2.3UY	2.3UY	2.1UYJ	2.1UYJ
BHC-BETA UG/KG	93UYJ	4.7UY	4.5UY	4.2UYJ	4.2UYJ
BHC-DELTA UG/KG	93UYJ	4.7UY	4.5UY	4.2UYJ	4.2UYJ
BHC-GAMMA(LINDANE) UG/KG	93UYJ	3.1UY	3.1UY	2.8UYJ	2.8UYJ
DIELDRIN UG/KG	19UYJ	1.5UY	1.5UY	1.4UYJ	1.4UYJ
ENDOSULFAN I UG/KG	93UYJ	4.7UY	4.5UY	4.2UYJ	4.2UYJ
ENDOSULFAN II UG/KG	19UYJ	3.1UY	3.1UY	2.8UYJ	2.8UYJ
ENDOSULFAN SULFATE UG/KG	19UYJ	9.3UY	9.1UY	8.3UYJ	8.3UYJ
ENDRIN UG/KG	19UYJ	4.7UY	4.5UY	4.2UYJ	4.2UYJ
ENDRIN KETONE UG/KG	19UYJ	9.3UY	9.1UY	8.3UYJ	8.3UYJ
GAMMA-CHLORDANE UG/KG	930UYJ	3.8UY	3.7UY	3.4UYJ	3.4UYJ
HEPTACHLOR UG/KG	93UYJ	2.3UY	2.3UY	2.1UYJ	2.1UYJ
HEPTACHLOR EPOXIDE UG/KG	93UYJ	4.7UY	4.5UY	4.2UYJ	4.2UYJ
METHOXYCHLOR UG/KG	93UYJ	19UY	18UY	17UYJ	17UYJ
TOXAPHENE UG/KG	190UYJ	78UY	76UY	70UYJ	70UYJ

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:	C	A	B	A	A
STATION ID:	C04	C05	C05	C06	C07
SAMPLE DATE:	02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:	9.00	2.00	4.00	2.00	4.00
4,4'-DDD UG/KG	7.8UYJ	8.5UY	8UY	190UYJ	240UYJ
4,4'-DDE UG/KG	2.8UYJ	3.1UY	2.9UY	190UYJ	240UYJ
4,4'-DDT UG/KG	8.4UYJ	9.2UY	8.7UY	190UYJ	240UYJ
ALDRIN UG/KG	2.8UYJ	3.1UY	2.9UY	94UYJ	120UYJ
ALPHA-CHLORDANE UG/KG	3.5UYJ	3.8UY	3.6UY	940UYJ	1200UYJ
AROCLOR-1016 UG/KG	34UYJ	37UY	35UY	940UYJ	1200UYJ
AROCLOR-1221 UG/KG	84UYJ	92UY	87UY	940UYJ	1200UYJ
AROCLOR-1232 UG/KG	84UYJ	92UY	87UY	940UYJ	1200UYJ
AROCLOR-1242 UG/KG	34UYJ	37UY	35UY	940UYJ	1200UYJ
AROCLOR-1248 UG/KG	17UYJ	18UY	17UY	940UYJ	1200UYJ
AROCLOR-1254 UG/KG	17UYJ	18UY	17UY	1900UYJ	2400UYJ
AROCLOR-1260 UG/KG	17UYJ	18UY	17UY	1900UYJ	2400UYJ
BHC-ALPHA UG/KG	2.1UYJ	2.3UY	2.2UY	94UYJ	120UYJ
BHC-BETA UG/KG	4.2UYJ	4.6UY	4.3UY	94UYJ	120UYJ
BHC-DELTA UG/KG	4.2UYJ	4.6UY	4.3UY	94UYJ	120UYJ
BHC-GAMMA(LINDANE) UG/KG	2.8UYJ	3.1UY	2.9UY	94UYJ	120UYJ
DIELDRIN UG/KG	1.4UYJ	1.5UY	1.4UY	190UYJ	240UYJ
ENDOSULFAN I UG/KG	4.2UYJ	4.6UY	4.3UY	94UYJ	120UYJ
ENDOSULFAN II UG/KG	2.8UYJ	3.1UY	2.9UY	190UYJ	240UYJ
ENDOSULFAN SULFATE UG/KG	8.4UYJ	9.2UY	8.7UY	190UYJ	240UYJ
ENDRIN UG/KG	4.2UYJ	4.6UY	4.3UY	190UYJ	240UYJ
ENDRIN KETONE UG/KG	8.4UYJ	9.2UY	8.7UY	190UYJ	240UYJ
GAMMA-CHLORDANE UG/KG	3.5UYJ	3.8UY	3.6UY	940UYJ	1200UYJ
HEPTACHLOR UG/KG	2.1UYJ	2.3UY	2.2UY	94UYJ	120UYJ
HEPTACHLOR EPOXIDE UG/KG	4.2UYJ	4.6UY	4.3UY	94UYJ	120UYJ
METHOXYCHLOR UG/KG	17UYJ	18UY	17UY	940UYJ	1200UYJ
TOXAPHENE UG/KG	71UYJ	77UY	73UY	1900UYJ	2400UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C07-01	C07-01	C07-01	C08-01	C08-01
SUB-SAMPLE ID:	B	C	D	A	B
STATION ID:	C07	C07	C07	C08	C08
SAMPLE DATE:	03/31/1992	03/31/1992	03/31/1992	03/31/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	5.00	7.00	0.00	2.00
LOWER DEPTH:	5.00	7.00	8.00	2.00	4.00
4,4'-DDD UG/KG	220UYJ	18UYJ	8.8UY	200UYJ	180UYJ
4,4'-DDE UG/KG	220UYJ	18UYJ	3.2UY	200UYJ	180UYJ
4,4'-DDT UG/KG	220UYJ	18UYJ	9.5UY	200UYJ	180UYJ
ALDRIN UG/KG	110UYJ	9UYJ	3.2UY	99UYJ	92UYJ
ALPHA-CHLORDANE UG/KG	1100UYJ	90UYJ	3.9UY	990UYJ	920UYJ
AROCLOR-1016 UG/KG	1100UYJ	90UYJ	38UY	990UYJ	920UYJ
AROCLOR-1221 UG/KG	1100UYJ	90UYJ	95UY	990UYJ	920UYJ
AROCLOR-1232 UG/KG	1100U J	90UYJ	95UY	990UYJ	920UYJ
AROCLOR-1242 UG/KG	1100U J	90UYJ	38UY	990UYJ	920UYJ
AROCLOR-1248 UG/KG	1100UYJ	90UYJ	19UY	990UYJ	920UYJ
AROCLOR-1254 UG/KG	2200UYJ	180UYJ	19UY	2000UYJ	1800UYJ
AROCLOR-1260 UG/KG	2200UYJ	180UYJ	19UY	2000UYJ	1800UYJ
BHC-ALPHA UG/KG	110UYJ	9UYJ	2.4UY	99UYJ	92UYJ
BHC-BETA UG/KG	110UYJ	9UYJ	4.8UY	99UYJ	92UYJ
BHC-DELTA UG/KG	110UYJ	9UYJ	4.8UY	99UYJ	92UYJ
BHC-GAMMA(LINDANE) UG/KG	110UYJ	9UYJ	3.2UY	99UYJ	92UYJ
DIELDRIN UG/KG	220UYJ	18UYJ	1.5UY	200UYJ	180UYJ
ENDOSULFAN I UG/KG	110UYJ	9UYJ	4.8UY	99UYJ	92UYJ
ENDOSULFAN II UG/KG	220UYJ	18UYJ	3.2UY	200UYJ	180UYJ
ENDOSULFAN SULFATE UG/KG	220UYJ	18UYJ	9.5UY	200UYJ	180UYJ
ENDRIN UG/KG	220UYJ	18UYJ	4.8UY	200UYJ	180UYJ
ENDRIN KETONE UG/KG	220UYJ	18UYJ	9.5UY	200UYJ	180UYJ
GAMMA-CHLORDANE UG/KG	1100UYJ	90UYJ	3.9UY	990UYJ	920UYJ
HEPTACHLOR UG/KG	110UYJ	9UYJ	2.4UY	99UYJ	92UYJ
HEPTACHLOR EPOXIDE UG/KG	110UYJ	9UYJ	4.8UY	99UYJ	92UYJ
METHOXYCHLOR UG/KG	1100UYJ	90UYJ	19UY	990UYJ	920UYJ
TOXAPHENE UG/KG	2200UYJ	180UYJ	80UY	2000UYJ	1800UYJ

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C09-01	C09-01	C10-01	C10-01	C10-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C09	C09	C10	C10	C10
SAMPLE DATE:	04/03/1992	04/03/1992	04/03/1992	04/03/1992	04/03/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	4.00	2.00	4.00	6.00
LOWER DEPTH:	2.00	6.00	3.00	6.00	8.00
4,4'-DDD UG/KG	210UYJ	190UYJ	210UYJ	8.4UY	8.3UY
4,4'-DDE UG/KG	210UYJ	190UYJ	210UYJ	3.1UY	3UY
4,4'-DDT UG/KG	210UYJ	190UYJ	210UYJ	9.1UY	9UY
ALDRIN UG/KG	100UYJ	93UYJ	110UYJ	3.1UY	3UY
ALPHA-CHLORDANE UG/KG	1000UYJ	930UYJ	1100UYJ	3.7UY	3.7UY
AROCLOR-1016 UG/KG	1000UYJ	930UYJ	1100UYJ	36UY	36UY
AROCLOR-1221 UG/KG	1000UYJ	930UYJ	1100UYJ	91UY	90UY
AROCLOR-1232 UG/KG	1000UYJ	930UYJ	1100UYJ	91UY	90UY
AROCLOR-1242 UG/KG	1000UYJ	930UYJ	1100UYJ	36UY	36UY
AROCLOR-1248 UG/KG	1000UYJ	930UYJ	1100UYJ	18UY	18UY
AROCLOR-1254 UG/KG	2100UYJ	1900UYJ	2100UYJ	18UY	18UY
AROCLOR-1260 UG/KG	2100UYJ	1900UYJ	2100UYJ	18UY	18UY
BHC-ALPHA UG/KG	100UYJ	93UYJ	110UYJ	2.3UY	2.2UY
BHC-BETA UG/KG	100UYJ	93UYJ	110UYJ	4.5UY	4.5UY
BHC-DELTA UG/KG	100UYJ	93UYJ	110UYJ	4.5UY	4.5UY
BHC-GAMMA(LINDANE) UG/KG	100UYJ	93UYJ	110UYJ	3.1UY	3UY
DIELDRIN UG/KG	210UYJ	190UYJ	210UYJ	1.5UY	1.5UY
ENDOSULFAN I UG/KG	100UYJ	93UYJ	110UYJ	4.5UY	4.5UY
ENDOSULFAN II UG/KG	210UYJ	190UYJ	210UYJ	3.1UY	3UY
ENDOSULFAN SULFATE UG/KG	210UYJ	190UYJ	210UYJ	9.1UY	9UY
ENDRIN UG/KG	210UYJ	190UYJ	210UYJ	4.5UY	4.5UY
ENDRIN KETONE UG/KG	210UYJ	190UYJ	210UYJ	9.1UY	9UY
GAMMA-CHLORDANE UG/KG	1000UYJ	930UYJ	1100UYJ	3.7UY	3.7UY
HEPTACHLOR UG/KG	100UYJ	93UYJ	110UYJ	2.3UY	2.2UY
HEPTACHLOR EPOXIDE UG/KG	100UYJ	93UYJ	110UYJ	4.5UY	4.5UY
METHOXYCHLOR UG/KG	1000UYJ	930UYJ	1100UYJ	18UY	18UY
TOXAPHENE UG/KG	2100UYJ	1900UYJ	2100UYJ	76UY	75UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C11-01	C11-01	C11-01	C11-010	C12-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C11	C11	C11	C11	C12
SAMPLE DATE:	02/27/1992	02/27/1992	02/27/1992	02/27/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	5.00	7.00	5.00	0.50
LOWER DEPTH:	5.00	7.00	9.00	7.00	2.50
4,4'-DDD UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	8UY
4,4'-DDE UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	2.9UY
4,4'-DDT UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	8.7UY
ALDRIN UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	2.9UY
ALPHA-CHLORDANE UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	3.6UY
AROCLOR-1016 UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	35UY
AROCLOR-1221 UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	87UY
AROCLOR-1232 UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	87UY
AROCLOR-1242 UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	35UY
AROCLOR-1248 UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	17UY
AROCLOR-1254 UG/KG	200UYJ	190UYJ	190UYJ	190UYJ	17UY
AROCLOR-1260 UG/KG	200UYJ	190UYJ	190UYJ	190UYJ	17UY
BHC-ALPHA UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	2.2UY
BHC-BETA UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	4.3UY
BHC-DELTA UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	4.3UY
BHC-GAMMA(LINDANE) UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	2.9UY
DIELDRIN UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	1.4UY
ENDOSULFAN I UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	4.3UY
ENDOSULFAN II UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	2.9UY
ENDOSULFAN SULFATE UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	8.7UY
ENDRIN UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	4.3UY
ENDRIN KETONE UG/KG	20UYJ	19UYJ	19UYJ	19UYJ	8.7UY
GAMMA-CHLORDANE UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	3.6UY
HEPTACHLOR UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	2.2UY
HEPTACHLOR EPOXIDE UG/KG	10UYJ	9.5UYJ	9.5UYJ	9.4UYJ	4.3UY
METHOXYCHLOR UG/KG	100UYJ	95UYJ	95UYJ	94UYJ	17UY
TOXAPHENE UG/KG	200UYJ	190UYJ	190UYJ	190UYJ	73UY

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/ XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C12-01	C13-01	C13-01	C13-01	C14-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C12	C13	C13	C13	C14
SAMPLE DATE:	04/02/1992	03/30/1992	03/30/1992	03/30/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	1.00	3.00	5.00	2.00
LOWER DEPTH:	4.50	3.00	5.00	7.00	4.00
4,4'-DDD UG/KG	8UY	17UY	8.2UY	8UY	260UYJ
4,4'-DDE UG/KG	2.9UY	6.2UY	3UY	2.9UY	260UYJ
4,4'-DDT UG/KG	8.7UY	18UY	8.9UY	8.7UY	260UYJ
ALDRIN UG/KG	2.9UY	6.2UY	3UY	2.9UY	130UYJ
ALPHA-CHLORDANE UG/KG	3.6UY	7.4UY	7.4UY	3.6UY	1300UYJ
AROCLOR-1016 UG/KG	35UY	72UY	36UY	35UY	1300UYJ
AROCLOR-1221 UG/KG	87UY	180UY	89UY	87UY	1300UYJ
AROCLOR-1232 UG/KG	87UY	180UY	89UY	87UY	1300UYJ
AROCLOR-1242 UG/KG	35UY	72UY	36UY	35UY	1300UYJ
AROCLOR-1248 UG/KG	17UY	36UY	18UY	17UY	1300UYJ
AROCLOR-1254 UG/KG	17UY	36UY	18UY	17UY	2600UYJ
AROCLOR-1260 UG/KG	17UY	36UY	18UY	17UY	2600UYJ
BHC-ALPHA UG/KG	2.2UY	4.6UY	2.2UY	2.2UY	130UYJ
BHC-BETA UG/KG	4.3UY	9UY	4.4UY	4.3UY	130UYJ
BHC-DELTA UG/KG	4.3UY	9UY	4.4UY	4.3UY	130UYJ
BHC-GAMMA(LINDANE) UG/KG	2.9UY	6.2UY	3UY	2.9UY	130UYJ
DIELDRIN UG/KG	1.4UY	3UY	1.4UY	1.4UY	260UYJ
ENDOSULFAN I UG/KG	4.3UY	9UY	4.4UY	4.3UY	130UYJ
ENDOSULFAN II UG/KG	2.9UY	6.2UY	6UY	2.9UY	260UYJ
ENDOSULFAN SULFATE UG/KG	8.7UY	18UY	8.9UY	8.7UY	260UYJ
ENDRIN UG/KG	4.3UY	9UY	4.4UY	4.3UY	260UYJ
ENDRIN KETONE UG/KG	8.7UY	18UY	8.9UY	8.7UY	260UYJ
GAMMA-CHLORDANE UG/KG	3.6UY	7.4UY	3.7UY	3.6UY	1300UYJ
HEPTACHLOR UG/KG	2.2UY	4.6UY	2.2UY	2.2UY	130UYJ
HEPTACHLOR EPOXIDE UG/KG	4.3UY	9UY	4.4UY	4.3UY	130UYJ
METHOXYCHLOR UG/KG	17UY	36UY	18UY	17UY	1300UYJ
TOXAPHENE UG/KG	73UY	150UY	74UY	73UY	2600UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BOR'NGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C14-01	C15-01	C15-01	C15-01	C16-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C14	C15	C15	C15	C16
SAMPLE DATE:	03/31/1992	02/26/1992	02/26/1992	02/26/1992	04/01/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	0.00	3.00	5.00	1.50
LOWER DEPTH:	6.00	2.00	5.00	7.00	2.50
4,4'-DDD UG/KG	8.3UY	18UYJ	23UYJ	18UYJ	240UY
4,4'-DDE UG/KG	3UY	18UYJ	23UYJ	18UYJ	240UY
4,4'-DDT UG/KG	9UY	18UYJ	23UYJ	18UYJ	240UY
ALDRIN UG/KG	3UY	8.8UYJ	12UYJ	9.1UYJ	120UY
ALPHA-CHLORDANE UG/KG	3.7UY	88UYJ	117UYJ	91UYJ	1200UY
AROCLOR-1016 UG/KG	36UY	88UYJ	117UYJ	91UYJ	1200UY
AROCLOR-1221 UG/KG	90UY	88UYJ	117UYJ	91UYJ	1200UY
AROCLOR-1232 UG/KG	90UY	88UYJ	117UYJ	91UYJ	1200UY
AROCLOR-1242 UG/KG	36UY	88UYJ	117UYJ	91UYJ	1200UY
AROCLOR-1248 UG/KG	18UY	88UYJ	117UYJ	91UYJ	1200UY
AROCLOR-1254 UG/KG	18UY	180UYJ	235UYJ	180UYJ	2400UY
AROCLOR-1260 UG/KG	18UY	180UYJ	235UYJ	180UYJ	2400UY
BHC-ALPHA UG/KG	2.2UY	8.8UYJ	12UYJ	9.1UYJ	120UY
BHC-BETA UG/KG	4.5UY	8.8UYJ	12UYJ	9.1UYJ	120UY
BHC-DELTA UG/KG	4.5UY	8.8UYJ	12UYJ	9.1UYJ	120UY
BHC-GAMMA(LINDANE) UG/KG	3UY	8.8UYJ	12UYJ	9.1UYJ	120UY
DIELDRIN UG/KG	1.5UY	18UYJ	23UYJ	18UYJ	240UY
ENDOSULFAN I UG/KG	4.5UY	8.8UYJ	12UYJ	9.1UYJ	120UY
ENDOSULFAN II UG/KG	3UY	18UYJ	23UYJ	18UYJ	240UY
ENDOSULFAN SULFATE UG/KG	9UY	18UYJ	23UYJ	18UYJ	240UY
ENDRIN UG/KG	4.5UY	18UYJ	23UYJ	18UYJ	240UY
ENDRIN KETONE UG/KG	9UY	18UYJ	23UYJ	18UYJ	240UY
GAMMA-CHLORDANE UG/KG	3.7UY	88UYJ	117UYJ	91UYJ	1200UY
HEPTACHLOR UG/KG	2.2UY	8.8UYJ	12UYJ	9.1UYJ	120UY
HEPTACHLOR EPOXIDE UG/KG	4.5UY	8.8UYJ	12UYJ	9.1UYJ	120UY
METHOXYCHLOR UG/KG	18UY	88UYJ	117UYJ	91UYJ	1200UY
TOXAPHENE UG/KG	75UY	180UYJ	235UYJ	180UYJ	2400UY

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/-XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C16-01	C16-01	C17-01	C17-01	C17-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C16	C16	C17	C17	C17
SAMPLE DATE:	04/01/1992	04/01/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.00	0.00	2.00	3.00
LOWER DEPTH:	4.00	5.50	2.00	3.00	4.00
4,4'-DDD UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
4,4'-DDE UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
4,4'-DDT UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
ALDRIN UG/KG	150UY	9.6UY	110UYJ	120UYJ	9.4UYJ
ALPHA-CHLORDANE UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
AROCLOR-1016 UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
AROCLOR-1221 UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
AROCLOR-1232 UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
AROCLOR-1242 UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
AROCLOR-1248 UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
AROCLOR-1254 UG/KG	3100UY	190UY	2300UYJ	2500UYJ	190UYJ
AROCLOR-1260 UG/KG	3100UY	190UY	2300UYJ	2500UYJ	190UYJ
BHC-ALPHA UG/KG	150UY	9.6UY	110UYJ	120UYJ	9.4UYJ
BHC-BETA UG/KG	150UY	9.6UY	110UYJ	120UYJ	9.4UYJ
BHC-DELTA UG/KG	150UY	9.6UY	110UYJ	120UYJ	9.4UYJ
BHC-GAMMA(LINDANE) UG/KG	150UY	9.6UY	120UYJ	120UYJ	9.4UYJ
DIELDRIN UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
ENDOSULFAN I UG/KG	150UY	9.6UY	110UYJ	120UYJ	9.4UYJ
ENDOSULFAN II UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
ENDOSULFAN SULFATE UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
ENDRIN UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
ENDRIN KETONE UG/KG	310UY	19UY	230UYJ	250UYJ	19UYJ
GAMMA-CHLORDANE UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
HEPTACHLOR UG/KG	150UY	9.6UY	460UYJ	120UYJ	9.4UYJ
HEPTACHLOR EPOXIDE UG/KG	150UY	9.6UY	110UYJ	120UYJ	9.4UYJ
METHOXYCHLOR UG/KG	1500UY	96UY	1100UYJ	1200UYJ	94UYJ
TOXAPHENE UG/KG	3100UY	190UY	2300UYJ	2500UYJ	190UYJ

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C18-01	C18-01	C19-01	C19-01	C19-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C18	C18	C19	C19	C19
SAMPLE DATE:	04/07/1992	04/07/1992	04/08/1992	04/08/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	0.00	2.00	4.00
LOWER DEPTH:	2.00	4.00	2.00	4.00	6.00
4,4'-DDD UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
4,4'-DDE UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
4,4'-DDT UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
ALDRIN UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
ALPHA-CHLORDANE UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
AROCLOR-1016 UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
AROCLOR-1221 UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
AROCLOR-1232 UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
AROCLOR-1242 UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
AROCLOR-1248 UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
AROCLOR-1254 UG/KG	2100UYJ	180UYJ	2400UYJ	190UYJ	180UYJ
AROCLOR-1260 UG/KG	2100UYJ	180UYJ	2400UYJ	190UYJ	180UYJ
BHC-ALPHA UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
BHC-BETA UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
BHC-DELTA UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
BHC-GAMMA(LINDANE) UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
DIELDRIN UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
ENDOSULFAN I UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
ENDOSULFAN II UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
ENDRIN UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
ENDRIN KETONE UG/KG	210UYJ	18UYJ	240UYJ	19UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
HEPTACHLOR UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
HEPTACHLOR EPOXIDE UG/KG	110UYJ	8.9UYJ	120UYJ	9.3UYJ	9.2UYJ
METHOXYCHLOR UG/KG	1100UYJ	89UYJ	1200UYJ	93UYJ	92UYJ
TOXAPHENE UG/KG	2100UYJ	180UYJ	2400UYJ	190UYJ	180UYJ

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R-unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C20-01	C20-01	C20-01	C21-01	C21-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C20	C20	C20	C21	C21
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.50	6.50	0.00	2.00
LOWER DEPTH:	4.50	6.50	8.50	2.00	4.00
4,4'-DDD UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
4,4'-DDE UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
4,4'-DDT UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
ALDRIN UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
ALPHA-CHLORDANE UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
AROCLOR-1016 UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
AROCLOR-1221 UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
AROCLOR-1232 UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
AROCLOR-1242 UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
AROCLOR-1248 UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
AROCLOR-1254 UG/KG	180UYJ	170UY	200UY	250UYJ	2400UYJ
AROCLOR-1260 UG/KG	180UYJ	170UY	200UY	250UYJ	2400UYJ
BHC-ALPHA UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
BHC-BETA UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
BHC-DELTA UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
BHC-GAMMA(LINDANE) UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
DIELDRIN UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
ENDOSULFAN I UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
ENDOSULFAN II UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
ENDOSULFAN SULFATE UG/KG	18UYJ	28UY	20UY	25UYJ	240UYJ
ENDRIN UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
ENDRIN KETONE UG/KG	18UYJ	17UY	20UY	25UYJ	240UYJ
GAMMA-CHLORDANE UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
HEPTACHLOR UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
HEPTACHLOR EPOXIDE UG/KG	8.9UYJ	8.7UY	10UY	12UYJ	120UYJ
METHOXYCHLOR UG/KG	89UYJ	87UY	100UY	120UYJ	1200UYJ
TOXAPHENE UG/KG	180UYJ	170UY	200UY	250UYJ	2400UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C22-01	C22-01	C22-01	C23-01	C23-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C22	C22	C22	C23	C23
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	0.00	4.00
LOWER DEPTH:		3.00	5.00	7.00	2.00	6.00
4,4'-DDD	UG/KG	18UYJ	18UYJ	18UYJ	95UY	8.5UY
4,4'-DDE	UG/KG	18UYJ	18UYJ	18UYJ	38DY	3.1UY
4,4'-DDT	UG/KG	18UYJ	18UYJ	18UYJ	190DY	9.2UY
ALDRIN	UG/KG	8.8UYJ	9UYJ	8.9UYJ	35UY	3.1UY
ALPHA-CHLORDANE	UG/KG	88UYJ	90UYJ	89UYJ	42UY	3.8UY
AROCLOR-1016	UG/KG	88UYJ	90UYJ	89UYJ	410UY	37UY
AROCLOR-1221	UG/KG	88UYJ	90UYJ	89UYJ	1000UY	92UY
AROCLOR-1232	UG/KG	88UYJ	90UYJ	89UYJ	1000UY	92UY
AROCLOR-1242	UG/KG	88UYJ	90UYJ	89UYJ	410UY	37UY
AROCLOR-1248	UG/KG	88UYJ	90UYJ	89UYJ	210UY	18UY
AROCLOR-1254	UG/KG	180UYJ	180UYJ	180UYJ	210UY	18UY
AROCLOR-1260	UG/KG	180UYJ	180UYJ	180UYJ	210UY	18UY
BHC-ALPHA	UG/KG	8.8UYJ	9UYJ	8.9UYJ	26UY	2.3UY
BHC-BETA	UG/KG	8.8UYJ	9UYJ	8.9UYJ	51UY	4.6UY
BHC-DELTA	UG/KG	8.8UYJ	9UYJ	8.9UYJ	51UY	4.6UY
BHC-GAMMA(LINDANE)	UG/KG	8.8UYJ	9UYJ	8.9UYJ	35UY	3.1UY
DIELDRIN	UG/KG	18UYJ	18UYJ	18UYJ	17UY	1.5UY
ENDOSULFAN I	UG/KG	8.8UYJ	9UYJ	8.9UYJ	51UY	4.6UY
ENDOSULFAN II	UG/KG	18UYJ	18UYJ	18UYJ	35UY	3.1UY
ENDOSULFAN SULFATE	UG/KG	18UYJ	18UYJ	18UYJ	100UY	9.2UY
ENDRIN	UG/KG	18UYJ	18UYJ	18UYJ	51UY	4.6UY
ENDRIN KETONE	UG/KG	18UYJ	18UYJ	18UYJ	100UY	9.2UY
GAMMA-CHLORDANE	UG/KG	88UYJ	90UYJ	89UYJ	42UY	3.8UY
HEPTACHLOR	UG/KG	8.8UYJ	9UYJ	8.9UYJ	26UY	2.3UY
HEPTACHLOR EPOXIDE	UG/KG	8.8UYJ	9UYJ	8.9UYJ	51UY	4.6UY
METHOXYCHLOR	UG/KG	88UYJ	90UYJ	89UYJ	210UY	18UY
TOXAPHENE	UG/KG	180UYJ	180UYJ	180UYJ	860UY	77UY

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/ XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C23-01D	C24-01	C24-01	C25-01	C25-01
SUB-SAMPLE ID:	DUP	A	B	A	B
STATION ID:	C23	C24	C24	C25	C25
SAMPLE DATE:	04/02/1992	04/07/1992	04/07/1992	02/26/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	2.00	4.00	0.50	4.50
LOWER DEPTH:	6.00	4.00	6.00	2.50	6.50
4,4'-DDD UG/KG	8.3UY	25UYJ	19UYJ	19UYJ	18UYJ
4,4'-DDE UG/KG	3UY	25UYJ	19UYJ	19UYJ	18UYJ
4,4'-DDT UG/KG	9UY	25UYJ	19UYJ	19UYJ	18UYJ
ALDRIN UG/KG	3UY	13UYJ	9.3UYJ	9.4UYJ	9.2UYJ
ALPHA-CHLORDANE UG/KG	3.7UY	130UYJ	93UYJ	94UYJ	92UYJ
AROCLOR-1016 UG/KG	36UY	130UYJ	93UYJ	94UYJ	92UYJ
AROCLOR-1221 UG/KG	90UY	130UYJ	93UYJ	94UYJ	92UYJ
AROCLOR-1232 UG/KG	90UY	130UYJ	93UYJ	94UYJ	92UYJ
AROCLOR-1242 UG/KG	36UY	130UYJ	93UYJ	94UYJ	92UYJ
AROCLOR-1248 UG/KG	18UY	130UYJ	93UYJ	94UYJ	92UYJ
AROCLOR-1254 UG/KG	18UY	250UYJ	190UYJ	190UYJ	180UYJ
AROCLOR-1260 UG/KG	18UY	250UYJ	190UYJ	190UYJ	180UYJ
BHC-ALPHA UG/KG	2.2UY	13UYJ	9.3UYJ	9.4UYJ	9.2UYJ
BHC-BETA UG/KG	4.5UY	19UYJ	9.3UYJ	9.4UYJ	9.2UYJ
BHC-DELTA UG/KG	4.5UY	13UYJ	9.3UYJ	9.4UYJ	9.2UYJ
BHC-GAMMA(LINDANE) UG/KG	3UY	130UYJ	9.3UYJ	9.4UYJ	9.2UYJ
DIELDRIN UG/KG	1.5UY	250UYJ	19UYJ	19UYJ	18UYJ
ENDOSULFAN I UG/KG	4.5UY	13UYJ	9.3UYJ	9.4UYJ	9.2UYJ
ENDOSULFAN II UG/KG	3UY	25UYJ	19UYJ	19UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	9UY	25UYJ	19UYJ	19UYJ	18UYJ
ENDRIN UG/KG	4.5UY	25UYJ	19UYJ	19UYJ	18UYJ
ENDRIN KETONE UG/KG	9UY	25UYJ	19UYJ	19UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	3.7UY	130UYJ	93UYJ	94UYJ	92UYJ
HEPTACHLOR UG/KG	2.2UY	13UYJ	9.3UYJ	9.4UYJ	9.2UYJ
HEPTACHLOR EPOXIDE UG/KG	4.5UY	52UYJ	9.3UYJ	9.4UYJ	9.2UYJ
METHOXYCHLOR UG/KG	18UY	130UYJ	93UYJ	94UYJ	92UYJ
TOXAPHENE UG/KG	75UY	250UYJ	190UYJ	190UYJ	180UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=[illegible]S,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		C25-01	C26-01	C26-01	C26-01	C27-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C25	C26	C26	C26	C27
SAMPLE DATE:		02/26/1992	02/24/1992	02/24/1992	02/24/1992	02/25/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		8.50	0.00	2.00	4.00	2.00
LOWER DEPTH:		10.50	2.00	4.00	6.00	4.00
4,4'-DDD	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
4,4'-DDE	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
4,4'-DDT	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	59DYJ
ALDRIN	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
ALPHA-CHLORDANE	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
AROCLOR-1016	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
AROCLOR-1221	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
AROCLOR-1232	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
AROCLOR-1242	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
AROCLOR-1248	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
AROCLOR-1254	UG/KG	180UYJ	190UYJ	180UYJ	180UYJ	290UYJ
AROCLOR-1260	UG/KG	180UYJ	190UYJ	180UYJ	180UYJ	290UYJ
BHC-ALPHA	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
BHC-BETA	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
BHC-DELTA	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
BHC-GAMMA(LINDANE)	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
DIELDRIN	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
ENDOSULFAN I	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
ENDOSULFAN II	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
ENDOSULFAN SULFATE	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
ENDRIN	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
ENDRIN KETONE	UG/KG	18UYJ	19UYJ	18UYJ	18UYJ	29UYJ
GAMMA-CHLORDANE	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
HEPTACHLOR	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
HEPTACHLOR EPOXIDE	UG/KG	9.2UYJ	9.5UYJ	8.9UYJ	8.9UYJ	15UYJ
METHOXYCHLOR	UG/KG	92UYJ	95UYJ	89UYJ	89UYJ	150UYJ
TOXAPHENE	UG/KG	180UYJ	190UYJ	180UYJ	180UYJ	290UYJ

NNN*/ XXABCCCDD POSITIONALLY N=VALUE, (*/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C27-01	C27-01	C28-01	C28-01	C28-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C27	C27	C28	C28	C28
SAMPLE DATE:	02/25/1992	02/25/1992	02/20/1992	02/20/1992	02/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	6.00	3.00	5.00	7.00
LOWER DEPTH:	6.00	8.00	5.00	7.00	9.00
4,4'-DDD UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
4,4'-DDE UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
4,4'-DDT UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
ALDRIN UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
ALPHA-CHLORDANE UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
AROCLOR-1016 UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
AROCLOR-1221 UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
AROCLOR-1232 UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
AROCLOR-1242 UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
AROCLOR-1248 UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
AROCLOR-1254 UG/KG	190UYJ	180UYJ	170UYJ	180UYJ	180UYJ
AROCLOR-1260 UG/KG	190UYJ	180UYJ	170UYJ	180UYJ	180UYJ
BHC-ALPHA UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
BHC-BETA UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
BHC-DELTA UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
BHC-GAMMA(LINDANE) UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
DIELDRIN UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
ENDOSULFAN I UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
ENDOSULFAN II UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
ENDRIN UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
ENDRIN KETONE UG/KG	19UYJ	18UYJ	17UYJ	18UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
HEPTACHLOR UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
HEPTACHLOR EPOXIDE UG/KG	9.5UYJ	9.2UYJ	8.7UYJ	8.9UYJ	8.9UYJ
METHOXYCHLOR UG/KG	95UYJ	92UYJ	87UYJ	89UYJ	89UYJ
TOXAPHENE UG/KG	190UYJ	180UYJ	170UYJ	180UYJ	180UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C29-01	C29-01	C29-01	C29-01D	C30-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C29	C29	C29	C29	C30
SAMPLE DATE:	04/01/1992	04/01/1992	04/01/1992	04/01/1992	02/21/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	5.00	7.00	5.00	1.00
LOWER DEPTH:	3.00	7.00	9.00	7.00	3.00
4,4'-DDD UG/KG	230UY	18UY	8.6UY	18UY	18UYJ
4,4'-DDE UG/KG	230UY	18UY	3.1UY	18UY	18UYJ
4,4'-DDT UG/KG	230UY	18UY	9.3UY	18UY	18UYJ
ALDRIN UG/KG	110UY	9.1UY	3.1UY	9.1UY	8.8UYJ
ALPHA-CHLORDANE UG/KG	1100UY	91UY	3.8UY	91UY	88UYJ
AROCLOR-1016 UG/KG	1100UY	91UY	37UY	91UY	88UYJ
AROCLOR-1221 UG/KG	1100UY	91UY	93UY	91UY	88UYJ
AROCLOR-1232 UG/KG	1100UY	91UY	93UY	91UY	88UYJ
AROCLOR-1242 UG/KG	1100UY	91UY	37UY	91UY	88UYJ
AROCLOR-1248 UG/KG	1100UY	91UY	19UY	91UY	88UYJ
AROCLOR-1254 UG/KG	2300UY	180UY	19UY	180UY	180UYJ
AROCLOR-1260 UG/KG	2300UY	180UY	19UY	180UY	180UYJ
BHC-ALPHA UG/KG	110UY	9.1UY	2.3UY	9.1UY	8.8UYJ
BHC-BETA UG/KG	110UY	9.1UY	4.7UY	9.1UY	8.8UYJ
BHC-DELTA UG/KG	110UY	9.1UY	4.7UY	9.1UY	8.8UYJ
BHC-GAMMA(LINDANE) UG/KG	110UY	9.1UY	3.1UY	9.1UY	8.8UYJ
DIELDRIN UG/KG	230UY	18UY	1.5UY	18UY	18UYJ
ENDOSULFAN I UG/KG	110UY	9.1UY	4.7UY	9.1UY	8.8UYJ
ENDOSULFAN II UG/KG	230UY	18UY	3.1UY	18UY	18UYJ
ENDOSULFAN SULFATE UG/KG	230UY	18UY	9.3UY	18UY	18UYJ
ENDRIN UG/KG	230UY	18UY	4.7UY	18UY	18UYJ
ENDRIN KETONE UG/KG	230UY	18UY	9.3UY	18UY	18UYJ
GAMMA-CHLORDANE UG/KG	1100UY	91UY	3.8UY	91UY	88UYJ
HEPTACHLOR UG/KG	110UY	9.1UY	2.3UY	9.1UY	8.8UYJ
HEPTACHLOR EPOXIDE UG/KG	110UY	9.1UY	4.7UY	9.1UY	8.8UYJ
METHOXYCHLOR UG/KG	1100UY	91UY	19UY	91UY	88UYJ
TOXAPHENE UG/KG	2300UY	180UY	78UY	180UY	180UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		C31-01	C31-01	C31-01	C32-01	C32-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C31	C31	C31	C32	C32
SAMPLE DATE:		02/25/1992	02/25/1992	02/25/1992	02/21/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	1.00	3.00
LOWER DEPTH:		4.00	6.00	8.00	3.00	5.00
4,4'-DDD	UG/KG	18UYJ	18UYJ	18UYJ	8.3UY	17UYJ
4,4'-DDE	UG/KG	18UYJ	18UYJ	18UYJ	3UY	17UYJ
4,4'-DDT	UG/KG	18UYJ	18UYJ	18UYJ	9UY	17UYJ
ALDRIN	UG/KG	8.9UYJ	9UYJ	9.2UYJ	3UY	8.7UYJ
ALPHA-CHLORDANE	UG/KG	89UYJ	90UYJ	92UYJ	3.7UY	87UYJ
AROCLOR-1016	UG/KG	89UYJ	90UYJ	92UYJ	36UY	87UYJ
AROCLOR-1221	UG/KG	89UYJ	90UYJ	92UYJ	90UY	87UYJ
AROCLOR-1232	UG/KG	89UYJ	90UYJ	92UYJ	90UY	87UYJ
AROCLOR-1242	UG/KG	89UYJ	90UYJ	92UYJ	36UY	87UYJ
AROCLOR-1248	UG/KG	89UYJ	90UYJ	92UYJ	18UY	87UYJ
AROCLOR-1254	UG/KG	180UYJ	180UYJ	180UYJ	18UY	170UYJ
AROCLOR-1260	UG/KG	180UYJ	180UYJ	180UYJ	18UY	170UYJ
BHC-ALPHA	UG/KG	8.9UYJ	9UYJ	9.2UYJ	2.2UY	8.7UYJ
BHC-BETA	UG/KG	8.9UYJ	9UYJ	9.2UYJ	4.5UY	8.7UYJ
BHC-DELTA	UG/KG	8.9UYJ	9UYJ	9.2UYJ	4.5UY	8.7UYJ
BHC-GAMMA(LINDANE)	UG/KG	8.9UYJ	9UYJ	9.2UYJ	3UY	8.7UYJ
DIELDRIN	UG/KG	18UYJ	18UYJ	18UYJ	1.5UY	17UYJ
ENDOSULFAN I	UG/KG	8.9UYJ	9UYJ	9.2UYJ	4.5UY	8.7UYJ
ENDOSULFAN II	UG/KG	18UYJ	18UYJ	18UYJ	3UY	17UYJ
ENDOSULFAN SULFATE	UG/KG	18UYJ	18UYJ	18UYJ	9UY	17UYJ
ENDRIN	UG/KG	18UYJ	18UYJ	18UYJ	4.5UY	17UYJ
ENDRIN KETONE	UG/KG	18UYJ	18UYJ	18UYJ	9UY	17UYJ
GAMMA-CHLORDANE	UG/KG	89UYJ	90UYJ	92UYJ	3.7UY	87UYJ
HEPTACHLOR	UG/KG	8.9UYJ	9UYJ	9.2UYJ	2.2UY	8.7UYJ
HEPTACHLOR EPOXIDE	UG/KG	8.9UYJ	9UYJ	9.2UYJ	4.5UY	8.7UYJ
METHOXYCHLOR	UG/KG	89UYJ	90UYJ	92UYJ	18UY	87UYJ
TOXAPHENE	UG/KG	180UYJ	180UYJ	180UYJ	75UY	170UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C32-01	C32-01D	C33-01	C33-01	C33-01
SUB-SAMPLE ID:	C	DUP	A	B	C
STATION ID:	C32	C32	C33	C33	C33
SAMPLE DATE:	02/21/1992	02/21/1992	02/26/1992	02/26/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	1.00	1.00	3.00	7.00
LOWER DEPTH:	7.00	3.00	3.00	5.00	9.00
4,4'-DDD UG/KG	18UYJ	8.3UY	18UYJ	19UYJ	18UYJ
4,4'-DDE UG/KG	18UYJ	3UY	18UYJ	19UYJ	18UYJ
4,4'-DDT UG/KG	18UYJ	9UY	18UYJ	19UYJ	18UYJ
ALDRIN UG/KG	8.8UYJ	3UY	8.9UYJ	9.4UYJ	9UYJ
ALPHA-CHLORDANE UG/KG	88UYJ	3.7UY	89UYJ	94UYJ	90UYJ
AROCLOR-1016 UG/KG	88UYJ	36UY	89UYJ	94UYJ	90UYJ
AROCLOR-1221 UG/KG	88UYJ	90UY	89UYJ	94UYJ	90UYJ
AROCLOR-1232 UG/KG	88UYJ	90UY	89UYJ	94UYJ	90UYJ
AROCLOR-1242 UG/KG	88UYJ	36UY	89UYJ	94UYJ	90UYJ
AROCLOR-1248 UG/KG	88UYJ	18UY	89UYJ	94UYJ	90UYJ
AROCLOR-1254 UG/KG	180UYJ	18UY	180UYJ	190UYJ	180UYJ
AROCLOR-1260 UG/KG	180UYJ	18UY	180UYJ	190UYJ	180UYJ
BHC-ALPHA UG/KG	8.8UYJ	2.2UY	8.9UYJ	9.4UYJ	9UYJ
BHC-BETA UG/KG	8.8UYJ	4.5UY	8.9UYJ	9.4UYJ	9UYJ
BHC-DELTA UG/KG	8.8UYJ	4.5UY	8.9UYJ	9.4UYJ	9UYJ
BHC-GAMMA(LINDANE) UG/KG	8.8UYJ	3UY	8.9UYJ	9.4UYJ	9UYJ
DIELDRIN UG/KG	18UYJ	1.5UY	18UYJ	19UYJ	18UYJ
ENDOSULFAN I UG/KG	8.8UYJ	4.5UY	8.9UYJ	9.4UYJ	9UYJ
ENDOSULFAN II UG/KG	18UYJ	3UY	18UYJ	19UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	18UYJ	9UY	18UYJ	19UYJ	18UYJ
ENDRIN UG/KG	18UYJ	4.5UY	18UYJ	19UYJ	18UYJ
ENDRIN KETONE UG/KG	18UYJ	9UY	18UYJ	19UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	88UYJ	3.7UY	89UYJ	94UYJ	90UYJ
HEPTACHLOR UG/KG	8.8UYJ	2.2UY	8.9UYJ	9.4UYJ	9UYJ
HEPTACHLOR EPOXIDE UG/KG	8.8UYJ	4.5UY	8.9UYJ	9.4UYJ	9UYJ
METHOXYCHLOR UG/KG	88UYJ	18UY	89UYJ	94UYJ	90UYJ
TOXAPHENE UG/KG	180UYJ	75UY	180UYJ	190UYJ	180UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R-unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C34-01	C34-01	C34-01	C34-01D	C35-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C34	C34	C34	C34	C35
SAMPLE DATE:	02/24/1992	02/24/1992	02/24/1992	02/24/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	3.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	5.00
4,4'-DDD UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
4,4'-DDE UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
4,4'-DDT UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
ALDRIN UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
ALPHA-CHLORDANE UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
AROCLOR-1016 UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
AROCLOR-1221 UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
AROCLOR-1232 UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
AROCLOR-1242 UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
AROCLOR-1248 UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
AROCLOR-1254 UG/KG	220UYJ	180UYJ	180UYJ	220UYJ	180UYJ
AROCLOR-1260 UG/KG	220UYJ	180UYJ	180UYJ	220UYJ	180UYJ
BHC-ALPHA UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
BHC-BETA UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
BHC-DELTA UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
BHC-GAMMA(LINDANE) UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
DIELDRIN UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
ENDOSULFAN I UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
ENDOSULFAN II UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
ENDRIN UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
ENDRIN KETONE UG/KG	22UYJ	18UYJ	18UYJ	22UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
HEPTACHLOR UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
HEPTACHLOR EPOXIDE UG/KG	11UYJ	8.9UYJ	9.2UYJ	11UYJ	8.8UYJ
METHOXYCHLOR UG/KG	110UYJ	89UYJ	92UYJ	110UYJ	88UYJ
TOXAPHENE UG/KG	220UYJ	180UYJ	180UYJ	220UYJ	180UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C35-01	C35-01	C36-01	C36-01	C36-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C35	C35	C36	C36	C36
SAMPLE DATE:	02/19/1992	02/19/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	7.00	0.00	2.00	4.00
LOWER DEPTH:	7.00	9.00	2.00	4.00	6.00
4,4'-DDD UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
4,4'-DDE UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
4,4'-DDT UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
ALDRIN UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
ALPHA-CHLORDANE UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
AROCLOR-1016 UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
AROCLOR-1221 UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
AROCLOR-1232 UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
AROCLOR-1242 UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
AROCLOR-1248 UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
AROCLOR-1254 UG/KG	1700UYJ	1800UYJ	2100UYJ	180UYJ	180UYJ
AROCLOR-1260 UG/KG	1700UYJ	1800UYJ	2100UYJ	180UYJ	180UYJ
BHC-ALPHA UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
BHC-BETA UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
BHC-DELTA UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
BHC-GAMMA(LINDANE) UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
DIELDRIN UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
ENDOSULFAN I UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
ENDOSULFAN II UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
ENDRIN UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
ENDRIN KETONE UG/KG	170UYJ	180UYJ	210UYJ	18UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
HEPTACHLOR UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
HEPTACHLOR EPOXIDE UG/KG	87UYJ	89UYJ	100UYJ	9UYJ	9.1UYJ
METHOXYCHLOR UG/KG	870UYJ	890UYJ	1000UYJ	90UYJ	91UYJ
TOXAPHENE UG/KG	1700UYJ	1800UYJ	2100UYJ	180UYJ	180UYJ

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C37-01	C37-01	C37-01D	C38-01	C38-01
SUB-SAMPLE ID:	A	B	DUP	A	B
STATION ID:	C37	C37	C37	C38	C38
SAMPLE DATE:	04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	0.00	8.00	10.00
LOWER DEPTH:	2.00	4.00	2.00	10.00	12.00
4,4'-DDD UG/KG	190UYJ	710DYJ	190UYJ	24UY	26UY
4,4'-DDE UG/KG	190UYJ	220UYJ	190UYJ	24UY	26UY
4,4'-DDT UG/KG	190UYJ	220UYJ	190UYJ	24UY	26UY
ALDRIN UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
ALPHA-CHLORDANE UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
AROCLOR-1016 UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
AROCLOR-1221 UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
AROCLOR-1232 UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
AROCLOR-1242 UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
AROCLOR-1248 UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
AROCLOR-1254 UG/KG	1900UYJ	2200UYJ	1900UYJ	240UY	260UY
AROCLOR-1260 UG/KG	1900UYJ	2200UYJ	1900UYJ	240UY	260UY
BHC-ALPHA UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
BHC-BETA UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
BHC-DELTA UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
BHC-GAMMA(LINDANE) UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
DIELDRIN UG/KG	190UYJ	220UYJ	190UYJ	24UY	26UY
ENDOSULFAN I UG/KG	96UYJ	320UYJ	95UYJ	12UY	13UY
ENDOSULFAN II UG/KG	190UYJ	220UYJ	190UYJ	24UY	26UY
ENDOSULFAN SULFATE UG/KG	190UYJ	780UYJ	190UYJ	24UY	26UY
ENDRIN UG/KG	190UYJ	220UYJ	190UYJ	24UY	26UY
ENDRIN KETONE UG/KG	190UYJ	220UYJ	190UYJ	24UY	26UY
GAMMA-CHLORDANE UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
HEPTACHLOR UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
HEPTACHLOR EPOXIDE UG/KG	96UYJ	110UYJ	95UYJ	12UY	13UY
METHOXYCHLOR UG/KG	960UYJ	1100UYJ	950UYJ	120UY	130UY
TOXAPHENE UG/KG	1900UYJ	2200UYJ	1900UYJ	240UY	260UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		C38-01	C39-01	C39-01	C39-01	C39-01D
SUB-SAMPLE ID:		C	A	B	C	DUP
STATION ID:		C38	C39	C39	C39	C39
SAMPLE DATE:		02/18/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		12.00	0.00	4.00	6.00	6.00
LOWER DEPTH:		14.00	2.00	6.00	8.00	8.00
4,4'-DDD	UG/KG	18UY	18UY	18UY	18UY	20UY
4,4'-DDE	UG/KG	18UY	18UY	18UY	18UY	20UY
4,4'-DDT	UG/KG	18UY	18UY	18UY	18UY	20UY
ALDRIN	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
ALPHA-CHLORDANE	UG/KG	92UY	89UY	90UY	90UY	100UY
AROCLOR-1016	UG/KG	92UY	89UY	90UY	90UY	100UY
AROCLOR-1221	UG/KG	92UY	89UY	90UY	90UY	100UY
AROCLOR-1232	UG/KG	92UY	89UY	90UY	90UY	100UY
AROCLOR-1242	UG/KG	92UY	89UY	90UY	90UY	100UY
AROCLOR-1248	UG/KG	92UY	89UY	90UY	90UY	100UY
AROCLOR-1254	UG/KG	180UY	180UY	180UY	180UY	200UY
AROCLOR-1260	UG/KG	180UY	180UY	180UY	180UY	200UY
BHC-ALPHA	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
BHC-BETA	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
BHC-DELTA	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
BHC-GAMMA(LINDANE)	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
DIELDRIN	UG/KG	18UY	18UY	18UY	18UY	20UY
ENDOSULFAN I	UG/KG	9.2UY	15UY	9UY	9UY	10UY
ENDOSULFAN II	UG/KG	18UY	18UY	18UY	18UY	20UY
ENDOSULFAN SULFATE	UG/KG	18UY	18UY	18UY	18UY	20UY
ENDRIN	UG/KG	18UY	18UY	18UY	18UY	20UY
ENDRIN KETONE	UG/KG	18UY	18UY	18UY	18UY	20UY
GAMMA-CHLORDANE	UG/KG	92UY	89UY	90UY	90UY	100UY
HEPTACHLOR	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
HEPTACHLOR EPOXIDE	UG/KG	9.2UY	8.9UY	9UY	9UY	10UY
METHOXYCHLOR	UG/KG	92UY	89UY	90UY	90UY	100UY
TOXAPHENE	UG/KG	180UY	180UY	180UY	180UY	200UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C40-01	C40-01	C40-01	C41-01	C41-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C40	C40	C40	C41	C41
SAMPLE DATE:	02/13/1992	02/13/1992	02/13/1992	02/12/1992	02/12/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.00	4.00	6.00	0.00	4.00
LOWER DEPTH:	4.00	6.00	8.00	2.00	6.00
4,4'-DDD UG/KG	8.5UY	8.3UY	8.3UY	20UYJ	44UY
4,4'-DDE UG/KG	3.1UY	3UY	3UY	20UYJ	16UY
4,4'-DDT UG/KG	9.2UY	9UY	9UY	20UYJ	47UY
ALDRIN UG/KG	3.1UY	3UY	3UY	9.9UYJ	16UY
ALPHA-CHLORDANE UG/KG	3.8UY	3.7UY	3.7UY	99UYJ	19UY
AROCLOR-1016 UG/KG	37UY	36UY	36UY	99UYJ	190UY
AROCLOR-1221 UG/KG	92UY	90UY	90UY	99UYJ	470UY
AROCLOR-1232 UG/KG	92UY	90UY	90UY	99UYJ	470UY
AROCLOR-1242 UG/KG	37UY	36UY	36UY	99UYJ	190UY
AROCLOR-1248 UG/KG	18UY	18UY	18UY	99UYJ	94UY
AROCLOR-1254 UG/KG	18UY	18UY	18UY	200UYJ	94UY
AROCLOR-1260 UG/KG	18UY	18UY	18UY	200UYJ	94UY
BHC-ALPHA UG/KG	2.3UY	2.2UY	2.2UY	9.9UYJ	12UY
BHC-BETA UG/KG	4.6UY	4.5UY	4.5UY	9.9UYJ	24UY
BHC-DELTA UG/KG	4.6UY	4.5UY	4.5UY	9.9UYJ	24UY
BHC-GAMMA(LINDANE) UG/KG	3.1UY	3UY	3UY	9.9UYJ	16UY
DIELDRIN UG/KG	1.5UY	1.5UY	1.5UY	20UYJ	7.6UY
ENDOSULFAN I UG/KG	4.6UY	4.5UY	4.5UY	17DYJ	24UY
ENDOSULFAN II UG/KG	3.1UY	3UY	3UY	20UYJ	16UY
ENDOSULFAN SULFATE UG/KG	9.2UY	9UY	9UY	20UYJ	47UY
ENDRIN UG/KG	4.6UY	4.5UY	4.5UY	20UYJ	24UY
ENDRIN KETONE UG/KG	9.2UY	9UY	9UY	20UYJ	47UY
GAMMA-CHLORDANE UG/KG	3.8UY	3.7UY	3.7UY	99UYJ	19UY
HEPTACHLOR UG/KG	2.3UY	2.2UY	2.2UY	9.9UYJ	12UY
HEPTACHLOR EPOXIDE UG/KG	4.6UY	4.5UY	4.5UY	9.9UYJ	24UY
METHOXYCHLOR UG/KG	18UY	18UY	18UY	99UYJ	94UY
TOXAPHENE UG/KG	77UY	75UY	75UY	200UYJ	390UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C41-01	C42-01	C42-01	C42-01	C43-01
SUB-SAMPLE ID:	C	A	B	C	A
STATION ID:	C41	C42	C42	C42	C43
SAMPLE DATE:	02/12/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	6.00	4.00	6.00	10.00	3.00
LOWER DEPTH:	8.00	6.00	8.00	12.00	5.00
4,4'-DDD UG/KG	8.6UY	22UYJ	19UYJ	18UYJ	18UYJ
4,4'-DDE UG/KG	3.1UY	22UYJ	19UYJ	18UYJ	18UYJ
4,4'-DDT UG/KG	9.3UY	22UYJ	19UYJ	18UYJ	18UYJ
ALDRIN UG/KG	3.1UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
ALPHA-CHLORDANE UG/KG	3.8UY	110UYJ	94UYJ	92UYJ	90UYJ
AROCLOR-1016 UG/KG	37UY	110UYJ	94UYJ	92UYJ	90UYJ
AROCLOR-1221 UG/KG	93UY	110UYJ	94UYJ	92UYJ	90UYJ
AROCLOR-1232 UG/KG	93UY	110UYJ	94UYJ	92UYJ	90UYJ
AROCLOR-1242 UG/KG	37UY	110UYJ	94UYJ	92UYJ	90UYJ
AROCLOR-1248 UG/KG	19UY	110UYJ	94UYJ	92UYJ	90UYJ
AROCLOR-1254 UG/KG	19UY	220UYJ	190UYJ	180UYJ	180UYJ
AROCLOR-1260 UG/KG	19UY	220UYJ	190UYJ	180UYJ	180UYJ
BHC-ALPHA UG/KG	2.3UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
BHC-BETA UG/KG	4.7UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
BHC-DELTA UG/KG	4.7UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
BHC-GAMMA(LINDANE) UG/KG	3.1UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
DIELDRIN UG/KG	1.5UY	22UYJ	19UYJ	18UYJ	18UYJ
ENDOSULFAN I UG/KG	4.7UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
ENDOSULFAN II UG/KG	3.1UY	22UYJ	19UYJ	18UYJ	18UYJ
ENDOSULFAN SULFATE UG/KG	9.3UY	22UYJ	19UYJ	18UYJ	330UYJ
ENDRIN UG/KG	4.7UY	22UYJ	19UYJ	18UYJ	18UYJ
ENDRIN KETONE UG/KG	9.3UY	22UYJ	19UYJ	18UYJ	18UYJ
GAMMA-CHLORDANE UG/KG	3.8UY	110UYJ	94UYJ	92UYJ	90UYJ
HEPTACHLOR UG/KG	2.3UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
HEPTACHLOR EPOXIDE UG/KG	4.7UY	11UYJ	9.4UYJ	9.2UYJ	9UYJ
METHOXYCHLOR UG/KG	19UY	110UYJ	94UYJ	92UYJ	90UYJ
TOXAPHENE UG/KG	78UY	220UYJ	190UYJ	180UYJ	180UYJ

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/-XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J-estimated, R-unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	C43-01	C43-01	C44-01	C44-01	C44-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C43	C43	C44	C44	C44
SAMPLE DATE:	02/19/1992	02/19/1992	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	11.00	4.00	6.00	8.00
LOWER DEPTH:	9.00	13.00	6.00	8.00	10.00
4,4'-DDD UG/KG	17UYJ	18UYJ	8.9UY	8.3UY	8.8UY
4,4'-DDE UG/KG	17UYJ	18UYJ	3.3UY	3UY	3.2UY
4,4'-DDT UG/KG	17UYJ	18UYJ	9.6UY	9UY	9.5UY
ALDRIN UG/KG	8.7UYJ	8.9UYJ	3.3UY	3UY	3.2UY
ALPHA-CHLORDANE UG/KG	87UYJ	89UYJ	4UY	3.7UY	3.9UY
AROCLOR-1016 UG/KG	87UYJ	89UYJ	39UY	36UY	38UY
AROCLOR-1221 UG/KG	87UYJ	89UYJ	96UY	90UY	95UY
AROCLOR-1232 UG/KG	87UYJ	89UYJ	96UY	90UY	95UY
AROCLOR-1242 UG/KG	87UYJ	89UYJ	39UY	36UY	38UY
AROCLOR-1248 UG/KG	87UYJ	89UYJ	19UY	18UY	19UY
AROCLOR-1254 UG/KG	170UYJ	180UYJ	19UY	18UY	19UY
AROCLOR-1260 UG/KG	170UYJ	180UYJ	19UY	18UY	19UY
BHC-ALPHA UG/KG	8.7UYJ	8.9UYJ	2.4UY	2.2UY	2.4UY
BHC-BETA UG/KG	8.7UYJ	8.9UYJ	4.8UY	4.5UY	4.8UY
BHC-DELTA UG/KG	8.7UYJ	8.9UYJ	4.8UY	4.5UY	4.8UY
BHC-GAMMA(LINDANE) UG/KG	8.7UYJ	8.9UYJ	3.3UY	3UY	3.2UY
DIELDRIN UG/KG	17UYJ	18UYJ	1.6UY	1.5UY	1.5UY
ENDOSULFAN I UG/KG	8.7UYJ	8.9UYJ	4.8UY	4.5UY	4.8UY
ENDOSULFAN II UG/KG	17UYJ	18UYJ	3.3UY	3UY	3.2UY
ENDOSULFAN SULFATE UG/KG	17UYJ	18UYJ	9.6UY	9UY	9.5UY
ENDRIN UG/KG	17UYJ	18UYJ	4.8UY	4.5UY	4.8UY
ENDRIN KETONE UG/KG	17UYJ	18UYJ	9.6UY	9UY	9.5UY
GAMMA-CHLORDANE UG/KG	87UYJ	89UYJ	4UY	3.7UY	3.9UY
HEPTACHLOR UG/KG	8.7UYJ	8.9UYJ	2.4UY	2.2UY	2.4UY
HEPTACHLOR EPOXIDE UG/KG	8.7UYJ	8.9UYJ	4.8UY	4.5UY	4.8UY
METHOXYCHLOR UG/KG	87UYJ	89UYJ	19UY	18UY	19UY
TOXAPHENE UG/KG	170UYJ	180UYJ	81UY	75UY	80UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	FB-11	FB-12	FB-13	FB-14	FB-15
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:	02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	0.1UYJ	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UYJ	0.04UY	0.04UY	0.1UY	0.04UY
4,4'-DDT UG/L	0.1UYJ	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UYJ	0.04UY	0.04UY	0.05UY	0.04UY
ALPHA-CHLORDANE UG/L	0.5UYJ	0.05UY	0.05UY	0.5UY	0.05UY
AROCLOR-1016 UG/L	0.5UYJ	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UYJ	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UYJ	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UYJ	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UYJ	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	1UYJ	1UY	0.5UY	1UY	0.5UY
AROCLOR-1260 UG/L	1UYJ	1UY	0.5UY	1UY	0.5UY
BHC-ALPHA UG/L	0.05UYJ	0.03UY	0.03UY	0.05UY	0.03UY
BHC-BETA UG/L	0.05UYJ	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UYJ	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UYJ	0.04UY	0.04UY	0.05UY	0.04UY
DIELDRIN UG/L	0.1UYJ	0.02UY	0.02UY	0.1UY	0.02UY
ENDOSULFAN I UG/L	0.05UYJ	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UYJ	0.04UY	0.04UY	0.1UY	0.04UY
ENDOSULFAN SULFATE UG/L	0.1UYJ	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UYJ	0.06UY	0.06UY	0.1UY	0.06UY
ENDRIN KETONE UG/L	0.1UYJ	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UYJ	0.05UY	0.05UY	0.5UY	0.05UY
HEPTACHLOR UG/L	0.05UYJ	0.03UY	0.03UY	0.05UY	0.03UY
HEPTACHLOR EPOXIDE UG/L	0.05UYJ	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UYJ	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UYJ	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		FB-11	FB-12	FB-13	FB-14	FB-15
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:		02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
1,2,4-TRICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DINITROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE	UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE	UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE	UG/L	40UY	20UY	20UY	20UY	20UY
3-NITROANILINE	UG/L	10UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE	UG/L	10UY	10UY	10UY	10UY	10UY
4 CHLOROPHENYL PHENYL ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
4-NITROANILINE	UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE	UG/L	10UY	10UY	10UY	10UY	10UY

NN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
= less than detection limit, D = detected, J = estimated, R = unusable,
N = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		FB-11	FB-12	FB-13	FB-14	FB-15
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:		02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID	UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL	UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	1DYJ	3DYJ	10UY	10UY	10UY
CAFFEINE	UG/L	10UY	10UY	10UY	10UYJ	10UY
CHRYSENE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	3DYJ	3DYJ	10UY	10UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN	UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE	UG/L	10U	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	FB-11	FB-12	FB-13	FB-14	FB-15
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:	02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME					
SAMPLE MATRIX	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH					
LOWER DEPTH:					
N-NITROSODIPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	10UY	50UY	50UY	50UY	50UY
PHENANTHRENE UG/L	50UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
a-PINENE UG/L	10UY	10UYJ	10UY	10UYJ	10UYJ
d-LIMONENE UG/L	10UY	10UY	10UY	10UYJ	10UY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		FB-11	FB-12	FB-13	FB-14	FB-15
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:		02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1,2,2-TETRACHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1,2-TRICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1-DICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1-DICHLOROETHENE	UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROETHENE (TOTAL)	UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROPROPANE	UG/L	5UY	5UY	5UY	5UY	5UY
2-BUTANONE	UG/L	UYR	10UY	10UY	10UY	10UY
2-HEXANONE	UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYL-2-PENTANONE	UG/L	10UY	10UY	10UY	10UY	10UY
ACETONE	UG/L	10UY	5DYJ	10UY	10UY	10UY
BENZENE	UG/L	5UY	5UY	5UY	5UY	5UY
BROMODICHLOROMETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
BROMOFORM	UG/L	5UY	5UY	5UY	5UY	5UY
BROMOMETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
CARBON DISULFIDE	UG/L	5UY	5UY	5UY	5UY	5UY
CARBON TETRACHLORIDE	UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROBENZENE	UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
CHLOROFORM	UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROMETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
CIS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UY	5UY	5UY
DIBROMOCHLOROMETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
ETHYLBENZENE	UG/L	5UY	5UY	5UY	5UY	5UY
METHYLENE CHLORIDE	UG/L	5UY	7DY	5UY	5UY	5UY
STYRENE	UG/L	5UY	5UY	5UY	5UY	5UY
TETRACHLOROETHENE	UG/L	5UY	5UY	5UY	5UY	5UY
TOLUENE	UG/L	5UY	5UY	5UY	5UY	5UY
TRANS 1,3 DICHLOROPROPENE	UG/L	5UY	5UY	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

.AMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	FB-11	FB-12	FB-13	FB 14	FB-15
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:	02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
TRICHLOROETHENE UG/L	5UY	5UY	5UY	5UY	5UY
VINYL ACETATE UG/L	10UYJ	10UY	10UY	10UY	10UY
VINYL CHLORIDE UG/L	10UY	10UY	10UY	10UY	10UY
XYLENE (TOTAL) UG/L	5UY	5UY	5UY	5UY	5UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
IN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	FB-16	FB-17	FB-18
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:	04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
ALUMINUM UG/L	38DYJ	39UY	39UY
ANTIMONY UG/L	7UY	9UY	9UYJ
ARSENIC UG/L	2UYJ	2UYJ	2UYJ
BARIUM UG/L	5UY	5UY	5UY
BERYLLIUM UG/L	2UY	4UY	4UY
CADMIUM UG/L	5UY	7DY	5UY
CALCIUM UG/L	16UY	21UY	21UY
CHROMIUM UG/L	10UY	6UY	6UY
COBALT UG/L	14UY	14UY	14UY
COPPER UG/L	9UYJ	9UY	9UYJ
CYANIDE UG/L	5UY	5UY	5UY
IRON UG/L	129DY	21UY	164DY
LEAD UG/L	1UYJ	1UYJ	1UYJ
MAGNESIUM UG/L	48DYJ	46UY	46UY
MANGANESE UG/L	UYR	UYR	UYR
MERCURY UG/L	0.1UY	0.1UY	0.1UY
NICKEL UG/L	15UY	15UY	15UY
POTASSIUM UG/L	95UY	95UY	95UY
SELENIUM UG/L	1UY	1UY	1UY
SILVER UG/L	1UY	1UY	1UY
SODIUM UG/L	111UY	111UY	180DYJ
THALLIUM UG/L	2.4DYJ	1.7DYJ	2.3DYJ
VANADIUM UG/L	5UY	15UY	15UY
ZINC UG/L	UYR	UYR	UYR

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	FB-16	FB-17	FB-18
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:	04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	1UY	1UY	1UY
AROCLOR-1260 UG/L	1UY	1UY	1UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY
BHC GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY
DIELDRIN UG/L	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY

.NN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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N = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		FB-16	FB-17	FB-18
SUB-SAMPLE ID:		00000	00000	00000
STATION ID:		SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:		04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:				
SAMPLE MATRIX:		AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
1,2,4-TRICHLOROBENZENE	UG/L	10UY	10UYJ	10UY
1,2-DICHLOROBENZENE	UG/L	10UY	10UYJ	10UY
1,2-DIPHENYLHYDRAZINE				
1,3-DICHLOROBENZENE	UG/L	10UY	10UYJ	10UY
1,4-DICHLOROBENZENE	UG/L	10UY	10UYJ	10UY
2,4,5-TRICHLOROPHENOL	UG/L	50UY	50UYJ	50UY
2,4,6-TRICHLOROPHENOL	UG/L	10UY	10UYJ	10UY
2,4-DICHLOROPHENOL	UG/L	10UY	10UYJ	10UY
2,4-DIMETHYLPHENOL	UG/L	10UY	10UYJ	10UY
2,4-DINITROPHENOL	UG/L	50UY	50UYJ	50UY
2,4-DINITROTOLUENE	UG/L	10UY	10UYJ	10UY
2,6-DINITROTOLUENE	UG/L	10UY	10UYJ	10UY
2-CHLORONAPHTHALENE	UG/L	10UY	10UYJ	10UY
2-CHLOROPHENOL	UG/L	10UY	10UYJ	10UY
2-METHYLNAPHTHALENE	UG/L	10UY	10UYJ	10UY
2-METHYLPHENOL	UG/L	10UY	10UYJ	10UY
2-NITROANILINE	UG/L	50UY	50UYJ	50UY
2-NITROPHENOL	UG/L	10UY	10UYJ	10UY
3,3'-DICHLOROBENZIDINE	UG/L	20UYJ	20UYJ	20UY
3-NITROANILINE	UG/L	50UY	50UYJ	50UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	50UY	50UYJ	50UY
4-BROMOPHENYL PHENYL ETHER	UG/L	10UY	10UYJ	10UY
4-CHLORO-3-METHYLPHENOL	UG/L	10UY	10UYJ	10UY
4-CHLOROANILINE	UG/L	10UY	10UYJ	10UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	10UY	10UYJ	10UY
4-METHYLPHENOL	UG/L	10UY	10UYJ	10UY
4-NITROANILINE	UG/L	50UYJ	50UYJ	50UY
4-NITROPHENOL	UG/L	50UY	50UYJ	50UY
ACENAPHTHENE	UG/L	10UY	10UYJ	10UY
ACENAPHTHYLENE	UG/L	10UY	10UYJ	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	FB-16	FB-17	FB-18
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:	04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
ANTHRACENE UG/L	10UY	10UYJ	10UY
BENZO(A)ANTHRACENE UG/L	10UY	10UYJ	10UY
BENZO(A)PYRENE UG/L	10UY	10UYJ	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UYJ	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UYJ	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UYJ	10UY
BENZOIC ACID UG/L	50UY	50UYJ	50UY
BENZYL ALCOHOL UG/L	10UY	10UYJ	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UYJ	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UYJ	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UYJ	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UYJ	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	6DYJ	10UYJ	10UY
CAFFEINE UG/L	10UYJ	10UYJ	10UY
CHRYSENE UG/L	10UY	10UYJ	10UY
DI-N BUTYL PHTHALATE UG/L	10UY	10UYJ	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UYJ	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UYJ	10UY
DIBENZOFURAN UG/L	10UY	10UYJ	10UY
DIETHYL PHTHALATE UG/L	10UY	10UYJ	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UYJ	10UY
FLUORANTHENE UG/L	10UY	10UYJ	10UY
FLUORENE UG/L	10UY	10UYJ	10UY
HEXACHLOROBENZENE UG/L	10UY	10UYJ	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UYJ	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UYJ	10UY
HEXACHLOROETHANE UG/L	10UY	10UYJ	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UYJ	10UY
ISOPHORONE UG/L	10UY	10UYJ	10UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UYJ	10UY

NN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
= less than detection limit, D = detected, J = estimated, R = unusable,
N = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	FB-16	FB-17	FB-18
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:	04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
N-NITROSODIPROPYLAMINE UG/L	10UY	10UYJ	10UY
NAPHTHALENE UG/L	10UY	10UYJ	10UY
NITROBENZENE UG/L	10UY	10UYJ	10UY
PENTACHLOROPHENOL UG/L	50UY	50UYJ	50UY
PHENANTHRENE UG/L	10UY	10UYJ	10UY
PHENOL UG/L	10UY	10UYJ	10UY
PYRENE UG/L	10UY	10UYJ	10UY
a-PINENE UG/L	10UYJ	10UYJ	10UY
d-LIMONENE UG/L	10UYJ	10UYJ	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		FB-16	FB-17	FB-18
SUB-SAMPLE ID:		00000	00000	00000
STATION ID:		SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:		04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:				
SAMPLE MATRIX:		AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
1,1,1-TRICHLOROETHANE	UG/L	5UY	5UY	2DYJ
1,1,2,2-TETRACHLOROETHANE	UG/L	5UY	5UY	5UY
1,1,2-TRICHLOROETHANE	UG/L	5UY	5UY	5UY
1,1-DICHLOROETHANE	UG/L	5UY	5UY	5UY
1,1-DICHLOROETHENE	UG/L	5UY	5UY	5UY
·,2-DICHLOROETHANE	UG/L	5UY	5UY	5UY
1,2-DICHLOROETHENE (TOTAL)	UG/L	5UY	5UY	5UY
1,2-DICHLOROPROPANE	UG/L	5UY	5UY	5UY
2-BUTANONE	UG/L	UYR	UYR	UYR
2-HEXANONE	UG/L	10UY	10UY	10UY
4-METHYL-2-PENTANONE	UG/L	10UY	10UY	10UY
ACETONE	UG/L	10UYJ	10UYJ	10UYJ
BENZENE	UG/L	5UY	5UY	5UY
BROMODICHLOROMETHANE	UG/L	5UY	5UY	5UY
BROMOFORM	UG/L	5UY	5UY	5UY
BROMOMETHANE	UG/L	10UY	10UY	10UY
CARBON DISULFIDE	UG/L	5UY	5UY	5UY
CARBON TETRACHLORIDE	UG/L	5UY	5UY	5UY
CHLOROBENZENE	UG/L	5UY	5UY	5UY
CHLOROETHANE	UG/L	10UY	10UY	10UY
CHLOROFORM	UG/L	5UY	5UY	5UY
CHLOROMETHANE	UG/L	10UY	10UY	10UY
CIS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UY
DIBROMOCHLOROMETHANE	UG/L	5UY	5UY	5UY
ETHYLBENZENE	UG/L	5UY	5UY	5UY
METHYLENE CHLORIDE	UG/L	4DYJ	3DYJ	2DYJ
STYRENE	UG/L	5UY	5UY	5UY
TETRACHLOROETHENE	UG/L	5UY	5UY	5UY
TOLUENE	UG/L	5UY	5UY	5UY
TRANS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UY

'N+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
= less than det tion limit, D = detected, J = estimated, R = unusable,
J = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: VOLATILE ORGANICS.

SAMPLE ID:	FB-16	FB-17	FB-18
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SB-FB-16	SB-FB-17	SB-FB-18
SAMPLE DATE:	04/03/1992	04/07/1992	04/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
TRICHLOROETHENE UG/L	5UY	5UY	5UY
VINYL ACETATE UG/L	10UY	10UY	10UY
VINYL CHLORIDE UG/L	10UY	10UY	10UY
XYLENE (TOTAL) UG/L	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN - AQUEOUS BLANKS LITHIUM RESULTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID	SUB SAMPLE	STATION ID	SAMPLE DATE/TIME	SAMPLE MATRIX	UPPER DEPTH	LOWER DEPTH	LITHIUM
BM-FB-03	00000	BM-FB-03	08/04/1992:	AQ			9UY UG/L
FB-01	00000	SB-FB-01	02/12/1992:	AQ			8.8UY UG/L
FB-12	00000	SB-FB-12	03/30/1992:	AQ			8.8UYJ UG/L
FB-13	00000	SB-FB-13	03/31/1992:	AQ			8.8UY UG/L
FB-14	00000	SB-FB-14	04/01/1992:	AQ			9UY UG/L
FB-15	00000	SB-FB-15	04/02/1992:	AQ			8.8UY UG/L
FB-16	00000	SB-FB-16	04/03/1992:	AQ			9UY UG/L
FB-17	00000	SB-FB-17	04/07/1992:	AQ			9UY UG/L
FB-18	00000	SB-FB-18	04/08/1992:	AQ			9UY UG/L
GW-FB-01	00000	GW-FB-01	07/22/1992:	AQ			9UY UG/L
GW-FB-02	00000	GW-FB-02	07/27/1992:	AQ			9UY UG/L
GW-FB-03	00000	GW-FB-03	07/29/1992:	AQ			9UYJ UG/L
GW-FB-04	00000	GW-FB-04	07/30/1992:	AQ			11DYJ UG/L
SD-FB-01	00000	SD-FB-01	07/20/1992:	AQ			9UYJ UG/L
SW-FB-03	00000	SW-FB-03	07/24/1992:	AQ			9UY UG/L

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN - SEDIMENTS LITHIUM RESULTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID	SUB SAMPLE	STATION ID	SAMPLE DATE/TIME	SAMPLE MATRIX	UPPER DEPTH	LOWER DEPTH	LITHIUM
BMSD01-01	00-01	BMSD01	08/04/1992:	SD	0.00	1.00	2.4UY MG/KG
BMSD01-01	01-03	BMSD01	08/04/1992:	SD	1.00	3.00	3.4UY MG/KG
BMSD01-01	03-04	BMSD01	08/04/1992:	SD	3.00	4.00	6.3DYJ MG/KG
BMSD01D-01	01-03	BMSD01D	08/04/1992:	SD	1.00	3.00	3.5DYJ MG/KG
SD01-01	00000	SD01	07/21/1992:	SD			8.8DYJ MG/KG
SD02-01	00000	SD02	07/24/1992:	SD			6.7DY MG/KG
SD03-01	00000	SD03	07/20/1992:	SD			31.6DYJ MG/KG
SD04-01	00000	SD04	07/21/1992:	SD			15.5DYJ MG/KG
SD05-01	00000	SD05	07/20/1992:	SD			7.4DY MG/KG
SD05D-01	00000	SD05D	07/20/1992:	SD			5.5DY MG/KG
SD06-01	00000	SD06	07/20/1992:	SD			5.6DYJ MG/KG

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN - SURFACE WATER LITHIUM RESULTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID	SUB SAMPLE	STATION ID	SAMPLE DATE/TIME	SAMPLE MATRIX	UPPER DEPTH	LOWER DEPTH	LITHIUM
SW01-01	00000	SW01	07/21/1992:	SW			140YJ UG/L
SW02-01	00000	SW02	07/24/1992:	SW			9UY UG/L
SW03-01	00000	SW03	07/20/1992:	SW			17DYJ UG/L
SW04-01	00000	SW04	07/21/1992:	SW			25DY UG/L
SW05-01	00000	SW05	07/20/1992:	SW			9UYJ UG/L
SW06-01	00000	SW06	07/20/1992:	SW			38DY UG/L
SW06D-01	00000	SW06D	07/20/1992:	SW			37DY UG/L
SW07-01	00000	SW07	07/20/1992:	SW			9UYJ UG/L

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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Metals and Cyanide

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOIL BORINGS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	MG/KG	130	130	1.0000	156.000	24,100.000	5,176.377	3,141.495
SB	ANTIMONY	MG/KG	130	48	0.3692	2.100	18.900	3.890	2.981
AS	ARSENIC	MG/KG	130	130	1.0000	0.650	105.000	7.506	15.189
BA	BARIUM	MG/KG	130	130	1.0000	13.900	1,670.000	132.155	176.460
BE	BERYLLIUM	MG/KG	130	108	0.8308	0.070	1.800	0.674	0.381
CD	CADMIUM	MG/KG	121	11	0.0909	0.690	4.000	1.755	0.941
CA	CALCIUM	MG/KG	130	130	1.0000	341.000	286,000.000	17,062.862	45,905.614
CR	CHROMIUM	MG/KG	122	119	0.9754	3.100	2,440.000	92.219	277.483
CO	COBALT	MG/KG	130	58	0.4462	1.800	15.900	4.817	1.950
CU	COPPER	MG/KG	116	112	0.9655	2.100	358.000	34.299	54.651
CN	CYANIDE	MG/KG	130	12	0.0923	0.470	157.000	42.853	57.551
FE	IRON	MG/KG	126	126	1.0000	415.000	30,200.000	7,924.230	3,597.718
PB	LEAD	MG/KG	125	125	1.0000	2.400	1,050.000	81.298	169.740
LI	LITHIUM	MG/KG	61	59	0.9672	2.000	810.000	61.959	147.325
MG	MAGNESIUM	MG/KG	130	130	1.0000	54.600	10,800.000	1,476.903	1,284.316
MN	MANGANESE	MG/KG	126	126	1.0000	3.700	750.000	176.458	130.915
HG	MERCURY	MG/KG	129	44	0.3411	0.060	4.800	0.503	0.781
NI	NICKEL	MG/KG	127	119	0.9370	2.600	54.100	10.167	6.775
K	POTASSIUM	MG/KG	130	127	0.9769	52.300	1,770.000	543.514	284.353
SE	SELENIUM	MG/KG	125	35	0.2800	0.240	3.000	0.687	0.622
AG	SILVER	MG/KG	130	27	0.2077	0.240	0.670	0.426	0.109
NA	SODIUM	MG/KG	116	115	0.9914	22.200	3,050.000	293.503	461.666
TL	THALLIUM	MG/KG	130	29	0.2231	0.230	0.740	0.464	0.150
V	VANADIUM	MG/KG	114	109	0.9561	2.000	63.200	16.246	10.700
ZN	ZINC	MG/KG	127	127	1.0000	5.400	735.000	55.345	80.400

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		BM-01	BM2-01	BM3-01	BM3-01	BM3D-01
SUB-SAMPLE ID:		A	A	A	B	DUP
STATION ID:		BM	BM2	BM3	BM3	BM3D
SAMPLE DATE:		02/25/1992	08/04/1992	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		0.00	0.00	1.00	3.00	1.00
LOWER DEPTH:		1.00	1.00	3.00	4.00	3.00
ALUMINUM	MG/KG	156DY	1870DYJ	263DYJ	6090DYJ	249DYJ
ANTIMONY	MG/KG	3.4UY	1.9UY	2.6UY	4UYJ	2.7UY
ARSENIC	MG/KG	0.78DYJ	1.7DYJ	0.93DYJ	5.5DYJ	1.2DYJ
BARIUM	MG/KG	449DY	241DYJ	238DYJ	1670DYJ	275DYJ
BERYLLIUM	MG/KG	0.37UY	0.54UY	0.74UY	1.1DYJ	0.78UY
CADMIUM	MG/KG	1.9UY	1.4UY	1.9UY	DYR	1.9UY
CALCIUM	MG/KG	286000DYJ	181000DYJ	261000DYJ	64900DYJ	248000DYJ
CHROMIUM	MG/KG	3.4UY	3.3DY	2.2UY	11.5DYJ	2.3UY
COBALT	MG/KG	9.7UY	6UY	8.2UY	12.6UYJ	8.5UY
COPPER	MG/KG	76.6DY	62.9DY	39.5DY	114DYJ	34.5DY
CYANIDE	MG/KG	3.6DY	119DY	111DY	157DYJ	102DY
IRON	MG/KG	415DY	2580DY	510DY	6490DYJ	438DY
LEAD	MG/KG	263DYJ	307DY	201DY	480DYJ	207DY
LITHIUM	MG/KG		2.4UY	3.4UY	6.3DYJ	3.5DYJ
MAGNESIUM	MG/KG	54.6DYJ	316DYJ	66.7DYJ	695DYJ	89.1DYJ
MANGANESE	MG/KG	3.7DYJ	38.6DY	7.8DY	135DYJ	7DY
MERCURY	MG/KG	0.08UY	DYR	0.09UY	0.59DYJ	0.1UY
NICKEL	MG/KG	8.6DYJ	9.5DYJ	8.6DYJ	26.4DYJ	9.7DYJ
POTASSIUM	MG/KG	52.3DYJ	101DYJ	22.7UY	167DYJ	23.6UY
SELENIUM	MG/KG	3.7UYJ	UYR	UYR	DYR	UYR
SILVER	MG/KG	0.52DYJ	0.27UYJ	0.37UYJ	0.57UYJ	0.39UYJ
SODIUM	MG/KG	357DYJ	217DYJ	364DYJ	507DYJ	366DYJ
THALLIUM	MG/KG	0.37UY	0.54UYJ	0.74UYJ	1.1UYJ	0.78UYJ
VANADIUM	MG/KG	8.6UY	22.3DY	26.4DY	63.2DYJ	27.5DY
ZINC	MG/KG	25.4DY	39.7DY	26.4DY	167DYJ	17.8DY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C01-01	C01-01	C01-01	C01-01D	C02-01
SUB-SAMPLE ID:	A	B	C	DUP	A
STATION ID:	C01	C01	C01	C01	C02
SAMPLE DATE:	03/30/1992	03/30/1992	03/30/1992	03/30/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	1.00	3.00	5.00	1.00	0.00
LOWER DEPTH:	3.00	5.00	7.00	3.00	2.00
ALUMINUM MG/KG	4810DY	4160DY	5_10DY	5830DY	4860DY
ANTIMONY MG/KG	1.6UYJ	2.8UYJ	2.5UYJ	1.8UYJ	2.1UY
ARSENIC MG/KG	5.8DY	0.83DYJ	1.5DYJ	3.6DY	1.6DYJ
BARIUM MG/KG	45.3DYJ	39.6DYJ	64.7DY	50.4DYJ	44.4DYJ
BERYLLIUM MG/KG	1.2DY	0.42DYJ	0.37DYJ	1DYJ	0.92UY
CADMIUM MG/KG	1.2UY	0.6UY	0.66UY	1.3UY	1.2UY
CALCIUM MG/KG	5760DYJ	1210DY	1830DY	10600DYJ	3710DY
CHROMIUM MG/KG	39.9DYJ	9.3DY	7.4DY	45.9DYJ	25.5DY
COBALT MG/KG	3.5DYJ	4.8DYJ	3.5DYJ	5DYJ	4.1DYJ
COPPER MG/KG	28.9DYJ	7.5DY	5.7DY	23.7DYJ	15.7DY
CYANIDE MG/KG	0.29UY	0.25UY	0.2UY	0.32UY	0.29UY
IRON MG/KG	14500DY	7310DY	7990DY	12700DY	9920DY
LEAD MG/KG	53DY	6.7DYJ	7DYJ	33.9DY	UYR
LITHIUM MG/KG	10.7DYJ	6.4DYJ	6.2DYJ	11.3DYJ	4.8DYJ
MAGNESIUM MG/KG	964DYJ	1140DY	1060DYJ	1910DY	1450DY
MANGANESE MG/KG	189DYJ	144DYJ	211DYJ	199DYJ	195DYJ
MERCURY MG/KG	0.19DY	0.08UY	0.08UY	0.1DYJ	0.05UY
NICKEL MG/KG	8.9DYJ	8.4DYJ	5.6DYJ	10.3DY	7.1DYJ
POTASSIUM MG/KG	401DYJ	499DYJ	578DYJ	547DYJ	371DYJ
SELENIUM MG/KG	0.32DYJ	0.42UYJ	0.29UYJ	0.25UYJ	0.23UYJ
SILVER MG/KG	0.58DYJ	0.33UY	0.39UY	0.25UYJ	0.23UYJ
SODIUM MG/KG	UYR	UYR	UYR	UYR	170DY
THALLIUM MG/KG	0.23UY	0.46UYJ	0.32UYJ	0.25UY	0.23UY
VANADIUM MG/KG	UYR	12.1DY	8.8DYJ	UYR	10.1DYJ
ZINC MG/KG	205DYJ	19.3DYJ	20.4DYJ	97.4DYJ	35.7DYJ

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SAMPLE ID:		C02-01	C03-01	C03-01	C04-01	C04-01
SUB-SAMPLE ID:		B	A	B	A	B
STATION ID:		C02	C03	C03	C04	C04
SAMPLE DATE:		04/08/1992	03/31/1992	03/31/1992	02/14/1992	02/14/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	0.00	2.00	3.00	5.00
LOWER DEPTH:		4.00	2.00	4.00	5.00	7.00
ALUMINUM	MG/KG	8880DY	7420DY	3830DY	6150DY	4650DY
ANTIMONY	MG/KG	2.1UY	2.5UYJ	2.5UYJ	2.3UYJ	2.3UYJ
ARSENIC	MG/KG	2DYJ	2.4DY	1.3DYJ	0.92DYJ	0.95DYJ
BARIUM	MG/KG	42.8DYJ	82DY	64.1DY	30.8DYJ	27.6DYJ
BERYLLIUM	MG/KG	0.93DYJ	0.5DYJ	0.48DYJ	0.31DYJ	0.35DYJ
CADMIUM	MG/KG	1.2UY	0.68UY	0.67UY	0.61UY	0.61UY
CALCIUM	MG/KG	1070DYJ	2700DY	2310DY	6160YJ	849DYJ
CHROMIUM	MG/KG	12.6DY	11DY	9.5DY	7.6DYJ	5.4DYJ
COBALT	MG/KG	6DYJ	7.2DYJ	4.5DYJ	4.7DYJ	3.4DYJ
COPPER	MG/KG	12.1DY	10.1DY	5.7DYJ	UYR	UYR
CYANIDE	MG/KG	0.29UY	0.21UY	0.21UY	0.38UY	0.37UY
IRON	MG/KG	16500DY	14100DY	8800DY	7410DY	6620DY
LEAD	MG/KG	8DYJ	5.1DYJ	5.2DYJ	3.5DY	4.7DY
LITHIUM	MG/KG	9.8DYJ	21.6DY	6.8DYJ		
MAGNESIUM	MG/KG	1940DY	1460DY	972DYJ	1170DY	1190DY
MANGANESE	MG/KG	412DYJ	466DYJ	386DYJ	380DYJ	255DYJ
MERCURY	MG/KG	0.05UY	0.08UY	0.08UY	0.08UY	0.07UY
NICKEL	MG/KG	11.9DY	9.3DY	7.7DYJ	UYR	UYR
POTASSIUM	MG/KG	744DYJ	577DYJ	619DYJ	352DYJ	317DYJ
SELENIUM	MG/KG	0.23UYJ	0.28UYJ	0.28UYJ	0.27UYJ	0.27UYJ
SILVER	MG/KG	0.23UYJ	0.44DYJ	0.67DYJ	0.36UY	0.36UY
SODIUM	MG/KG	156DYJ	402DYJ	314DYJ	277DYJ	312DYJ
THALLIUM	MG/KG	0.23DYJ	0.39UYJ	0.38UY	0.35UYJ	0.34UYJ
VANADIUM	MG/KG	15.8DYJ	18.3DY	10.5DYJ	9.8DYJ	7.4DYJ
ZINC	MG/KG	30DYJ	35DYJ	24.5DYJ	UYR	UYR

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		C04-01	C05-01	C05-01	C06-01	C07-01
SUB-SAMPLE ID:		C	A	B	A	A
STATION ID:		C04	C05	C05	C06	C07
SAMPLE DATE:		02/14/1992	02/12/1992	02/12/1992	04/08/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		7.00	0.00	2.00	0.00	2.00
LOWER DEPTH:		9.00	2.00	4.00	2.00	4.00
ALUMINUM	MG/KG	4070DY	13300DY	3510DY	5340DY	7530DY
ANTIMONY	MG/KG	2.3UYJ	2.4UYJ	2.4UYJ	2.1UY	2.1UYJ
ARSENIC	MG/KG	0.76DYJ	2.3DY	1.3DYJ	7.5DYJ	53.3DYJ
BARIUM	MG/KG	30.7DYJ	62.6DY	26.5DYJ	77.6DY	184DYJ
BERYLLIUM	MG/KG	0.57DYJ	0.34DYJ	0.39DYJ	0.94UY	1.5DY
CADMIUM	MG/KG	0.61UY	0.65UY	0.64UY	1.6DY	1.5UY
CALCIUM	MG/KG	1280DYJ	20600DY	3200DY	3720DY	95300DYJ
CHROMIUM	MG/KG	7.6DYJ	762DY	22.2DY	35.1DY	548DYJ
COBALT	MG/KG	4.4DYJ	15.9DY	5.1DYJ	6.8DYJ	4.2UY
COPPER	MG/KG	UYR	72.7DY	11.7DY	20.9DY	196DYJ
CYANIDE	MG/KG	0.38UY	0.4UY	0.47DYJ	0.29UY	0.38UY
IRON	MG/KG	6710DY	UYR	UYR	10900DY	6320DY
LEAD	MG/KG	5.7DY	UYR	UYR	23.6DYJ	130DY
LITHIUM	MG/KG		34.4DY	10.8DY	24.5DYJ	255DYJ
MAGNESIUM	MG/KG	1430DY	9950DY	1190DY	814DYJ	1120DYJ
MANGANESE	MG/KG	196DYJ	UYR	UYR	98.8DYJ	123DYJ
MERCURY	MG/KG	0.07UY	0.17DYJ	0.08UYJ	0.05UY	0.13DYJ
NICKEL	MG/KG	UYR	26.7DY	7.2DYJ	7.1DYJ	21.2DY
POTASSIUM	MG/KG	586DYJ	2790YJ	508DYJ	445DYJ	1150DYJ
SELENIUM	MG/KG	0.27UYJ	0.29UY	0.28UY	0.24UYJ	0.3UYJ
SILVER	MG/KG	0.36UY	0.38UY	0.38UY	0.24UYJ	0.3UYJ
SODIUM	MG/KG	289DYJ	UYR	533DYJ	256DYJ	1840DY
THALLIUM	MG/KG	0.35UYJ	0.37UYJ	0.36UY	0.24UYJ	0.3UY
VANADIUM	MG/KG	6DYJ	42.7DY	13.8DY	8DYJ	UYR
ZINC	MG/KG	UYR	124DY	38.5DY	59.8DYJ	63.8DYJ

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SAMPLE ID:		C07-01	C07-01	C07-01	C08-01	C08-01
SUB-SAMPLE ID:		B	C	D	A	B
STATION ID:		C07	C07	C07	C08	C08
SAMPLE DATE:		03/31/1992	03/31/1992	03/31/1992	03/31/1992	03/31/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		4.00	5.00	7.00	0.00	2.00
LOWER DEPTH:		5.00	7.00	8.00	2.00	4.00
ALUMINUM	MG/KG	7620DY	2890DY	1610DY	6010DY	5060DY
ANTIMONY	MG/KG	1.9UYJ	1.6UYJ	2.8DYJ	1.7UYJ	1.8UYJ
ARSENIC	MG/KG	11.7DY	4.3DY	2.1DYJ	22.6DY	3.6DY
BARIUM	MG/KG	267DYJ	103DYJ	24.1DYJ	200DYJ	224DYJ
BERYLLIUM	MG/KG	1.1DYJ	0.68DYJ	0.15DYJ	1.2DYJ	0.78DYJ
CADMIUM	MG/KG	1.4UY	1.1UY	0.69UY	1.2UY	1.3UY
CALCIUM	MG/KG	13000DYJ	1830DYJ	1260DY	12900DYJ	4440DYJ
CHROMIUM	MG/KG	61.6DYJ	UYR	402DY	140DYJ	22DYJ
COBALT	MG/KG	3.9UY	3.6DYJ	2.8DYJ	7.2DYJ	3.6UY
COPPER	MG/KG	30.8DYJ	7DYJ	5.8DYJ	104DYJ	17.9DYJ
CYANIDE	MG/KG	0.34UY	0.28UY	0.21UY	0.31UY	0.32UY
IRON	MG/KG	5580DY	6770DY	4530DY	10400DY	6360DY
LEAD	MG/KG	41.6DY	4.7DY	2.4DYJ	229DY	16.4DY
LITHIUM	MG/KG	29.2DYJ	9.7DYJ	9.4DYJ	72.8DYJ	14.5DYJ
MAGNESIUM	MG/KG	828DYJ	1210DY	801DYJ	2920DY	1490DY
MANGANESE	MG/KG	94.9DYJ	47.4DYJ	62.2DYJ	150DYJ	98.8DYJ
MERCURY	MG/KG	0.11DYJ	0.05UY	0.08UY	0.06UY	0.06UY
NICKEL	MG/KG	12.9DY	5.6DYJ	8.8DYJ	20.8DY	10.6DY
POTASSIUM	MG/KG	1090DYJ	643DYJ	433DYJ	314DYJ	376DYJ
SELENIUM	MG/KG	0.86DYJ	0.23UYJ	0.28UYJ	0.25UYJ	0.26UYJ
SILVER	MG/KG	0.28UYJ	0.23UYJ	0.41DYJ	0.25UYJ	0.29DYJ
SODIUM	MG/KG	237DYJ	99.8DYJ	177DYJ	490DYJ	169DYJ
THALLIUM	MG/KG	0.28UY	0.23UY	0.39UY	0.25UY	0.26UY
VANADIUM	MG/KG	UYR	UYR	5.2DYJ	UYR	UYR
ZINC	MG/KG	79.8DYJ	21.4DYJ	17.9DYJ	300DYJ	32.2DYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C09-01	C09-01	C10-01	C10-01	C10-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C09	C09	C10	C10	C10
SAMPLE DATE:	04/03/1992	04/03/1992	04/03/1992	04/03/1992	04/03/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	4.00	2.00	4.00	6.00
LOWER DEPTH:	2.00	6.00	3.00	6.00	8.00
ALUMINUM MG/KG	4810DY	4330DY	2710DY	3140DY	4050DY
ANTIMONY MG/KG	4.8DYJ	1.6UYJ	1.9UYJ	3.5DYJ	2.6DYJ
ARSENIC MG/KG	15DY	0.74DYJ	2.7DY	10.4DY	3.4DY
BARIUM MG/KG	374DYJ	59.1DYJ	151DYJ	150DY	139DY
BERYLLIUM MG/KG	1.8DY	0.46DYJ	0.54UY	0.3DYJ	0.33DYJ
CADMIUM MG/KG	2.4DY	1.2UY	1.3UY	0.66UY	0.66UY
CALCIUM MG/KG	33600DYJ	5100DYJ	8420DYJ	1620DY	2040DY
CHROMIUM MG/KG	219DYJ	13.9DYJ	46.1DYJ	9.9DY	8.2DY
COBALT MG/KG	7.3DYJ	3.2UY	3.8UY	3.7DYJ	4.8DYJ
COPPER MG/KG	358DYJ	56.5DYJ	UYR	5.6DYJ	9.8DY
CYANIDE MG/KG	0.33UY	0.29UY	0.34UY	0.21UY	0.2UY
IRON MG/KG	30200DY	8900DY	4100DY	7120DY	9490DY
LEAD MG/KG	337DY	9.2DY	42.7DY	13.5DYJ	4.2DYJ
LITHIUM MG/KG	116DYJ	10.7DYJ	13.9DYJ	11.3DYJ	9.1DYJ
MAGNESIUM MG/KG	3500DY	2430DY	324DYJ	1150DY	1900DY
MANGANESE MG/KG	295DYJ	67.2DYJ	23.9DYJ	41.6DYJ	109DYJ
MERCURY MG/KG	1.6DY	0.07DYJ	0.2DY	0.08UY	0.08UY
NICKEL MG/KG	54.1DY	11.8DY	5.9DYJ	8.8DYJ	13.5DYJ
POTASSIUM MG/KG	444DYJ	264DYJ	139DYJ	503DYJ	695DYJ
SELENIUM MG/KG	0.26UYJ	0.23UYJ	0.27UYJ	0.27UYJ	0.27UYJ
SILVER MG/KG	0.26UYJ	0.23UYJ	0.27UYJ	0.41DYJ	0.39UY
SODIUM MG/KG	719DYJ	260DYJ	139DYJ	160DYJ	184DYJ
THALLIUM MG/KG	0.71DYJ	0.58DYJ	0.56DYJ	0.37UY	0.37UY
VANADIUM MG/KG	UYR	UYR	UYR	22.9DY	14.4DY
ZINC MG/KG	735DYJ	41.7DYJ	24.4DYJ	22.4DYJ	26.5DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:		C11-01	C11-01	C11-01	C11-01D	C12-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C11	C11	C11	C11	C12
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	02/27/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	5.00	7.00	5.00	0.50
LOWER DEPTH:		5.00	7.00	9.00	7.00	2.50
ALUMINUM	MG/KG	2770DY	3170DY	5610DY	2920DY	4760DY
ANTIMONY	MG/KG	2.3UYJ	2.1UYJ	4.3DYJ	2.1UYJ	2.4UYJ
ARSENIC	MG/KG	2.8DY	1DYJ	2DYJ	0.91DYJ	1.9DYJ
BARIUM	MG/KG	58.5DYJ	109DYJ	209DYJ	116DYJ	85DY
BERYLLIUM	MG/KG	0.5DYJ	0.47DYJ	1.2DYJ	0.7DYJ	0.29DYJ
CADMIUM	MG/KG	1.3UY	1.2UY	1.2UY	1.2UY	0.64UY
CALCIUM	MG/KG	19500Y	1420DY	2000DY	1320DY	2840DY
CHROMIUM	MG/KG	123DYJ	9.7DYJ	10.9DYJ	7.3DYJ	11.1DYJ
COBALT	MG/KG	4.3UY	4UY	4.5DYJ	4UY	4.8DYJ
COPPER	MG/KG	20.7DY	7.1DY	13.1DY	7DY	UYR
CYANIDE	MG/KG	0.32UY	0.3UY	0.3UY	0.29UY	0.2UY
IRON	MG/KG	5570DY	4620DY	11800DY	3860DY	10900DY
LEAD	MG/KG	30.1DY	5.6DY	4.4DYJ	8.4DY	5.7DY
LITHIUM	MG/KG					7.1DYJ
MAGNESIUM	MG/KG	1020DYJ	1140DYJ	2310DY	940DYJ	2260DY
MANGANESE	MG/KG	119DY	34.8DY	85.3DY	29DY	263DYJ
MERCURY	MG/KG	0.09DYJ	0.06UY	0.05UY	0.05UY	0.07UY
NICKEL	MG/KG	5.3DYJ	9DYJ	14.5DY	5.8DYJ	7.6DYJ
POTASSIUM	MG/KG	182DYJ	232DYJ	537DYJ	196DYJ	849DYJ
SELENIUM	MG/KG	0.26DYJ	0.24UYJ	0.31DYJ	0.23UYJ	0.26UYJ
SILVER	MG/KG	0.25UY	0.24UY	0.24UY	0.23UY	0.39DYJ
SODIUM	MG/KG	37.6DYJ	22.2DYJ	54.6DYJ	14.5UY	UYR
THALLIUM	MG/KG	0.25UY	0.24UY	0.24UY	0.23UY	0.37UY
VANADIUM	MG/KG	11.9DYJ	10.2DYJ	14.7DYJ	8.2DYJ	15DY
ZINC	MG/KG	77.2DYJ	20.4DYJ	29.5DYJ	20.8DYJ	23.9DYJ

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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C12-01	C13-01	C13-01	C13-01	C14-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C12	C13	C13	C13	C14
SAMPLE DATE:	04/02/1992	03/30/1992	03/30/1992	03/30/1992	03/31/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	1.00	3.00	5.00	2.00
LOWER DEPTH:	4.50	3.00	5.00	7.00	4.00
ALUMINUM MG/KG	5220DY	4660DY	3550DY	2620DY	11100DY
ANTIMONY MG/KG	2.4UYJ	3.3DYJ	2.7DYJ	2.4UYJ	2.3UYJ
ARSENIC MG/KG	2.1DYJ	3.2DY	1.1DYJ	1.1DYJ	7.3DY
BARIUM MG/KG	85.3DY	43DYJ	52.8DY	49.9DY	111DYJ
BERYLLIUM MG/KG	0.29DYJ	0.4DYJ	0.43DYJ	0.39DYJ	1.6DYJ
CADMIUM MG/KG	0.69DYJ	0.67UY	0.65UY	0.63UY	1.6UY
CALCIUM MG/KG	3350DY	6300DY	2360DY	12400DY	82200DYJ
CHROMIUM MG/KG	12.4DYJ	19.2DY	8.5DY	4.4DY	477DYJ
COBALT MG/KG	4.9DYJ	7.8DYJ	4.8DYJ	4.2DYJ	4.6UY
COPPER MG/KG	UYR	18.5DY	9.5DY	4.6DYJ	196DYJ
CYANIDE MG/KG	0.2UY	0.21UY	0.2UY	0.2UY	0.41UY
IRON MG/KG	11400DY	10100DY	6490DY	4860DY	4410DY
LEAD MG/KG	6.1DY	20.9DYJ	7.3DYJ	5.5DYJ	168DY
LITHIUM MG/KG	7DYJ	21.3DY	9.2DYJ	8.1DYJ	329DYJ
MAGNESIUM MG/KG	3020DY	1560DY	1220DY	1540DY	4050DY
MANGANESE MG/KG	299DYJ	750DYJ	231DYJ	186DYJ	130DYJ
MERCURY MG/KG	0.07UY	0.21DY	0.08UY	0.06UY	0.52DY
NICKEL MG/KG	12.2DYJ	10.4DY	9.5DY	8.5DYJ	21.4DY
POTASSIUM MG/KG	1040DYJ	732DYJ	798DYJ	1230DY	1610DYJ
SELENIUM MG/KG	0.26UYJ	0.29UYJ	0.29UYJ	0.28UYJ	0.33UYJ
SILVER MG/KG	0.38UY	0.57DYJ	0.38UY	0.37UY	0.33UYJ
SODIUM MG/KG	362DYJ	UYR	UYR	UYR	1950DY
THALLIUM MG/KG	0.37UY	0.32UYJ	0.31UYJ	0.3UYJ	0.33UY
VANADIUM MG/KG	17.1DY	11.7DY	8.2DYJ	5DYJ	1.6UY
ZINC MG/KG	32.5DYJ	49.5DYJ	23.9DYJ	20.1DYJ	84.5DYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C14-01	C15-01	C15-01	C15-01	C16-01
SUB-SAMPLE ID:	B	A	B	C	A
STATION ID:	C14	C15	C15	C15	C16
SAMPLE DATE:	03/31/1992	02/26/1992	02/26/1992	02/26/1992	04/01/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	0.00	3.00	5.00	1.50
LOWER DEPTH:	6.00	2.00	5.00	7.00	2.50
ALUMINUM MG/KG	4740DY	6070DY	7890DY	3800DY	8070DY
ANTIMONY MG/KG	2.9DYJ	2UY	2.6UY	2.1UY	2.1UYJ
ARSENIC MG/KG	1.2DYJ	1.9DYJ	13.9DY	1.3DYJ	36.5DY
BARIUM MG/KG	188DY	36.5DYJ	584DY	108DY	121DYJ
BERYLLIUM MG/KG	0.44DYJ	0.88DYJ	1.5DY	0.46DYJ	0.91DYJ
CADMIUM MG/KG	0.67UY	1.1UY	2.6DY	1.1UY	1.5UY
CALCIUM MG/KG	2290DY	1480DYJ	8910DYJ	1280DYJ	56800DYJ
CHROMIUM MG/KG	14DY	11.4DY	223DY	8.2DY	250DYJ
COBALT MG/KG	4.1DYJ	5.7UY	7.6UY	5.9UY	4.2UY
COPPER MG/KG	8.6DY	12.8DY	82.4DY	5.5DYJ	103DYJ
CYANIDE MG/KG	0.21UY	0.28UY	0.37UY	0.28UY	0.38UY
IRON MG/KG	7500DY	11000DY	11800DY	5330DY	5650DY
LEAD MG/KG	6.9DYJ	18.4DYJ	154DYJ	3.9DYJ	105DY
LITHIUM MG/KG	18.1DY				810DYJ
MAGNESIUM MG/KG	1500DY	1920DY	1710DY	1460DY	1570DY
MANGANESE MG/KG	43.9DYJ	376DY	192DY	42.8DY	117DYJ
MERCURY MG/KG	0.08UY	0.05UY	0.37DY	0.05UY	1.7DY
NICKEL MG/KG	9DYJ	7DYJ	8.2DYJ	3.6DYJ	24.5DY
POTASSIUM MG/KG	636DYJ	405DYJ	355DYJ	264DYJ	819DYJ
SELENIUM MG/KG	0.27UYJ	0.22UYJ	0.82DYJ	0.23UYJ	0.3UYJ
SILVER MG/KG	0.39UY	0.24DYJ	0.41DYJ	0.23UY	0.3UYJ
SODIUM MG/KG	178DYJ	117DYJ	242DYJ	95.9DYJ	3050DY
THALLIUM MG/KG	0.38UY	0.22UY	0.29UY	0.23UY	0.3UY
VANADIUM MG/KG	21DY	19.6DY	38.4DY	12.5DY	UYR
ZINC MG/KG	27.2DYJ	29.5DYJ	189DYJ	21.6DYJ	125DYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C16-01	C16-01	C17-01	C17-01	C17-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C16	C16	C17	C17	C17
SAMPLE DATE:	04/01/1992	04/01/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.00	0.00	2.00	3.00
LOWER DEPTH:	4.00	5.50	2.00	3.00	4.00
ALUMINUM MG/KG	6590DY	5490DY	6440DY	5490DY	4040DY
ANTIMONY MG/KG	2.7UYJ	1.7UYJ	4.4DYJ	3.9DYJ	2.1UY
ARSENIC MG/KG	15.3DY	1.3DYJ	20.9DYJ	11.7DYJ	1DYJ
BARIUM MG/KG	385DYJ	161DYJ	278DY	555DY	117DY
BERYLLIUM MG/KG	1.5DYJ	0.72DYJ	1.1UY	1.2UY	0.94UY
CADMIUM MG/KG	1.9UY	1.2UY	UYR	UYR	1.2UY
CALCIUM MG/KG	49700DYJ	4960DYJ	11400DY	12300DY	2250DY
CHROMIUM MG/KG	297DYJ	12.3DYJ	354DY	82.8DY	9.4DY
COBALT MG/KG	5.3UY	5.8DYJ	3.9DYJ	4.3UY	3.3UY
COPPER MG/KG	142DYJ	8.4DYJ	118DY	62.3DY	2.1DYJ
CYANIDE MG/KG	0.48UY	0.3UY	[illegible].8DY	3.5DY	0.29UY
IRON MG/KG	10600DY	5610DY	12500DY	6870DY	5290DY
LEAD MG/KG	202DY	6.7DY	383DY	127DY	5.6DYJ
LITHIUM MG/KG	93.2DYJ	15.9DYJ	57.1DYJ	20.2DYJ	9.6DYJ
MAGNESIUM MG/KG	2770DY	1740DY	1030DYJ	1030DYJ	1170DYJ
MANGANESE MG/KG	287DYJ	166DYJ	179DYJ	120DY	51DYJ
MERCURY MG/KG	0.72DY	0.06UY	4.8DY	0.24DY	0.05UY
NICKEL MG/KG	30.9DY	10.8DY	12.9DY	10.7DYJ	4.2DYJ
POTASSIUM MG/KG	560DYJ	1010DYJ	394DYJ	313DYJ	371DYJ
SELENIUM MG/KG	2.1DYJ	0.24UYJ	0.47DYJ	2DYJ	0.24UYJ
SILVER MG/KG	0.57DYJ	0.24UYJ	0.28UYJ	0.31UYJ	0.24UYJ
SODIUM MG/KG	651DYJ	125DYJ	346DYJ	178DYJ	61.6DYJ
THALLIUM MG/KG	0.38UY	0.24UY	0.28UY	0.31UYJ	0.24UY
VANADIUM MG/KG	UYR	UYR	29.5DY	39.9DYJ	7.3DYJ
ZINC MG/KG	174DYJ	27.9DYJ	168DYJ	107DYJ	28.9DYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C18-01	C18-01	C19-01	C19-01	C19-01
SUB-SAMPLE ID:	A	B	A	B	C
STATION ID:	C18	C18	C19	C19	C19
SAMPLE DATE:	04/07/1992	04/07/1992	04/08/1992	04/08/1992	04/08/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	0.00	2.00	4.00
LOWER DEPTH:	2.00	4.00	2.00	4.00	6.00
ALUMINUM MG/KG	4200DY	2110DY	5430DY	4300DY	2430DY
ANTIMONY MG/KG	2.4UYJ	2UY	4DYJ	2.1UYJ	2.1UYJ
ARSENIC MG/KG	5.8DY	1.3DYJ	8.8DYJ	1.7DYJ	3DY
BARIUM MG/KG	147DY	59.4DY	314DY	186DY	87.9DY
BERYLLIUM MG/KG	0.53DYJ	0.89UY	1.2UY	0.69DYJ	0.46DYJ
CADMIUM MG/KG	UYR	1.1UY	2.3DY	0.92UYJ	0.92UYJ
CALCIUM MG/KG	10000DY	1620DY	24700DY	2380DY	2400DY
CHROMIUM MG/KG	38.8DY	4.7DY	62DY	11.1DY	5.3DY
COBALT MG/KG	3.5DYJ	3.1DYJ	4.1UY	4.6DYJ	3DYJ
COPPER MG/KG	51.1DY	6.7DY	93.4DY	7.9DY	7.8DY
CYANIDE MG/KG	0.33UY	0.28UY	0.37UY	0.29UY	0.29UY
IRON MG/KG	8210DY	5810DY	8750DY	7930DY	5770DY
LEAD MG/KG	66.5DY	2.8DYJ	123DYJ	6.9DYJ	5DYJ
LITHIUM MG/KG	39.6DYJ	3.6DYJ	70.5DYJ	8.8DYJ	5.9DYJ
MAGNESIUM MG/KG	1130DYJ	1070DYJ	1260DYJ	1550DY	1320DY
MANGANESE MG/KG	189DY	260DYJ	265DYJ	54.3DY	79.9DY
MERCURY MG/KG	0.52DY	0.06UY	0.93DY	0.06UY	0.06UY
NICKEL MG/KG	9.4DYJ	4.7DYJ	12.9DY	10.2DY	8.2DYJ
POTASSIUM MG/KG	1140DYJ	919DYJ	952DYJ	929DYJ	705DYJ
SELENIUM MG/KG	UYR	0.22UYJ	1.1DYJ	0.23UYJ	0.23UYJ
SILVER MG/KG	0.27UY	0.22UYJ	0.29UYJ	0.23UY	0.23UY
SODIUM MG/KG	162DYJ	74.1DYJ	335DYJ	93.6DYJ	105DYJ
THALLIUM MG/KG	0.4DYJ	0.22UY	0.29UY	0.23UY	0.23UY
VANADIUM MG/KG	23DY	10.9DYJ	19.1DY	21.7DY	10.5DYJ
ZINC MG/KG	64.2DYJ	20.7DYJ	137DYJ	26.4DYJ	23.3DYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C20-01	C20-01	C20-01	C21-01	C21-01
SUB-SAMPLE ID:	A	B	C	A	B
STATION ID:	C20	C20	C20	C21	C21
SAMPLE DATE:	02/18/1992	02/18/1992	02/18/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	2.50	4.50	6.50	0.00	2.00
LOWER DEPTH:	4.50	6.50	8.50	2.00	4.00
ALUMINUM MG/KG	5540DY	8380DY	4850DY	8240DY	7280DY
ANTIMONY MG/KG	2UYJ	3.6DYJ	2.3UYJ	7DY	5.6DYJ
ARSENIC MG/KG	1.3DYJ	19.3DY	1.4DYJ	90.1DYJ	20.8DYJ
BARIUM MG/KG	23.7DYJ	53DY	32DYJ	141DY	258DY
BERYLLIUM MG/KG	0.66DYJ	1.1DYJ	1.3DYJ	1.2DY	1.2UY
CADMIUM MG/KG	1.1UY	1.1UY	1.3UY	UYR	UYR
CALCIUM MG/KG	658DYJ	16900DY	1840DY	121000DY	21600DY
CHROMIUM MG/KG	6DYJ	14.4DY	10.2DYJ	1360DY	656DY
COBALT MG/KG	5.8UY	7DYJ	6.6UY	4.3UY	4.2UY
COPPER MG/KG	4.9DYJ	UYR	8.4DYJ	136DY	173DY
CYANIDE MG/KG	0.28UY	0.27UY	0.32UY	0.39UY	0.97DY
IRON MG/KG	7640DYJ	12400DYJ	10000DYJ	5250DY	9400DY
LEAD MG/KG	2.8DY	47.4DY	7.3DY	260DY	238DY
LITHIUM MG/KG	2DYJ	17.9DYJ	4.3DYJ	691DYJ	137DYJ
MAGNESIUM MG/KG	968DYJ	10800DYJ	1490DY	2400DY	1350DYJ
MANGANESE MG/KG	169DY	207DY	282DY	162DYJ	173DYJ
MERCURY MG/KG	0.05UYJ	0.07DYJ	0.06UYJ	0.23DY	0.27DY
NICKEL MG/KG	4.4DYJ	21.4DY	7.6DYJ	11.7DYJ	10.6DYJ
POTASSIUM MG/KG	489DYJ	1770DY	722DYJ	738DYJ	423DYJ
SELENIUM MG/KG	0.22UYJ	0.27DYJ	0.25UYJ	0.31DYJ	0.67DYJ
SILVER MG/KG	0.22UYJ	0.22UYJ	0.25UYJ	0.31UYJ	0.3UYJ
SODIUM MG/KG	101DYJ	811DYJ	132DYJ	1650DY	399DYJ
THALLIUM MG/KG	0.49DYJ	0.59DYJ	0.51DYJ	0.31UYJ	0.3UYJ
VANADIUM MG/KG	7.8DYJ	29.2DY	9.1DYJ	12.3DYJ	32DY
ZINC MG/KG	15.3DY	50.2DY	21.9DY	67.9DYJ	104DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN - tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C22-01	C22-01	C22-01	C23-01	C23-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C22	C22	C22	C23	C23
SAMPLE DATE:		02/27/1992	02/27/1992	02/27/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	0.00	4.00
LOWER DEPTH:		3.00	5.00	7.00	2.00	6.00
ALUMINUM	MG/KG	3510DY	4430DY	3440DY	8540DY	3580DY
ANTIMONY	MG/KG	2UY	2UY	2UY	2.8UYJ	2.5UYJ
ARSENIC	MG/KG	1.9DYJ	4.2DY	1.9DYJ	6.8DY	4.5DY
BARIUM	MG/KG	18.3DYJ	26.1DYJ	114DY	188DY	61.3DY
BERYLLIUM	MG/KG	0.66DYJ	0.67DYJ	0.44DYJ	0.53DYJ	0.19DYJ
CADMIUM	MG/KG	1.1UY	1.1DY	1.1UY	0.95DYJ	0.67UY
CALCIUM	MG/KG	727DYJ	843DYJ	1690DYJ	4090DY	1650DY
CHROMIUM	MG/KG	4.6DY	7.2DY	9.8DY	19DYJ	7.3DYJ
COBALT	MG/KG	5.7UY	5.8UY	5.8UY	5DYJ	3.7DYJ
COPPER	MG/KG	7.1DY	10.8DY	5.1DYJ	UYR	UYR
CYANIDE	MG/KG	0.28UY	0.28UY	0.28UY	0.23UY	0.2UY
IRON	MG/KG	7030DY	7820DY	6080DY	12000DY	9630DY
LEAD	MG/KG	10.8DYJ	28.1DYJ	10.1DYJ	168DY	3.2DY
LITHIUM	MG/KG				11.7DYJ	6.7DYJ
MAGNESIUM	MG/KG	846DYJ	1300DY	1600DY	1890DY	1250DY
MANGANESE	MG/KG	139DY	143DY	69.9DY	263DYJ	124DYJ
MERCURY	MG/KG	0.08DYJ	0.06DYJ	0.05UY	0.14DY	0.08UY
NICKEL	MG/KG	3.3UY	3.4UY	8DYJ	11.1DYJ	7.9DYJ
POTASSIUM	MG/KG	219DYJ	375DYJ	459DYJ	584DYJ	457DYJ
SELENIUM	MG/KG	0.22UYJ	0.22UYJ	0.22UYJ	1.1DYJ	0.28UYJ
SILVER	MG/KG	0.31DYJ	0.29DYJ	0.31DYJ	0.45UY	0.39UY
SODIUM	MG/KG	51.9DYJ	82.7DYJ	94.6DYJ	UYR	UYR
THALLIUM	MG/KG	0.4DYJ	0.25DYJ	0.24DYJ	0.44UY	0.39UY
VANADIUM	MG/KG	10.6DYJ	13.5DY	16.2DY	33.6DY	13.5DY
ZINC	MG/KG	19.4DYJ	31.2DYJ	23.1DYJ	139DYJ	26.1DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C23-01D	C24-01	C24-01	C25-01	C25-01
SUB-SAMPLE ID:	DUP	A	B	A	B
STATION ID:	C23	C24	C24	C25	C25
SAMPLE DATE:	04/02/1992	04/07/1992	04/07/1992	02/26/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	2.00	4.00	0.50	4.50
LOWER DEPTH:	6.00	4.00	6.00	2.50	6.50
ALUMINUM MG/KG	3500DY	6380DY	3780DY	6380DY	2810DY
ANTIMONY MG/KG	2.5UYJ	3.6DYJ	2.4DYJ	2.1UY	2.1UY
ARSENIC MG/KG	4.3DY	33.2DYJ	0.65DYJ	3.1DY	1.5DYJ
BARIUM MG/KG	64.1DY	412DY	133DY	126DY	81.1DY
BERYLLIUM MG/KG	0.27DYJ	1.3UY	0.93UY	0.71DYJ	0.46DYJ
CADMIUM MG/KG	0.66UY	UYR	1.2UY	1.4DY	1.2UY
CALCIUM MG/KG	1740DY	20200DY	4220DY	2610DYJ	1430DYJ
CHROMIUM MG/KG	8.1DYJ	153DY	20DY	11.8DY	5.3DY
COBALT MG/KG	5DYJ	4.4UY	3.7DYJ	6.1UY	6UY
COPPER MG/KG	UYR	71.7DY	7.9DY	11.5DY	3.7UY
CYANIDE MG/KG	0.2UY	0.39UY	0.29UY	0.29UY	0.29UY
IRON MG/KG	10100DY	6760DY	5010DY	7350DY	5900DY
LEAD MG/KG	3.4DY	277DY	10.6DYJ	32.4DYJ	3.4DYJ
LITHIUM MG/KG	5.9DYJ	114DYJ			
MAGNESIUM MG/KG	1170DY	1270DYJ	1120DYJ	1460DY	993DYJ
MANGANESE MG/KG	115DYJ	82.1DYJ	39.9DYJ	168DY	65.9DY
MERCURY MG/KG	0.09UY	0.16DY	0.05UY	0.09DYJ	0.05UY
NICKEL MG/KG	7.4DYJ	13.2DY	5.8DYJ	3.5UY	3.5UY
POTASSIUM MG/KG	501DYJ	336DYJ	303DYJ	436DYJ	329DYJ
SELENIUM MG/KG	0.27UYJ	1DYJ	0.23UYJ	0.24UYJ	0.23UYJ
SILVER MG/KG	0.39UY	0.31UYJ	0.23UYJ	0.54DYJ	0.3DYJ
SODIUM MG/KG	UYR	387DYJ	103DYJ	90DYJ	59.7DYJ
THALLIUM MG/KG	0.38UYJ	0.31UY	0.23UY	0.28DYJ	0.23UY
VANADIUM MG/KG	14.1DY	59.7DY	5.8DYJ	21.2DY	10.6DYJ
ZINC MG/KG	23.2DYJ	92.1DYJ	75.5DYJ	32DYJ	13.8DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C25-01	C26-01	C26-01	C26-01	C27-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C25	C26	C26	C26	C27
SAMPLE DATE:		02/26/1992	02/24/1992	02/24/1992	02/24/1992	02/25/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		8.50	0.00	2.00	4.00	2.00
LOWER DEPTH:		10.50	2.00	4.00	6.00	4.00
ALUMINUM	MG/KG	2640DY	6180DYJ	5860DYJ	3110DYJ	4950DY
ANTIMONY	MG/KG	2.7UY	4.8DYJ	3.6DYJ	3.1DYJ	3.3UY
ARSENIC	MG/KG	1.5DYJ	5.3DY	3.9DY	2.9DY	4.2DY
BARIUM	MG/KG	96.6DY	156DY	100DY	94.1DY	605DY
BERYLLIUM	MG/KG	0.46DYJ	0.71DYJ	0.89DYJ	0.44DYJ	0.73DYJ
CADMIUM	MG/KG	1.2UY	1.2UY	1.1UY	1.1UY	1.8UY
CALCIUM	MG/KG	5130DYJ	2440DYJ	1130DYJ	1450DYJ	20000DYJ
CHROMIUM	MG/KG	7.6DY	20.1DY	22.5DY	10.7DY	12DY
COBALT	MG/KG	6UY	6.2UY	5.8UY	5.8UY	9.5UY
COPPER	MG/KG	5.1DYJ	13.5DYJ	8.2DYJ	5.8DYJ	85.2DY
CYANIDE	MG/KG	0.29UY	0.3UY	0.28UY	0.28UY	0.46UY
IRON	MG/KG	6340DY	7200DYJ	9490DYJ	6050DYJ	5940DY
LEAD	MG/KG	4.1DYJ	49.3DY	19.9DY	5.4DY	1050DYJ
LITHIUM						
MAGNESIUM	MG/KG	1480DY	1470DYJ	1460DYJ	1120DYJ	896DYJ
MANGANESE	MG/KG	264DY	155DY	193DY	156DY	162DY
MERCURY	MG/KG	0.66DY	0.06DYJ	0.05UY	0.05UY	1.7DY
NICKEL	MG/KG	4.9DYJ	8DYJ	10DY	8.2DYJ	9.1DYJ
POTASSIUM	MG/KG	486DYJ	362DYJ	577DYJ	483DYJ	485DYJ
SELENIUM	MG/KG	0.23UYJ	0.51DYJ	0.35DYJ	0.28DYJ	3.6UYJ
SILVER	MG/KG	0.35DYJ	0.24UYJ	0.22UYJ	0.22UYJ	0.4DYJ
SODIUM	MG/KG	105DYJ	69.3DYJ	50.1DYJ	53.8DYJ	362DYJ
THALLIUM	MG/KG	0.23UY	0.24UY	0.22UY	0.22UY	0.36UY
VANADIUM	MG/KG	9.7DYJ	26.5DY	23.8DY	15.4DY	25.1DY
ZINC	MG/KG	15DY	36.2DY	28.7DY	20.5DY	58.3DYJ

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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C27-01	C27-01	C28-01	C28-01	C28-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C27	C27	C28	C28	C28
SAMPLE DATE:	02/25/1992	02/25/1992	02/20/1992	02/20/1992	02/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	6.00	3.00	5.00	7.00
LOWER DEPTH:	6.00	8.00	5.00	7.00	9.00
ALUMINUM MG/KG	5390DYJ	3080DYJ	5460DYJ	5270DYJ	2460DYJ
ANTIMONY MG/KG	3.2DYJ	2.4DYJ	3.1DYJ	3.3DYJ	2.2DYJ
ARSENIC MG/KG	2.1DYJ	7.6DY	2.6DYJ	2.9DY	2.3DY
BARIUM MG/KG	175DY	100DY	66.1DY	66.2DY	65.3DY
BERYLLIUM MG/KG	0.71DYJ	0.69DYJ	0.65DYJ	0.67DYJ	0.44DYJ
CADMIUM MG/KG	1.2UY	1.1UY	1.1UY	1.1UY	1.1UY
CALCIUM MG/KG	2870DYJ	1740DYJ	1410DYJ	1580DYJ	1260DYJ
CHROMIUM MG/KG	10.2DY	6.2DY	UYR	UYR	UYR
COBALT MG/KG	6.2UY	6UY	5.6UY	5.8UY	5.8UY
COPPER MG/KG	6.4DYJ	6.2DYJ	5.6DYJ	8.4DYJ	4.4DYJ
CYANIDE MG/KG	0.3UY	0.29UY	0.27UY	0.28UY	0.28UY
IRON MG/KG	6950DYJ	7920DYJ	7110DYJ	8730DYJ	7040DYJ
LEAD MG/KG	5.1DY	3.7DY	5.6DY	4.8DY	2.8DY
LITHIUM					
MAGNESIUM MG/KG	1390DYJ	1220DYJ	1370DYJ	1530DYJ	872DYJ
MANGANESE MG/KG	41.8DY	122DY	94.5DY	89.8DY	315DY
MERCURY MG/KG	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
NICKEL MG/KG	10.9DY	8.3DYJ	6.7DYJ	10DY	5.5DYJ
POTASSIUM MG/KG	363DYJ	363DYJ	403DYJ	607DYJ	522DYJ
SELENIUM MG/KG	0.37DYJ	0.27DYJ	0.22UYJ	0.22UYJ	0.22UYJ
SILVER MG/KG	0.24UYJ	0.23UYJ	0.22UYJ	0.22UYJ	0.22UYJ
SODIUM MG/KG	62.9DYJ	44.1DYJ	43.3DYJ	66.9DYJ	48.6DYJ
THALLIUM MG/KG	0.24UY	0.23UY	0.28DYJ	0.22UY	0.22UY
VANADIUM MG/KG	20.9DY	20DY	19.9DY	20.2DY	10.4DYJ
ZINC MG/KG	23DY	19.1DY	21.7DY	23.6DY	20.4DY

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SAMPLE ID:		C29-01	C29-01	C29-01	C29-010	C30-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C29	C29	C29	C29	C30
SAMPLE DATE:		04/01/1992	04/01/1992	04/01/1992	04/01/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	5.00	7.00	5.00	1.00
LOWER DEPTH:		3.00	7.00	9.00	7.00	3.00
ALUMINUM	MG/KG	6050DY	4150DY	2770DY	4300DY	9070DYJ
ANTIMONY	MG/KG	2UYJ	1.6UYJ	3.2DYJ	1.6UYJ	4.8DYJ
ARSENIC	MG/KG	105DYJ	2.9DY	5.9DY	2.2DYJ	1.9DYJ
BARIUM	MG/KG	195DYJ	159DYJ	106DY	266DYJ	45.6DY
BERYLLIUM	MG/KG	1.7DY	0.45UY	0.23DYJ	0.68DYJ	0.88DYJ
CADMIUM	MG/KG	1.4UY	1.1UY	0.69UY	1.1UY	1.1UY
CALCIUM	MG/KG	61600DYJ	2700DYJ	2270DY	4550DYJ	805DYJ
CHROMIUM	MG/KG	265DYJ	6.1DYJ	9.4DY	8.2DYJ	8.8DY
COBALT	MG/KG	4UY	4.5DYJ	3.5DYJ	4.6DYJ	5.8UY
COPPER	MG/KG	152DYJ	8.4DYJ	9.1DY	10.7DYJ	4.6DYJ
CYANIDE	MG/KG	0.36UY	0.28UY	0.21UY	0.28UY	0.28UY
IRON	MG/KG	8420DY	5800DY	6330DY	6920DY	10100DYJ
LEAD	MG/KG	275DY	4.2DY	6.2DYJ	5DY	6.5DY
LITHIUM	MG/KG	351DYJ	8.6DYJ	15.2DY	8.9DYJ	
MAGNESIUM	MG/KG	1560DY	1500DY	1040DYJ	1620DY	1170DYJ
MANGANESE	MG/KG	172DYJ	56.2DYJ	88.6DYJ	246DYJ	243DY
MERCURY	MG/KG	1.1DY	0.05UY	0.09UY	0.05UY	0.05UY
NICKEL	MG/KG	20.3DY	9.3DY	10.1DY	10.7DY	9.5DY
POTASSIUM	MG/KG	719DYJ	590DYJ	457DYJ	626DYJ	429DYJ
SELENIUM	MG/KG	0.3DYJ	0.23UYJ	0.28UYJ	0.23UYJ	0.22UYJ
SILVER	MG/KG	0.29UYJ	0.23UYJ	0.49DYJ	0.23UYJ	0.22UYJ
SODIUM	MG/KG	1470DY	84.4DYJ	211DYJ	95.1DYJ	261DYJ
THALLIUM	MG/KG	0.29UY	0.23UY	0.39UY	0.23UY	0.22UY
VANADIUM	MG/KG	UYR	UYR	19.1DY	UYR	15.7DY
ZINC	MG/KG	167DYJ	24.3DYJ	35.5DYJ	25.5DYJ	21.9DY

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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		C31-01	C31-01	C31-01	C32-01	C32-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C31	C31	C31	C32	C32
SAMPLE DATE:		02/25/1992	02/25/1992	02/25/1992	02/21/1992	02/21/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	1.00	3.00
LOWER DEPTH:		4.00	6.00	8.00	3.00	5.00
ALUMINUM	MG/KG	3660DY	2040DY	5050DY	9300DY	4600DYJ
ANTIMONY	MG/KG	2UY	2UY	2.1UY	2.4UYJ	2.4DYJ
ARSENIC	MG/KG	8.3DY	1.3DYJ	5.6DY	0.97DYJ	2DYJ
BARIUM	MG/KG	146DY	105DY	133DY	36.2DYJ	22.1DYJ
BERYLLIUM	MG/KG	0.89DYJ	0.45DYJ	0.69DYJ	0.4DYJ	0.65DYJ
CADMIUM	MG/KG	1.1UY	1.1UY	1.2UY	0.66UY	1.1UY
CALCIUM	MG/KG	1800DYJ	14200DYJ	1620DYJ	906DYJ	871DYJ
CHROMIUM	MG/KG	10DY	6.1DY	9.7DY	11.2DY	UYR
COBALT	MG/KG	5.8UY	5.8UY	6UY	5.7DYJ	5.6UY
COPPER	MG/KG	5.6DY	3.8DYJ	6.5DY	7.1DY	4.1DYJ
CYANIDE	MG/KG	0.28UY	0.28UY	0.29UY	0.4UY	0.27UY
IRON	MG/KG	9640DY	4960DY	8500DY	11800DY	8010DYJ
LEAD	MG/KG	3.2DYJ	2.7DYJ	14DYJ	4.4DY	3.8DY
LITHIUM						
MAGNESIUM	MG/KG	1380DY	1290DY	1060DYJ	1620DY	888DYJ
MANGANESE	MG/KG	81.5DY	213DY	135DY	527DYJ	278DY
MERCURY	MG/KG	0.05UY	0.05UY	0.05UY	0.07UYJ	0.05UY
NICKEL	MG/KG	7.4DYJ	4.7DYJ	3.5UY	9.7DY	5.9DYJ
POTASSIUM	MG/KG	493DYJ	565DYJ	389DYJ	743DYJ	556DYJ
SELENIUM	MG/KG	0.22UYJ	0.22UYJ	0.23UYJ	0.29UY	0.22UYJ
SILVER	MG/KG	0.22UY	0.22UY	0.23UY	0.39UY	0.22UYJ
SODIUM	MG/KG	68.3DYJ	100DYJ	90.3DYJ	UYR	65.8DYJ
THALLIUM	MG/KG	0.22UY	0.22UY	0.23UY	0.37UY	0.22UY
VANADIUM	MG/KG	23.2DY	7.6DYJ	17.5DY	13.4DY	11.5DY
ZINC	MG/KG	19.4DYJ	13.5DY	20DYJ	24.3DYJ	15DY

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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C32-01	C32-01D	C33-01	C33-01	C33-01
SUB-SAMPLE ID:		C	DUP	A	B	C
STATION ID:		C32	C32	C33	C33	C33
SAMPLE DATE:		02/21/1992	02/21/1992	02/26/1992	02/26/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		5.00	1.00	1.00	3.00	7.00
LOWER DEPTH:		7.00	3.00	3.00	5.00	9.00
ALUMINUM	MG/KG	4020DYJ	6450DY	3390DY	5360DY	4420DY
ANTIMONY	MG/KG	2.1DYJ	2.4UYJ	2UY	2.1UY	2UY
ARSENIC	MG/KG	2.4DY	0.86DYJ	1.8DYJ	4.6DY	1.4DYJ
BARIUM	MG/KG	27DYJ	24.3DYJ	56.3DY	253DY	116DY
BERYLLIUM	MG/KG	0.66DYJ	0.28DYJ	0.44DYJ	0.7DYJ	0.68DYJ
CADMIUM	MG/KG	1.1UY	0.66UY	1.1UY	1.4DY	1.1UY
CALCIUM	MG/KG	1100DYJ	1300DYJ	1520DYJ	2480DYJ	1540DYJ
CHROMIUM	MG/KG	5.5DY	7.5DYJ	13.1DY	122DY	10.6DY
COBALT	MG/KG	5.7UY	4.3DYJ	5.8UY	6.1UY	5.9UY
COPPER	MG/KG	5.1DYJ	6.1DY	9.3DY	16.8DY	6.8DY
CYANIDE	MG/KG	0.27UY	0.4UY	0.28UY	0.29UY	0.28UY
IRON	MG/KG	6260DYJ	7380DY	6120DY	6970DY	7530DY
LEAD	MG/KG	3.3DY	5DY	20.9DYJ	23.2DYJ	5.6DYJ
LITHIUM						
MAGNESIUM	MG/KG	1110DYJ	987DYJ	1120DY	1350DY	1610DY
MANGANESE	MG/KG	277DY	215DYJ	299DY	95.2DY	51.4DY
MERCURY	MG/KG	0.05UY	0.09UYJ	0.04UY	0.1DYJ	0.05UY
NICKEL	MG/KG	6.6DYJ	7DYJ	3.3UY	3.7DYJ	5.4DYJ
POTASSIUM	MG/KG	708DYJ	510DYJ	286DYJ	433DYJ	631DYJ
SELENIUM	MG/KG	0.22UYJ	0.29UY	0.22UYJ	0.28DYJ	0.23UYJ
SILVER	MG/KG	0.22UYJ	0.39UY	0.38DYJ	0.37DYJ	0.32DYJ
SODIUM	MG/KG	69.5DYJ	UYR	90.7DYJ	132DYJ	141DYJ
THALLIUM	MG/KG	0.22UY	0.37UY	0.22UY	0.23UY	0.23UY
VANADIUM	MG/KG	10.3DYJ	9.5DYJ	11.5DY	22.9DY	14.4DY
ZINC	MG/KG	17.4DY	20.1DYJ	26.2DYJ	29.9DYJ	20.5DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		C34-01	C34-01	C34-01	C34-01D	C35-01
SUB-SAMPLE ID:		A	B	C	DUP	A
STATION ID:		C34	C34	C34	C34	C35
SAMPLE DATE:		02/24/1992	02/24/1992	02/24/1992	02/24/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		1.00	3.00	5.00	1.00	3.00
LOWER DEPTH:		3.00	5.00	7.00	3.00	5.00
ALUMINUM	MG/KG	7040DYJ	3920DYJ	3510DYJ	6950DYJ	3910DY
ANTIMONY	MG/KG	4.?DYJ	2.5DYJ	2.3DYJ	4DYJ	2.4DYJ
ARSENIC	MG/KG	4DY	2.2DYJ	2DYJ	5.7DY	1.5DYJ
BARIUM	MG/KG	51.9DYJ	31.5DYJ	38.5DYJ	52.6DYJ	52.4DY
BERYLLIUM	MG/KG	0.54DYJ	0.22UY	0.46DYJ	0.54DYJ	0.66DYJ
CADMIUM	MG/KG	1.4UY	1.1UY	1.1UY	1.4UY	1.1UY
CALCIUM	MG/KG	663DYJ	466DYJ	711DYJ	804DYJ	1320DY
CHROMIUM	MG/KG	3.5DY	3.5DY	6DY	3.8DY	UYR
COBALT	MG/KG	7.1UY	5.8UY	6UY	7.1UY	5.7UY
COPPER	MG/KG	8.4DYJ	3.5UYJ	6.2DYJ	9.3DYJ	3.5UYJ
CYANIDE	MG/KG	0.34UY	0.28UY	0.29UY	0.34UY	0.28UY
IRON	MG/KG	3040DYJ	4060DYJ	6260DYJ	3000DYJ	7230DYJ
LEAD	MG/KG	204DYJ	3.2DY	3.1DY	52.6DY	6.5DY
LITHIUM						
MAGNESIUM	MG/KG	321DYJ	787DYJ	995DYJ	354DYJ	964DYJ
MANGANESE	MG/KG	10.9DY	22.2DY	58.5DY	13.6DY	87.5DY
MERCURY	MG/KG	0.1DYJ	0.05UY	0.05UY	0.11DYJ	0.15DYJ
NICKEL	MG/KG	4.6DYJ	5.1DYJ	6.7DYJ	4.1UY	4.6DYJ
POTASSIUM	MG/KG	117DYJ	195DYJ	337DYJ	128DYJ	243DYJ
SELENIUM	MG/KG	0.86DYJ	0.3DYJ	0.29DYJ	0.95DYJ	0.22UYJ
SILVER	MG/KG	0.27UYJ	0.22UYJ	0.23UYJ	0.27UYJ	0.22UYJ
SODIUM	MG/KG	102DYJ	42.6DYJ	49.1DYJ	114DYJ	35.1DYJ
THALLIUM	MG/KG	0.27UY	0.22UY	0.23UY	0.27UY	0.44DYJ
VANADIUM	MG/KG	10.3DYJ	13.1DY	13.5DY	11.7DYJ	15.7DY
ZINC	MG/KG	17.1DY	14.4DY	17.7DY	17.2DY	17DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C35-01	C35-01	C36-01	C36-01	C36-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C35	C35	C36	C36	C36
SAMPLE DATE:	02/19/1992	02/19/1992	04/07/1992	04/07/1992	04/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	7.00	0.00	2.00	4.00
LOWER DEPTH:	7.00	9.00	2.00	4.00	6.00
ALUMINUM MG/KG	4140DYJ	3960DYJ	6360DY	4880DY	2420DY
ANTIMONY MG/KG	2.2DYJ	3.2DYJ	3.3DYJ	2UYJ	2.5DYJ
ARSENIC MG/KG	2.3DYJ	1.5DYJ	26.8DYJ	2.3DYJ	0.72DYJ
BARIUM MG/KG	54.7DY	66.1DY	168DY	100DY	66.3DY
BERYLLIUM MG/KG	0.65DYJ	0.67DYJ	1UY	0.9UY	0.9UY
CADMIUM MG/KG	1.1UY	1.1UY	UYR	UYR	1.1UY
CALCIUM MG/KG	1400DYJ	3630DYJ	4010DY	2080DY	7470DY
CHROMIUM MG/KG	UYR	UYR	22.7DY	8.7DY	5.2DY
COBALT MG/KG	5.7UY	6DYJ	3.6UY	3.8DYJ	4.1DYJ
COPPER MG/KG	6.8DYJ	5.3DYJ	37.8DY	10.3DY	5.2DYJ
CYANIDE MG/KG	0.27UY	0.28UY	0.32UY	0.28UY	0.28UY
IRON MG/KG	7660DYJ	8720DYJ	10200DY	11700DY	5430DY
LEAD MG/KG	4.6DY	4DY	242DY	4.3DYJ	6.5DYJ
LITHIUM MG/KG			7.2DYJ	9.4DYJ	3.6DYJ
MAGNESIUM MG/KG	1500DYJ	3090DYJ	1210DYJ	2010DY	1220DY
MANGANESE MG/KG	111DY	314DY	188DYJ	372DYJ	299DYJ
MERCURY MG/KG	0.05UY	0.05UY	0.22DY	0.05UY	0.05UY
NICKEL MG/KG	7.6DYJ	8.2DYJ	8.4DYJ	9.4DY	4.5DYJ
POTASSIUM MG/KG	528DYJ	1310DY	746DYJ	748DYJ	586DYJ
SELENIUM MG/KG	0.24DYJ	0.22UYJ	0.27DYJ	0.22UYJ	0.23UYJ
SILVER MG/KG	0.22UYJ	0.22UYJ	0.26UYJ	0.22UYJ	0.23UYJ
SODIUM MG/KG	38.8DYJ	64.3DYJ	128DYJ	136DYJ	95DYJ
THALLIUM MG/KG	0.22UY	0.22UY	0.26UY	0.22UYJ	0.23UY
VANADIUM MG/KG	16.6DY	16.5DY	19.4DY	6DYJ	5.4DYJ
ZINC MG/KG	21.8DY	24.9DY	105DYJ	32.5DYJ	19.2DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	C37-01	C37-01	C37-01D	C38-01	C38-01
SUB-SAMPLE ID:	A	B	DUP	A	B
STATION ID:	C37	C37	C37	C38	C38
SAMPLE DATE:	04/08/1992	04/08/1992	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	0.00	2.00	0.00	8.00	10.00
LOWER DEPTH:	2.00	4.00	2.00	10.00	12.00
ALUMINUM MG/KG	6660DY	11800DY	5950DY	24100DY	20700DY
ANTIMONY MG/KG	2.6DYJ	4.1DYJ	2.1DYJ	15.6DYJ	18.9DYJ
ARSENIC MG/KG	6DYJ	6.3DYJ	7.8DYJ	55.4DY	56.3DY
BARIUM MG/KG	99.2DY	334DY	103DY	108DY	206DY
BERYLLIUM MG/KG	0.97UY	1.1DYJ	0.95UY	1.8DY	0.96DYJ
CADMIUM MG/KG	1.2UY	4DY	1.2UY	1.5UY	1.6UY
CALCIUM MG/KG	6220DY	7090DY	3880DY	79800DY	104000DY
CHROMIUM MG/KG	100DY	55.8DY	85.7DY	22.6DY	180DY
COBALT MG/KG	4.3DYJ	6.5DYJ	3.8DYJ	7.7UY	8.4UY
COPPER MG/KG	44.9DY	155DY	42.1DY	UYR	UYR
CYANIDE MG/KG	0.3UY	0.82DY	0.58DYJ	0.37UY	0.4UY
IRON MG/KG	9890DY	14400DY	8950DY	4610DYJ	7720DYJ
LEAD MG/KG	94.3DY	612DY	109DY	409DY	801DYJ
LITHIUM MG/KG	18.3DYJ				
MAGNESIUM MG/KG	1320DY	2520DY	1220DY	890DYJ	1390DYJ
MANGANESE MG/KG	202DYJ	184DYJ	133DYJ	162DY	202DY
MERCURY MG/KG	0.35DY	0.63DY	0.44DY	0.47DYJ	0.51DYJ
NICKEL MG/KG	9.9DY	28DY	8.3DYJ	25.6DY	11.6DYJ
POTASSIUM MG/KG	427DYJ	752DYJ	452DYJ	170DYJ	251DYJ
SELENIUM MG/KG	0.29DYJ	0.72DYJ	0.25DYJ	1.6DYJ	1.6UYJ
SILVER MG/KG	0.24UYJ	0.27UYJ	0.24UYJ	0.3UYJ	0.48DYJ
SODIUM MG/KG	290DYJ	458DYJ	224DYJ	2130DYJ	1510DYJ
THALLIUM MG/KG	0.24UY	0.27UY	0.25DYJ	0.57DYJ	0.74DYJ
VANADIUM MG/KG	12.8DYJ	56.9DY	10.7DYJ	6.8UY	7.4UY
ZINC MG/KG	133DYJ	288DYJ	81DYJ	65.8DY	54DY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		C38-01	C39-01	C39-01	C39-01	C39-01D
SUB-SAMPLE ID:		C	A	B	C	DUP
STATION ID:		C38	C39	C39	C39	C39
SAMPLE DATE:		02/18/1992	02/18/1992	02/18/1992	02/18/1992	02/18/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		12.00	0.00	4.00	6.00	6.00
LOWER DEPTH:		14.00	2.00	6.00	8.00	8.00
ALUMINUM	MG/KG	2260DY	6140DY	3230DY	2600DY	3570DY
ANTIMONY	MG/KG	2.1UYJ	2.2DYJ	2UYJ	2UYJ	2.3UYJ
ARSENIC	MG/KG	1.2DYJ	2.5DYJ	1.3DYJ	1.4DYJ	1.6DYJ
BARIUM	MG/KG	56.7DY	36.9DYJ	33.7DYJ	32DYJ	33.9DYJ
BERYLLIUM	MG/KG	0.69DYJ	0.67DYJ	0.67DYJ	0.45DYJ	0.77DYJ
CADMIUM	MG/KG	1.2UY	1.1UY	1.1UY	1.1UY	1.3UY
CALCIUM	MG/KG	3920DY	1420DY	1400DY	1240DY	1490DY
CHROMIUM	MG/KG	7.8DYJ	6DYJ	4.5DYJ	6.3DYJ	10.2DYJ
COBALT	MG/KG	6UY	5.8UY	6.1DYJ	5.8UY	6.6UY
COPPER	MG/KG	4.6DYJ	6.7DYJ	3.6UYJ	4.5DYJ	5.1DYJ
CYANIDE	MG/KG	0.29UY	0.28UY	0.56UY	0.28UY	0.32UY
IRON	MG/KG	3640DYJ	8080DYJ	5430DYJ	5670DYJ	9260DYJ
LEAD	MG/KG	16.1DY	23.6DY	3.5DY	4.4DY	4.5DY
LITHIUM						
MAGNESIUM	MG/KG	945DYJ	1100DYJ	943DYJ	903DYJ	1130DYJ
MANGANESE	MG/KG	240DY	296DY	539DY	439DY	467DY
MERCURY	MG/KG	0.06UYJ	0.05UYJ	0.05UYJ	0.04UYJ	0.17DYJ
NICKEL	MG/KG	6.2DYJ	4.2DYJ	5.8DYJ	4.5DYJ	5.9DYJ
POTASSIUM	MG/KG	306DYJ	516DYJ	570DYJ	479DYJ	638DYJ
SELENIUM	MG/KG	0.23UYJ	0.22UYJ	0.22UYJ	0.22UYJ	0.26UYJ
SILVER	MG/KG	0.23UYJ	0.22UYJ	0.22UYJ	0.22UYJ	0.26UYJ
SODIUM	MG/KG	68.2DYJ	103DYJ	79.2DYJ	72.1DYJ	81.6DYJ
THALLIUM	MG/KG	0.37DYJ	0.42DYJ	0.36DYJ	0.47DYJ	0.51DYJ
VANADIUM	MG/KG	5.3UY	9.6DYJ	5.6DYJ	6.3DYJ	9.2DYJ
ZINC	MG/KG	15.9DY	40.7DY	17.5DY	17.9DY	21.4DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		C40-01	C40-01	C40-01	C41-01	C41-01
SUB-SAMPLE ID:		A	B	C	A	B
STATION ID:		C40	C40	C40	C41	C41
SAMPLE DATE:		02/13/1992	02/13/1992	02/13/1992	02/12/1992	02/12/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		2.00	4.00	6.00	0.00	4.00
LOWER DEPTH:		4.00	6.00	8.00	2.00	6.00
ALUMINUM	MG/KG	8650DY	5010DY	7210DY	5810DY	9540DY
ANTIMONY	MG/KG	2.5UYJ	2.5UYJ	2.4UYJ	3.7DYJ	2.6DYJ
ARSENIC	MG/KG	4.6DY	1.2DYJ	1.9DYJ	41.4DY	4DY
BARIUM	MG/KG	34.4DYJ	27.1DYJ	32.3DYJ	91.1DY	42DYJ
BERYLLIUM	MG/KG	0.25DYJ	0.19DYJ	0.29DYJ	1.2DY	0.52DYJ
CADMIUM	MG/KG	0.66UY	0.67UY	0.66UY	1.2UY	0.69UY
CALCIUM	MG/KG	1040DYJ	341DYJ	765DYJ	7250DY	1770DY
CHROMIUM	MG/KG	11.6DY	10.5DY	10.2DY	2440DY	197DY
COBALT	MG/KG	4.2DYJ	2.6DYJ	4.3DYJ	6.5UY	4.8DYJ
COPPER	MG/KG	17.3DY	9.2DY	15.8DY	UYR	156DY
CYANIDE	MG/KG	0.41UY	0.41UY	0.4UY	0.5DYJ	0.43UY
IRON	MG/KG	16700DY	9400DY	9090DY	13000DYJ	UYR
LEAD	MG/KG	5.6DY	4.3DY	8DY	328DYJ	UYR
LITHIUM						
MAGNESIUM	MG/KG	1810DY	903DYJ	1660DY	2300DY	1470DY
MANGANESE	MG/KG	59DYJ	31.4DYJ	57.6DYJ	157DY	UYR
MERCURY	MG/KG	0.06UY	0.09UY	0.09UY	0.86DYJ	0.12DYJ
NICKEL	MG/KG	9.9DY	6.7DYJ	10.3DY	13.4DY	11.3DY
POTASSIUM	MG/KG	766DYJ	483DYJ	806DYJ	496DYJ	405DYJ
SELENIUM	MG/KG	0.29UY	0.29UY	0.29UY	0.39DYJ	0.3UY
SILVER	MG/KG	0.39UY	0.44DYJ	0.39UY	0.25UYJ	0.44DYJ
SODIUM	MG/KG	236DYJ	224DYJ	235DYJ	157DYJ	248DYJ
THALLIUM	MG/KG	0.37UYJ	0.38UY	0.37UY	0.74DYJ	0.39UYJ
VANADIUM	MG/KG	16.7DY	9.4DYJ	10.4DYJ	19.9DY	20.7DY
ZINC	MG/KG	24.7DY	16.2DY	32DY	140DY	87DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:		C41-01	C42-01	C42-01	C42-01	C43-01
SUB-SAMPLE ID:		C	A	B	C	A
STATION ID:		C41	C42	C42	C42	C43
SAMPLE DATE:		02/12/1992	02/19/1992	02/19/1992	02/19/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		6.00	4.00	6.00	10.00	3.00
LOWER DEPTH:		8.00	6.00	8.00	12.00	5.00
ALUMINUM	MG/KG	7600DY	8580DY	4810DY	4490DY	7160DY
ANTIMONY	MG/KG	2.5UYJ	4.2DYJ	2.1UYJ	2.2DYJ	2.3DYJ
ARSENIC	MG/KG	3.9DY	14DYJ	2.7DY	3.9DY	4.3DY
BARIUM	MG/KG	22.8DYJ	143DY	92.4DY	132DY	35.9DYJ
BERYLLIUM	MG/KG	0.35DYJ	1.4DYJ	0.47DYJ	0.92DYJ	1.1DY
CADMIUM	MG/KG	0.67UY	1.4UY	1.2UY	1.2UY	1.1UY
CALCIUM	MG/KG	1220DY	17500DY	2420DY	1690DY	10800DY
CHROMIUM	MG/KG	20.7DY	6.6DYJ	8.4DYJ	7.9DYJ	15.3DY
COBALT	MG/KG	6.3DYJ	7.2UY	6.1UY	6UY	5.9UY
COPPER	MG/KG	18DY	21.5DYJ	4.9DYJ	7.6DYJ	UYR
CYANIDE	MG/KG	0.41UY	0.34UY	0.29UY	0.29UY	0.28UY
IRON	MG/KG	UYR	10300DYJ	8350DYJ	10800DYJ	11700DYJ
LEAD	MG/KG	UYR	64.6DY	15.3DY	4.1DY	18.4DYJ
LITHIUM						
MAGNESIUM	MG/KG	1850DY	1700DY	1100DYJ	1240DY	2230DY
MANGANESE	MG/KG	UYR	161DY	73.9DY	437DY	207DY
MERCURY	MG/KG	0.07UYJ	0.06UYJ	0.06UYJ	0.05UYJ	0.06UYJ
NICKEL	MG/KG	16DY	8.8DYJ	4.7DYJ	5.1DYJ	16DY
POTASSIUM	MG/KG	510DYJ	1230DYJ	474DYJ	564DYJ	422DYJ
SELENIUM	MG/KG	0.29UY	3DYJ	0.67DYJ	0.23UYJ	0.25DYJ
SILVER	MG/KG	0.59DYJ	0.28UYJ	0.23UYJ	0.23UYJ	0.23UYJ
SODIUM	MG/KG	243DYJ	377DYJ	110DYJ	95DYJ	94.4DYJ
THALLIUM	MG/KG	0.38UYJ	0.74DYJ	0.47DYJ	0.51DYJ	0.5DYJ
VANADIUM	MG/KG	14.1DY	19.8DY	12.2DY	13.4DY	15.3DY
ZINC	MG/KG	29.9DY	128DY	23.4DY	21.3DY	72DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:	C43-01	C43-01	C44-01	C44-01	C44-01
SUB-SAMPLE ID:	B	C	A	B	C
STATION ID:	C43	C43	C44	C44	C44
SAMPLE DATE:	02/19/1992	02/19/1992	02/13/1992	02/13/1992	02/13/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	7.00	11.00	4.00	6.00	8.00
LOWER DEPTH:	9.00	13.00	6.00	8.00	10.00
ALUMINUM MG/KG	2510DY	2550DY	979DY	1560DY	822DY
ANTIMONY MG/KG	2UYJ	2UYJ	2.7UYJ	2.5UYJ	2.5UYJ
ARSENIC MG/KG	0.95DYJ	1.2DYJ	1.8DYJ	0.87DYJ	1.2DYJ
BARIUM MG/KG	13.9DYJ	73.6DY	30.2DYJ	24.1DYJ	28.9DYJ
BERYLLIUM MG/KG	0.22DYJ	0.45DYJ	0.09DYJ	0.09DYJ	0.07DYJ
CADMIUM MG/KG	1.1UY	1.1UY	0.71UY	0.67UY	0.87DYJ
CALCIUM MG/KG	997DYJ	1610DY	2610DY	2940DY	4260DY
CHROMIUM MG/KG	5.6DYJ	3.1DYJ	94.3DY	128DY	53.4DY
COBALT MG/KG	5.6UY	5.8UY	4DYJ	2.5DYJ	1.8DYJ
COPPER MG/KG	4.1DYJ	4.5DYJ	48.1DY	11.8DY	7.2DY
CYANIDE MG/KG	0.27UY	0.28UY	0.44UY	0.41UY	0.41UY
IRON MG/KG	4290DYJ	3960DYJ	8880DY	7550DY	3310DY
LEAD MG/KG	3.5DY	3.9DY	17.9DY	12.6DY	7.9DY
LITHIUM					
MAGNESIUM MG/KG	483DYJ	1070DYJ	122DYJ	249DYJ	154DYJ
MANGANESE MG/KG	353DY	443DY	97DYJ	33.2DYJ	22.2DYJ
MERCURY MG/KG	0.05UYJ	0.05UYJ	0.08UY	0.09UY	0.09UY
NICKEL MG/KG	3.3UY	4.9DYJ	7.8DYJ	3.9DYJ	2.6DYJ
POTASSIUM MG/KG	384DYJ	662DYJ	173UY	506DYJ	520DYJ
SELENIUM MG/KG	0.22UYJ	0.22UYJ	0.31UY	0.29UY	0.3UY
SILVER MG/KG	0.22UYJ	0.22UYJ	0.42UY	0.39UY	0.4UY
SODIUM MG/KG	56.8DYJ	54.8DYJ	276DYJ	287DYJ	249DYJ
THALLIUM MG/KG	0.35DYJ	0.49DYJ	0.4UY	0.38UYJ	0.38UYJ
VANADIUM MG/KG	5.4DYJ	6DYJ	2.5DYJ	5.4DYJ	2DYJ
ZINC MG/KG	7.2DY	13.4DY	32.8DY	5.4DY	8.8DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Radionuclides

Glossary of Data Qualifier Codes and Definitions Used for Radiological Data

Definitions of data qualifiers used for organic and inorganic analytical data are defined at the bottom of each data sheet. The definitions for the data qualifiers for the radiological data, however, are different. The following definitions should, therefore, be used for radiological data qualifiers.:

U - The parameter was analyzed for, but was not detected above the level of the associated value. The associated value is either the minimum detectable activity (MDA) or the sample-specific lower limit of detection (LLD), or the observed value.

J - The associated value is estimated because one or more quality acceptance criteria were not met.

UJ - The parameter was analyzed for but was not detected. The nondetection could be due to one or more quality control problems. The associated value is an estimated MDA or LLD, or observed value.

H - Holding times exceeded.

D - Duplicate precision criteria not met.

S - Matrix spike recovery criteria not met.

C - Calibration criteria not met.

B - Blank contamination present.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS
SAMPLE ANALYSIS: RAD

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
S01	GROSS ALPHA, TOTAL	PCI/G	18	15	0.8333	20.000	8,310.000	871.573	2,064.559
S02	GROSS BETA, TOTAL	PCI/G	18	15	0.8333	14.400	2,970.000	315.420	731.274
S03	RADIUM 226, TOTAL	PCI/G	18	14	0.7778	1.400	266.000	36.400	70.369
S04	RADIUM 228, TOTAL	PCI/G	18	16	0.8889	0.500	283.000	47.719	81.219
S05	THORIUM 230, TOTAL	PCI/G	4	4	1.0000	0.500	1.400	0.875	0.335
S06	THORIUM 232, TOTAL	PCI/G	4	0	0.0000	0.000	0.000	0.000	0.000
S10	TOTAL THORIUM, BY ALPHA SCINT.	PCI/G	14	14	1.0000	29.200	3,920.000	522.243	998.029
S07	URANIUM 234, TOTAL	PCI/G	18	13	0.7222	0.700	31.800	12.408	8.371
S08	URANIUM 235, TOTAL	PCI/G	18	2	0.1111	1.800	5.900	3.850	2.050
S09	URANIUM 238, TOTAL	PCI/G	18	10	0.5556	9.900	61.900	20.840	14.872

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOIL BORINGS
ALL OBSERVATIONS

SAMPLE ID:	BM2-01	BM3-01	BM3-01
SUB-SAMPLE ID:	A	A	B
STATION ID:	BM2	BM3	BM3
SAMPLE DATE:	08/04/1992	08/04/1992	08/04/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	0.00	1.00	3.00
LOWER DEPTH:	1.00	3.00	4.00
GROSS ALPHA, TOTAL PCI/G	6.4UY	10.9UY	20 +/- 11.6DY
GROSS BETA, TOTAL PCI/G	6UY	4.7UY	14.4 +/- 6.9DY
RADIUM 226, TOTAL PCI/G	0.5UY	0.6UY	0.7UY
RADIUM 228, TOTAL PCI/G	0.5 +/- 0.1DY	0.3UY	0.7 +/- 0.1DY
THORIUM 230, TOTAL PCI/G	0.7 +/- 0.4DY	0.5 +/- 0.3DY	1.4 +/- 0.6DY
THORIUM 232, TOTAL PCI/G	0.5UY	0.4UY	0.2UY
TOTAL THORIUM, BY ALPHA SCINT.			
URANIUM 234, TOTAL PCI/G	0.5UY	1 +/- 0.5DY	12.2 +/- 0.9DY
URANIUM 235, TOTAL PCI/G	0.7UYJC	0.6UYJC	1.8 +/- 0.4DYJC
URANIUM 238, TOTAL PCI/G	0.2UYJB	0.3UYJB	9.9 +/- 0.8DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BM3D-01	C07-01	C08-01
SUB-SAMPLE ID:	DUP	B	B
STATION ID:	BM3D	C07	C08
SAMPLE DATE:	08/04/1992	03/31/1992	03/31/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	1.00	4.00	2.00
LOWER DEPTH:	3.00	5.00	4.00
GROSS ALPHA, TOTAL PCI/G	1.8UY	55.5 +/- 10.9DY	37.3 +/- 9.3DY
GROSS BETA, TOTAL PCI/G	10UY	32.5 +/- 5.1DY	24.9 +/- 4.8DY
RADIUM 226, TOTAL PCI/G	0.6UY	[illegible] +/- 0.6DY	2.7 +/- 0.6DY
RADIUM 228, TOTAL PCI/G	0.4UY	4.8 +/- 2.5DY	2.8 +/- 1.6DY
THORIUM 230, TOTAL PCI/G	0.9 +/- 0.3DY		
THORIUM 232, TOTAL PCI/G	0.1UY		
TOTAL THORIUM, BY ALPHA SCINT. PCI/G		63 +/- 7.6DYJC	35.9 +/- 3.7DYJC
URANIUM 234, TOTAL PCI/G	0.7 +/- 0.5DY	10.6 +/- 4.2DYJS	1.7UYJSB
URANIUM 235, TOTAL PCI/G	0.7UYJC	0.6UYJSB	0.2UYJSB
URANIUM 238, TOTAL PCI/G	0.6UYJB	5.7UYJSB	3.1UYJSB

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C09-01	C14-01	C15-01
SUB-SAMPLE ID:	A	A	B
STATION ID:	C09	C14	C15
SAMPLE DATE:	04/03/1992	03/31/1992	02/26/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	0.00	2.00	3.00
LOWER DEPTH:	2.00	4.00	5.00
GROSS ALPHA, TOTAL PCI/G	109 +/- 14.5DY	670 +/- 34.5DY	553 +/- 31.4DY
GROSS BETA, TOTAL PCI/G	57.5 +/- 6DY	252 +/- 10.8DY	194 +/- 9.6DY
RADIUM 226, TOTAL PCI/G	4.6 +/- 0.8DY	27.1 +/- 2DY	28 +/- 2DY
RADIUM 228, TOTAL PCI/G	5.4 +/- 1.4DY	90.4 +/- 5.3DY	52.2 +/- 4.6DY
THORIUM 230, TOTAL			
THORIUM 232, TOTAL			
TOTAL THORIUM, BY ALPHA SCINT. PCI/G	91.6 +/- 5.3DYJC	595 +/- 12.5DYJC	439 +/- 18.6DYJC
URANIUM 234, TOTAL PCI/G	5.8UYJB	15.7 +/- 3.5DY	8.5 +/- 2.1DYJS
URANIUM 235, TOTAL PCI/G	0.2UYJB	0.2UYJB	1UYJSB
URANIUM 238, TOTAL PCI/G	8.2UYJB	15.5 +/- 3.4DY	10.3 +/- 2.3DYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C16-01	C20-01	C21-01
SUB-SAMPLE ID:	B	C	B
STATION ID:	C16	C20	C21
SAMPLE DATE:	04/01/1992	02/18/1992	04/07/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	2.50	6.50	2.00
LOWER DEPTH:	4.00	8.50	4.00
GROSS ALPHA, TOTAL PCI/G	248 +/- 21.3DY	22.8 +/- 7.8DY	172 +/- 17.9DY
GROSS BETA, TOTAL PCI/G	107 +/- 7.6DY	19.5 +/- 4.6DY	68.6 +/- 6.4DY
RADIUM 226, TOTAL PCI/G	14.8 +/- 1.5DY	1.9 +/- 0.5DYJH	7.9 +/- 1.1DY
RADIUM 228, TOTAL PCI/G	21.3 +/- 2.8DY	3.3 +/- 1.6DYJH	14.4 +/- 2.7DY
THORIUM 230, TOTAL			
THORIUM 232, TOTAL			
TOTAL THORIUM, BY ALPHA SCINT. PCI/G	216 +/- 7.7DYJC	29.2 +/- 5.6DYJC	139 +/- 6.3DYJC
URANIUM 234, TOTAL PCI/G	12.5 +/- 3.6DYJS	23.8 +/- 7.6DYJHS	9.1 +/- 3.6DYJS
URANIUM 235, TOTAL PCI/G	0.2UYJSB	1UYJSB	0.3UYJSB
URANIUM 238, TOTAL PCI/G	13.9 +/- 3.7DYJS	20.8 +/- 7.2DYJHS	11.4 +/- 4DYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C24-01	C29-01	C37-01
SUB-SAMPLE ID:	B	B	A
STATION ID:	C24	C29	C37
SAMPLE DATE:	04/07/1992	04/01/1992	04/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	4.00	5.00	0.00
LOWER DEPTH:	6.00	7.00	2.00
GROSS ALPHA, TOTAL PCI/G	307 +/- 23.6DY	46 +/- 10.1DY	123 +/- 15.4DY
GROSS BETA, TOTAL PCI/G	124 +/- 8DY	29.7 +/- 5DY	52.5 +/- 5.9DY
RADIUM 226, TOTAL PCI/G	1.4 +/- 0.5DY	17.6 +/- 1.6DY	6.8 +/- 1DY
RADIUM 228, TOTAL PCI/G	40.5 +/- 3.3DY	4.2 +/- 1.7DY	10.9 +/- 2.7DY
THORIUM 230, TOTAL			
THORIUM 232, TOTAL			
TOTAL THORIUM, BY ALPHA SCINT. PCI/G	241 +/- 8.1DYJC	46.6 +/- 4.1DYJC	95.1 +/- 9.1DYJC
URANIUM 234, TOTAL PCI/G	19.8 +/- 10.9DYJS	5.7UYJB	3.5UYJB
URANIUM 235, TOTAL PCI/G	0.9UYJSB	2.4UYJB	0.1UYJB
URANIUM 238, TOTAL PCI/G	28.2 +/- 12.3DYJS	4.1UYJB	5.5UYJB

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	C37D-01	C38-01	C38-01
SUB-SAMPLE ID:	DUP	B	C
STATION ID:	C37D	C38	C38
SAMPLE DATE:	04/08/1992	02/18/1992	02/18/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	0.00	10.00	12.00
LOWER DEPTH:	2.00	12.00	14.00
GROSS ALPHA, TOTAL PCI/G	100 +/- 14DY	8310 +/- 121DY	2300 +/- 63.5DY
GROSS BETA, TOTAL PCI/G	43.7 +/- 5.6DY	2970 +/- 35.2DY	741 +/- 17.8DY
RADIUM 226, TOTAL PCI/G	6.2 +/- 1DY	266 +/- 6.3DYJH	122 +/- 4.3DY
RADIUM 228, TOTAL PCI/G	9.1 +/- 2.7DY	283 +/- 8.8DYJH	220 +/- 8.5DY
THORIUM 230, TOTAL			
THORIUM 232, TOTAL			
TOTAL THORIUM, BY ALPHA SCINT. PCI/G	102 +/- 9.4DYJC	3920 +/- 77.4DYJC	1300 +/- 31.6DYJC
URANIUM 234, TOTAL PCI/G	7.4 +/- 4.5DYJS	31.8 +/- 3.4DYJH	8.2 +/- 1.5DY
URANIUM 235, TOTAL PCI/G	0.8UYJSB	5.9 +/- 1.5DYJH	1.7UYJB
URANIUM 238, TOTAL PCI/G	12.7 +/- 5.1DYJS	61.9 +/- 4.8DYJH	23.8 +/- 2.5DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Total Organic Carbon

TOC

CLIENT: CH2M HILL

REPORT DATE: May 28, 1992
SAMPLE ANALYZED: One sample analyzed for the parameters listed below.

PROJECT #: 9207-00020
TCT ST. LOUIS ID #: 92002356

DATE RECEIVED: April 9, 1992
P.O. #:

ST. LOUIS ID NUMBER	SITE CODE	TOC (MG/KG)
BLANK	-	< 1.0
92002356	240406	2220
92002356 DUP	240406	2023
92002356 MS RCVRY (%)	240406	115%
STD. RCVRY (%)	10 MG/L STD.	98%

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Karl Day Date 5-12-96 Project No. 3216-7211 B

Checked By _____ Date _____ 9207-20

Range Setting 40 ppt

Lab No.	Site Name	Sample Date	WT (g)	Sol/Vol (%)	Inj.	DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	1513	5 12 96								
	1486									
	1545 Cal									
	1518									
	500 mg/l						500.2			
	1000						992.0			
	2500						2497			
	4000						3893			
ICV	2000		0.2				1872		94 %Rec	
ICB	27HB-02 Blank		0.2				0.657		< 5	
2701	32118 02-006	5 12 96	.0117	72.8			623.7	2929	mg/kg	
2702	02 007		.0107	86.1			486.5	2112	mg/kg	
2703	02 008		.0100	74.1			682.0	3682	mg/kg	

ACCEPTED
MAY 22 1996

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

TCT-ST. LOUIS

Sheet 2 of 2

TOC (Instrumental)

Analyst Earl Day Date 5-12-92 Project No. 3216-72113 ~ 9207-20

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT % Solids (1 g/1 ml)	Weight/Vol (g)	Inj.	DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
2704★	72113-02-008 (water)	5-1-92		(40 ml)			mg/l 15.56	mg/kg <5		
CCV	2000 mg/l	5-12-92					1839	368 mg/kg	92%	
CCB							0.714	<5 mg/kg		
CCV	2000 mg/l						2085	417 mg/kg	104%	
CCB							0.001	<5		
2356	240406	5-7-92	85.8%	.0154			734.6	2224 mg/kg		
2356	(mg/kg) (6856) MSD			.0136			2943	10,088	115%	MS Rec
2556	2459 mg/kg MS Not Required			.0125			2830	10,555	112%	MS Rec
2556	Dup			.0164			711.8	2023	49%	5-12-92 MCSD
CCV	2000 mg/l	5-12-92					1967	393 mg/kg	98%	
CCB							0.021	<5		
									ACCEPTED	
									MAY 22 1992	

★ This water sample was run as a soil here. It was previously run as a water & Reported in mg/l Earl Day 5-12-92

For Solids: Instrument Reading x (.040 mL) / (Sample gm) x (% Solid) = mg/kg TOC

Kevin McLeod

FORM1126

TCT-St. Louis

STANDARDS SOURCES

ANALYTE (TOC) KHP

	Calibration Standards	ICV/CCV Standards
Source:	Fisher 90-5952	NBS-194
Prep. Date:	5-12-92	5-12-92
Prep. By:	Gail Day	Gail Day

Project 3216-721.1

5-12-92 Gail Day

SELFTEST
NO ERRORS

1 TOC 1513 Instrument Cal.
2 TOC 1486
3 TOC 1545
4 TOC 1518

CAL -- 40 UL
CAL AVE 1515
CAL ADJ 1998

CAL -- 40 UL
CAL ADJ 1998

1 TOC 497.4 will repeat
1 CANCELLED

TIMEOUT ERROR: 58:

2 TOC 588.2 500 mg/l
3 TOC 992.8 1000 mg/l
4 TOC 2497 2500 mg/l
5 TOC 3632 dripped
6 TOC 39.97 will R.P.
7 TOC 3893 4000 mg/l
8 TOC 1872 CCV
9 TOC 0.657 CCB
10 TOC 623.7 2701
11 TOC 486.5 2702
12 TOC 682.8 2703
13 TOC 15.56 2704 water sample
14 TOC 1839 CCV
15 TOC 0.714 CCB

15 TOC 0.714 CCB
16 TOC 65.94 NR
17 TOC 37.37 NR
18 TOC 2085 CCV
19 TOC 0.081 CCB
20 NR TOC 595 2356
21 TOC 734.6 Dripped
22 TOC 2943 2356 dup
23 TOC 2838 2356 MS
24 TOC 3492 2356 MS Not Run
2356 sample
MS
MS
sample
25 TOC 711.8 2356 Dup
26 TOC 2705 MS3 NR
27 TOC 2253 NR for
28 TOC 2248 NR Prep 3216
29 TOC 1326 NR
30 TOC 1537 NR
31 TOC 1967 CCV
32 TOC 0.021 CCB

Gail Day 5-13-92

C.2.4.(c-(.)

TOC

Twin City Testing
1908 Innerbelt Business Center Dr.
St.Louis, Mo. 63114-5700

Date: April 08,1992
Project No: 9207-00002

Project: CH2M-HILL -- MJ022948.SW.SP

CH2M-HILL SITE ID: FA-SB-C26 (0-6)
TCT-ST. LOUIS LAB NO: 92001247
FILE ID #: 260006

TOC(MG/KG)
12440

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Paul Day **Date** 3-20-92 **Project No.** 420709

Checked By _____ **Date** _____

Range Setting 40 yl

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solids DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	1506 } cal.	3 20 92								
	1499 } cal.	↓								
	1523 } cal.									
	500 mg/l						533.2			
	4000						3745			
ICV	2000 ↓						1933		96.6%	
ICB	Empty Boat	↓					2.239		< 5	
1355	31C810		0.0330			89.3	cancelled		(Time out error)	
↓	↓		0.0174			↓	1660	(No Error Light will be slurried error But ready light has not activated)		
↓	↓		0.0150			↓	cancelled		(Time out error)	
1247	36C006		0.0169			88.8	3011	12,443	47/9	
↓	↓		0.0169				cancelled		(Time out error)	
Sample 1355 1247 will have to be slurried to determine Dup & MS										

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

ACCEPTED
MAR 26 1992

Kim Mikeska

TCT St. Louis

TCT-ST. LOUIS

Sheet 2 of 2

TOC (Instrumental)

Analyst Sarah Kay Date 3 20 92 Project No. 9207-07

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solid DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
Blank	DI water	3 20 92	-	-		-	19.58	19.6 20.0	mg/l	
1355	3 c s/c (slurry)	3 17 92	1.0206g	20 ml	40 µl	89.3	80.30	1762	mg/g	
↓	Dup	↓	↓	↓	↓	↓	89.90	1973	mg/g	11.2%
↓	Sample Tipped -	↓	↓	↓	↓	↓	—	-		
↓	2000 mg/L MS	↓	↓	↓	x	↓	10.32	22647	mg/g	95%
CCV	2000 mg/L	3-20-92	-			-	2001	2001	100%	
CCB	Empty Boat	↓	--			-	5.150	< 5		
								ACCEPTED		
								MAR 26 1992		

For Solids: Instrument Reading x (1040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

SELF TEST
NO ERRORS
Project 9207-C9
Sand Day 3-2

NO CAL -- 40 UL
1 TOC 1586

2 TOC 1499

3 TOC 1523

CAL -- 40 UL
CAL AVE 1509
CAL ADJ 1998

1 TOC 533.2 5000

2 TOC 3745 4000

3 TOC 1933 2000

4 TOC 2.239 Empty

5 TOC 3417 .03 55
5 CANCELLED

TIMEOUT ERROR< 10%

6 TOC 1660

7 TOC 1287
7 CANCELLED

TIMEOUT ERROR< 10%

8 TOC 3811 .124

9 TOC 3081
9 CANCELLED .247

TIMEOUT ERROR< 100%

10 TOC 37.23 Burn Beer

11 TOC 19.58 01 B

12 TOC 86.32 1955 slurry

13 TOC 89.98 Dump

14 TOC 485.3 spill

15 TOC 1032 + M S

16 TOC 2001 CCU

17 TOC 5.150 CCB

TOC

TCT ST.LOUIS
1908 INNERBELT BUSINESS CENTER DRIVE
ST.LOUIS, MO 63114

DATE OF REPORT: 04/13/92

9207-00009

CH2MHILL SAMPLE ID: 310810
TCT SAMPLE NO.: 92001355
DATE SAMPLED: 02/26/92

TOC RESULTS (UG/G): 1760
Duplicate results: 1973 %rpd = 11
Matrix spike results: 22600 %recovery = 95

Percent Solids: 80.3

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Paul Day **Date** 3-20-92 **Project No.** 420709

Checked By _____ **Date** _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solids DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	1506 } cal.	3-20-92								
	1499 } cal.	↓								
	1523 } cal.	↓								
↓	500 mg/l	↓		↓			533.2			
	4000 ↓	↓					3745			
ICV	2000 ↓	↓					1933		96.6%	
ICB	Empty Boat	↓					2.239		< 5	
1355	316810		0.0330			89.3	cancelled		(Time out error)	
↓	↓		0.0174			↓	1660	(No Error light will be slurried and run but ready light was not activated)		
↓	↓		0.0150			↓	cancelled		(Time out error)	
1247	260006		0.0109			88.8	3011	12,443	48/g	
↓	↓		0.0108				cancelled		(Time out error)	
Sample	~~1247~~ 1355 3-31-92 will	have to	be	slurried			to determine Dup & MS			

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

ACCEPTED
MAR 26 1992
CT St. Louis

FORM112

TCT-ST. LOUIS

Sheet 2 of 2

TOC (Instrumental)

Analyst Faith Day **Date** 3 20 92 **Project No.** 9207-09

Checked By _____ **Date** _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solids DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
Blank	DI water	3-20-92	--	-		-	19.58	19.6 ~~200~~	mg/l	
1355	3 c 8 i c (slurry)	3 19 92	1.0206g	20 ml	40 ml	89.3	80.30	1762	mg/g	
↓	Dup	↓	↓	↓	↓	↓	89.90	1973	mg/g	11%
	Sample Tipped -	it will	be	disposed	of		—	-		
↓	2044 mg/g MS	↓	↓	↓	↓	↓	1032	22647	mg/g	95%
CCV	2000 mg/L	3-20-92	-	-		-	2001	2001	100%	
CCB	Empty Boat	↓	--	-		-	5.150	< 5		
								ACCEPTED		
								MAR 26 1992		
								~~QA/QC~~ Admin		

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

SELF TEST
NO ERRORS
Project 9207-09
Gail Day 3-20-9

NO CAL -- 40 UL
1 TOC 1506
2 TOC 1499
3 TOC 1523
Cal
(CAL -- 40 UL
CAL AVE 1509
CAL ADJ 1998

1 TOC 533.2 5000 mg
2 TOC 3745 4000 mg
3 TOC 1933 2000 mg
4 TOC 2.239 Empty B
5 TOC 3417 /3 55
5 CANCELLED

TIMEOUT ERROR< 10%

6 TOC 1660

7 TOC 1287
7 CANCELLED

TIMEOUT ERROR< 10%

8 TOC 3011 1247

9 TOC 3081
9 CANCELLED 1247

TIMEOUT ERROR< 100%

10 TOC 37.23 Burn
Boat
11 TOC 19.58 DI Blank
12 TOC 80.32 1355
Slurry
13 TOC 89.98 Dup
14 TOC 485.3 spiked
15 TOC 1032 MS
16 TOC 2001 CCV
17 TOC 5.150 CCB

Physical Characterization

GEOTECH

REPORTED TO: Twin City Testing Corporation
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	94
#4	87
#10	81
#40	68
#100	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 11.5%

REMARKS: This sample was received on March 3, 1992.

twin city testing corporation
662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORTED TO: Twin City Testing Corporation
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

MECHANICAL ANALYSIS: **(See Attached Curve)**

Passing 3/4"	100%
3/8"	94
#4	87
#10	81
#40	68
#100	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 11.5%

REMARKS: This sample was received on March 3, 1992.

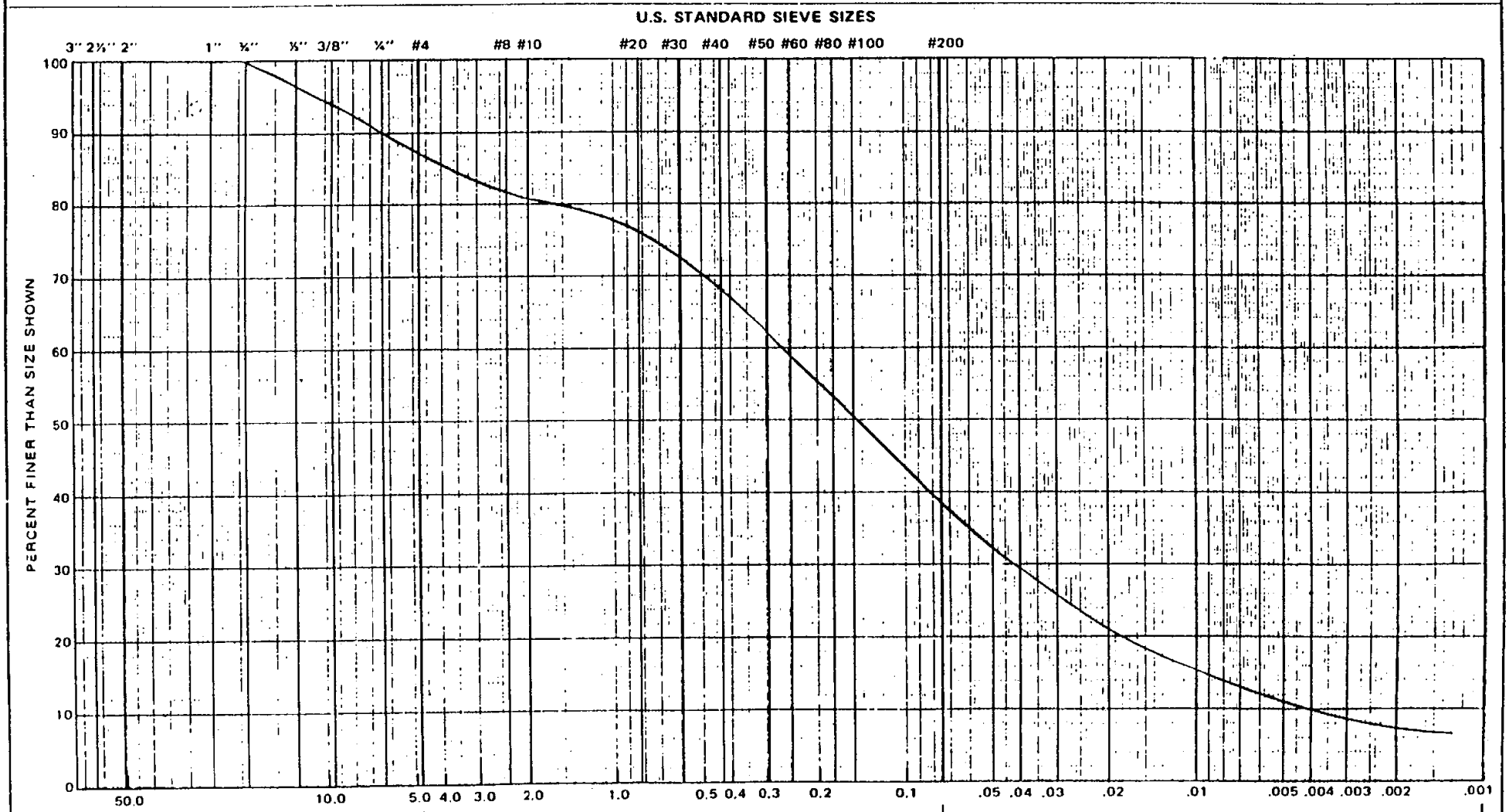
twin city testing corporation

Sample No. DS-SB-C31(8-10)

Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



SL-31 (75-8)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 4122-02-0055 Date 5/13/92 Project Eng. _____ Tech. AB/HR Time ___

Bc , No.													
Sample No.			Location:		FA SB-26C		0-6'						
BPF or Sample Type			Sample ID:		013150 1C								
Depth (ft)													
Soil Type													
MOISTURE CONTENT (%)													
Pan No.	2												
Wt. of Pan	7.96												
Wt. Pan & Wet Soil	230.08												
Wt. Pan & Dry Soil	203.29												
Moisture Loss	26.79												
Wt. Dry Soil	195.33												
% Moisture	13.7												
DRY DENSITY (PCF)													
Wt. Dish													
Wt. Wet Sample													
Wt Dish & Hg													
W. 6													
Vol. Sample													
Wt. Dry Soil													
Actual Density													
Curve Density													
LIQUID LIMIT (%)							DS-SB-C31 8-10'						
Blows (N)	25						22						
Pan No.	SL						ZB						
Wt. Pan	2.60						2.60						
Wt. Pan & Wet Soil	22.39						21.15						
Wt. Pan & Dry Soil	19.57						18.39						
Moisture Loss	2.82						2.76						
Wt. Dry Soil	16.97						15.79						
% Moisture	16.6						17.5						
Corrected LL	17						17.2						
PLASTIC LIMIT (%)													
Pan No.	K 27						AO						
Wt. Pan	1.44						1.42						
W n & Wet Soil							10.39						
Wt. Pan & Dry Soil	P.L. Unavailable						9.23						
Moisture Loss							1.16						
Wt. Dry Soil							7.81						
% Moisture							14.9						

SPECIFIC GRAVITY TESTS

No. 4122 02-0055 Project Eng ____ Table No ____ Technician ____ Date ____ Time ____

Sample No ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft
TW@ ____ to ____ Ft. TW@ ____ to ____ Ft

Sample No ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft
TW@ ____ to ____ Ft. TW@ ____ to ____ Ft

Sample No. ____ Boring No. ____ BPF @ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft
TW @ ____ to ____ Ft. TW@ ____ to ____ Ft.

Sample No.	FA SB C-26		DS SB C-31			
Pycnometer No.	#43		#46			
WT. Pyc. (including CAP)						
Wt. Pyc. + Oven Dry Soil						
Wt. Oven Dry Soil (Wo)	72.87		52.41			
Wt. Pyc + H_2O @ 20° C (Wa)	343.03		343.03			
Wt. Pyc + H_2O + Soil @Tx(Wb)	388.80		376.05			
Temperature (Tx)	20°				—	
Correction Factor K	2.69		2.70			

Tx DEG. C	Relative H_2O Density	Corr., Factor K
18	0.998624	1.0004
19	0.998435	1.0002
20	0.998234	1.0000
21	0.9980233	0.9998
22	0.997802	0.9996
23	0.997570	0.9993
24	0.997329	0.9991
25	0.997077	0.9989
26	0.996816	0.9986
27	0.996545	0.9983
28	0.996626	0.9980
29	0.996598	0.9977
30	0.996678	0.9974

Pan = 46

1.09

$$Ge\ 20°C = \frac{W_o}{W_o + (W_a - W_b)}$$

GRAIN SIZE DISTRIBUTION TEST DATA

Test No.: 19

Date: 03/09/92
Project No.: 4122 02-0055
Project: CH 2 M-Hill

Sample Data

Location of Sample: DS-SB-C31
Sample Description:
USCS Class: SM
AASHTO Class:
Liquid limit: 17
Plasticity index: 2

Notes

Remarks: DETH (08 - 10)

Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
0.75 inches	19.05	100.0
0.375 inches	9.53	94.2
# 4	4.760	86.7
# 10	2.000	80.7
# 20	0.840	74.6
# [illegible]	0.420	68.4
# [illegible]	0.250	59.8
# 100	0.149	50.3
# 200	0.074	38.2

Hydrometer Analysis Data

Size, mm	Percent finer
0.0422	31.9
0.0312	26.6
0.0203	22.8
0.0122	16.6
0.0088	14.7
0.0056	12.0
0.0031	9.2
0.0013	6.8

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 13.3 % SAND = 48.5
% SILT = 26.8 % CLAY = 11.4

D85= 3.89 D60= 0.251 D50= 0.146
D30= 0.0376 D15= 0.00933 D10= 0.00376
Cc = 1.4962 Cu = 66.8344

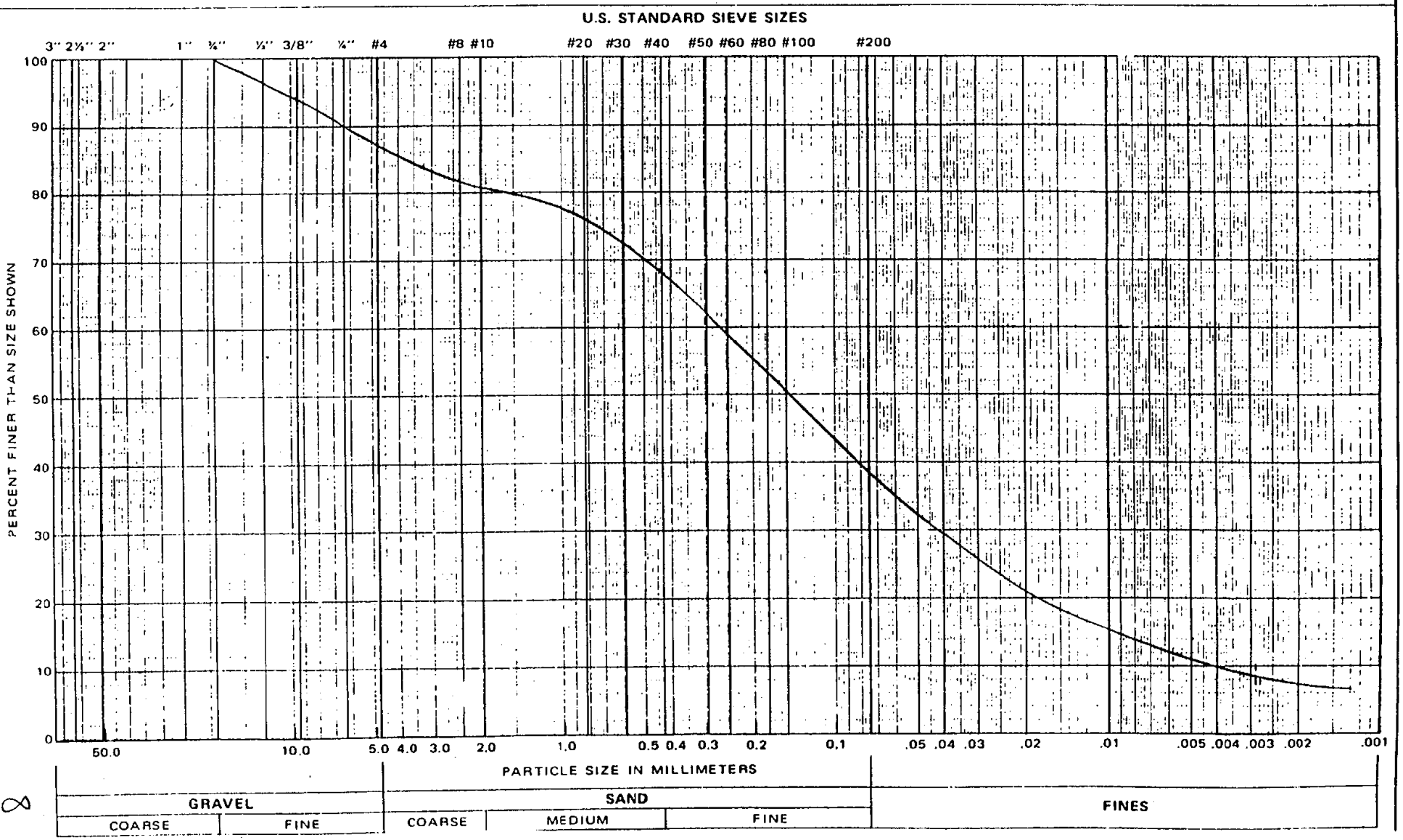
twin city testing corporation

Sample No. DS-SB-C31(8-10)

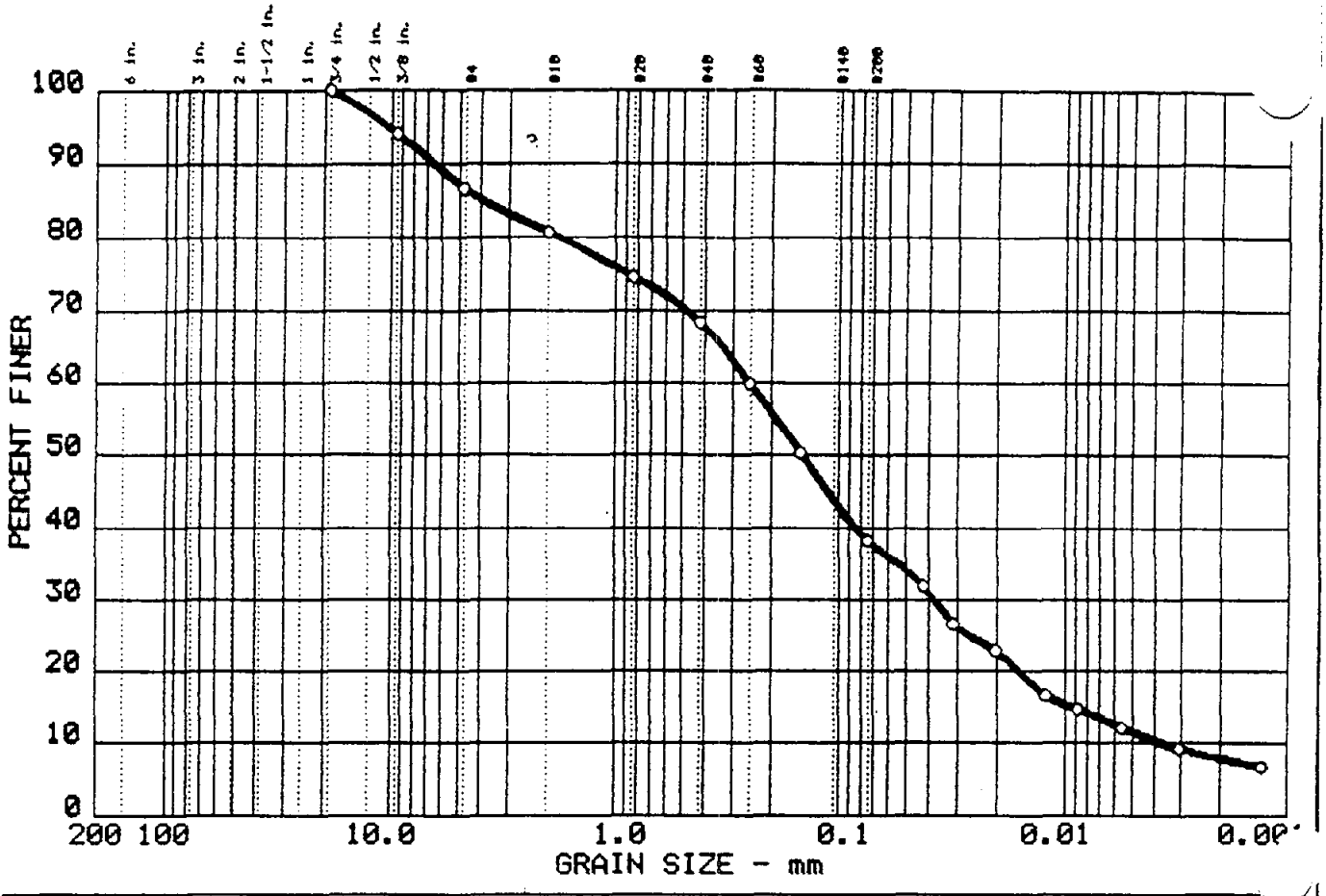
Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75	% GRAVEL	% SAND	% SILT	% CLAY
o	19	0.0	13.3	48.5	26.8	11.4

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o	17	2	3.89	0.25	0.15	0.038	0.0093	0.0038	1.50	66.8

MATERIAL DESCRIPTION	USCS	AASHTO
o	SM	

Project No.: 4122 02-0055
Project: CH 2 M-Hill
o Location: DS-SB-C31

Date: 03/09/92

Remarks:

DETH (08 - 10)

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

twin city testing

HYDROMETER ANALYSIS OF SOIL (ASTM:D422)
(worksheet)

PROJECT CH2M-Hill 4122-02-0055 DATE 3/5/92
DRY WEIGHT OF SOIL (-#10) 83.58 HYDROMETER NO _____ SAMPLE NUMBER DS-SB-C31 (8-10)
SP GR OF SOIL 2.70 a = .9889 a/w x 100 = 1.183 OPERATOR Abouzie

(105)

Time	Interval T, (min)	Temp °C	Hyd Reading	Corr	Corr Reading	L	V L/T	K	D	Percent in Suspension	Percent of Total Sample
	1/2										
1116	1	21.5	37	3.0	33.0	10.2	3.194	.01320	.0422	39.5	31.9
907	2	↓	31.5		27.9	11.1	2.361		.0312	33.0	26.6
910	5	↓	27.5		23.9	11.8	1.536		.0203	28.3	22.8
920	15	21.5	21		17.4	12.9	0.927		.0122	20.6	16.6
935	30	21.5	19	↓	15.4	13.2	.1663	↓	.0088	18.2	14.7
1000	~~60~~ 75	22	16	3.4	12.6	13.7	.427	.01312	.0056	14.9	12.0
1015	250	22	13	↓	9.6	14.2	.238	↓	.0031	11.4	9.2
1104	1440	22	10.5	3.0	7.1	14.6	.101	↓	.0013	8.0	6.8

SIEVE ANALYSIS

TOTAL SAMPLE

On 2"	____	____	____
2 - 1 1/2	____	____	____
1 1/2 - 1	____	____	____
1 - 3/4	0	____	100
3/4 - 3/8	44.85	5.8	94.2
3/8 - #4	58.31	7.5	86.7
~~#4 Down~~	____	____	____
~~Check~~	____	____	____
~~Orig Wt~~	____	____	____
4-10	46.44	6.0	80.7
10 Down	699.93 621.14	80.7	____
Check	777.34	____	____
Orig Wt	____	____	____

HYDROMETER SAMPLE

	-#10			Overall
On #10	0	____	____	80.7
10-20	6.33	7.6	67.1	74.6
20-40	6.36	7.6	84.8	68.4
40-60	8.93	10.7	74.1	54.7
60-100	9.84	11.8	62.3	50.3
100-200	12.20	14.6	47.7	29.5
200-270	.21	47.7	____	____
270 Down	____	____	____	____
Check				
Orig Wt	83.68			
After Wash	43.86			
Loss	39.72			
	~~.21~~ 39.93			

L.L = 17.
P.L = 15
P.I = 2

MOISTURE CONTENT

t Wt	76.28	84.02	28.00
Dry Wt	75.89	78.55	224.31
Loss	.60	84.02	204.14
Mois. Cont	____	78.10	20.17
		0.40	175.54

#10 2

10

M.C. = 11.5%

SG-209(81-A)

twin city testing corporation

TESTS OF SOIL

PROJECT : CH2M - Hill Project DATE:

REPORTED TO: Twin City Testing FURNISHED BY:

St Louis MO COPIES TO:

Attn. Paul Smith

LABORATORY NO:

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

~~FA-SB-C2 (0-6)~~

MECHANICAL ANALYSIS (See attached curve)

Passing 3/4"	100 %
3/8"	94
# 4	87
# 10	81
40	68
100	50
200	38
0.01 mm	15
0005	11
0 0013	6.8

ATTERBERG LIMITS

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT 11.5 %

11

Traffic Report & Chain of Custody Record

of 2

CH2M HILL

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.[illegible] SL	STEPAN COMPANY	2.27.92	FED-X

Client Name	Airbill Number
STEPAN COMPANY	366702832 6

Project Manager	Copy to:	Ship To:
Mary Manto	.	TCT ST. LOUIS 1908 INNERBELT BUSINESS CTR ST. LOUIS, MO 63114

Requested Comp. Date: ROUTINE

Sampler (Name:): L. GAVIN

Box No. 1 Preservation: 1. HCl 2. HNO3 3. NaOH 4. H_2SO_4 5. Ice only 6. Other (Specify) N. Not preserved

Box No. 2 Sample Description: 1. Surface Water 2. Ground Wate 3. Rinsate 4. Soil/Sediment 5. Oil 6. Waste 7. Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med. High	Sample Type: Comp./ Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Carb. d-Lim. α-Pinene	TCLP	TOX/CN	Radnuc	TOC	GEOTECH.	TAL metals			Date	Time	Remarks
~~DS-SB-C31(8-10)~~	~~4~~	~~LOW~~	~~GRAB~~	~~5~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~		~~X~~	~~X~~	~~X~~			~~2.25.92~~	~~0860~~	~~GEOTECH = ATTERBERG LIMIT, PERMEAB.~~
SC-SB-C15(2-4)	4	LOW	GRAB	5	X	X	X	X	X		X				X			2.26.92	1430	
DS-SB-C31(8-10)	4	LOW	GRAB	5									X	X				2.25.92	0850	GEOTECH = ATTERBERG LIMIT, PERMEAB. Grain size
DS-SS-BM-1	7*	*	GRAB	5	X	X	X	X	X		X							2.25.92	1400	* STATUS OF SAMPLE MATERIAL; NO SUSPECTED OR ORGANIC OR RADIOACTIVE CONTAMINAN
SC-SB-FB10	3	LOW	GRAB	1	X													2.26.92	1800	
SC-SB-FB-10	3	LOW	GRAB	5		X	X	X	X						X	per Inorg		2.26.92	1800	
SC-SB-FB-10	3	LOW	GRAB	3							X				U 2.92			2.26.92	1800	
SC-SB-FB-10	3	LOW	GRAB	2											X			2.26.92	1800	
SC-SB-C15(3-5)	4	LOW	GRAB	5	X	X	X	X	X		X				X			2.26.92	1420	
SC-SB-C15(6-7)	4	LOW	GRAB	5	X	X	X	X	X		X				X			2.26.92	1400	
~~SC-SB-C15(8-10)~~																				

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Laura Gavin	2-27-92 2000	Fed X			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks	Is custody seal intact ? Y/N/none
		[illegible]	3/2/92 10:00	Sample Temp. 15°C	

STEPAN NJO22948 SC.SM

SAMPLE TRACKING FORM

Sample # DS-SB-C31(8-10) Project # NJO22948 DS.SL Station # C31(8-10)

Sample Matrix Soil Sample Type GRAB Field VOC Reading 1 ppm

Date Sampled 2-25-92 Time Sampled 08:50 Field Rad Reading α = 2 cpm

Logbook # 2 Page # 71 β/γ = 28 cpm

Name of Sampler L. GAVIN, M. SNIPE

Sample Description FIELD SAMPLE

FSL Results:

Gross Alpha pCi/L 10.5 pCi/g (Circle One)

Gross Beta/Gamma pCi/L 7.5 pCi/g

ARE THESE RESULTS ABOVE MGM LIMITS? YES **NO** (circled)

Liquid Limits - Alpha = 30 pCi/L, Beta = 500 pCi/L

Solid Limits - Alpha = 15 pCi/g, Beta = 50 pCi/g

Analytical Fraction	Number of Containers	SDG #	Lab QC Sample	Container Lot #	LAB	Date Shipped	Airbill #	Requested Turnaround
FSL RAD SCREEN								
TCL VOC								
TCL BNA								
TCL PEST/PCB								
TAL METALS/CN								
d-LIMONENE, CAFFINE, α - PINENE								
RADIONUCLIDES								
TOC	1		NA	0131501C	[illegible]	2-27-92	[illegible]	[illegible]
GEOTECH 1- % MOISTURE 4- ATTERBERG LIMIT & GRAIN SIZE	5		↓	013150K	↓	↓	↓	↓

THE SHADED AREA SHOULD BE FILLED OUT BY THE SAMPLE MANAGER. THE FIELD SAMPLING CREW SHOULD FILL OUT THE REMAINDER OF THE FORM PRIOR TO SAMPLE DELIVERY TO THE SAMPLE MANAGER.

C26(0-6)

GEOTECH

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dr.
St. Louis, Mo. 63114-5700
Attn: Paul Smith

DATE: MARCH 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

CH2M-HILL SITE ID: FA-SB-C26 (0-6)
TCT-ST. LOUIS LAB NO: 92001247
FILE ID #: 260006

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS:

This sample was received on February 28, 1992.

twin city testing
corporation
662 CROMWELL AVENUE
ST PAUL, MN 55114
PHONE 612/645-3601

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: FA-SB-C26 (0-6)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS: This sample was received on February 28, 1992.

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: FA-SB-C26 (0-6)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS: This sample was received on February 28, 1992.

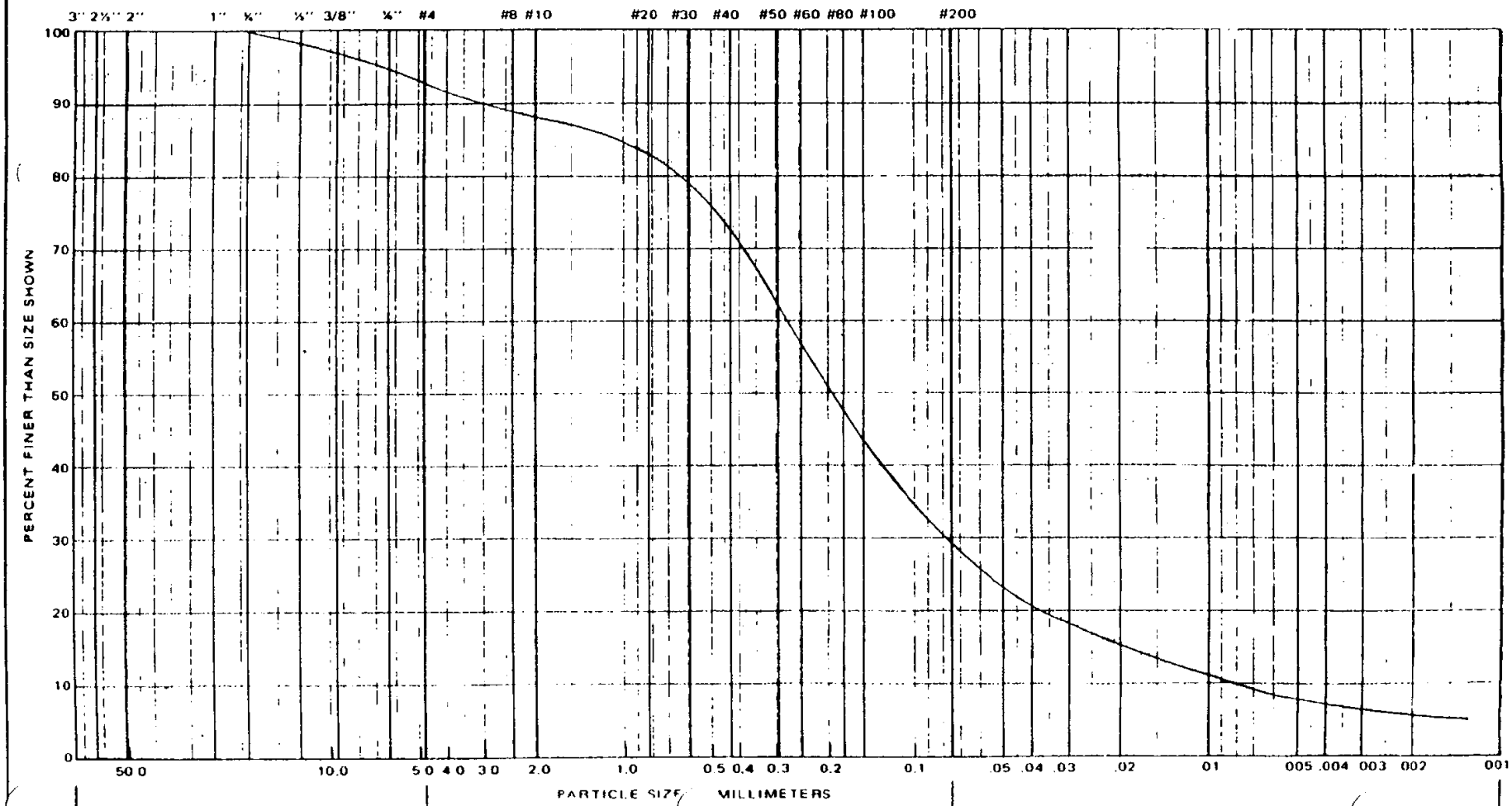
twin city testing corporation

Sample No. FA-SB-C26(0-6)

Project: CHPM - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAVEL		SAND				FINES
COARSE	FINE	COARSE	MEDIUM	FINE		

SL-31 (75-8)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 0122-92-0055 Date 7-3-92 Project Eng. _____ Tech. HT/HK Time _____

Boring No.													
Sample No.		Location:	FP SB-C6C	0-6'									
BPF or Sample Type		Sample ID:	0131501C										
Depth (ft)													
Soil Type													

MOISTURE CONTENT (%)

Pan No.	2												
Wt. of Pan	7.96												
Wt. Pan & Wet Soil	230.08												
Wt. Pan & Dry Soil	203.29												
Moisture Loss	26.79												
Wt. Dry Soil	195.33												
% Moisture	13.7												

DRY DENSITY (PCF)

Wt. Dish													
Wt. Wet Sample													
Wt. Dish & Hg													
Wt. Hg													
Vol. Sample													
Wt. Dry Soil													
Actual Density													
Curve Density													

LIQUID LIMIT (%)

DS-SB-C31 8-10'

Blows (N)	25							22					
Pan No.	SL							ZB					
Wt. Pan	2.60							2.60					
Wt. Pan & Wet Soil	22.39							21.15					
Wt. Pan & Dry Soil	19.57							18.39					
Moisture Loss	2.82							2.76					
Wt. Dry Soil	16.97							15.79					
% Moisture	16.6							17.5					
Corrected LL	17							17.2					

PLASTIC LIMIT (%)

Pan No.	K 27							A0					
Wt. Pan	1.44							1.42					
Wt. Pan & Wet Soil								10.39					
Wt. Pan & Dry Soil	P.L.							9.23					
Moisture Loss	Not obtainable							1.16					
Wt. Dry Soil								7.81					
% Moisture								14.9					

L.L. 2.3

SPECIFIC GRAVITY TESTS

Job No. 4122 02-0055 Project Eng ____ Table No. ____ Technician ____ Date ____ Time ____

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____
TW@ ____ to ____ Ft. TW@ ____ to ____

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____
TW@ ____ to ____ Ft. TW@ ____ to ____

Sample No. ____ Boring No. ____ BPF @ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____
TW @ ____ to ____ Ft. TW@ ____ to ____

Sample No.	FA SB C-26		DS SB C-31			
Pycnometer No.	#43		#46			
WT. Pyc. (including CAP)						
Wt. Pyc. + Oven Dry Soil						
Wt. Oven Dry Soil (Wo)	72.87		52.41			
Wt. Pyc + H_2O @ 2 °C (Wa)	343.03		343.03			
Wt. Pyc + H_2O + Soil @Tx(W_b)	388.80		376.05			
Temperature (Tx)	20°					
Correction Factor K	2.69		2.70			

Tx DEG. C	Relative H_2O Density	Corr., Factor K
18	0.998624	1.0004
19	0.998435	1.0002
20	0.998234	1.0000
21	0.9980233	0.9998
22	0.997802	0.9996
23	0.997570	0.9993
24	0.997329	0.9991
25	0.997077	0.9989
26	0.996816	0.9986
27	0.996545	0.9983
28	0.996626	0.9980
29	0.996598	0.9977
30	0.996678	0.9974

Pan # 46

1.99

G_s @ 20° C = $\frac{w_o}{w_o + (w_a - w_b)}$

SL-3 (10-A)

GRAIN SIZE DISTRIBUTION TEST DATA

Test No.: 17

Date: 3/06/92
Project No.: 4122 02-0055
Project: CH 2 M-Hill

Sample Data

Location of Sample: FA-SB-C26(0-6)
Sample Description: SILTY SAND W/GRAVEL, FINE GRAINED
USCS Class: SM Liquid limit:
AASHTO Class: Plasticity index:

Notes

Remarks: SAMPLE NO.: 0131501C DEPTH (ft): 0 - 6
TYPE OF SAMPLE: BULK
Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
0.75 inches	19.05	100.0
0.375 inches	9.53	97.0
# 4	4.760	93.3
# 10	2.000	88.5
# 20	0.840	83.1
# 40	0.420	73.1
# 60	0.250	57.8
# 100	0.149	42.7
# 200	0.074	28.9

Hydrometer Analysis Data

Size, mm	Percent finer
0.0328	19.0
0.0210	15.9
0.0122	12.9
0.0088	9.8
0.0062	8.3
0.0031	6.7
0.0013	5.2

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 6.7 % SAND = 64.4
% SILT = 21.1 % CLAY = 7.8

D85= 1.07 D60= 0.268 D50= 0.194
D30= 0.0790 D15= 0.01728 D10= 0.00896
Cc = 2.6002 Cu = 29.8538

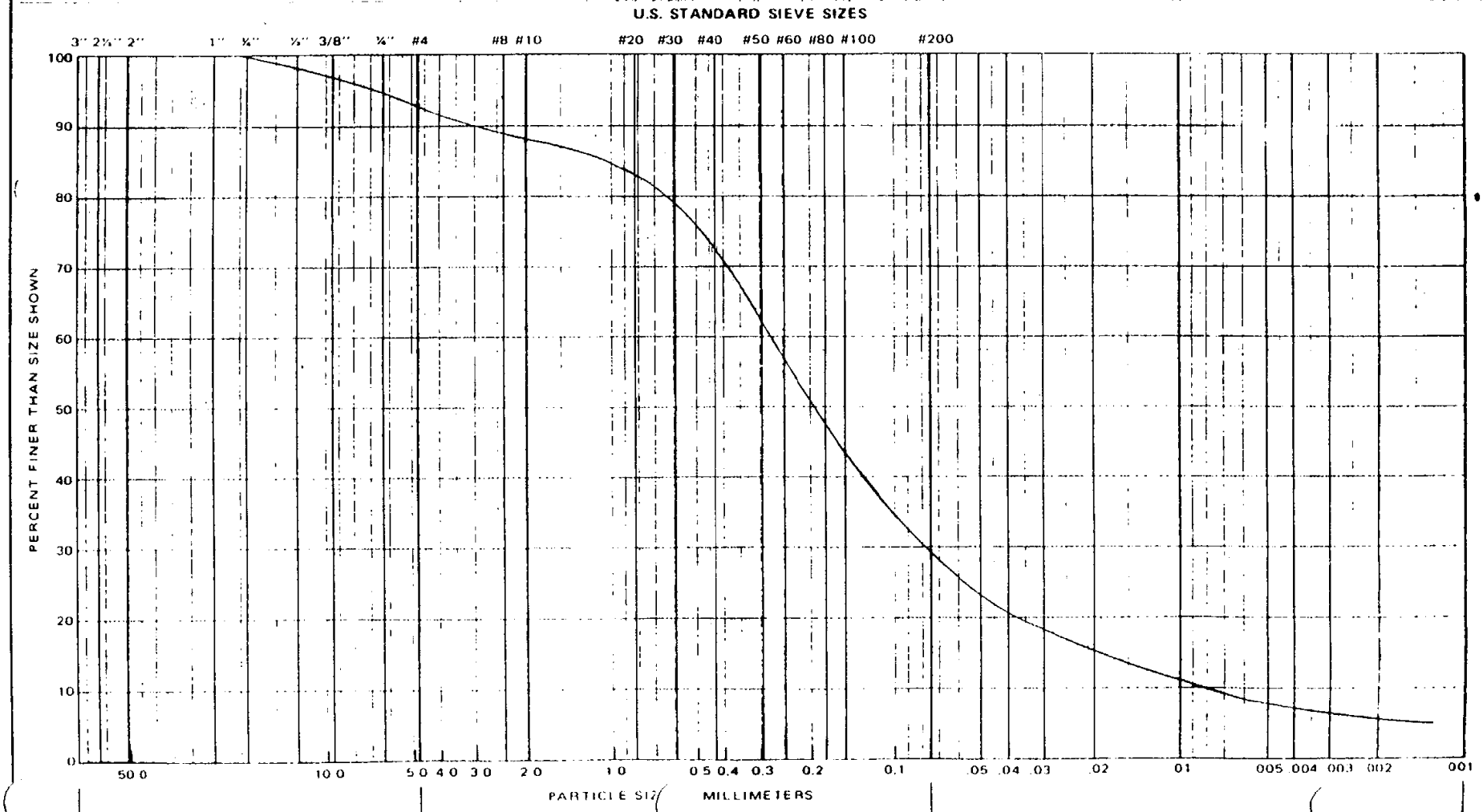
twin city testing corporation

Sample No FA-SB-C26(0-6)

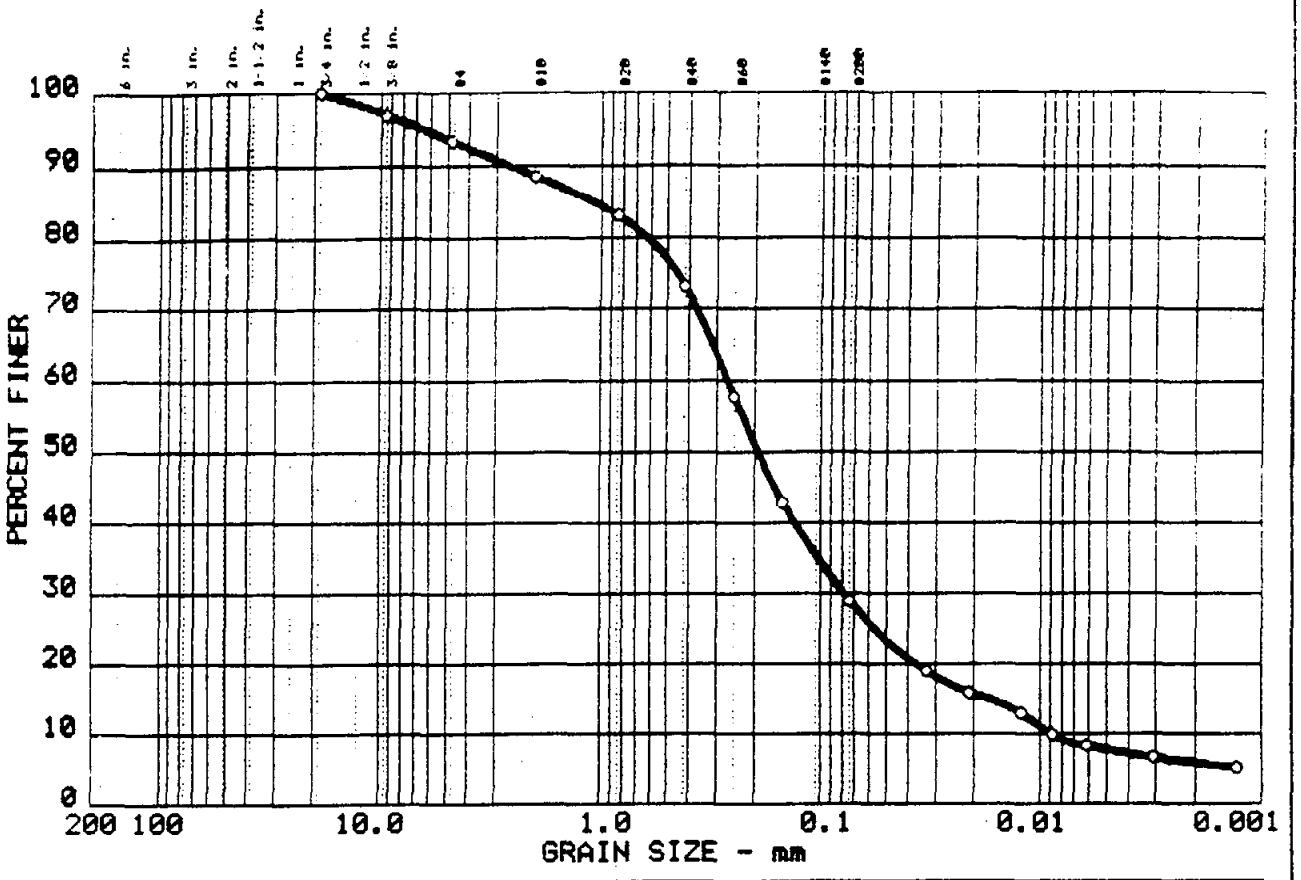
Project: CEPM - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75㎜	% GRAVEL	% SAND	% SILT	% CLAY
○	17	0.0	6.7	64.4	21.1	7.8

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.07	0.27	0.19	0.079	0.0173	0.0090	2.60	29.9

MATERIAL DESCRIPTION	USCS	AASHTO
○ SILTY SAND W/GRAVEL, FINE GRAINED	SM	

Project No.: **4122 02-0055**
Project: CH 2 M-Hill
○ Location: FA-SB-C26(0-6)

Date: 3/06/92

Remarks:
SAMPLE NO.: 0131501C
DEPTH (Ft): 0 - 6
TYPE OF SAMPLE: BULK

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

JOB NO. 4122 02-0055 PROJECT ENG. ____ TABLE NO. ____ TECHNICIAN HR DATE 3/4/92 TIME ____

Location
~~Boring No.~~ FA SB - C26 Sample No. 0131501C Depth 0-6'

Test	Orig MC	Hyg MC
Sample No.		
Pan No.	2	43
Wt. Pan	7.96	1.99
Wt. Pan & Wet Soil	230.08	75.22
Wt. Pan & Dry Soil	203.29	74.82
Moisture Loss	26.79	0.40
Wt. Dry Soil	195.33	72.83
Percent Moisture	13.7	0.55

Sieve Sizes	Weight (Grams)	Per Cent of - #10	Per Cent of Total	% Fine Total
Ret. on 1½"				
1½" - 1"				
1" - ¾"				100.0
¾" - ⅜"	36.91			97.0
⅜" - #4	45.60			93.3
#4 - #10	57.67			88.5
After Wash	39.22			
#10 - #20	3.54	6.18		83.1
#20 - #40	6.48	11.31		73.1
#40 - #60	9.86	17.21		57.8
#60 - #100	9.79	17.09		42.7
#100 - #200	8.90	15.53		28.9
Passing #200	0.65	32.68		

Hydrometer No. ____ Thermometer No. ____

Wt. Total Sample (air dry)	1230.22
Wt. Total Sample (oven dry)	1224.27
Wt. Passing #10 (air dry)	1090.04
Wt. Passing #10 (oven dry)	1084.09
Wt. Soil for Hyd Test (air dry)	57.60
Wt. Soil for Hyd Test (oven dry)	57.29

Time Soaked 3/4 11:50 ____ in 125mL of Sodium Hexametaphosphate Mixture

Time Stirred 3/5 1min ____

Remarks:

CYL# A JAR# A PAN# ____

(~~Assm~~) Gs = 2.69 a = 0.9911

Date	Time	Interval Minutes (T)	Temp °C.	Hyd Reading	Temp Corr.	Corr. Hyd. Rdg.	L (Chart C)	K (Chart B)	$D = K\sqrt{\frac{L}{T}}$	Per Cent Fi -#10	Per Cent Fi Tot
3/5	11:00										
	11:02	2	26	16	-3.6	12.4	13.7	0.01253	0.0328		19.
	11:05	5	26	14	-3.6	10.4	14.0		0.0210		15.
	11:15	15	26	12	-3.6	8.4	14.3		0.0122		12.
	11:30	30	26	10	-3.6	6.4	14.7		0.0088		9.
	12:00	60	26	9	-3.6	5.4	14.8		0.0062		8.
	15:10	250	26	8	-3.6	4.4	15.0		0.0031		6.
3/6	11:00	1440	26	7	-3.6	3.4	15.2	0.01253	0.0013		5.

Classification ____

twin city testing corporation

TESTS OF J. C

PROJECT : CH2M-Hill Project DATE:

REPORTED TO: Twin City Testing FURNISHED BY:

St. Louis Mi COPIES TO:

Attn. Paul Smith

LABORATORY NO:

SAMPLE IDENTIFICATION FA-SB-C26 (6-0)

MECHANICAL ANALYSIS (Soil retained sieve)

1 1/2 sq	100%
3/4	97
3/8	93
#4	86
#10	73
#20	43
#40	29
#60 mm	11
#100	8.0
#200	5.2

ATTERBERG LIMITS

Liquid Limit	17	21
Plast. Limit	15	
Plasticity Index	2	

MOISTURE CONTENT 13.7 %

REMARKS Fine sample was received on Feb 26 1992

Traffic Report & Chain of Custody Record

CH2M HILL

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.F.H.SL	STEPAN COMPANY	2-24-92	Fed X

Client Name: STEPAN COMPANY

Airbill Number: 990290453 5

Project Manager: Mary Manto

Copy to:

Ship To: TCT- St. Louis
1908 Innerbelt Bus. Center
St. Louis, MO 63114

Requested Comp. Date: Routine

Sampler (Name:): L. Gavin

Box No. 1 — Preservation: 1 HCl; 2 HNO_3; 3 NaOH; 4 H_2SO_4; 5 Ice only; 6 Other (Specify); N Not preserved

Box No. 2 — Sample Description: 1 Surface Water; 2 Ground Water; 3 Rinsate; 4 Soil/Sediment; 5 Oil; 6 Waste; 7 Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med. High	Sample Type: Comp./ Grab	Preservative from Box 1	TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Carb. a-Lum. a-Pnene	TCLP	TCL/CN	Radnuc	TOC	GEOTECH	TAL metals	6 Mets	Asbestos Limit Grain 2, 2e	Date	Time	Remarks
FA-SB-C34A (1-3)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1100	
FA-SB-C34D (1-3)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1100	
FH-SB-C34A (3-5)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1110	
FH-SB-C34 (5-7)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1120	
FA-SB-C26 (6)	4	L	GC	N									X			X	X	2-24-92	0905 to 0930	
~~FH-SB-C34 (5-7)~~	~~4~~	~~L~~	~~G~~	~~N~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~				~~X~~			~~2-24-92~~	~~1120~~	Per L. Gavin 2-25-92
FA-SB-C26A (0-2)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0905	
FA-SB-C26A (2-4)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0910	
FA-SB-C26 (4-6)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0920	

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
L. Gavin	2-24-92 1900	Fed X		2/25/92 800	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by (Signature)
quished by (Signature)	Date/Time	Received by (Sign	Date/Time	Remarks	is custody seal intact ?

SAMPLE TRACKING FORM

Sample # FA-SB-C26(0-6') Project # NJO22948.FA.SL Station # C26(0-6')

Sample Matrix Soil Sample Type Composite Field VOC Reading 7-10 ppm

Date Sampled 2-24-92 Time Sampled 0905 to 0930 Field Rad Reading 1 = 0-2

Logbook 2 Page # 64-66 Bg = 27-30

Name of Sampler L. Gavin

Sample Description Field Sample

FSL Results:

Gross Alpha	pCi/L	7.4 to 14.7	pCi/g
Gross Beta/Gamma	pCi/L	1.2 to 2.1	pCi/g

ARE THESE RESULTS ABOVE MGM LIMITS? YES (NO)

Liquid Limits - Alpha = 30 pCi/L, Beta = 500 pCi/L

Solid Limits - Alpha = 15 pCi/g, Beta = 50 pCi/g

Analytical Fraction	Number of Containers	SDG #	Lab QC Sample	Container Lot #	LAB	Date Shipped	Airbill #	Request Turn-around
FSL RAD SCREEN								
TCL VOC								
TCL BNA								
TCL PEST/PCB								
TAL METALS/CN								
d-LIMONENE, CAFFINE, α - PINENE								
RADIONUCLIDES								
TOC	1	C5565		013150IC				
GEOTECH → Grainsize & Morstad Atterberg Limits	8 yrs	↓		013F01C				

THE SHADED AREA SHOULD BE FILLED OUT BY THE SAMPLE MANAGER. THE FIELD SAMPLING CREW SHOULD FILL OUT THE REMAINDER OF THE FORM PRIOR TO SAMPLE DELIVERY TO THE SAMPLE MANAGER.

C24(4-6)

GEOTECH

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dr.
St. Louis, Mo. 63114-5700
Attn: Paul Smith

DATE: MAY 28, 1992

PROJECT NUMBER: MJ022948.SW.SP

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: SR-SB-C24 (4-6)
TCT STL NO.- 92002356

MECHANICAL ANALYSIS: (See Attached Curve)

Passing #10*	100%
#20	98.6
#40	93.6
#60	86.2
#100	79.8
#200	71.0
0.0303 mm	44.5
0.0200	34.9
0.0122	22.0
0.0089	12.5
0.0064	9.3
0.0032	4.5
0.0013	2.9

ATTERBERG LIMITS:

Liquid Limit	20
Plasticity Index	1

MOISTURE CONTENT: 15.4%

REMARKS:
Fractional components: Sand 29.0%, Silt 63.3%, Clay 7.7%

GRAIN SIZE DISTRIBUTION TEST DATA

Test No

Date: 04/20/92
Project No.: 4122 02-0072
Project: CH2M -Hill

Sample Data

Location of Sample: SR-SB-C24
Sample Description: SANDY SILT
USCS Class: ML
AASHTO Class: A-4
Liquid limit: 20
Plasticity index: 1

Notes

Remarks: Depth: 4-6 ft.

Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
# 10	2.000	100.0
# 20	0.840	98.6
# 40	0.420	93.6
# 60	0.250	86.2
# 100	0.149	79.8
# 200	0.074	71.0

Hydrometer Analysis Data

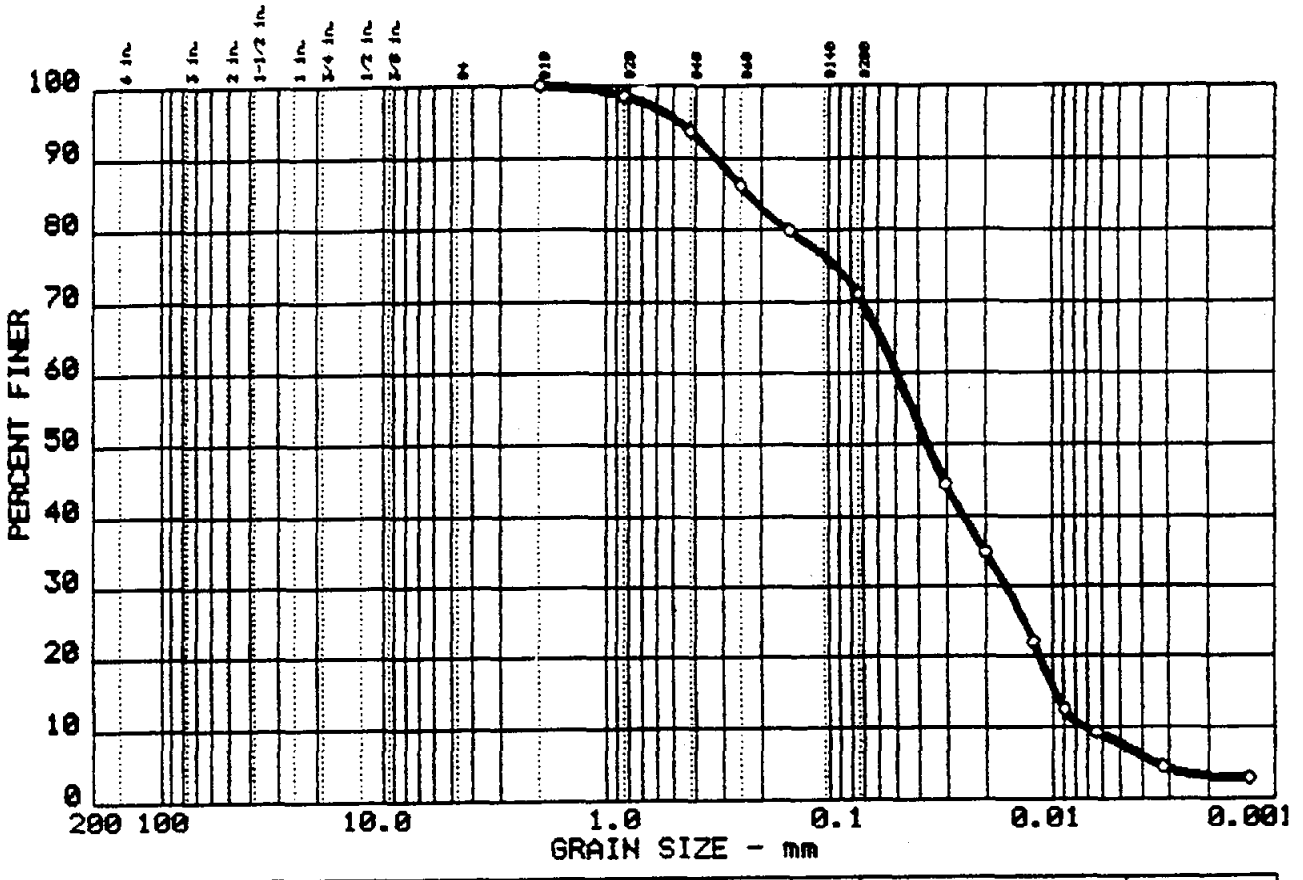
Size, mm	Percent finer
0.0303	44.5
0.0200	34.9
0.0122	22.0
0.0089	12.5
0.0064	9.3
0.0032	4.5
0.0013	2.9

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 29.0
% SILT = 63.3 % CLAY = 7.7

D85= 0.23 D60= 0.050 D50= 0.037
D30= 0.0161 D15= 0.00982 D10= 0.00719
Cc = 0.7295 Cu = 6.8865

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75mm	% GRAVEL	% SAND	% SILT	% CLAY
o	12	0.0	0.0	29.0	63.3	7.7

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o	20	1	0.23		0.04	0.016	0.0098	0.0072	0.73	6.9

MATERIAL DESCRIPTION	USCS	AASHTO
o SANDY SILT	ML	A-4

Project No.: 4122 02-0072
Project: CH2M -Hill
o Location: SR-SB-C24

Date: 04/20/92

Remarks:
Depth: 4-6 ft.

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

HYDROMETER ANALYSIS

4122

JOB NO. 02-0072 PROJECT ENG. D.V. TABLE NO. _____ TECHNICIAN HR DATE 4/16/92 TIME

Project: CH2M-Hill Location: SR-SB-C24 Depth: 4-6

Test	Orig MC	Hyd MC
Sample No.		
Pan No.	48	45
Wt. Pan	2.00	1.96
Wt. Pan & Wet Soil	63.80	61.92
Wt. Pan & Dry Soil	55.53	60.44
Moisture Loss	8.27	1.48
Wt. Dry Soil	53.53	58.48
Percent Moisture	15.4	2.5

SIEVE SIZES	WEIGHT (GRAMS)	PER CENT OF - #10	PER CENT OF TOTAL	% FINER TOTAL
RET. ON 1½"				
1½" - 1"				
1" - ¾"				
¾" - ⅜"				
⅜" - #4				
#4 - #10	—			100.0
AFTER WASH	18.30			
#10 - #20	0.88			98.6
#20 - #40	3.12			93.6
#40 - #60	4.57			86.2
#60 - #100	4.04			79.8
#100 - #200	5.46			71.0
PASSING #200	0.23			

Hydrometer No. _____ Thermometer No. _____

Wt. Total Sample (air dry)	479.94
Wt. Total Sample (oven dry)	468.09
Wt. Passing #10 (air dry)	479.94
Wt. Passing #10 (oven dry)	468.09
Wt. Soil for Hyd Test (air dry)	63.79
Wt. Soil for Hyd Test (oven dry)	62.22

Time Soaked 4/17/92 11:30 _____ ml of Sodium Hexametaphosphate Mixture

Time Stirred 4/20/92 _____ _____

Remarks: L.L. = 20.0 P.I. = 1.0
P.L. = 19.0

CYL# A JAR# A PAN# _____

(EST.) G_s = 0.9955 α = 2.67

Date	Time	Interval Minutes (T)	Temp °C.	Hyd Reading	Temp Corr.	Corr. Hyd. Rdg.	L (Chart C)	K (Chart B)	$D=K\sqrt{L/T}$	Per Cent Fi -#10	Per Cent Fi Tot
4/20	10:02	2	24	32	4.2	27.8	11.0	0.01294	0.0303	44.5	44.
	10:05	5	24	26		21.8	12.0		0.0200	34.9	34.
	10:15	15	24	18		13.8	13.3		0.0122	22.0	22.
	10:30	30	24	12		7.8	14.3		0.0089	12.5	12.
	11:00	60	24	10		5.8	14.7		0.0064	9.3	9.
	14:10	250	24	7		2.8	15.1		0.0032	4.5	4.5
4/21	10:00	1440	24	6	4.2	1.8	15.3	0.01294	0.0013	2.9	2.

Classification Sandy Silt

.-31 (75-B)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 4122 02-0072 Date 4/20/92 Project Eng. D. V. Tech. HR Time

oring No.												
ample No.												
PF or Sample Type												
epth (ft)												
oil Type												

MOISTURE CONTENT (%)

an No.												
Vt. of Pan												
Vt. Pan & Wet Soil												
Vt. Pan & Dry Soil												
Moisture Loss												
Vt. Dry Soil												
% Moisture	15.4%											

PSS 5-28-92

DRY DENSITY (PCF)

Vt. Dish												
Vt. Wet Sample												
Vt. Dish & Hg												
Vt. Hg												
ol. Sample												
Vt. Dry Soil												
Actual Density												
urve Density												

LIQUID LIMIT (%)

lows (N)	20											
an No.	SP											
Vt. Pan	2.59											
Vt. Pan & Wet Soil	23.70											
Vt. Pan & Dry Soil	20.09											
Moisture Loss	3.61											
Vt. Dry Soil	17.50											
% Moisture	20.6											
orrected LL	20.0											

PLASTIC LIMIT (%)

an No.	A0											
Vt. Pan	1.43											
Vt. Pan & Wet Soil	17.36											
Vt. Pan & Dry Soil	14.82											
Moisture Loss	2.54											
Vt. Dry Soil	13.39											
% Moisture	19.0											

FOR HYDROMETER USING -- 40 Grams/1000 Liters

Wt. soil for Hydr. test (oven dry) : 62.22
Specific Gravity for Hydr. test : 2.67
a 0.9955

Retained on #10 sieve (% Total) : 100.00

Pass. # 200 70.97

Time	Temp C	Hyd Rdg	Temp coor.	Corr. Rdg.	L	K	D	% Finer -#10	% Finer Total
2	24.0	32.0	-4.20	27.80	11.0	0.01294	0.0303	44.48	44.48
5	24.0	26.0	-4.20	21.80	12.0	0.01294	0.0200	34.88	34.88
15	24.0	18.0	-4.20	13.80	13.3	0.01294	0.0122	22.08	22.08
30	24.0	12.0	-4.20	7.80	14.3	0.01294	0.0089	12.48	12.48
60	24.0	10.0	-4.20	5.80	14.7	0.01294	0.0064	9.28	9.28
240	24.0	7.0	-4.20	2.80	15.1	0.01294	0.0032	4.48	4.48
1440	24.0	6.0	-4.20	1.80	15.3	0.01294	0.0013	2.88	2.88

Total Sample (oven dry): 468.09 Page 1
Passing #10 (oven dry): 468.09
Soil for Hyd. Test (oven dry): 62.22

Sieve Size	Wt. Grams	- #10	% Total	% Finer
1"	0.00	XXXXXXX	0.00	100.00
3/4"	0.00	XXXXXXX	0.00	100.00
3/8"	0.00	XXXXXXX	0.00	100.00
#4	0.00	XXXXXXX	0.00	100.00
#10	0.00	XXXXXXX	0.00	100.00
After Wash	18.30	XXXXXXX	XXXXXXX	XXXXXXX
#20	0.88	1.41	1.41	98.59
#40	3.12	5.01	5.01	93.58
#60	4.57	7.34	7.34	86.24
#100	4.04	6.49	6.49	79.75
#200	5.46	8.78	8.78	70.97
Pass. #200	0.23	70.96	70.96	XXXXXXX

Traffic Report & Chain of Custody Record

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.SR.SL	STEPAN COMPANY	4-8-92	Fed X

Client Name	Airbill Number
STEPAN COMPANY	896927230 3

Project Manager	Copy to:	Ship To:
Mary Manto		TCT St-Louis

Requested Comp. Date: Routine

Sampler (Name:): L. Gavin

Box No. 1 — Preservation
1 HCl
2 HNO3
3 NaOH
4 H_2SO_4
5 Ice only
6. Other (Specify)
N. Not preserved

Box No. 2 — Sample Descrip
1. Surface Wate
2. Ground Wate
3. Rinsate
4. Soil/Sediment
5. Oil
6. Waste
7. Other (Specify)

Station Number	Enter # from Box 2	Conc Low Med High	Sample Type: Comp / Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Cont. d-Lim. α-Phene	TCLP	Flex/CN_	Radnuc	TOC	GEOTECH	TAL Metals	Date	Time	Remarks
~~SR03-F~~																		
SR-SB-C19 (0-2)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	1320	
SR-SB-C6 (0-2)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	1155	
SR-SB-C2 (3-4)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	1100	
SR-SB-C7 (0-2)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	1020	
SR-SB-C11 (2-4)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	0855	
DS-SB-C37D (0-2)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	0850	
DS-SB-C37 (0-2)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	0850	
SR-SB-C24 (4-6)	4	L	G	N									X	X		4-7-92	1115	Grainsize, % Moist., TOC
SR-SB-C19 (2-4)	4	L	G	N	X	X	X	X	X		X				X	4-8-92	1330	

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Laura Gavin	4-8-92 | 1900	Fed X		4/9/92 | 800	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4/10/91 | 1600	AIRBORNE			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks	Is custody seal intact ? Y/N

Field Equipment Rinse Blanks - Soil Borings

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248
AR6	11097-69-1	AROCLOR-1254

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
12H	122-66-7	1,2-DIPHENYLHYDRAZINE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NPR	621-64-7	N-NITROSODIPROPYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

DMS CHEMICAL OBSERVATIONS MATRIX
TEPAN MAYWOOD - AQUEOUS SAMPLES

EDMS-001
10/31/92
PAGE: 1

AMPLE ANALYSIS: INORGANICS

SAMPLE ID:	FB-01	FB-02	FB-03	FB-04	FB-05
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:	02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	77.9DYJ	83.6DYJ	105DYJ	46UY	46UY
ANTIMONY UG/L	10.9UY	10.9UY	10.9UY	9UY	9UY
ARSENIC UG/L	0.69UY	0.69UY	0.69UY	2UY	2UY
BARIUM UG/L	10.1DYJ	1.5DYJ	1.2DYJ	5UY	5UY
BERYLLIUM UG/L	0.19UY	0.19UY	0.19UY	1UY	1UY
CADMIUM UG/L	2.9UY	2.9UY	2.9UY	5UY	5UY
CALCIUM UG/L	1400DYJ	451DYJ	425DYJ	54DYJ	53DYJ
CHROMIUM UG/L	5.6DYJ	5DYJ	2.9DYJ	9UY	9UY
COBALT UG/L	3.6UY	3.6UY	3.6UY	26UY	26UY
COPPER UG/L	15.8DYJ	157DY	6DYJ	16UYJ	16UYJ
CYANIDE UG/L	1.8UY	1.8UY	1.8UY	5UY	5UY
IRON UG/L	4910DY	703DY	507DY	76DYJ	167DY
LEAD UG/L	45.5DYJ	2.5UYJ	1.7UYJ	2UY	2UY
MAGNESIUM UG/L	161DYJ	37.7DYJ	30.2DYJ	21DYJ	14UY
MANGANESE UG/L	114DY	11.4DYJ	10.4DYJ	6UY	6UY
MERCURY UG/L	0.16UYJ	0.16UY	0.16UY	0.12DYJ	0.1UY
NICKEL UG/L	16.8DYJ	121DY	5.6DYJ	15UY	15UY
POTASSIUM UG/L	710UY	710UY	710UY	160DYJ	81UY
SELENIUM UG/L	1.3UY	1.3UY	1.3UY	1UY	1UY
SILVER UG/L	1.7UY	2.2DYJ	1.7UY	1UYJ	1UYJ
SODIUM UG/L	1990DYJ	1260DYJ	1200DYJ	62UY	62UY
THALLIUM UG/L	1.7UY	1.7UY	1.7UY	2.8DYJ	5.3DYJ
VANADIUM UG/L	1.7UY	1.7DYJ	1.7UY	23UY	23UY
ZINC UG/L	18.3DYJ	73.4DY	13.3DYJ	8UY	8UY

NN+/-XXABCCCOD POSITIONALLY N-VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
= less than detection limit, D = detected, J = estimated, R = unusable,
N = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	FB-01	FB-02	FB-03	FB-04	FB-05
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:	02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.04UY	0.04UY	0.04UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.04UY	0.04UY	0.04UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.05UY	0.05UY	0.05UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	0.5UY	0.5UY	0.5UY	1UY	1UY
AROCLOR-1260 UG/L	0.5UY	0.5UY	0.5UY	1UY	1UY
BHC-ALPHA UG/L	0.03UY	0.03UY	0.03UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.04UY	0.04UY	0.04UY	0.05UY	0.05UY
DIELDRIN UG/L	0.02UY	0.02UY	0.02UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.04UY	0.04UY	0.04UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.06UY	0.06UY	0.06UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.05UY	0.05UY	0.05UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.03UY	0.03UY	0.03UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		FB-01	FB-02	FB-03	FB 04	FB-05
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:		02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
1,2,4-TRICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DIPHENYLHYDRAZINE	UG/L	10UY	10UY	10UY		
1,3-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DINITROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE	UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE	UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE	UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE	UG/L	50UY	50UY	50UY	10UY	10UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
4-NITROANILINE	UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE	UG/L	10UY	10UY	10UY	10UY	10UY

NN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
= less than detection limit, D = detected, J = estimated, R = unusable,
N = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		FB-01	FB-02	FB-03	FB-04	FB-05
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:		02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID	UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL	UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
CAFFEINE	UG/L	10UY	10UY	10UY	10UY	10UY
CHRYSENE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN	UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE	UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

.AMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	FB-01	FB-02	FB-03	FB-04	FB-05
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:	02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
N-NITROSODIPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY	10UY	10UY
PHENANTHRENE UG/L	10UY	10UY	10UY	50UY	50UY
PHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
a-PINENE UG/L	10UYJ	10UY	10UY	10UY	10UY
d-LIMONENE UG/L	10UYJ	10UY	10UY	10UY	10UY

'NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
J = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentativel. identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	FB-01	FB-02	FB-03	FB-04	FB-05
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:	02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	5UY	5UY	5UY	5UY	5UY
1,1,2,2-TETRACHLOROETHANE UG/L	5UY	5UY	5UY	5UY	5UY
1,1,2-TRICHLOROETHANE UG/L	5UY	5UY	5UY	5UY	5UY
1,1-DICHLOROETHANE UG/L	5UY	5UY	5UY	5UY	5UY
1,1-DICHLOROETHENE UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROETHANE UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROETHENE (TOTAL) UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROPROPANE UG/L	5UY	5UY	5UY	5UY	5UY
2-BUTANONE UG/L	10UY	10UY	10UY	UYR	UYR
2-HEXANONE UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYL-2-PENTANONE UG/L	10UY	10UY	10UY	10UY	10UY
ACETONE UG/L	10UY	10UY	10UY	10UYJ	10UYJ
BENZENE UG/L	5UY	5UY	5UY	5UY	5UY
BROMODICHLOROMETHANE UG/L	5UY	5UY	5UY	5UY	5UY
BROMOFORM UG/L	5UY	5UY	5UY	5UY	5UY
BROMOMETHANE UG/L	10UY	10UY	10UY	10UY	10UY
CARBON DISULFIDE UG/L	5UY	5UY	5UY	5UY	4DYJ
CARBON TETRACHLORIDE UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROBENZENE UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
CHLOROFORM UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROMETHANE UG/L	10UY	10UY	10UY	10UY	10UY
CIS 1,3-DICHLOROPROPENE UG/L	5UY	5UY	5UY	5UY	5UY
DIBROMOCHLOROMETHANE UG/L	5UY	5UY	5UY	5UY	5UY
ETHYLBENZENE UG/L	5UY	5UY	5UY	5UY	5UY
METHYLENE CHLORIDE UG/L	10UYJ	10UY	10UY	2DYJ	3DYJ
STYRENE UG/L	5UY	5UY	5UY	5UY	5UY
TETRACHLOROETHENE UG/L	5UY	5UY	5UY	5UY	5UY
TOLUENE UG/L	5UY	5UY	5UY	5UY	5UY
TRANS-1,3-DICHLOROPROPENE UG/L	5UY	5UY	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	FB-01	FB-02	FB-03	FB-04	FB-05
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-01	SB-FB-02	SB-FB-03	SB-FB-04	SB-FB-05
SAMPLE DATE:	02/12/1992	02/13/1992	02/14/1992	02/18/1992	02/19/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
TRICHLOROETHENE UG/L	5UY	5UY	5UY	5UY	5UY
VINYL ACETATE UG/L	10UY	10UY	10UY	10UYJ	10UYJ
VINYL CHLORIDE UG/L	10UY	10UY	10UY	10UY	10UY
XYLENE (TOTAL) UG/L	5UY	5UY	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	FB-06	FB-07	FB-08	FB-09	FB-10
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:	02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	46UY	46UY	46UY	56DYJ	46UY
ANTIMONY UG/L	9UY	9UY	9UY	9UY	9UY
ARSENIC UG/L	2UY	2UY	2UY	2UY	2UY
BARIUM UG/L	5UY	5UY	5DYJ	5UY	5UY
BERYLLIUM UG/L	1UY	1UY	1UY	1UY	1UY
CADMIUM UG/L	5UY	5UY	5UY	5UY	5UY
CALCIUM UG/L	65DYJ	54DYJ	85DYJ	87DYJ	48DYJ
CHROMIUM UG/L	76DY	9UY	9UY	9UY	9UY
COBALT UG/L	26UY	26UY	26UY	26UY	26UY
COPPER UG/L	16UY	16UYJ	16UYJ	16UYJ	16UYJ
CYANIDE UG/L	5UY	5UY	5UY	5UY	5UY
IRON UG/L	1760DY	81DYJ	272DY	44DYJ	77DYJ
LEAD UG/L	1UY	1UYJ	1UYJ	1UY	1UY
MAGNESIUM UG/L	20DYJ	14UY	16DYJ	19DYJ	14UY
MANGANESE UG/L	6UY	6UY	6UY	6UY	6UY
MERCURY UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
NICKEL UG/L	15UY	15UY	15UY	15UY	15UY
POTASSIUM UG/L	81UY	81UY	81UY	81UY	81UY
SELENIUM UG/L	1UY	1UY	1UY	1UY	1UY
SILVER UG/L	1UY	1UYJ	1UYJ	1UYJ	1UYJ
SODIUM UG/L	62UY	62UY	62UY	74DYJ	62UY
THALLIUM UG/L	1DYJ	1UY	1UY	1UY	1UY
VANADIUM UG/L	23UY	23UY	23UY	23UY	23UY
ZINC UG/L	8UY	8UY	8UY	8UY	8UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	FB-06	FB-07	FB-08	FB-09	FB-10
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:	02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
4,4'-DDE UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
ALDRIN UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
AROCLOR-1254 UG/L	1UY	1UY	1UY	1UYJ	1UYJ
AROCLOR-1260 UG/L	1UY	1UY	1UY	1UYJ	1UYJ
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
DIELDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
ENDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UYJ
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY	0.05UYJ	0.05UYJ
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY	0.5UYJ	0.5UYJ
TOXAPHENE UG/L	1UY	1UY	1UY	1UYJ	1UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		FB-06	FB-07	FB-08	FB-09	FB-10
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:		02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
1,2,4-TRICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DIPHENYLHYDRAZINE						
1,3-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DINITROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE	UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE	UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE	UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE	UG/L	10UY	UYR	UYR	10UY	10UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE	UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL	UG/L	10UY	10UY	10UY	10UY	10UY
4-NITROANILINE	UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL	UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE	UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	FB-06	FB-07	FB-08	FB-09	FB-10
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:	02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UY	10UY	10UY	5DYJ	5DYJ
CAFFEINE UG/L	10UY	10UY	10UY	10UY	10UY
CHRYSENE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
[illegible]THENE UG/L	10UY	10UY	10UY	10UY	10UY
[illegible]RENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE UG/L	10UY	10UY	10UY	10UY	10UY
N NITROSODIPHENYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = le[illegible]n detection limit, D = detected, J = estimated, R = unusable,
JN = te[illegible]ively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	FB-06	FB-07	FB-08	FB-09	FB-10
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:	02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
N-NITROSODIPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PHENANTHRENE UG/L	50UY	50UY	50UY	50UY	50UY
PHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
a-PINENE UG/L	10UY	10UY	10UY	10UY	10UY
d-LIMONENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		FB-06	FB-07	FB-08	FB 09	FB-10
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:		02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1,2,2-TETRACHLOROETHANE	UG/L	3DYJ	5UY	5UY	5UY	5UY
1,1,2-TRICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1-DICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,1-DICHLOROETHENE	UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROETHENE (TOTAL)	UG/L	5UY	5UY	5UY	5UY	5UY
1,2-DICHLOROPROPANE	UG/L	5UY	5UY	5UY	5UY	5UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE	UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYL-2-PENTANONE	UG/L	10UY	10UY	10UY	10UY	10UY
ACETONE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZENE	UG/L	5UY	5UY	5UY	5UY	5UY
BROMODICHLOROMETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
BROMOFORM	UG/L	5UY	5UY	5UY	5UY	5UY
BROMOMETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
CARBON DISULFIDE	UG/L	5UY	5UY	5UY	5UY	5UY
CARBON TETRACHLORIDE	UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROBENZENE	UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
CHLOROFORM	UG/L	5UY	5UY	5UY	5UY	5UY
CHLOROMETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
CIS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UY	5UY	5UY
DIBROMOCHLOROMETHANE	UG/L	5UY	5UY	5UY	5UY	5UY
ETHYLBENZENE	UG/L	5UY	5UY	5UY	5UY	5UY
METHYLENE CHLORIDE	UG/L	4DYJ	4DYJ	10UY	5DY	6DY
STYRENE	UG/L	5UY	5UY	5UY	5UY	5UY
TETRACHLOROETHENE	UG/L	5UY	5UY	5UY	5UY	5UY
TOLUENE	UG/L	5UY	5UY	5UY	5UY	5UY
TRANS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - AQUEOUS SAMPLES

SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	FB-06	FB-07	FB-08	FB-09	FB-10
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB-06	SB-FB-07	SB-FB-08	SB-FB-09	SB-FB-10
SAMPLE DATE:	02/20/1992	02/21/1992	02/24/1992	02/25/1992	02/26/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
TRICHLOROETHENE UG/L	5UY	5UY	5UY	5UY	5UY
VINYL ACETATE UG/L	10UYJ	10UYJ	10UYJ	10UYJ	10UYJ
VINYL CHLORIDE UG/L	10UY	10UY	10UY	10UY	10UY
XYLENE (TOTAL) UG/L	5UY	5UY	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D = detected, J = estimated, R = unusable,
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

AMPLE ANALYSIS: INORGANICS

SAMPLE ID:		FB-11	FB-12	FB-13	FB-14	FB-15
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SB-FB-11	SB-FB-12	SB-FB-13	SB-FB-14	SB-FB-15
SAMPLE DATE:		02/27/1992	03/30/1992	03/31/1992	04/01/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	46UY	103DYJ	31DYJ	30UY	19UY
ANTIMONY	UG/L	9UY	10.9UY	10.9UY	7UY	10.9UY
ARSENIC	UG/L	2UY	0.69UY	0.94UY	2UYJ	2.8DYJ
BARIUM	UG/L	5UY	0.79DYJ	1.7DYJ	5UY	0.99DYJ
BERYLLIUM	UG/L	1UY	0.61DYJ	0.19UY	2UY	0.19UY
CADMIUM	UG/L	5UY	4DYJ	2.9UY	UYR	2.9UY
CALCIUM	UG/L	56DYJ	588DYJ	295DYJ	16UY	288DYJ
CHROMIUM	UG/L	9UY	2.1UY	2.1UY	10UY	3.4DYJ
COBALT	UG/L	26UY	3.6UY	3.6UY	21DYJ	3.6UY
COPPER	UG/L	16UYJ	2.1UY	4DYJ	9UYJ	30.6DYJ
CYANIDE	UG/L	5UY	1.8UY	1.8UY	5UY	1.8UY
IRON	UG/L	115DY	226DY	24.1DYJ	UYR	186DYJ
LEAD	UG/L	1UY	1.4DYJ	3.4DY	1UYJ	2DYJ
MAGNESIUM	UG/L	14UY	41.4DYJ	21.3UY	9UY	29DYJ
MANGANESE	UG/L	6UY	3.4DYJ	0.38DYJ	UYR	5.7DYJ
MERCURY	UG/L	0.1UY	0.16UY	0.16UY	0.1UY	0.16UY
NICKEL	UG/L	15UY	3.8UY	7DYJ	15UY	3.8UY
POTASSIUM	UG/L	81UY	710UY	710UY	95UY	710UY
SELENIUM	UG/L	1UY	1.3UYJ	1.2UY	1UY	1.2UY
SILVER	UG/L	1UYJ	1.7UY	1.7UY	1UY	1.7UY
SODIUM	UG/L	62UY	711000DY	1100DYJ	111UY	UYR
THALLIUM	UG/L	1.3DYJ	1.4UYJ	1.7UY	1.9DYJ	1.7UY
VANADIUM	UG/L	23UY	1.7UY	1.7UY	5UY	1.7UY
ZINC	UG/L	8UY	14DYJ	6.3DYJ	UYR	UYR

NN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
= less than detection limit, D = detected, J = estimated, R = unusable,
N = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Focused Investigation Analytical Data

Soil Boring

Volatile Organic Data

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOILS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VOLATILE ORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
12A	1,2-DICHLOROETHANE	MG/KG	20	1	0.0500	0.001	0.001	0.001	0.000
DCE	1,2-DICHLOROETHENE (TOTAL)	MG/KG	20	1	0.0500	0.004	0.004	0.004	0.000
2BU	2-BUTANONE	MG/KG	17	1	0.0588	0.150	0.150	0.150	0.000
2HX	2-HEXANONE	MG/KG	20	1	0.0500	0.087	0.087	0.087	0.000
4M2	4-METHYL-2-PENTANONE	MG/KG	20	1	0.0500	0.024	0.024	0.024	0.000
ACT	ACETONE	MG/KG	17	8	0.4706	0.007	24.000	6.293	9.719
BEN	BENZENE	MG/KG	20	18	0.9000	0.002	280.000	25.604	66.436
CDS	CARBON DISULFIDE	MG/KG	20	2	0.1000	0.002	0.006	0.004	0.000
EBN	ETHYLBENZENE	MG/KG	20	7	0.3500	0.002	440.000	97.726	162.289
MCL	METHYLE'IE CHLORIDE	MG/KG	20	2	0.1000	0.001	0.015	0.008	0.000
TOL	TOLUENE	MG/KG	20	18	0.9000	0.004	790.000	70.606	185.378
XY	XYLENE (TOTAL)	MG/KG	20	13	0.6500	0.010	5,100.000	624.682	1,488.348

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		SG01-02	SG02-02	SG03-02	SG04-02	SG05-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SG1-02	SG2-02	SG3-02	SG4-02	SG5
SAMPLE DATE:		09/16/1993	09/16/1993	09/14/1993	09/16/1993	09/14/1993
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		6.00	3.00	1.50	4.00	3.00
LOWER DEPTH:		8.00	5.00	3.00	6.00	5.00
1,1,1-TRICHLOROETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
1,1,2-TRICHLOROETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
1,1-DICHLOROETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
1,1-DICHLOROETHENE	UG/KG	12UY	11UY	11UY	12UY	160000UY
1,2-DICHLOROETHANE	UG/KG	12UY	1DYJ	11UY	12UY	160000UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	12UY	11UY	11UY	12UY	160000UY
1,2-DICHLOROPROPANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
2-BUTANONE	UG/KG	12UY	11UY	11UY	12UY	160000UY
2-HEXANONE	UG/KG	12UY	11UY	11UY	12UY	160000UY
4-METHYL-2-PENTANONE	UG/KG	12UY	11UYJ	11UYJ	12UYJ	160000UY
ACETONE	UG/KG	12UYJ	40DYJ	11UYJ	390DYJ	260000UYJ
BENZENE	UG/KG	12DYJ	28DY	40DY	21DY	480000DYJ
BROMODICHLOROMETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
BROMOFORM	UG/KG	12UY	11UY	11UY	12UY	160000UY
BROMOMETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
CARBON DISULFIDE	UG/KG	12UY	2DYJ	11UY	12UY	160000UYJ
CARBON TETRACHLORIDE	UG/KG	12UY	11UY	11UY	12UY	160000UY
CHLOROBENZENE	UG/KG	12UY	11UY	11UY	12UY	160000UY
CHLOROETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
CHLOROFORM	UG/KG	12UY	11UY	11UY	12UY	160000UY
CHLOROMETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
CIS-1,3-DICHLOROPROPENE	UG/KG	12UY	11UY	11UY	12UY	160000UY
DIBROMOCHLOROMETHANE	UG/KG	12UY	11UY	11UY	12UY	160000UY
ETHYLBENZENE	UG/KG	8DYJ	11UY	45DY	12UY	240000DY
METHYLENE CHLORIDE	UG/KG	12UY	1DYJ	11UY	12UY	160000UY
STYRENE	UG/KG	12UY	11UY	11UY	12UY	160000UY
TETRACHLOROETHENE	UG/KG	12UY	11UY	11UY	12UY	160000UY
TOLUENE	UG/KG	6DYJ	11DYJ	220DY	4DYJ	230000DY
TRANS-1,3-DICHLOROPROPENE	UG/KG	12UY	11UY	11UY	12UY	160000UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		SG01-02	SG02-02	SG03-02	SG04-02	SG05-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SG1-02	SG2-02	SG3-02	SG4-02	SG5
SAMPLE DATE:		09/16/1993	09/16/1993	09/14/1993	09/16/1993	09/14/1993
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		6.00	3.00	1.50	4.00	3.00
LOWER DEPTH:		8.00	5.00	3.00	6.00	5.00
TRICHLOROETHENE	UG/KG	12UY	11UY	11UY	12UY	160000UY
VINYL ACETATE	UG/KG	12UY	11UYJ	11UYJ	12UYJ	160000UYJ
VINYL CHLORIDE	UG/KG	12UY	11UY	11UY	12UY	160000UY
XYLENE (TOTAL)	UG/KG	12DYJ	32DY	510DY	100YJ	2800000DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SG05D-02	SG06-02	SG07-02	SG08-02	SG09-02
SUB-SAMPLE ID:	DUP	00000	00000	00000	00000
STATION ID:	SG5D-02	SG6-02	SG7-02	SG8-02	SG9-02
SAMPLE DATE:	09/14/1993	09/13/1993	09/14/1993	09/13/1993	09/13/1993
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	3.00	3.00	2.00	3.00	3.50
LOWER DEPTH:	5.00	5.00	4.00	5.00	5.50
1,1,1-TRICHLOROETHANE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	150000UY	60UY	14UYJ	12UY	12UY
1,1,2-TRICHLOROETHANE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
1,1-DICHLOROETHANE UG/KG	150000UY	60UY	14UY	12UY	12UY
1,1-DICHLOROETHENE UG/KG	150000UY	60UY	14UY	12UY	12UY
1,2-DICHLOROETHANE UG/KG	150000UY	60UY	14UY	12UY	12UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	150000UY	60UY	14UY	4DYJ	12UY
1,2-DICHLOROPROPANE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
2-BUTANONE UG/KG	150000UY	UYR	14UY	UYR	UYR
2-HEXANONE UG/KG	150000UY	60UY	14UYJ	12UY	12UY
4-METHYL-2-PENTANONE UG/KG	15( )00UY	60UY	24DYJ	12UY	12UY
ACETONE UG/KG	15(,000UYJ	UYR	14UYJ	UYR	UYR
BENZENE UG/KG	100,000YJ	160DY	11DYJ	150DY	12UYJ
BROMODICHLOROMETHANE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
BROMOFORM UG/KG	150000UY	60UYJ	14UYJ	12UYJ	12UYJ
BROMOMETHANE UG/KG	150000UY	60UY	14UY	12UY	12UY
CARBON DISULFIDE UG/KG	150000UYJ	60UY	14UY	12UY	12UY
CARBON TETRACHLORIDE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
CHLOROBENZENE UG/KG	150000UY	60UY	14UYJ	12UY	12UY
CHLOROETHANE UG/KG	150000UY	60UY	14UY	12UY	12UY
CHLOROFORM UG/KG	150000UY	60UY	14UY	12UY	12UY
CHLOROMETHANE UG/KG	150000UY	60UY	14UY	12UY	12UY
CIS-1,3-DICHLOROPROPENE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
DIBROMOCHLOROMETHANE UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
ETHYLBENZENE UG/KG	440000DY	60UY	14UYJ	12UY	12UY
METHYLENE CHLORIDE UG/KG	150000UY	15DYJ	14UY	12UY	12UY
STYRENE UG/KG	150000UY	60UY	14UYJ	12UY	12UY
TETRACHLOROETHENE UG/KG	150000UY	60UY	14UYJ	12UY	12UY
TOLUENE UG/KG	7900000DY	270DY	61DYJ	100YJ	12UY
TRANS-1,3-DICHLOROPROPENE UG/KG	150000UYJ	60UY	14UYJ	12UY	12UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		SG05D-02	SG06-02	SG07-02	SG08-02	SG09-02
SUB-SAMPLE ID:		DUP	00000	00000	00000	00000
STATION ID:		SG5D-02	SG6-02	SG7-02	SG8-02	SG9-02
SAMPLE DATE:		09/14/1993	09/13/1993	09/14/1993	09/13/1993	09/13/1993
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		3.00	3.00	2.00	3.00	3.50
LOWER DEPTH:		5.00	5.00	4.00	5.00	5.50
TRICHLOROETHENE	UG/KG	150000UY	60UY	14UYJ	12UY	12UYJ
VINYL ACETATE	UG/KG	150000UYJ	60UYJ	14UYJ	12UYJ	12UYJ
VINYL CHLORIDE	UG/KG	150000UY	60UY	14UY	12UY	12UY
XYLENE (TOTAL)	UG/KG	51000000Y	31000DY	2200YJ	110000Y	17DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SG10-02	SG11-02	SG12-02	SG13-02	SG14-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SG10-02	SG11	SG12	SG13-02	SG14-02
SAMPLE DATE:	09/16/1993	09/17/1993	09/16/1993	09/17/1993	09/17/1993
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	5.00	3.00	3.00	4.00	3.00
LOWER DEPTH:	7.00	5.00	5.00	6.00	5.00
1,1,1-TRICHLOROETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
1,1,2,2-TETRACHLOROETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
1,1,2-TRICHLOROETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
1,1-DICHLOROETHANE UG/KG	14000UYJ	12UYJ	11UY	11UYJ	61UY
1,1-DICHLOROETHENE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
1,2-DICHLOROETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	14000UYJ	12UYJ	11UY	11UYJ	61UY
1,2-DICHLOROPROPANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
2-BUTANONE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
2-HEXANONE UG/KG	14000UYJ	12UY	87DYJ	11UYJ	61UY
4-METHYL-2-PENTANONE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
ACETONE UG/KG	220000DYJ	12UYJ	310DYJ	7DYJ	61UYJ
BENZENE UG/KG	12000DYJ	2DYJ	13DYJ	11UYJ	370DYJ
BROMODICHLOROMETHANE UG/KG	14000UYJ	12UYJ	11UY	11UYJ	61UY
BROMOFORM UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
BROMOMETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CARBON DISULFIDE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CARBON TETRACHLORIDE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CHLOROBENZENE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CHLOROETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CHLOROFORM UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CHLOROMETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
CIS-1,3-DICHLOROPROPENE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
DIBROMOCHLOROMETHANE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
ETHYLBENZENE UG/KG	14000UYJ	2DYJ	11UY	11UYJ	61UY
METHYLENE CHLORIDE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
STYRENE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
TETRACHLOROETHENE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
TOLUENE UG/KG	1300000DYJ	4DYJ	18DYJ	11UYJ	41DYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		SG10-02	SG11-02	SG12-02	SG13-02	SG14-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SG10-02	SG11	SG12	SG13-02	SG14-02
SAMPLE DATE:		09/16/1993	09/17/1993	09/16/1993	09/17/1993	09/17/1993
SAMPLE TIME:						
SAMPLE MATRIX:		SB	SB	SB	SB	SB
UPPER DEPTH:		5.00	3.00	3.00	4.00	3.00
LOWER DEPTH:		7.00	5.00	5.00	6.00	5.00
TRICHLOROETHENE	UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
VINYL ACETATE	UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
VINYL CHLORIDE	UG/KG	14000UYJ	12UY	11UY	11UYJ	61UY
XYLENE (TOTAL)	UG/KG	1300000YJ	12UY	11UY	11UYJ	61UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SG15-02	SG16-02	SG17-02	SG18-02	SG19-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SG15-02	SG16-02	SG17-02	SG18	SG19-02
SAMPLE DATE:	09/16/1993	09/16/1993	09/16/1993	09/16/1993	09/17/1993
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	2.00	5.00	3.00	3.00
LOWER DEPTH:	6.00	4.00	7.00	5.00	5.00
1,1,1-TRICHLOROETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
1,1,2,2-TETRACHLOROETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
1,1,2-TRICHLOROETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
1,1-DICHLOROETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UYJ
1,1-DICHLOROETHENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UYJ
1,2-DICHLOROETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
1,2-DICHLOROPROPANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
2-BUTANONE UG/KG	17000UYJ	12UY	59UY	1500UY	150DYJ
2-HEXANONE UG/KG	17000UYJ	12UY	59UY	1500UY	13UYJ
4-METHYL-2-PENTANONE UG/KG	17000UYJ	12UYJ	59UY	1500UY	13UYJ
ACETONE UG/KG	240000YJ	94DYJ	59UYJ	35000YJ	13UYJ
BENZENE UG/KG	2800000YJ	38DY	21DYJ	200000Y	2DYJ
BROMODICHLOROMETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
BROMOFORM UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
BROMOMETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
CARBON DISULFIDE UG/KG	17000UYJ	12UY	59UY	1500UY	6DYJ
CARBON TETRACHLORIDE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
CHLOROBENZENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
CHLOROETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
CHLOROFORM UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
CHLOROMETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
CIS-1,3-DICHLOROPROPENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
DIBROMOCHLOROMETHANE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
ETHYLBENZENE UG/KG	40000YJ	12UY	30DYJ	1500UY	13UY
METHYLENE CHLORIDE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
STYRENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
TETRACHLOROETHENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
TOLUENE UG/KG	1200000YJ	4DYJ	110DY	130DYJ	15DY
TRANS-1,3-DICHLOROPROPENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SG15-02	SG16-02	SG17-02	SG18-02	SG19-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SG15-02	SG16-02	SG17-02	SG18	SG19-02
SAMPLE DATE:	09/16/1993	09/16/1993	09/16/1993	09/16/1993	09/17/1993
SAMPLE TIME:					
SAMPLE MATRIX:	SB	SB	SB	SB	SB
UPPER DEPTH:	4.00	2.00	5.00	3.00	3.00
LOWER DEPTH:	6.00	4.00	7.00	5.00	5.00
TRICHLOROETHENE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
VINYL ACETATE UG/KG	17000UYJ	12UYJ	59UY	1500UY	13UY
VINYL CHLORIDE UG/KG	17000UYJ	12UY	59UY	1500UY	13UY
XYLENE (TOTAL) UG/KG	48000DYJ	12UY	70DY	1500UY	13UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organic Data

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SOILS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
2MN	2-METHYLNAPHTHALENE	MG/KG	3	1	0.3333	3.700	3.700	3.700	0.000
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	MG/KG	3	1	0.3333	89.000	89.000	89.000	0.000
DBP	DI-N-BUTYL PHTHALATE	MG/KG	3	1	0.3333	5.300	5.300	5.300	0.000
DEP	DIETHYL PHTHALATE	MG/KG	3	1	0.3333	5.500	5.500	5.500	0.000
ISP	ISOPHORONE	MG/KG	3	1	0.3333	7.100	7.100	7.100	0.000
PAN	PHENANTHRENE	MG/KG	3	1	0.3333	6.400	6.400	6.400	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SG05-02	SG18A-02	SG19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SG5	SG18A-02	SG19-02
SAMPLE DATE:	09/14/1993	09/17/1993	09/17/1993
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	3.00	3.00	3.00
LOWER DEPTH:	5.00	5.50	5.00
1,2,4-TRICHLOROBENZENE UG/KG	25000UY	24000UY	26000UY
1,2-DICHLOROBENZENE UG/KG	25000UY	24000UY	26000UY
1,3-DICHLOROBENZENE UG/KG	25000UY	24000UY	26000UY
1,4-DICHLOROBENZENE UG/KG	25000UY	24000UY	26000UY
2,4,5-TRICHLOROPHENOL UG/KG	63000UY	59000UY	65000UY
2,4,6-TRICHLOROPHENOL UG/KG	25000UY	24000UY	26000UY
2,4-DICHLOROPHENOL UG/KG	25000UY	24000UY	26000UY
2,4-DIMETHYLPHENOL UG/KG	25000UY	24000UY	26000UY
2,4-DINITROPHENOL UG/KG	63000UY	59000UY	65000UY
2,4-DINITROTOLUENE UG/KG	25000UY	24000UY	26000UY
2,6-DINITROTOLUENE UG/KG	25000UY	24000UY	26000UY
2-CHLORONAPHTHALENE UG/KG	25000UY	24000UY	26000UY
2-CHLOROPHENOL UG/KG	25000UY	24000UY	26000UY
2-METHYLNAPHTHALENE UG/KG	25000UY	3700DYJ	26000UY
2-METHYLPHENOL UG/KG	25000UY	24000UY	26000UY
2-NITROANILINE UG/KG	63000UY	59000UY	65000UY
2-NITROPHENOL UG/KG	25000UY	24000UY	26000UY
3,3'-DICHLOROBENZIDINE UG/KG	25000UY	24000UY	26000UY
3-NITROANILINE UG/KG	63000UY	59000UY	65000UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	63000UY	59000UY	65000UY
4-BROMOPHENYL PHENYL ETHER UG/KG	25000UY	24000UY	26000UY
4-CHLORO-3-METHYLPHENOL UG/KG	25000UY	24000UY	26000UY
4-CHLOROANILINE UG/KG	25000UY	24000UYJ	26000UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	25000UY	24000UY	26000UY
4-METHYLPHENOL UG/KG	25000UY	24000UY	26000UY
4-NITROANILINE UG/KG	63000UY	59000UY	65000UY
4-NITROPHENOL UG/KG	63000UY	59000UY	65000UY
ACENAPHTHENE UG/KG	25000UY	24000UY	26000UY
ACENAPHTHYLENE UG/KG	25000UY	24000UY	26000UY
ANTHRACENE UG/KG	25000UY	24000UY	26000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SG05-02	SG18A-02	SG19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SG5	SG18A-02	SG19-02
SAMPLE DATE:	09/14/1993	09/17/1993	09/17/1993
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	3.00	3.00	3.00
LOWER DEPTH:	5.00	5.50	5.00
BENZO(A)ANTHRACENE UG/KG	25000UY	24000UY	26000UY
BENZO(A)PYRENE UG/KG	25000UY	24000UY	26000UY
BENZO(B)FLUORANTHENE UG/KG	25000UY	24000UY	26000UY
BENZO(GHI)PERYLENE UG/KG	25000UY	24000UY	26000UY
BENZO(K)FLUORANTHENE UG/KG	25000UY	24000UY	26000UY
BENZOIC ACID UG/KG	63000UY	59000UY	65000UY
BENZYL ALCOHOL UG/KG	25000UY	24000UY	26000UY
BENZYL BUTYL PHTHALATE UG/KG	25000UY	24000UY	26000UY
BIS(2-CHLOROETHOXY) METHANE UG/KG	25000UY	24000UY	26000UY
BIS(2-CHLOROETHYL)ETHER UG/KG	25000UY	24000UY	26000UY
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	25000UY	24000UY	26000UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	25000UY	89000DY	26000UY
CHRYSENE UG/KG	25000UY	24000UY	26000UY
DI-N-BUTYL PHTHALATE UG/KG	5300DYJ	24000UY	26000UY
DI-N-OCTYL PHTHALATE UG/KG	25000UY	24000UY	26000UY
DIBENZO(A,H)ANTHRACENE UG/KG	25000UY	24000UY	26000UY
DIBENZOFURAN UG/KG	25000UY	24000UY	26000UY
DIETHYL PHTHALATE UG/KG	5500DYJ	24000UY	26000UY
DIMETHYL PHTHALATE UG/KG	25000UY	24000UY	26000UY
FLUORANTHENE UG/KG	25000UY	24000UY	26000UY
FLUORENE UG/KG	25000UY	24000UY	26000UY
HEXACHLOROBENZENE UG/KG	25000UY	24000UY	26000UY
HEXACHLOROBUTADIENE UG/KG	25000UY	24000UY	26000UY
HEXACHLOROCYCLOPENTADIENE UG/KG	25000UY	24000UY	26000UY
HEXACHLOROETHANE UG/KG	25000UY	24000UY	26000UY
INDENO(1,2,3-CD)PYRENE UG/KG	25000UY	24000UY	26000UY
ISOPHORONE UG/KG	25000UY	7100DYJ	26000UY
N-NITROSODINPROPYLAMINE UG/KG	25000UY	24000UY	26000UY
N-NITROSODIPHENYLAMINE UG/KG	25000UY	24000UY	26000UY
NAPHTHALENE UG/KG	25000UY	24000UY	26000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SG05-02	SG18A-02	SG19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SG5	SG18A-02	SG19-02
SAMPLE DATE:	09/14/1993	09/17/1993	09/17/1993
SAMPLE TIME:			
SAMPLE MATRIX:	SB	SB	SB
UPPER DEPTH:	3.00	3.00	3.00
LOWER DEPTH:	5.00	5.50	5.00
NITROBENZENE UG/KG	25000UY	24000UY	26000UY
PENTACHLOROPHENOL UG/KG	63000UY	59000UY	65000UY
PHENANTHRENE UG/KG	6400DYJ	24000UY	26000UY
PHENOL UG/KG	25000UY	24000UY	26000UY
PYRENE UG/KG	25000UY	24000UY	26000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Hand Auger

Semivolatile Organic Data

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - HAND AUGER
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
2MN	2-METHYLNAPHTHALENE	MG/KG	4	2	0.5000	0.055	0.056	0.056	0.000
4MP	4-METHYLPHENOL	MG/KG	4	3	0.7500	0.060	0.080	0.073	0.010
ACN	ACENAPHTHENE	MG/KG	4	1	0.2500	0.073	0.073	0.073	0.000
ATR	ANTHRACENE	MG/KG	4	4	1.0000	0.048	0.160	0.082	0.047
BAA	BENZO(A)ANTHRACENE	MG/KG	4	4	1.0000	0.180	0.380	0.270	0.087
BAP	BENZO(A)PYRENE	MG/KG	4	4	1.0000	0.200	0.420	0.310	0.101
BBF	BENZO(B)FLUORANTHENE	MG/KG	4	4	1.0000	0.007	0.620	0.289	0.218
BGP	BENZO(GHI)PERYLENE	MG/KG	4	4	1.0000	0.150	0.390	0.270	0.115
BKF	BENZO(K)FLUORANTHENE	MG/KG	4	4	1.0000	0.190	0.500	0.348	0.127
CRY	CHRYSENE	MG/KG	4	4	1.0000	0.260	0.520	0.375	0.117
DBA	DIBENZO(A,H)ANTHRACENE	MG/KG	4	3	0.7500	0.065	0.200	0.123	0.057
FLA	FLUORANTHENE	MG/KG	4	4	1.0000	0.290	0.750	0.463	0.185
FLE	FLUORENE	MG/KG	4	1	0.2500	0.090	0.090	0.090	0.000
ICP	INDENO(1,2,3-CD)PYRENE	MG/KG	4	4	1.0000	0.140	0.340	0.238	0.093
NAP	NAPHTHALENE	MG/KG	4	2	0.5000	0.049	0.056	0.053	0.000
PAN	PHENANTHRENE	MG/KG	4	4	1.0000	0.180	0.750	0.373	0.231
PYR	PYRENE	MG/KG	4	4	1.0000	0.320	0.870	0.545	0.222

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	HA01-02	HA02-02	HA02D-02	HA03-02
SUB-SAMPLE ID:	00000	00000	DUP	00000
STATION ID:	HA1	HA2	HA2D	HA3
SAMPLE DATE:	09/07/1993	09/07/1993	09/07/1993	09/07/1993
SAMPLE TIME:				
SAMPLE MATRIX:	SS	SS	SS	SS
UPPER DEPTH:	0.00	0.00	0.00	0.00
LOWER DEPTH:	1.00	1.00	1.00	1.00
1,2,4-TRICHLOROBENZENE UG/KG	370UY	360UY	360UY	360UY
1,2-DICHLOROBENZENE UG/KG	370UY	360UY	360UY	360UY
1,3-DICHLOROBENZENE UG/KG	370UY	360UY	360UY	360UY
1,4-DICHLOROBENZENE UG/KG	370UY	360UY	360UY	360UY
2,4,5-TRICHLOROPHENOL UG/KG	920UY	900UY	900UY	910UY
2,4,6-TRICHLOROPHENOL UG/KG	370UY	360UY	360UY	360UY
2,4-DICHLOROPHENOL UG/KG	370UY	360UY	360UY	360UY
2,4-DIMETHYLPHENOL UG/KG	370UY	360UY	360UY	360UY
2,4-DINITROPHENOL UG/KG	920UY	900UY	900UY	910UY
2,4-DINITROTOLUENE UG/KG	370UY	360UY	360UY	360UY
2,6-DINITROTOLUENE UG/KG	370UY	360UY	360UY	360UY
2-CHLORONAPHTHALENE UG/KG	370UY	360UY	360UY	360UY
2-CHLOROPHENOL UG/KG	370UY	360UY	360UY	360UY
2-METHYLNAPHTHALENE UG/KG	55DYJ	360UY	360UY	56DYJ
2-METHYLPHENOL UG/KG	370UY	360UY	360UY	360UY
2-NITROANILINE UG/KG	920UY	900UY	900UY	910UY
2-NITROPHENOL UG/KG	370UY	360UY	360UY	360UY
3,3'-DICHLOROBENZIDINE UG/KG	370UYJ	360UY	360UY	360UYJ
3-NITROANILINE UG/KG	920UY	900UY	900UY	910UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	920UYJ	900UY	900UY	910UY
4-BROMOPHENYL PHENYL ETHER UG/KG	370UYJ	360UY	360UY	360UY
4-CHLORO-3-METHYLPHENOL UG/KG	370UY	360UY	360UY	360UY
4-CHLOROANILINE UG/KG	370UY	360UY	360UY	360UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	370UY	360UY	360UY	360UY
4-METHYLPHENOL UG/KG	80DYJ	60DYJ	360UY	80DYJ
4-NITROANILINE UG/KG	920UY	900UY	900UY	910UY
4-NITROPHENOL UG/KG	920UY	900UY	900UY	910UY
ACENAPHTHENE UG/KG	370UY	360UY	360UY	73DYJ
ACENAPHTHYLENE UG/KG	370UY	360UY	360UY	360UY
ANTHRACENE UG/KG	73DYJ	48DYJ	48DYJ	160DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		HA01-02	HA02-02	HA02D-02	HA03-02
SUB-SAMPLE ID:		00000	00000	DUP	00000
STATION ID:		HA1	HA2	HA2D	HA3
SAMPLE DATE:		09/07/1993	09/07/1993	09/07/1993	09/07/1993
SAMPLE TIME:					
SAMPLE MATRIX:		SS	SS	SS	SS
UPPER DEPTH:		0.00	0.00	0.00	0.00
LOWER DEPTH:		1.00	1.00	1.00	1.00
BENZO(A)ANTHRACENE	UG/KG	330DYJ	180DYJ	190DYJ	380DYJ
BENZO(A)PYRENE	UG/KG	400DYJ	200DYJ	220DYJ	420DYJ
BENZO(B)FLUORANTHENE	UG/KG	7DYJ	260DYJ	270DYJ	620DYJ
BENZO(GHI)PERYLENE	UG/KG	390DYJ	150DYJ	160DYJ	380DYJ
BENZO(K)FLUORANTHENE	UG/KG	440DYJ	190DYJ	260DYJ	500DYJ
BENZOIC ACID	UG/KG	920UY	900UY	900UY	910UY
BENZYL ALCOHOL	UG/KG	370UY	360UY	360UY	360UY
BENZYL BUTYL PHTHALATE	UG/KG	370UYJ	360UY	360UY	360UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	370UY	360UY	360UY	360UY
BIS(2-CHLOROETHYL)ETHER	UG/KG	370UY	360UY	360UY	360UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	370UY	360UY	360UY	360UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1500UYJ	1060UY	3300UY	1800UYJ
CHRYSENE	UG/KG	460DYJ	260DYJ	260DYJ	520DYJ
DI-N-BUTYL PHTHALATE	UG/KG	370UYJ	360UY	360UY	360UY
DI-N-OCTYL PHTHALATE	UG/KG	UYR	360UY	360UYJ	360UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	200DYJ	360UY	65DYJ	105DYJ
DIBENZOFURAN	UG/KG	370UY	360UY	360UY	360UY
DIETHYL PHTHALATE	UG/KG	370UY	360UY	360UY	360UY
DIMETHYL PHTHALATE	UG/KG	370UY	360UY	360UY	360UY
FLUORANTHENE	UG/KG	500DYJ	310DYJ	290DYJ	750DY
FLUORENE	UG/KG	370UY	360UY	360UY	90DYJ
HEXACHLOROBENZENE	UG/KG	370UYJ	360UY	360UY	360UY
HEXACHLOROBUTADIENE	UG/KG	370UY	360UY	360UY	360UY
HEXACHLOROCYCLOPENTADIENE	UG/KG	370UY	360UY	360UY	360UY
HEXACHLOROETHANE	UG/KG	370UY	360UY	360UY	360UY
INDENO(1,2,3-CD)PYRENE	UG/KG	320DYJ	140DYJ	150DYJ	340DYJ
ISOPHORONE	UG/KG	370UY	360UY	360UY	360UY
N-NITROSODINPROPYLAMINE	UG/KG	370UY	360UY	360UY	360UY
N-NITROSODIPHENYLAMINE	UG/KG	370UYJ	360UY	360UY	360UY
NAPHTHALENE	UG/KG	56DYJ	360UY	360UY	49DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		HA01-02	HA02-02	HA02D-02	HA03-02
SUB-SAMPLE ID:		00000	00000	DUP	00000
STATION ID:		HA1	HA2	HA2D	HA3
SAMPLE DATE:		09/07/1993	09/07/1993	09/07/1993	09/07/1993
SAMPLE TIME:					
SAMPLE MATRIX:		SS	SS	SS	SS
UPPER DEPTH:		0.00	0.00	0.00	0.00
LOWER DEPTH:		1.00	1.00	1.00	1.00
NITROBENZENE	UG/KG	370UY	360UY	360UY	360UY
PENTACHLOROPHENOL	UG/KG	920UYJ	900UY	900UY	910UY
PHENANTHRENE	UG/KG	370DYJ	190DYJ	180DYJ	750DY
PHENOL	UG/KG	370UY	360UY	360UY	360UY
PYRENE	UG/KG	630DYJ	320DYJ	360DY	870DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Source Delineation – Groundwater

Groundwater Analytical Results for Monitoring Wells OBMW18, OBMW19, and BRTW2

Analyte	NJDEPE Groundwater Quality Criteria [a]	Federal Standards	Well Number and Date Sampled				
			OBMW18 10/20/93	OBMW18D 10/20/93 Dup. of OB18	OBMW19 10/20/93	BRTW2 11/15/93	BRTW2D 11/15/93 Dup. of BRTW2
Volatile Organics (ppb)							
Acetone	700	--	--	--	--	52	--
Benzene	0.2	5 [b]	--	--	21	170	--
Chlorobenzene	4	--	--	--	--	0.8 J	0.6 J
1,3-Dichlorobenzene	600	--	--	280	--	--	--
1,4-Dichlorobenzene	75	--	--	--	--	0.5 J	0.5 J
1,2-Dichloroethane	0.3	5 [b]	--	--	--	9	5 J
Cis-1,2-Dichloroethene	10	70 [b]	--	--	--	240	81 J
Trans-1,2-Dichloroethene	100	100 [b]	--	--	--	0.9 J	--
Ethylbenzene	700	700 [c]	1,400	--	--	--	--
Methylene Chloride	2	--	--	--	--	0.6 J	--
4-Methyl-2-pentanone	400	--	--	--	--	3 J	--
1,1,2,2-Tetrachloroethane	2	--	--	--	--	1 J	--
Toluene	1,000	1,000 [b]	670	380	1 J	3	1 J
Xylene (total)	40	10,000 [b]	6,000	4,600	5	3	2 J
Vinyl Chloride	0.08	2 [b]	--	--	--	--	300 J
Semi-volatile Organics (ppb)							
bis(2-Ethylhexyl)phthalate	3	--	--	--	NA	NA	NA
Diethylphthalate	5,000	--	2 J		NA	NA	NA
Di-n-octylphthalate	100	--	10 J	--	NA	NA	NA
2-Methylnaphthalene	--	--	--	34 J	NA	NA	NA
Naphthalene	--	--	210	160 J	NA	NA	NA
Metals total (ppb)							
Aluminum	200	--	423	407	NA	NA	NA
Arsenic	0.02	50 [b]	6.3 B	5 B	NA	NA	NA
Barium	2,000	2,000 [b]	248	279	NA	NA	NA
Beryllium	0.008	4 [c]	5.7	9 J	NA	NA	NA
Calcium	--	--	229,000	230,000	NA	NA	NA
Cobalt	--	--	8.1 B	--	NA	NA	NA
Iron	300	--	12,000	6,240	NA	NA	NA
Lead	5	15 [b]	8 J	8 J	NA	NA	NA
Magnesium	--	--	38,800	40,000	NA	NA	NA
Manganese	50	--	16,800	15,100	NA	NA	NA
Mercury	2	2 [c]	0.11 B	--	NA	NA	NA
Potassium	--	--	35,400 B	36,400	NA	NA	NA
Sodium	50,000	--	274,000	274,000	NA	NA	NA
Vanadium	--	--	18.3 B	--	NA	NA	NA
Zinc	5,000	--	--	11.1 B	NA	NA	NA

[a] New Jersey Groundwater Cleanup Criteria, for Class II-A Groundwater, *New Jersey Register*, February 1, 1993.
[b] Drinking Water Regulations and Health Advisories from Office of Water U.S. Environmental Protection Agency, April, 1992.
[c] 40 CFR 141.60 - 40 CFR 141.62

Notes:
J = Estimated Value
B = Analyte was also detected in the laboratory blank
NA = Sample was not analyzed for this analyte

Equipment and Trip Blank Data

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SB-FB02-02	SB-FB03-02	SB-FB04-02	SB-FB05-02	SB-FB06-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB2-02	SB-FB3-02	SB-FB4-02	SB-FB5-02	SB-FB6-02
SAMPLE DATE:	09/14/1993	09/14/1993	09/15/1993	09/16/1993	09/17/1993
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
1,1,2,2-TETRACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
1,1,2-TRICHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
1,1-DICHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
1,1-DICHLOROETHENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROETHENE (TOTAL) UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROPROPANE UG/L	10UY	10UY	10UY	10UY	10UY
2-BUTANONE UG/L	10UY	10UY	10UY	10UY	10UY
2-HEXANONE UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYL-2-PENTANONE UG/L	10UY	10UY	10UY	10UY	10UY
ACETONE UG/L	30DYJ	10UYJ	10UYJ	10UY	10UY
BENZENE UG/L	10UY	10UY	10UY	10UY	10UY
BROMODICHLOROMETHANE UG/L	10UY	10UY	10UY	10UY	10UY
BROMOFORM UG/L	10UY	10UY	10UY	10UY	10UY
BROMOMETHANE UG/L	10UY	10UY	10UY	10UY	10UY
CARBON DISULFIDE UG/L	10UY	10UY	10UY	10UY	10UY
CARBON TETRACHLORIDE UG/L	10UYJ	10UYJ	10UYJ	10UYJ	10UYJ
CHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
CHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
CHLOROFORM UG/L	10UY	10UY	10UY	10UY	10UY
CHLOROMETHANE UG/L	10UY	10UY	10UY	10UY	10UY
CIS-1,3-DICHLOROPROPENE UG/L	10UY	10UY	10UY	10UY	10UY
DIBROMOCHLOROMETHANE UG/L	10UY	10UY	10UY	10UY	10UY
ETHYLBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
METHYLENE CHLORIDE UG/L	10UY	10UY	10UY	10UY	3DYJ
STYRENE UG/L	10UY	10UY	10UY	10UY	10UY
TETRACHLOROETHENE UG/L	10UY	10UY	10UY	10UY	10UY
TOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
TRANS-1,3-DICHLOROPROPENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SB-FB02-02	SB-FB03-02	SB-FB04-02	SB-FB05-02	SB-FB06-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SB-FB2-02	SB-FB3-02	SB-FB4-02	SB-FB5-02	SB-FB6-02
SAMPLE DATE:	09/14/1993	09/14/1993	09/15/1993	09/16/1993	09/17/1993
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
TRICHLOROETHENE UG/L	10UY	10UY	10UY	10UY	10UY
VINYL ACETATE UG/L	10UY	10UY	10UY	10UY	10UY
VINYL CHLORIDE UG/L	10UY	10UY	10UY	10UY	10UY
XYLENE (TOTAL) UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER BLANKS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VOLATILE ORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
12A	1,2-DICHLOROETHANE	UG/L	14	1	0.0714	0.300	0.300	0.300	0.000
14B	1,4-DICHLOROBENZENE	UG/L	14	1	0.0714	0.200	0.200	0.200	0.000
ACT	ACETONE	UG/L	14	12	0.8571	4.000	11.000	7.000	2.041
BEN	BENZENE	UG/L	14	1	0.0714	0.700	0.700	0.700	0.000
CLM	CHLOROMETHANE	UG/L	14	1	0.0714	3.000	3.000	3.000	0.000
C12	CIS-1,2-DICHLOROETHYLENE	UG/L	14	1	0.0714	3.000	3.000	3.000	0.000
MCL	METHYLENE CHLORIDE	UG/L	14	14	1.0000	1.000	3.000	1.786	0.558
TOL	TOLUENE	UG/L	14	5	0.3571	0.100	0.300	0.260	0.080

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER BLANKS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: INORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	UG/L	4	2	0.5000	54.000	91.000	72.500	18.500
SB	ANTIMONY	UG/L	4	1	0.2500	18.200	18.200	18.200	0.000
AS	ARSENIC	UG/L	4	1	0.2500	1.200	1.200	1.200	0.000
BA	BARIUM	UG/L	4	1	0.2500	2.100	2.100	2.100	0.000
CD	CADMIUM	UG/L	4	1	0.2500	5.900	5.900	5.900	0.000
CA	CALCIUM	UG/L	4	4	1.0000	144.000	959.000	522.750	300.587
FE	IRON	UG/L	4	1	0.2500	122.000	122.000	122.000	0.000
MG	MAGNESIUM	UG/L	4	2	0.5000	78.600	90.800	84.700	6.100
MN	MANGANESE	UG/L	2	2	1.0000	5.000	12.000	8.500	3.500
SE	SELENIUM	UG/L	4	1	0.2500	2.000	2.000	2.000	0.000
NA	SODIUM	UG/L	4	2	0.5000	203.000	1,040.000	621.500	418.500

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SB-FB03-02	SB-FB06-02
SUB-SAMPLE ID:	00000	00000
STATION ID:	SB-FB3-02	SB-FB6-02
SAMPLE DATE:	09/14/1993	09/17/1993
SAMPLE TIME:		
SAMPLE MATRIX:	AQ	AQ
UPPER DEPTH:		
LOWER DEPTH:		
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY
ANTHRACENE UG/L	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		SB-FB03-02	SB-FB06-02
SUB-SAMPLE ID:		00000	00000
STATION ID:		SB-FB3-02	SB-FB6-02
SAMPLE DATE:		09/14/1993	09/17/1993
SAMPLE TIME:			
SAMPLE MATRIX:		AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
BENZO(A)ANTHRACENE	UG/L	10UY	10UY
BENZO(A)PYRENE	UG/L	10UY	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY
BENZOIC ACID	UG/L	50UY	50UY
BENZYL ALCOHOL	UG/L	10UY	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	12DY	35DY
CHRYSENE	UG/L	10UY	10UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	10UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY
DIBENZOFURAN	UG/L	10UY	10UY
DIETHYL PHTHALATE	UG/L	10UY	10UY
DIMETHYL PHTHALATE	UG/L	10UY	10UY
FLUORANTHENE	UG/L	10UY	10UY
FLUORENE	UG/L	10UY	10UY
HEXACHLOROBENZENE	UG/L	10UY	10UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY
HEXACHLOROETHANE	UG/L	10UY	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY
ISOPHORONE	UG/L	10UY	10UY
N-NITROSODINPROPYLAMINE	UG/L	10UY	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY
NAPHTHALENE	UG/L	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SB-FB03-02	SB-FB06-02
SUB-SAMPLE ID:	00000	00000
STATION ID:	SB-FB3-02	SB-FB6-02
SAMPLE DATE:	09/14/1993	09/17/1993
SAMPLE TIME:		
SAMPLE MATRIX:	AQ	AQ
UPPER DEPTH:		
LOWER DEPTH:		
NITROBENZENE UG/L	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY
PHENOL UG/L	10UY	10UY
PYRENE UG/L	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
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2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		HA01-02	HA02-02	HA02D-02	HA03-02
SUB-SAMPLE ID:		00000	00000	DUP	00000
STATION ID:		HA1	HA2	HA2D	HA3
SAMPLE DATE:		09/07/1993	09/07/1993	09/07/1993	09/07/1993
SAMPLE TIME:					
SAMPLE MATRIX:		SS	SS	SS	SS
UPPER DEPTH:		0.00	0.00	0.00	0.00
LOWER DEPTH:		1.00	1.00	1.00	1.00
1,2,4-TRICHLOROBENZENE	UG/KG	370UY	360UY	360UY	360UY
1,2-DICHLOROBENZENE	UG/KG	370UY	360UY	360UY	360UY
1,3-DICHLOROBENZENE	UG/KG	370UY	360UY	360UY	360UY
1,4-DICHLOROBENZENE	UG/KG	370UY	360UY	360UY	360UY
2,4,5-TRICHLOROPHENOL	UG/KG	920UY	900UY	900UY	910UY
2,4,6-TRICHLOROPHENOL	UG/KG	370UY	360UY	360UY	360UY
2,4-DICHLOROPHENOL	UG/KG	370UY	360UY	360UY	360UY
2,4-DIMETHYLPHENOL	UG/KG	370UY	360UY	360UY	360UY
2,4-DINITROPHENOL	UG/KG	920UY	900UY	900UY	910UY
2,4-DINITROTOLUENE	UG/KG	370UY	360UY	360UY	360UY
2,6-DINITROTOLUENE	UG/KG	370UY	360UY	360UY	360UY
2-CHLORONAPHTHALENE	UG/KG	370UY	360UY	360UY	360UY
2-CHLOROPHENOL	UG/KG	370UY	360UY	360UY	360UY
2-METHYLNAPHTHALENE	UG/KG	55DYJ	360UY	360UY	56DYJ
2-METHYLPHENOL	UG/KG	370UY	60DYJ	360UY	360UY
2-NITROANILINE	UG/KG	920UY	900UY	900UY	910UY
2-NITROPHENOL	UG/KG	370UY	360UY	360UY	360UY
3,3'-DICHLOROBENZIDINE	UG/KG	370UYJ	360UY	360UY	360UYJ
3-NITROANILINE	UG/KG	920UY	900UY	900UY	910UY
4,6-DINITRO-2-METHYLPHENOL	UG/KG	920UYJ	900UY	900UY	910UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	370UYJ	360UY	360UY	360UY
4-CHLORO-3-METHYLPHENOL	UG/KG	370UY	360UY	360UY	360UY
4-CHLOROANILINE	UG/KG	370UY	360UY	360UY	360UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	370UY	360UY	360UY	360UY
4-METHYLPHENOL	UG/KG	80DYJ	~~360UY~~ < 60DYJ	360UY	80DYJ
4-NITROANILINE	UG/KG	920UY	900UY	900UY	910UY
4-NITROPHENOL	UG/KG	920UY	900UY	900UY	910UY
ACENAPHTHENE	UG/KG	370UY	360UY	360UY	73DYJ
ACENAPHTHYLENE	UG/KG	370UY	360UY	360UY	360UY
ANTHRACENE	UG/KG	73DYJ	48DYJ	48DYJ	160DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	HA01-02	HA02-02	HA02D-02	HA03-02
SUB-SAMPLE ID:	00000	00000	DUP	00000
STATION ID:	HA1	HA2	HA2D	HA3
SAMPLE DATE:	09/07/1993	09/07/1993	09/07/1993	09/07/1993
SAMPLE TIME:				
SAMPLE MATRIX:	SS	SS	SS	SS
UPPER DEPTH:	0.00	0.00	0.00	0.00
LOWER DEPTH:	1.00	1.00	1.00	1.00
BENZO(A)ANTHRACENE UG/KG	330DYJ	180DYJ	190DYJ	380DYJ
BENZO(A)PYRENE UG/KG	400DYJ	200DYJ	220DYJ	420DYJ
BENZO(B)FLUORANTHENE UG/KG	7DYJ	260DYJ	270DYJ	620DYJ
BENZO(GHI)PERYLENE UG/KG	390DYJ	150DYJ	160DYJ	380DYJ
BENZO(K)FLUORANTHENE UG/KG	440DYJ	190DYJ	260DYJ	500DYJ
BENZOIC ACID UG/KG	920UY	900UY	900UY	910UY
BENZYL ALCOHOL UG/KG	370UY	360UY	360UY	360UY
BENZYL BUTYL PHTHALATE UG/KG	370UYJ	360UY	360UY	360UYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	370UY	360UY	360UY	360UY
BIS(2-CHLOROETHYL)ETHER UG/KG	370UY	360UY	360UY	360UY
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	370UY	360UY	360UY	360UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	1500UYJ	1060UY	3300UY	1800UYJ
CHRYSENE UG/KG	460DYJ	260DYJ	260DYJ	520DYJ
DI-N-BUTYL PHTHALATE UG/KG	370UYJ	360UY	360UY	360UY
DI-N-OCTYL PHTHALATE UG/KG	UYR	360UY	360UYJ	360UYJ
DIBENZO(A,H)ANTHRACENE UG/KG	200DYJ	360UY	65DYJ	105DYJ
DIBENZOFURAN UG/KG	370UY	360UY	360UY	360UY
DIETHYL PHTHALATE UG/KG	370UY	360UY	360UY	360UY
DIMETHYL PHTHALATE UG/KG	370UY	360UY	360UY	360UY
FLUORANTHENE UG/KG	500DYJ	310DYJ	290DYJ	750DY
FLUORENE UG/KG	370UY	360UY	360UY	90DYJ
HEXACHLOROBENZENE UG/KG	370UYJ	360UY	360UY	360UY
HEXACHLOROBUTADIENE UG/KG	370UY	360UY	360UY	360UY
HEXACHLOROCYCLOPENTADIENE UG/KG	370UY	360UY	360UY	360UY
HEXACHLOROETHANE UG/KG	370UY	360UY	360UY	360UY
INDENO(1,2,3-CD)PYRENE UG/KG	320DYJ	140DYJ	150DYJ	340DYJ
ISOPHORONE UG/KG	370UY	360UY	360UY	360UY
N-NITROSODINPROPYLAMINE UG/KG	370UY	360UY	360UY	360UY
N-NITROSODIPHENYLAMINE UG/KG	370UYJ	360UY	360UY	360UY
NAPHTHALENE UG/KG	56DYJ	360UY	360UY	49DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - HAND AUGER SOILS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	HA01-02	HA02-02	HA02D-02	HA03-02
SUB-SAMPLE ID:	00000	00000	DUP	00000
STATION ID:	HA1	HA2	HA2D	HA3
SAMPLE DATE:	09/07/1993	09/07/1993	09/07/1993	09/07/1993
SAMPLE TIME:				
SAMPLE MATRIX:	SS	SS	SS	SS
UPPER DEPTH:	0.00	0.00	0.00	0.00
LOWER DEPTH:	1.00	1.00	1.00	1.00
NITROBENZENE UG/KG	370UY	360UY	360UY	360UY
PENTACHLOROPHENOL UG/KG	920UYJ	900UY	900UY	910UY
PHENANTHRENE UG/KG	370DYJ	190DYJ	180DYJ	750DY
PHENOL UG/KG	370UY	360UY	360UY	360UY
PYRENE UG/KG	630DYJ	320DYJ	360DY	870DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

TOC Results
for Soil Boring
Sample C24(4-6)

TOC Results for Sample C24(4-6)

CLIENT: CH2M HILL

REPORT DATE: May 28, 1992
SAMPLE ANALYZED: One sample analyzed for the parameters listed below.

PROJECT #: 9207-00020
TCT ST. LOUIS ID #: 92002356

DATE RECEIVED: April 9, 1992
P.O. #:

ST. LOUIS ID NUMBER	SITE CODE		TOC (MG/KG)
BLANK	-		< 1.0
92002356	240406	C24(4-6)	2220
92002356 DUP	240406		2023
92002356 MS RCVRY (%)	240406		115%
STD. RCVRY (%)	10 MG/L STD.		98%

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Gail Day Date 5-12-95 Project No. 3216-7211 B → 9207-20

Checked By _____ Date _____

Range Setting 40 ppm

Lab No.	Site Name	Sample Date	WT (g)	Sol/Vol (%)	Inj.	DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	15:13	5-12-95								
	1486									
	1545 Cal									
	1518									
	500 mg/kg						500.2			
	1000						992.0			
	2500						2497			
	4000						3893			
ICV	2000		0.2				1871		94 %Rec	
ICB	~~2000~~ 2700-02 Blank		0.2				0.657		< 5	
2701	2211B 02-006	5-12-95	.0117	72.8			623.7	2929	mg/kg	
2702	02 007		.0107	86.1			486.5	2112	mg/kg	
2703	02-008		.0100	74.1			682.0	3682	mg/kg	

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

ACCEPTED
MAY 22 1995

TCT St. Louis

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Sam O'Day Date 5-12-92 Project No. 3 216-72113 9207-20

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT % Solids (1 g/1 ml)	Weight or Vol (g)	Int.	DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
2704★	72113-02-009 (water)	5-1-92	(1 g/1 ml)	(40 ml)			mg/l 15.56	mg/kg < 5		
CCV	2000 mg/l	5-12-92					1839	368 mg/kg	92 %	
CCB							0.714	< 5 mg/kg		
CCV	2000 mg/l						2085	417 mg/kg	104 %	
CCB							0.001	<5		
2356	240406	5-7-92	85.8%	.0154			734.6	2224	mg/kg	
2356	(mg/kg) 6856 MS			.0136			2943	10,088	115%	MS Rec
2556	2454 mg/kg MSD Not Required			.0125			2830	10,555	112%	MS Rec
2556	Dup			.0164			711.8	2023	42%	5-12-92 RPD
CCV	2000 mg/l	5-12-92					1967	393 mg/kg	98%	
CCB							0.021	< 5		
									ACCEPTED	
									MAY 22 1992	

★ This water sample was run as a soil here. It was previously run as a water & Reported in mg/l

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

Sam O'Day

K.V. McCabe

FORM11M

TCT St. Louis

STANDARDS SOURCES

ANALYTE (TOC) KHP

	Calibration Standards	ICV/CCV Standards
Source:	Fisher 90-5952	NBS-194
Prep. Date:	5-12-92	5-12-92
Prep. By:	Gail Day	Gail Day

Project 3216-721.4

5-12-92 Gail Day

SELFTEST
NO ERRORS

1 TOC 1513 Instrument Cal

2 TOC 1486

3 TOC 1545

4 TOC 1518

CAL -- 40 UL
CAL AVE 1515
CAL ADJ 1998

CAL -- 40 UL
CAL ADJ 1998

1 TOC 497.4 will repeat
1 CANCELLED

TIMEOUT ERROR 58:

2 TOC 508.2 500 mg/l

3 TOC 992.6 1000 mg/l

4 TOC 2497 2500 mg/l

5 TOC 3632 dripped

6 TOC 39.97 will Rep.

7 TOC 3893 4000 mg/l

8 TOC 1872 CCV

9 TOC 0.657 CCB

10 TOC 623.7 2701

11 TOC 486.5 2702

12 TOC 682.8 2703

13 TOC 15.56 2704 water sample

14 TOC 1839 CCV

15 TOC 0.714 CCB

15 TOC 0.714 CCB

16 TOC 65.94 NR

17 TOC 37.37 NR

18 TOC 2085 CCV

19 TOC 0.881 CCB

20 NR TOC 595 2356 Dripped

21 TOC 734.6 2356 Dripped

22 TOC 2943 2356 MS

23 TOC 2938 2356 MS

24 TOC 3492 2356 MS Not Rec.

2356 sample MS

MS sample

25 TOC 711.8 2356 Dup

26 TOC 2705 MS3 NR

27 TOC 2253 NR for Prep 3216

28 TOC 2248 NR

29 TOC 1326 NR

30 TOC 1537 NR

31 TOC 1967 CCV

32 TOC 0.821 CCB

Gail Day 5-13-92

TOC Results for Soil Boring Sample C26(0-6)

TOC Results for Sample C26(0-6)

Twin City Testing
1908 Innerbelt Business Center Dr.
St.Louis, Mo. 63114-5700

Date: April 08,1992
Project No: 9207-00002

Project: CH2M-HILL -- MJ022948.SW.SP

CH2M-HILL SITE ID: FA-SB-C26 (0-6)
TCT-ST. LOUIS LAB NO: 92001247
FILE ID #: 260006

TOC(MG/KG)
12440

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Paul Day Date 3-20-92 Project No. 420709

Checked By _____ Date _____

Range Setting 40 yl

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solids DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	1506 }	3209								
	1499 } cal.									
	1523 }									
	500 mg/l						533.2			
	4000 ↓						3745			
ICV	2000 ↓						1933		96.6%	
ICB	empty Boat	↓					2.239		< 5	
1355	31C8ca		0.0330			89.3	cancelled		(Time out error)	
↓	↓		0.0174			↓	1660	(No error light will be slurried error light but ready)		
↓	↓		0.0150			↓	cancelled	(Time out error)		
1247	24ccal		0.0169			88.8	3011	12,443	49/g	
↓	↓		0.0168				cancelled		(Time out error)	
Sample	1355 1247 will have to be slurried						to determine Dup & MS			

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

ACCEPTED
MAR 26 1992

TCT St. Louis

TCT-ST. LOUIS

TOC (Instrumental)

Analyst [signature] Date 3 20 92 Project No. 9207-07

Checked By ______ Date ______

Range Setting 40 ul

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% solids DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
Blank	DI water	3-20-92	—	—		—	19.58	19.6 ~~20.0~~	mg/l	
1355	3 (slurry)	3-19-92	1.0206g	20 ml	40 ul	89.3	80.30	1762	ug/g	
↓	↓ Dup	↓	↓	↓	↓	↓	89.90	1973	ug/g	11.2%
	sample Tipped - will be rerun/degraded						—	—		
↓	↓ 21744 ug/g MS	↓	↓	↓	↓	↓	1032	22647	ug/g	95%
CCV	2000 mg/l	3-20-92	—	—		—	2001	2001	100%	
CCB	Empty Boat	↓	—			—	5.150	<5		

ACCEPTED
MAR 26 1992
[signature]

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

NO ERRORS
Project 9207-04
Gail Day 3-2

NO CAL -- 40 UL
1 TOC 1506
2 TOC 1499
3 TOC 1523

CAL -- 40 UL
CAL AVE 1509
CAL ADJ 1998

1 TOC 533.2 5-00-
2 TOC 3745 4000 -
3 TOC 1933 2000 -
4 TOC 2.239 Empty
5 TOC 3417 13 55
5 CANCELLED

TIMEOUT ERROR< 10%

6 TOC 1660
7 TOC 1287
7 CANCELLED

TIMEOUT ERROR< 10%

8 TOC 3011 12

9 TOC 3081
9 CANCELLED 1247

TIMEOUT ERROR< 100%

10 TOC 37.23 Burn Beer
11 TOC 19.58 DI B
12 TOC 88.32 1355
13 TOC 89.98 slurry Dump
14 TOC 485.3 spill
15 TOC 1032 MS
16 TOC 2001 CCV
17 TOC 5.158 CCB

TOC Results
for Soil Boring
Sample C31(8-10)

TOC Results
for Sample
C31(8-10)

TCT ST.LOUIS
1908 INNERBELT BUSINESS CENTER DRIVE
ST.LOUIS, MO 63114

DATE OF REPORT: 04/13/92

9207-00009

CH2MHILL SAMPLE ID: 310810
TCT SAMPLE NO.: 92001355
DATE SAMPLED: 02/26/92

TOC RESULTS (UG/G):	1760	
Duplicate results:	1973	%rpd = 11
Matrix spike results:	22600	%recovery = 95
Percent Solids:	80.3	

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

Analyst Kait Day Date 3-20-92 Project No. 42079

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solids DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	1506 } cal.	3-20-92								
	1499 } cal.	↓								
	1523 } cal.									
	500 mg/l						533.2			
	4000						3745			
ICV	2000 ↓						1933		96.6%	
ICB	Empty Boat	↓					2.239		< 5	
1355	310810		0.0330			89.3	cancelled		(Time out error)	
↓	↓		0.0174			↓	1660	(No Error light but ready)	will be slurried and reran	
↓	↓		0.0150			↓	cancelled	(Time out error)	light was not activated	
12:47	266006		0.0169			88.8	3011	12,443	48/9	
↓	↓		0.0168				cancelled		(Time out error)	
Sample	1355 3-21-92 ~~1247 Today~~ will have to be slurried to determine Dup & MS									

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

ACCEPTED
MAR 26 1992
TCT St. Louis

FORM1

TCT-ST. LOUIS

Sheet 2 of 2

TOC (Instrumental)

Analyst Faith Day Date 3.20.92 Project No. 9207-07

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	% Solid DIN	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
Blank	DI water	3-20-92	-	-		-	19.58	19.6 ~~2010~~	mg/l	
1355	Soil (slurry)	3.19.92	1.0204g	20 ml	40 ml	89.3	80.30	1762	mg/g	
"	Dup	"	"	"	"	"	89.90	1973	mg/g	11%
"	Sample Tipped - will be spread	"	"	"	"	"	—	-		
↓	↓ 21944 mg/kg NS	↓	↓	↓	↓	↓	1032	22647	mg/g	95%
CCV	2000 mg/l	3-20-92	-	-		-	2001	2001	100%	
CCB	Empty Boat	↓	--	-		-	5.150	<5		
								ACCEPTED		
								MAR 26 1992		
								QA/QC		

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

SELF TEST
NO ERRORS
Project 9207-C9
Gail Day 3.20-

NO CAL -- 40 UL
1 TOC 1506
2 TOC 1499
3 TOC 1523
CAL -- 40 UL
CAL AVE 1509
CAL ADJ 1998

1 TOC 533.2 500 mg
2 TOC 3745 4000 mg
3 TOC 1933 2000 mg
4 TOC 2.239 Empty C
5 TOC 3417 .3 55
5 CANCELLED

TIMEOUT ERROR< 10%

6 TOC 1660

7 TOC 1287
7 CANCELLED

TIMEOUT ERROR< 10%

8 TOC 3811 1247

9 TOC 3081
9 CANCELLED 1247

TIMEOUT ERROR< 100%

10 TOC 37.23 Burn Body
11 TOC 19.58 Oil Blow
12 TOC 80.32 1355
13 TOC 89.98 Slurry Dump
14 TOC 485.3 spilled
15 TOC 1032 MS
16 TOC 2001 CCU
17 TOC 5.150 CCB

Geotechnical Results for Soil Boring Sample C26(0-6)

Geotech Results
for Sample
C26(0-6)

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dr.
St. Louis, Mo. 63114-5700
Attn: Paul Smith

DATE: MARCH 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

CH2M-HILL SITE ID: FA-SB-C26 (0-6)
TCT-ST. LOUIS LAB NO: 92001247
FILE ID #: 260006

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS:

This sample was received on February 28, 1992.

twin city testing
corporation
662 CROMWELL AVENUE
ST PAUL, MN 55114
PHONE 612/645-3601

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: FA-SB-C26 (0-6)

MECHANICAL ANALYSIS: **(See Attached Curve)**

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS: This sample was received on February 28, 1992.

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: FA-SB-C26 (0-6)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	97
#4	93
#10	88
#40	73
#100	43
#200	29
0.01 mm	11
0.005	8.0
0.0013	5.2

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 13.7%

REMARKS: This sample was received on February 28, 1992.

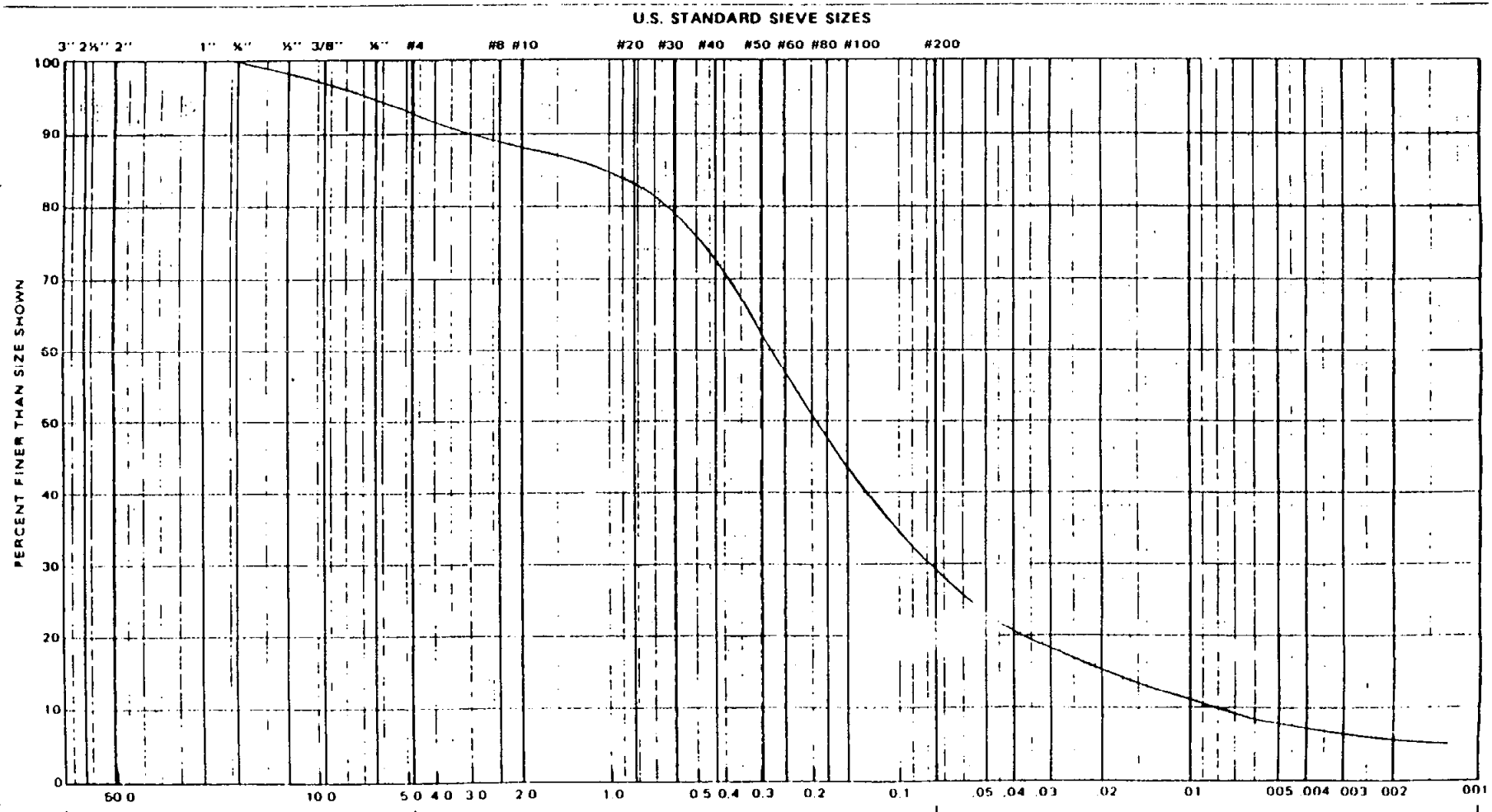
twin city testing corporation

Sample No. FA-SB-C26(0-6)

Project: CIPM - HICL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAVEL | FINES

SL-31 (75-B)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 5122-12-2055 Date 3 [illegible] Project Eng. _____ Tech. HH/LK Time _____

Boring No.														
Sample No.		Location:	FF SB-26C 0-6'											
BPF or Sample Type		Sample ID:	0131501C											
Depth (ft)														
Soil Type														

MOISTURE CONTENT (%)

Pan No.	2													
Wt. of Pan	7.96													
Wt. Pan & Wet Soil	230.08													
Wt. Pan & Dry Soil	203.29													
Moisture Loss	26.79													
Wt. Dry Soil	195.33													
% Moisture	13.7													

DRY DENSITY (PCF)

Wt. Dish														
Wt. Wet Sample														
Wt. Dish & Hg														
Wt. Hg														
Vol. Sample														
Wt. Dry Soil														
Actual Density														
Curve Density														

LIQUID LIMIT (%)

DS-SB-C31 8-10'

Blows (N)	25										22			
Pan No.	SL										ZB			
Wt. Pan	2.60										2.60			
Wt. Pan & Wet Soil	22.39										21.15			
Wt. Pan & Dry Soil	19.57										18.39			
Moisture Loss	2.82										2.76			
Wt. Dry Soil	16.97										15.79			
% Moisture	16.6										17.5			
Corrected LL	17										17.2			

PLASTIC LIMIT (%)

Pan No.	K 27										A0			
Wt. Pan	1.44										1.42			
Wt. Pan & Wet Soil	Plastic unattainable										10.39			
Wt. Pan & Dry Soil											9.23			
Moisture Loss											1.16			
Wt. Dry Soil											7.81			
% Moisture											14.9			

L.L. 2.3

SPECIFIC GRAVITY TESTS

Job No. 4122 02-0055 Project Eng ____ Table No ____ Technician ____ Date ____ Time ____

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____
TW@ ____ to ____ Ft. TW@ ____ t

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____
TW@ ____ to ____ Ft. TW@ ____ to ____

Sample No. ____ Boring No. ____ BPF @ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____
TW @ ____ to ____ Ft. TW@ ____ to ____

Sample No.	FA SB C-26		DS SB C-31			
Pycnometer No.	#43		#46			
WT. Pyc. (including CAP)						
Wt. Pyc. + Oven Dry Soil						
Wt. Oven Dry Soil (Wo)	72.87		52.41			
Wt. Pyc + H_2O @ 20° C (Wa)	343.03		343.03			
Wt. Pyc + H_2O + Soil @Tx(Wb)	388.80		376.05			
Temperature (Tx)	20°					
Correction Factor K	2.69		2.70			

Tx DEG. C	Relative H_2O Density	Corr., Factor K
18	0.998624	1.0004
19	0.998435	1.0002
20	0.998234	1.0000
21	0.9980233	0.9998
22	0.997802	0.9996
23	0.997570	0.9993
24	0.997329	0.9991
25	0.997077	0.9989
26	0.996816	0.9986
27	0.996545	0.9983
28	0.996626	0.9980
29	0.996598	0.9977
30	0.996678	0.9974

Pan # 46

1.99

$$Gs\ @\ 20°C = \frac{W_o}{W_o + (W_a - W_b)}$$

SL-3 (10-A)

GRAIN SIZE DISTRIBUTION TEST DATA

Test No.: 17

Date: 3/06/92
Project No.: 4122 02-0055
Project: CH 2 M-Hill

Sample Data

Location of Sample: FA-SB-C26(0-6)
Sample Description: SILTY SAND W/GRAVEL, FINE GRAINED
USCS Class: SM Liquid limit:
AASHTO Class: Plasticity index:

Notes

Remarks: SAMPLE NO.: 0131501C DEPTH (ft): 0 - 6
TYPE OF SAMPLE: BULK
Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
0.75 inches	19.05	100.0
0.375 inches	9.53	97.0
# 4	4.760	93.3
# 10	2.000	88.5
# 20	0.840	83.1
# 40	0.420	73.1
# 60	0.250	57.8
# 100	0.149	42.7
# 200	0.074	28.9

Hydrometer Analysis Data

Size, mm	Percent finer
0.0328	19.0
0.0210	15.9
0.0122	12.9
0.0088	9.8
0.0062	8.3
0.0031	6.7
0.0013	5.2

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 6.7 % SAND = 64.4
% SILT = 21.1 % CLAY = 7.8

D85= 1.07 D60= 0.268 D50= 0.194
D30= 0.0790 D15= 0.01728 D10= 0.00896
Cc = 2.6002 Cu = 29.8538

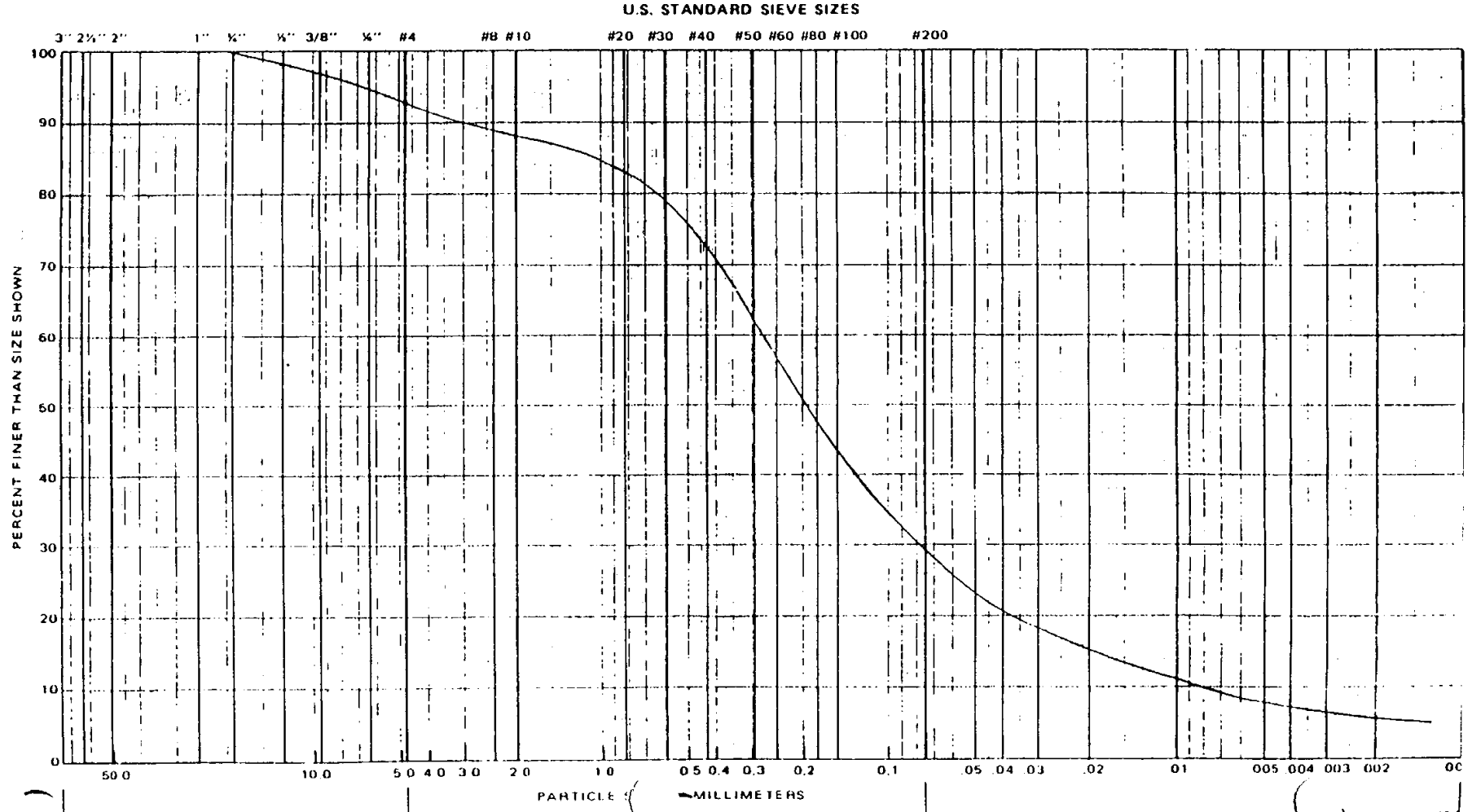
twin city testing corporation

Sample No. FA-SB-C26(0-6)

Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

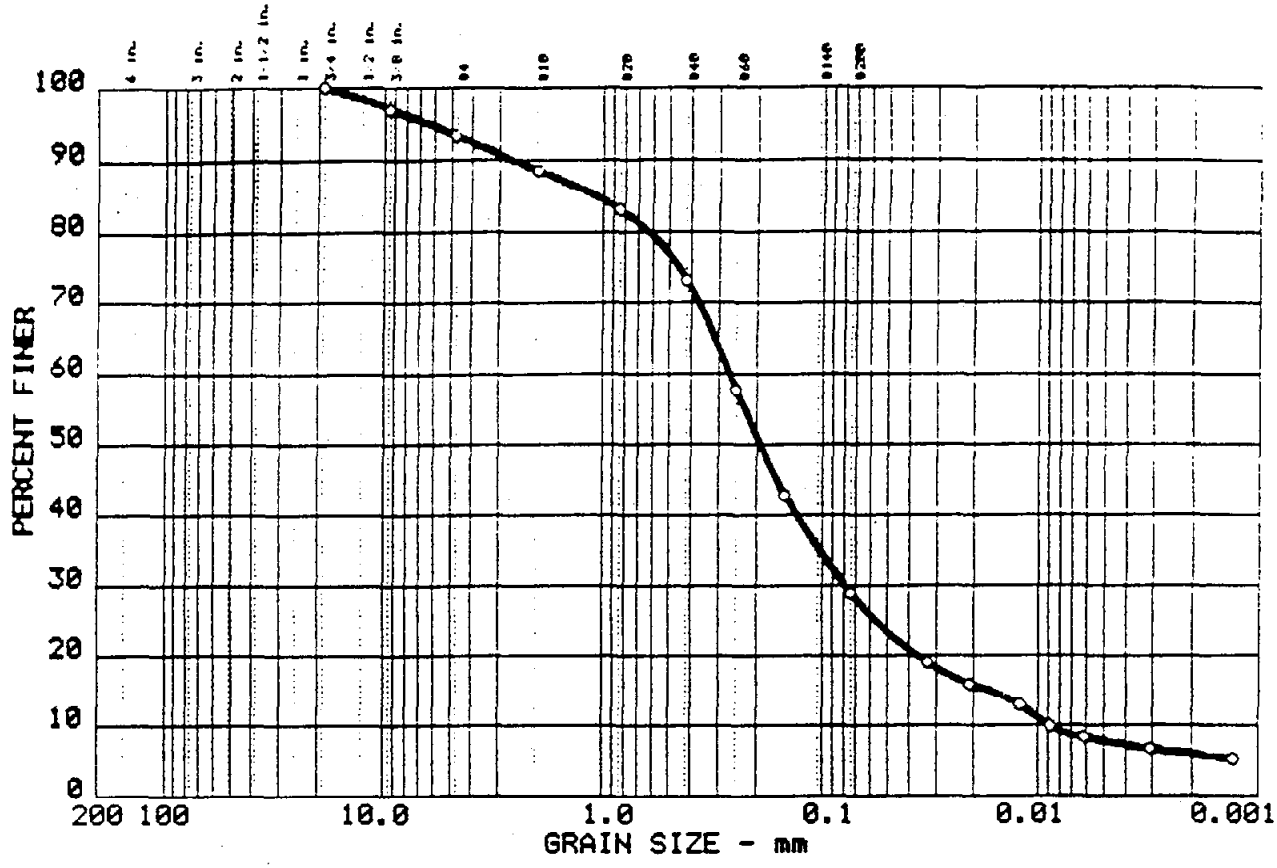
GRAIN SIZE DISTRIBUTION CURVE



GRAVEL

FINES

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75	% GRAVEL	% SAND	% SILT	% CLAY
o	17	0.0	6.7	64.4	21.1	7.8

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o			1.07	0.27	0.19	0.079	0.0173	0.0090	2.60	29.9

MATERIAL DESCRIPTION	USCS	AASHTO
o SILTY SAND W/GRAVEL, FINE GRAINED	SM	

Project No.: **4122 02-0055**
Project: CH 2 M-Hill
o Location: FA-SB-C26(0-6)

Date: 3/06/92

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Remarks:
SAMPLE NO.: 0131501C
DEPTH (ft): 0 - 6
TYPE OF SAMPLE: BULK

Figure No.

JOB NO. 4122 02-0055 PROJECT ENG. ___ TABLE NO. ___ TECHNICIAN HR DATE 3/4/92 TIME ___

Location ~~Boring No.~~ FA SB - C26 Sample No. 013150IC Depth 0 - 6'

Test	Orig MC	Hyd MC
Sample No.		
Pan No.	2	43
Wt. Pan	7.96	1.99
Wt. Pan & Wet Soil	230.08	75.22
Wt. Pan & Dry Soil	203.29	74.82
Moisture Loss	26.79	0.40
Wt. Dry Soil	195.33	72.83
Percent Moisture	13.7	0.55

SIEVE SIZES	WEIGHT (GRAMS)	PER CENT OF - #10	PER CENT OF TOTAL	% FINER TOTAL
RET. ON 1½"				
1½" - 1"				
1" - ¾"				100.0
¾" - ⅜"	36.91			97.0
⅜" - #4	45.60			93.3
#4 - #10	57.67			88.5
AFTER WASH	39.22			
#10 - #20	3.54	6.18		83.1
#20 - #40	6.48	11.31		73.1
#40 - #60	9.86	17.21		57.8
#60 - #100	9.79	17.09		42.7
#100 - #200	8.90	15.53		28.9
PASSING #200	0.65	32.68		

Hydrometer No. ___ Thermometer No. ___

Wt. Total Sample (air dry)	1230.22
Wt. Total Sample (oven dry)	1224.27
Wt. Passing #10 (air dry)	1090.04
Wt. Passing #10 (oven dry)	1084.09
Wt. Soil for Hyd Test (air dry)	57.60
Wt. Soil for Hyd Test (oven dry)	57.29

Time Soaked 3/4 11:50 ___ IN 125 ML OF SODIUM HEXAMETAPHOSPHATE MIXTURE

Time Stirred 3/5 1 min ___

Remarks:

CYL# A JAR# A PAN# ___

(~~Temp~~) Gs = 2.69 a = 0.9911

Date	11.00 Time	Interval Minutes (T)	Temp °C.	Hyd Reading	Temp Corr.	Corr. Hyd. Rdg.	L (Chart C)	K (Chart B)	$D=K\sqrt{\frac{L}{T}}$	Per Cent Finer -#10	Per Cent Finer Total
3/5	11:02	2	26	16	-3.6	12.4	13.7	0.01253	0.0328		19.0
	11:05	5	26	14	-3.6	10.4	14.0		0.0210		15.1
	11:15	15	26	12	-3.6	8.4	14.3		0.0122		12.1
	11:30	30	26	10	-3.6	6.4	14.7		0.0088		9.4
	12:00	60	26	9	-3.6	5.4	14.8		0.0062		8.6
	15:10	250	26	8	-3.6	4.4	15.0		0.0031		6.7
3/6	11:00	1440	26	7	-3.6	3.4	15.2	0.01253	0.0013		5.7

Classification ___

twin city testing corporation

TESTS OF SOIL

PROJECT : CH2M-Hill Project DATE:

REPORTED TO: Twin City Testing FURNISHED BY:

St. Paul, Mi COPIES TO:

Attn. Paul Smith

LABORATORY NO:

SAMPLE IDENTIFICATION FA-58-C26 (G-0)

MECHANICAL ANALYSIS (See attached curve)

Passing 3/4	100%
3/8	97
#4	93
#10	88
40	73
100	43
200	29
0.02 mm	11
0.005	8.0
0.003	5.2

ATTERBERG LIMITS

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT 13.7%

REMARK: This sample was received on Feb 28, 1992

Traffic Report & Chain of Custody Record

Pg 1 of 2

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.E.H.SL	STEPAN COMPANY	2-24-92	Fed X

Client Name: STEPAN COMPANY

Airbill Number: 9902904535

Project Manager: Mary Manto

Copy to:

Ship To: TCT- St. Louis, 1908 Innerbelt Bus. Center, St. Louis, MO 63114

Requested Comp. Date: Routine

Sampler (Name:): L. Gavin

CH2M HILL

Box No 1 — Preservation: 1 HCl; 2 HNO_3; 3 NaOH; 4 H_2SO_4; 5 Ice only; 6 Other (Specify); N Not preserved

Box No 2 — Sample Description: 1 Surface Water; 2 Ground Wate; 3 Rinsate; 4 Soil/Sediment; 5 Oil; 6 Waste; 7 Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med High	Sample Type: Comp / Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Carc. a-Lim. a-Phene	TCLP	HCH/CN	Radnuc	TOC	GEOTECH	TAL metals	6 Mets	Arsenic, Lead, Cadmium, Zinc	Date	Time	Remarks
FA-SB C34A (1-3)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1100	
FA-SB C34B (1-3)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1100	
FA-SB C34A (3-5)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1110	
FA-SB C34B (3-5)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	1120	
FA-SB C26 (6)	4	L	G	N									X			X	X	2-24-92	0905 to 0930	Per L. Gavin 2-25-92
~~FA-SB C34B (5-7)~~	~~4~~	~~L~~	~~G~~	~~N~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~				~~X~~			~~2-24-92~~	~~1120~~	
FA-SB C26A (0-2)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0905	
FA-SB C26A (2-4)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0910	
FA-SB C26 (4-6)	4	L	G	N	X	X	X	X	X		X				X			2-24-92	0920	

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
L. Gavin	2-24-92 1900	Fed X		2/25/92 800	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received (Signature)

SAMPLE TRACKING FORM

Sample # FA-SB-C26(0-6') Project # NJO22948.FA.SL Station # C26(0-6')

Sample Matrix Soil Sample Type Composite Field VOC Reading 7-10 ppm

Date Sampled 2-24-92 Time Sampled 0905 to 0930 Field Rad Reading α = 0-2

Logbook 2 Page # 64-66 β = 27-30

Name of Sampler L. Gavin

Sample Description Field Sample

FSL Results:

Gross Alpha	pCi/L	3.4 to 14.7	pCi/g
Gross Beta/Gamma	pCi/L	1.2 to 2.1	pCi/g

ARE THESE RESULTS ABOVE MGM LIMITS? YES NO

Liquid Limits - Alpha = 30 pCi/L, Beta = 500 pCi/L

Solid Limits - Alpha = 15 pCi/g, Beta = 50 pCi/g

Analytical Fraction	Number of Containers	SDG #	Lab QC Sample	Container Lot #	LAB	Date Shipped	Airbill #	Request Turn-around
FSL RAD SCREEN								
TCL VOC								
TCL BNA								
TCL PEST/PCB								
TAL METALS/CN								
d-LIMONENE, CAFFINE, α - PINENE								
RADIONUCLIDES								
TOC	1	25565		013160C				
GEOTECH → Grainsize & Moisture, Atterberg Limits	8 oz	↓		013591C				

THE SHADED AREA SHOULD BE FILLED OUT BY THE SAMPLE MANAGER. THE FIELD SAMPLING CREW SHOULD FILL OUT THE REMAINDER OF THE FORM PRIOR TO SAMPLE DELIVERY TO THE SAMPLE MANAGER.

Geotechnical Results for Soil Boring Sample C24(4-6)

Geotech Results
for Sample
C24(4-6)

REPORTED TO: Twin City Testing
1908 Innerbelt Business Center Dr.
St. Louis, Mo. 63114-5700
Attn: Paul Smith

DATE: MAY 28, 1992

PROJECT NUMBER: MJ022948.SW.SP

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: SR-SB-C24 (4-6)
TCT STL NO.- 92002356

MECHANICAL ANALYSIS: (See Attached Curve)

Passing #10*	100%
#20	98.6
#40	93.6
#60	86.2
#100	79.8
#200	71.0
0.0303 mm	44.5
0.0200	34.9
0.0122	22.0
0.0089	12.5
0.0064	9.3
0.0032	4.5
0.0013	2.9

ATTERBERG LIMITS:

Liquid Limit	20
Plasticity Index	1

MOISTURE CONTENT: 15.4%

REMARKS:
Fractional components: Sand 29.0%, Silt 63.3%, Clay 7.7%

GRAIN SIZE DISTRIBUTION TEST DATA

Test No

Date: 04/20/92
Project No.: 4122 02-0072
Project: CH2M -Hill

Sample Data

Location of Sample: SR-SB-C24
Sample Description: SANDY SILT
USCS Class: ML
AASHTO Class: A-4
Liquid limit: 20
Plasticity index: 1

Notes

Remarks: Depth: 4-6 ft.

Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
# 10	2.000	100.0
# 20	0.840	98.6
# 40	0.420	93.6
# 60	0.250	86.2
# 100	0.149	79.8
# 200	0.074	71.0

Hydrometer Analysis Data

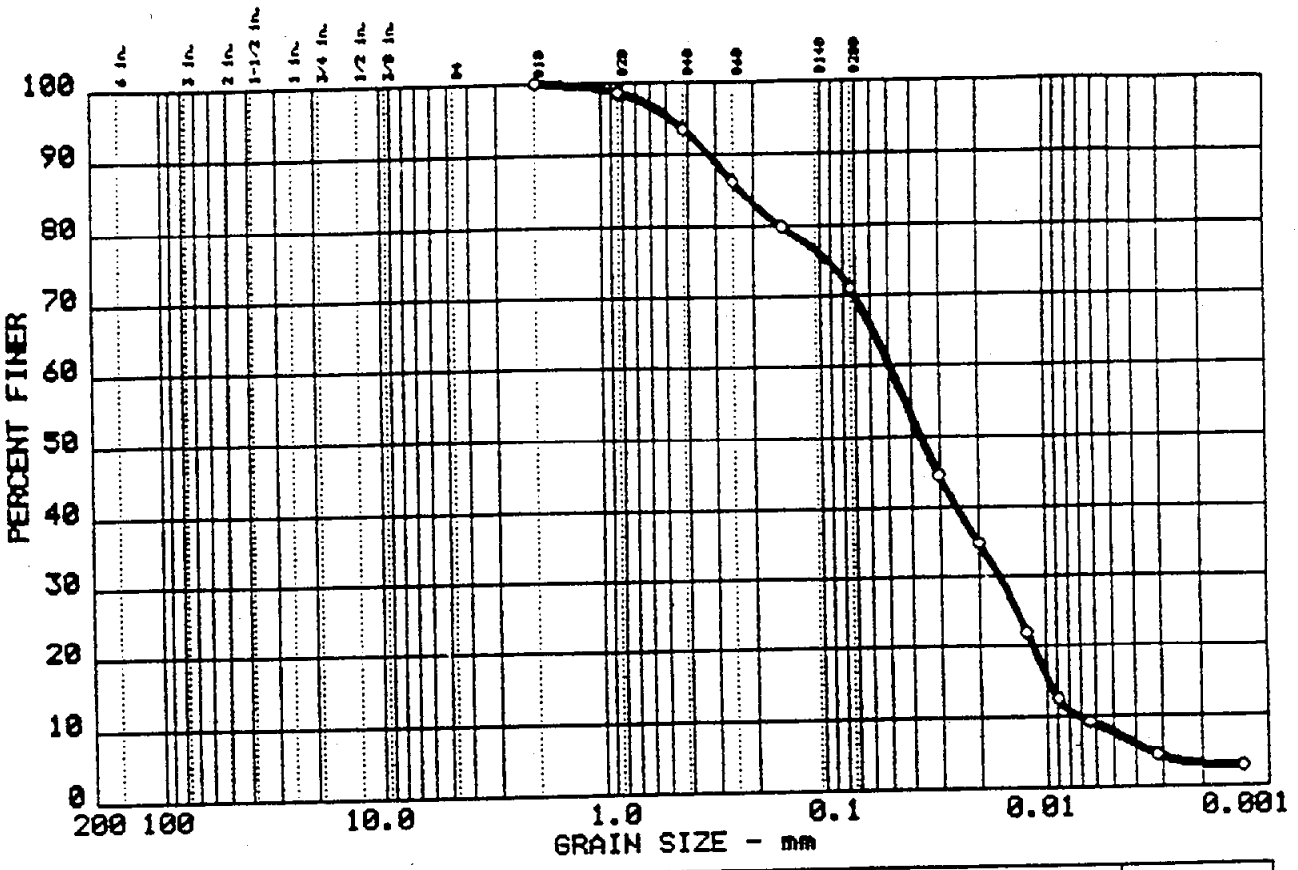
Size, mm	Percent finer
0.0303	44.5
0.0200	34.9
0.0122	22.0
0.0089	12.5
0.0064	9.3
0.0032	4.5
0.0013	2.9

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 29.0
% SILT = 63.3 % CLAY = 7.7

D85= 0.23 D60= 0.050 D50= 0.037
D30= 0.0161 D15= 0.00982 D10= 0.00719
Cc = 0.7295 Cu = 6.8865

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY
o	12	0.0	0.0	29.0	63.3	7.7

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o	20	1	0.23		0.04	0.016	0.0098	0.0072	0.73	6.9

MATERIAL DESCRIPTION	USCS	AASHTO
o SANDY SILT	ML	A-4

Project No.: 4122 02-0072
Project: CH2M -Hill
o Location: SR-SB-C24

Date: 04/20/92

Remarks:
Depth: 4-6 ft.

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

4122

HYDROMETER ANALYSIS

JOB NO. 02-0072 PROJECT ENG. D.V. TABLE NO. ____ TECHNICIAN HR DATE 4/16/92 TIME ____

Project: CH2M-Hill Location: SR-SB-C24 Depth: 4-6

Test	Drio MC	Hyd MC
Sample No.		
Pan No.	48	45
Wt. Pan	2.00	1.96
Wt. Pan & Wet Soil	63.80	61.92
Wt. Pan & Dry Soil	55.53	60.44
Moisture Loss	8.27	1.48
Wt. Dry Soil	53.53	58.48
Percent Moisture	15.4	2.5

SIEVE SIZES	WEIGHT (GRAMS)	PER CENT OF - #10	PER CENT OF TOTAL	% FINER TOTAL
RET. ON 1½"				
1½" - 1"				
1" - ¾"				
¾" - ⅜"				
⅜" - #4				
#4 - #10	—			100.0
AFTER WASH	18.30			
#10 - #20	0.88			98.
#20 - #40	3.12			93.
#40 - #60	4.57			86.
#60 - #100	4.04			79.
#100 - #200	5.46			71.
PASSING #200	0.23			

Hydrometer No. ____ Thermometer No. ____

Wt. Total Sample (air dry)	479.94
Wt. Total Sample (oven dry)	468.09
Wt. Passing #10 (air dry)	479.94
Wt. Passing #10 (oven dry)	468.09
Wt. Soil for Hyd Test (air dry)	63.79
Wt. Soil for Hyd Test (oven dry)	62.22

Time Soaked 4/17/92 11:30 ____ in 125ml of Sodium Hexametaphosphate Mixture

Time Stirred 4/20/92 ____ ____

Remarks: L.L. = 20.0 P.I. = 1.
P.L. = 19.0 1

CYL# A JAR# A PAN# ____

(EST) G_s = 0.9955 z = 2.67

Date	Time	Interval Minutes (T)	Temp °C.	Hyd Reading	Temp Corr.	Corr. Hyd. Rdg.	L (Chart C)	K (Chart B)	$D = K\sqrt{\frac{L}{t}}$	Per Cent F - #10	Per Cent F To
4/20	10:02	2	24	32	4.2	27.8	11.0	0.01294	0.0303	44.5	4
	10:05	5	24	26		21.8	12.0		0.0200	34.9	3
	10:15	15	24	18		13.8	13.3		0.0122	22.0	2
	10:30	30	24	12		7.8	14.3		0.0089	12.5	1
	11:00	60	24	10		5.8	14.7		0.0064	9.3	9
	14:10	250	24	9		2.8	15.1		0.0032	4.5	4
4/21	10:00	1440	24	6	4.2	1.8	15.3	0.01294	0.0013	2.9	2

Classification Sandy Silt

Geotech Results
for Sample
C31(8-10)

REPORTED TO: Twin City Testing Corporation
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	94
#4	87
#10	81
#40	68
#100	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 11.5%

REMARKS: This sample was received on March 3, 1992.

twin city testing corporation
662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORTED TO: Twin City Testing Corporation
1908 Innerbelt Business Center Dv
St. Louis, MO 63114-5700
Attn: Paul Smith

DATE: March 11, 1992

PROJECT NO: 4122 02-0055

COPIES TO:

PROJECT: CH2M - HILL PROJECT

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10)

MECHANICAL ANALYSIS: (See Attached Curve)

Passing 3/4"	100%
3/8"	94
#4	87
#10	81
#40	68
#100	50
#200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS:

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT: 11.5%

REMARKS: This sample was received on March 3, 1992.

-31 (75-B)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 4122 02 - 0072 Date 4/20/92 Project Eng. D. V. Tech. HR Time

Boring No.													
Sample No.													
PF or Sample Type													
Depth (ft)													
Soil Type													

MOISTURE CONTENT (%)

Can No.													
Wt. of Pan													
Wt. Pan & Wet Soil													
Wt. Pan & Dry Soil													
Moisture Loss													
Wt. Dry Soil													
% Moisture	15.4%												

PS 5-28 +2

DRY DENSITY (PCF)

Wt. Dish													
Wt. Wet Sample													
Wt. Dish & Hg													
Wt. Hg													
Vol. Sample													
Wt. Dry Soil													
Actual Density													
Curve Density													

LIQUID LIMIT (%)

Blows (N)	20												
Can No.	SP												
Wt. Pan	2.59												
Wt. Pan & Wet Soil	23.70												
Wt. Pan & Dry Soil	20.09												
Moisture Loss	3.61												
Wt. Dry Soil	17.50												
% Moisture	20.6												
Corrected LL	20.0												

PLASTIC LIMIT (%)

Can No.	AO												
Wt. Pan	1.43												
Wt. Pan & Wet Soil	17.36												
Wt. Pan & Dry Soil	14.82												
Moisture Loss	2.54												
Wt. Dry Soil	13.39												
% Moisture	19.0												

FOR HYDROMETER USING -- 40 Grams/1000 Liters

Wt. soil for Hydr. test (oven dry) : 62.22
Specific Gravity for Hydr. test : 2.67
a 0.9955

Retained on #10 sieve (% Total) : 100.00

Pass. # 200 70.97

Time	Temp C	Hyd Rdg	Temp coor.	Corr. Rdg.	L	K	D	% Finer -#10	% Finer Total
2	24.0	32.0	-4.20	27.80	11.0	0.01294	0.0303	44.48	44.48
5	24.0	26.0	-4.20	21.80	12.0	0.01294	0.0200	34.88	34.88
15	24.0	18.0	-4.20	13.80	13.3	0.01294	0.0122	22.08	22.08
30	24.0	12.0	-4.20	7.80	14.3	0.01294	0.0089	12.48	12.48
60	24.0	10.0	-4.20	5.80	14.7	0.01294	0.0064	9.28	9.28
240	24.0	7.0	-4.20	2.80	15.1	0.01294	0.0032	4.48	4.48
1440	24.0	6.0	-4.20	1.80	15.3	0.01294	0.0013	2.88	2.88

Total Sample (oven dry): 468.09

Passing #10 (oven dry): 468.09

Soil for Hyd. Test (oven dry): 62.22

Sieve Size	Wt. Grams	- #10	% Total	% Finer
1"	0.00	XXXXXXX	0.00	100.00
3/4"	0.00	XXXXXXX	0.00	100.00
3/8"	0.00	XXXXXXX	0.00	100.00
#4	0.00	XXXXXXX	0.00	100.00
#10	0.00	XXXXXXX	0.00	100.00
After Wash	18.30	XXXXXXX	XXXXXXX	XXXXXXX
#20	0.88	1.41	1.41	98.59
#40	3.12	5.01	5.01	93.58
#60	4.57	7.34	7.34	86.24
#100	4.04	6.49	6.49	79.75
#200	5.46	8.78	8.78	70.97
Pass. #200	0.23	70.96	70.96	XXXXXXX

Traffic Report & Chain of Custody Record

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.SRSL	STEPAN COMPANY	4-8-92	Fed X

Client Name	Airbill Number
STEPAN COMPANY	896927230 3

Project Manager	Copy to:	Ship To:
Mary Manto		TCT St. Louis

Requested Comp. Date: Routine

Sampler (Name:): L. Gavin

Box No 1 — Preservation
1 HCl
2 HNO3
3 NaOH
4 H_2SO_4
5 Ice only
6 Other (Specify)
N. Not preserved

Box No. 2 — Sample Descrip
1. Surface Wate
2. Ground Wate
3. Rinsate
4. Soil/Sediment
5. Oil
6. Waste
7. Other (Specify)

Station Number	Enter # from Box 2	Conc Low Med High	Sample Type Comp / Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Cont. d-Lim. p-Phenol	TCLP	Hex/CN	Radnuc	TOC	GEOTECH	TAL Metals		Date	Time	Remarks
~~SB03-F~~																			
SR-SB-C19 (0-2)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	1320	
SR-SB-C6 (0-2)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	1155	
SR-SB-C2 (3-4)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	1100	
SR-SB-C7 (0-2)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	1020	
SR-SB-C37 (3-4)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	0855	
DS-SB-C37D (0-2)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	0850	
DS-SB-C37 (0-2)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	0850	
SR-SB-C24 (4-6)	4	L	G	2									X	X			4-7-92	1115	Grainsize, % Moist., TOC
SR-SB-C19 (2-4)	4	L	G	2	X	X	X	X	X		X				X		4-8-92	1330	

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tina Gavin	4-8-92 1900	Fed X		4/9/92 800	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/ /				

GEOTECH

Geotechnical
Results for
Soil Boring
Sample C31(8-10)

SL-31 (75-8)

MOISTURE–DENSITY–ATTERBERG LIMIT TESTS

Job No. 4122-02-0055 Date 3/3/92 Project Eng. _____ Tech. AB/HR Time _____

Bc No.												
Sample No.			Location:	FA SB-26C	0-6'							
BPF or Sample Type			Sample ID:	0131501C								
Depth (ft)												
Soil Type												

MOISTURE CONTENT (%)

Pan No.	2											
Wt. of Pan	7.96											
Wt. Pan & Wet Soil	230.08											
Wt. Pan & Dry Soil	203.29											
Moisture Loss	26.79											
Wt. Dry Soil	195.33											
% Moisture	13.7											

DRY DENSITY (PCF)

Wt. Dish												
Wt. Wet Sample												
Wt Dish & Hg												
W. 6												
Vol. Sample												
Wt. Dry Soil												
Actual Density												
Curve Density												

LIQUID LIMIT (%)

DS-SB-C31 8-10'

Blows (N)	25						22					
Pan No.	SL						ZB					
Wt. Pan	2.60						2.60					
Wt. Pan & Wet Soil	22.39						21.15					
Wt. Pan & Dry Soil	19.57						18.39					
Moisture Loss	2.82						2.76					
Wt. Dry Soil	16.97						15.79					
% Moisture	16.6						17.5					
Corrected LL	17						17.2					

PLASTIC LIMIT (%)

Pan No.	K 27						A0					
Wt. Pan	1.44						1.42					
W n & Wet Soil	Not available						10.39					
Wt. Pan & Dry Soil							9.23					
Moisture Loss							1.16					
Wt. Dry Soil							7.81					
% Moisture							14.9					

SPECIFIC GRAVITY TESTS

Job No. 4122 02-0055 Project Eng ____ Table No ____ Technician ____ Date ____ Time ____

Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft
TW@ ____ to ____ Ft. TW@ ____ to ____ Ft

Sample No. ____ Boring No. ____ BPF@ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft
TW@ ____ to ____ Ft. TW@ ____ to ____ Ft

Sample No. ____ Boring No. ____ BPF @ ____ to ____ Ft. Sample No. ____ Boring No ____ BPF@ ____ to ____ Ft.
TW @ ____ to ____ Ft. TW@ ____ to ____ Ft.

Sample No.	FA SB C-26		DS SB C-31			
Pycnometer No.	#43		#46			
WT. Pyc. (including CAP)						
Wt. Pyc. + Oven Dry Soil						
Wt. Oven Dry Soil (Wo)	72.87		52.41			
Wt. Pyc + H_2O @ 20° C (Wa)	343.03		343.03			
Wt. Pyc + H_2O + Soil @Tx(Wb)	388.80		376.05			
Temperature (Tx)	20°					
Correction Factor K	2.69		2.70			

Tx DEG. C	Relative H_2O Density	Corr., Factor K
18	0.998624	1.0004
19	0.998435	1.0002
20	0.998234	1.0000
21	0.9980233	0.9998
22	0.997802	0.9996
23	0.997570	0.9993
24	0.997329	0.9991
25	0.997077	0.9989
26	0.996816	0.9986
27	0.996545	0.9983
28	0.996626	0.9980
29	0.996598	0.9977
30	0.996678	0.9974

Pan = 46

1.09

$$Ge\ 20°C = \frac{W_o}{W_o + (W_a - W_b)}$$

GRAIN SIZE DISTRIBUTION TEST DATA — Test No.: 19

Date: 03/09/92
Project No.: 4122 02-0055
P ect: CH 2 M-Hill

Sample Data

Location of Sample: DS-SB-C31
Sample Description:
USCS Class: SM — Liquid limit: 17
AASHTO Class: — Plasticity index: 2

Notes

Remarks: DETH (08 - 10)

Fig. No.:

Mechanical Analysis Data

Sieve	Size, mm	Percent finer
0.75 inches	19.05	100.0
0.375 inches	9.53	94.2
# 4	4.760	86.7
# 10	2.000	80.7
# 20	0.840	74.6
# ⌝	0.420	68.4
# ⌟	0.250	59.8
# 100	0.149	50.3
# 200	0.074	38.2

Hydrometer Analysis Data

Size, mm	Percent finer
0.0422	31.9
0.0312	26.6
0.0203	22.8
0.0122	16.6
0.0088	14.7
0.0056	12.0
0.0031	9.2
0.0013	6.8

Fractional Components

% + 3 in. = 0.0 % GRAVEL = 13.3 % SAND = 48.5
% SILT = 26.8 % CLAY = 11.4

D85= 3.89 D60= 0.251 D50= 0.146
D30= 0.0376 D15= 0.00933 D10= 0.00376
Cc = 1.4962 Cu = 66.8344

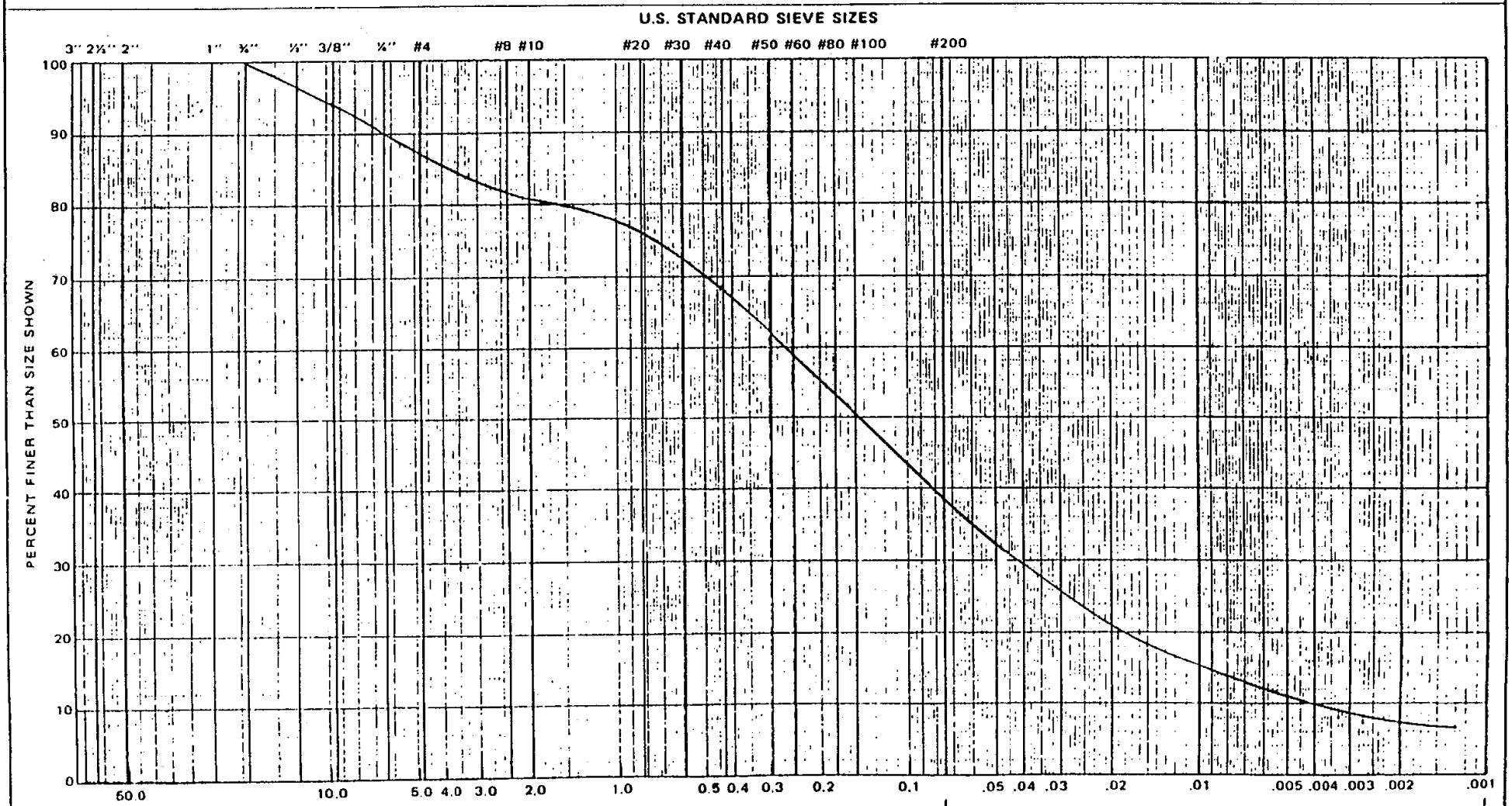
twin city testing corporation

Sample No. DS-SB-C31(8-10)

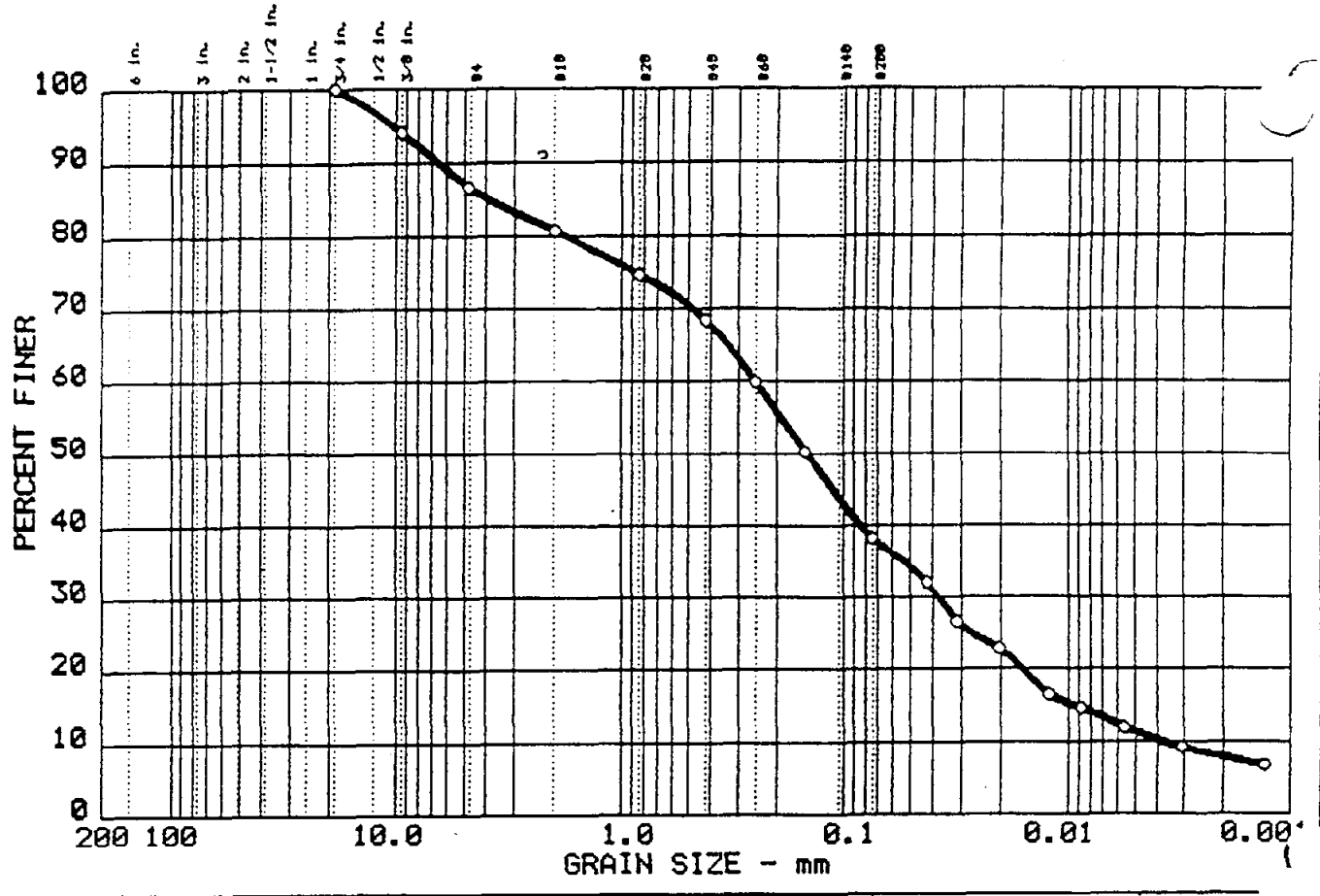
Project: CH2M - HILL PROJECT

Reported To: TCT-St. Louis, MO

GRAIN SIZE DISTRIBUTION CURVE



GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	%+75㎜	% GRAVEL	% SAND	% SILT	% CLAY
o	19	0.0	13.3	48.5	26.8	11.4

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
o	17	2	3.89	0.25	0.15	0.038	0.0093	0.0038	1.50	66.8

MATERIAL DESCRIPTION	USCS	AASHTO
o	SM	

Project No.: 4122 02-0055
Project: CH 2 M-Hill
o Location: DS-SB-C31

Date: 03/09/92

Remarks:

DETH (08 - 10)

GRAIN SIZE DISTRIBUTION TEST REPORT
TWIN CITY TESTING CORPORATION

Figure No.

twin city testing

HYDROMETER ANALYSIS OF SOIL (ASTM:D422)
(worksheet)

PROJECT CH2M-Hill 4122-02-0055 DATE 3/5/92

DRY WEIGHT OF SOIL (-#10) 83.58 HYDROMETER NO _____ SAMPLE NUMBER DS-SB-C31 (8-10)

SP GR OF SOIL 2.70 a = .9889 a/w x 100 = 1.183 OPERATOR Absente

(105)

Time	Interval T, (min)	Temp °C	Hyd Reading	Corr	Corr Reading	L	V L/T	K	D	Percent in Suspension	Percent of Total Sample
	1/2										
1116	1	21.5	37	3.6	33.4	10.2	3.194	.01320	.0422	39.5	31.9
907	2	↓	31.5		27.9	11.5	2.361		.0312	33.0	26.6
910	5	↓	27.5		23.9	11.8	1.536		.0203	28.3	22.8
920	15	21.5	21		17.4	12.9	0.927		.0122	20.6	16.6
935	30	21.5	19	↓	15.4	13.2	.663	↓	.0088	18.2	14.7
1055	~~60~~ 75	22	16	3.4	12.6	13.7	.427	.01312	.0056	14.9	12.0
115	250	22	13	↓	9.6	14.2	.238	↓	.0031	11.4	9.2
2105	1440	22	10.5	3.4	7.1	14.6	.101	↓	.0013	8.4	6.8

SIEVE ANALYSIS

TOTAL SAMPLE

On 2"	____	____	____
2 - 1 1/2	____	____	____
1 1/2 - 1	____	____	____
1 - 3/4	0	____	100
3/4 - 3/8	44.85	6.8	94.2
3/8 - #4	58.31	7.5	86.7
~~#4 Down~~	____	____	____
~~Check~~	____	____	____
~~Orig Wt~~	____	____	____
4-10	46.40	16.0	80.7
10 Down	629.74	80.7	____
Check	777.34	____	____
Orig Wt	____	____	____

HYDROMETER SAMPLE

	-#10			Overall
On #10	0	____	____	80.7
10-20	6.33	7.6	62.4	74.6
20-40	6.36	7.6	84.8	68.4
40-60	8.93	10.7	74.1	54.7
60-100	9.84	11.8	62.3	50.3
100-200	12.20	14.6	47.7	38.5
200-270	.21	47.7	____	____
270 Down	____	____	____	____
Check				
Orig Wt	83.68			
After Wash	43.86			
Loss	39.72			

L.L = 17.
P.L = 15
P.I = 2

MOISTURE CONTENT

t Wt	76.28	84.02
Dry Wt	75.82	
Loss	.60	
Mois. Cont	____	

#10 2

76.29 94.53
2.21 178.55
78.50 84.02
78.10
0.40

39.93
28.00
224.31
204.14
20.17
175.54

10

M.C. = 11.5%

SG-209(81-A)

twin city testing corporation

TESTS OF SOIL

PROJECT : CH2M-Hill Project DATE:

REPORTED TO: Twin City Testing FURNISHED BY:

St Louis MO COPIES TO:

Attn. Paul Smith

LABORATORY NO:

SAMPLE IDENTIFICATION: DS-SB-C31 (8-10) ~~FA-SB-C31 (0-6)~~

MECHANICAL ANALYSIS: (See attached curve)

Passing 3/4"	100 %
3/8"	94
# 4	87
# 10	81
40	68
(0)	50
200	38
0.01 mm	15
0.005	11
0.0013	6.8

ATTERBERG LIMITS

Liquid Limit	17
Plastic Limit	15
Plasticity Index	2

MOISTURE CONTENT 11.5 %

11

Traffic Report & Chain of Custody Record — of 2

CH2M HILL

Project Number	Project Name	Date Shipped	Carrier
NJO 22948.[illegible]	STEPAN COMPANY	2.27.92	FED-X

Client Name	Airbill Number
STEPAN COMPANY	366702832 6

Project Manager	Copy to:	Ship To:
Mary Manto		TCT ST. LOUIS 1908 INNERBELT BUSINESS CTR ST. LOUIS, MO 63114

Requested Comp. Date: ROUTINE

Sampler (Name:): L. GRAIN

Box No. 1 — Preservation: 1. HCl; 2. HNO3; 3. NaOH; 4. H_2SO_4; 5. Ice only; 6. Other (Specify); N. Not preserved

Box No. 2 — Sample Description: 1. Surface Water; 2. Ground Wate; 3. Rinsate; 4. Soil/Sediment; 5. Oil; 6. Waste; 7. Other (Specify)

Station Number	Enter # from Box 2	Conc. Low Med. High	Sample Type: Comp./ Grab	Preservative from Box 1	Analysis Requested: TCL-VOA	TCL-BNA	TCL-PEST	TCL-PCB	Catt. α-Lim. α-Pinene	TCLP	TCN/CN	Radnuc	TOC	GEOTECH.	TAL metals			Date	Time	Remarks
~~DS-SB-C31(5-7)~~	4	LOW	GRAB	5	X	X	X	X	X		X		X	X	X			2-25-92	0850	~~GEOTECH = ATTERBERG limit, Permeability~~
SC-SB-C15(E-7)	4	LOW	GRAB	5	X	X	X	X	X		X				X			2-26-92	1430	
DS-SB-C31(8-10)	4	LOW	GRAB	5									X	X				2-25-92	0850	Grain size GEOTECH = ATTERBERG limit, Permeability
DS-SS-BH-1	7*	*	GRAB	5	X	X	X	X	X		X							2-25-92	1400	* SLUDGE MATERIAL; NO TARGET COMPOUND ORGANIC OR INORGANIC CONTAMINANTS
SC-SB-FB10	3	LOW	GRAB	1	X													2-26-92	1800	
SC-SB-FB-10	3	LOW	GRAB	5		X	X	X	X						X	per Inorg		2-26-92	1800	
SC-SB-FB-10	3	LOW	GRAB	3							X				U-04			2-26-92	1800	
SC-SB-FB-10	3	LOW	GRAB	2											X			2-26-92	1800	
SC-SB-C15(3-5)	4	LOW	GRAB	5	X	X	X	X	X		X				X			2-26-92	1420	
SC-SB-C15(6-7)	4	LOW	GRAB	5	X	X	X	X	X		X				X			2-26-92	1400	
~~SC-SB-C31(8-10)~~																				

Chain of Custody Record

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Laura Grain	2-27-92 2000	Fed X			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks	Is custody seal intact? Y/N/none
			3/2/92 10:00	Sample Temp. 15°C	

STEPAN NJO22948.SM

SAMPLE TRACKING FORM

Sample # DS-SB-C31(8-10)
Project # NJO22948 DS.SL
Station # C31(8-10)

Sample Matrix Soil
Sample Type GRAB
Field VOC Reading 1

Date Sampled 2-25-92
Time Sampled 08 : 50
Field Rad Reading α = 2 cpm

Logbook # 2
Page # 71
β/γ = 28 cpm

Name of Sampler L. GAVIN, M. SNIPE

Sample Description FIELD SAMPLE

FSL Results:

Gross Alpha	pCi/L	10.5 pCi/g	(Circle One)
Gross Beta/Gamma	pCi/L	1.5 pCi/g	

ARE THESE RESULTS ABOVE MGM LIMITS? YES (NO)

Liquid Limits - Alpha = 30 pCi/L, Beta = 500 pCi/L

Solid Limits - Alpha = 15 pCi/g, Beta = 50 pCi/g

Analytical Fraction	Number of Containers	SDG #	Lab QC Sample	Container Lot #	LAB	Date Shipped	Airbill #	Request Turnaround
FSL RAD SCREEN								
TCL VOC								
TCL BNA								
TCL PEST/PCB								
TAL METALS/CN								
d-LIMONENE, CAFFINE, α - PINENE								
RADIONUCLIDES								
TOC	1		NA	0131501C	TCT	2-27-92	3474830	Routi[illegible]
GEOTECH 1 - % MOISTURE, 4 - ATTERBERG LIMIT & GRAIN SIZE	5		↓	013150K	↓	↓	↓	↓

THE SHADED AREA SHOULD BE FILLED OUT BY THE SAMPLE MANAGER. THE FIELD SAMPLING CREW SHOULD FILL OUT THE REMAINDER OF THE FORM PRIOR TO SAMPLE DELIVERY TO THE SAMPLE MANAGER.

Appendix V
X-Ray Diffraction Results

Ricerca, Inc.
Analytical Services Report

--- 10 1992

TO: Scott Vozza - CH 2M Hill
FROM: A. C. Gallacher
DATE: June 5, 1992

SUBJECT: XRD ANALYSIS OF BLUE SOLID

A specimen of the supplied sample was prepared by drying at ~100 °C overnight and reducing the specimen to a fine blue powder. The specimen was mounted on an aluminum window holder and analyzed by x-ray diffraction, XRD, to determine what crystalline phase(s) may be present. The results were as follows:

XRD RESULTS

Sample ID	Crystalline Phases Identified
DS-65-BM-2 GS (SV)	$CaSO_4.2H_2O$ (gypsum) and $CaSO_4.0.5H_2O$ (bassinite)

NOTE: It is highly probably that in the drying process, water was lost and bassinite was formed from gypsum. It was observed that upon baking (high temperature) a specimen of the sample, the blue color disappears and colorless $CaSO_4$ (anhydrite) remains.

A copy of the XRD pattern and data are enclosed. If I can be of any further assistance, please do not hesitate to contact me at 216/357-3307.

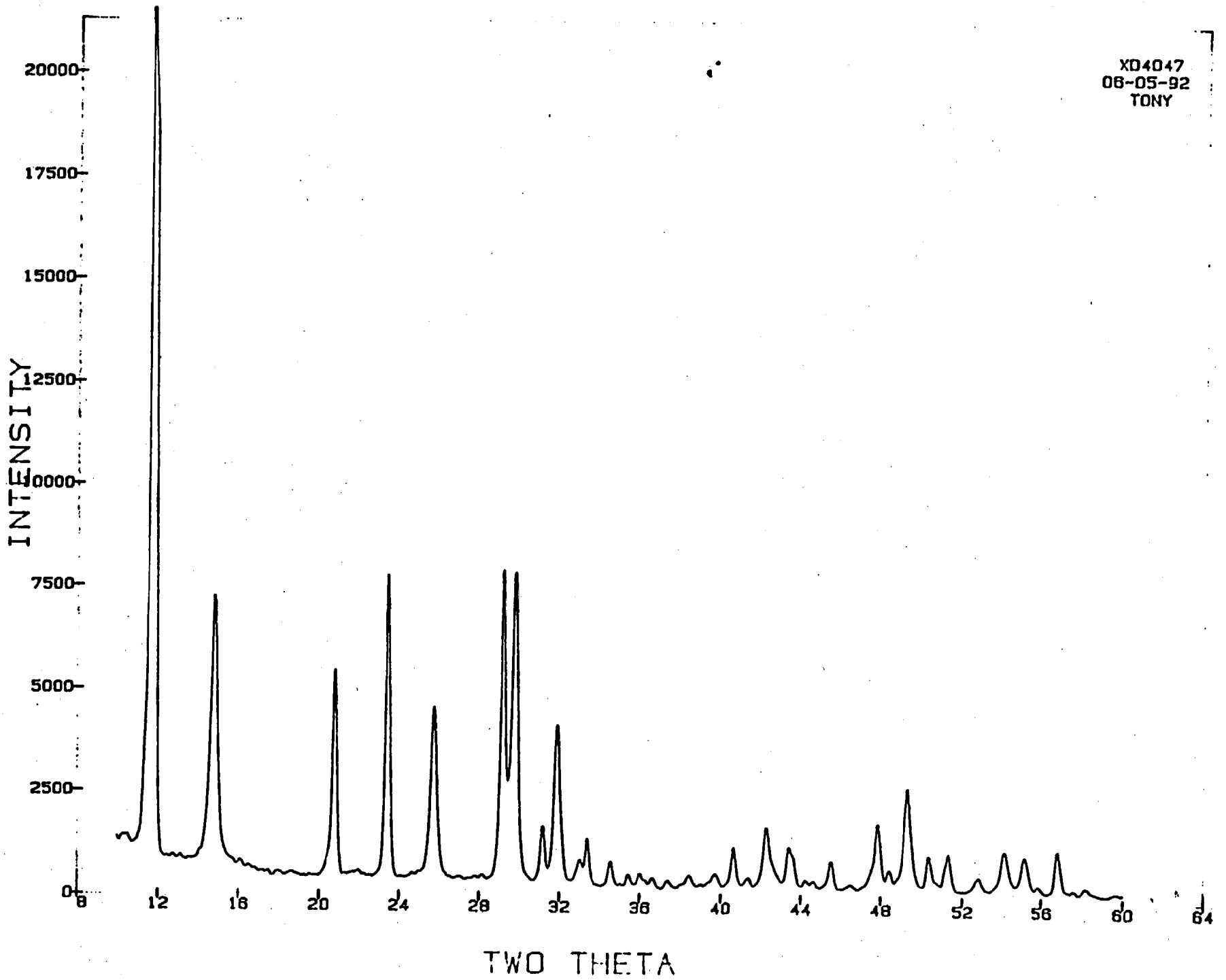
Anthony C. Gallacher

jsh/257

File No.: 9200487X
Notebook Ref.: 20860-86

Reviewed By:

7528 Auburn Road • Painesville, Ohio U.S.A. 44077-1000 • Fax 216/354-6276 • Phone 216/357-3261


XD4047
06-05-92
TONY
INTENSITY
20000
17500
15000
12500
10000
7500
5000
2500
0
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
TWO THETA

CORRECTED FOR VARIABLE SLIT WIDTH

[illegible]

T-MIN = 1000

T-MAX = 2000

STEP = 5

DATA WENT THROUGH 1 CYCLE OF [illegible]

2.00 1.00

11.75	41738.4	7.535	100
14.55	5342.5	5.960	15
20.40	434.5	4.755	[illegible]
20.80	5251.5	4.337	12
23.45	7433.7	3.790	17
25.75	4228.9	3.457	12
26.15	7433.4	3.361	17
29.80	7524.7	2.994	17
31.15	1339.2	2.867	3
31.90	3835.1	2.801	5
33.00	551.5	2.712	1
33.40	1095.4	2.680	3
34.55	560.4	2.594	1
35.45	302.5	2.530	1
36.05	337.9	2.489	1
38.45	317.7	2.339	1
39.75	363.9	2.266	1
40.70	1010.8	2.215	2
41.40	274.1	2.179	1
42.30	1503.7	2.135	3
42.70	502.6	2.116	1
42.85	333.5	2.109	1
43.40	1022.3	2.083	2
43.65	768.5	2.072	2
44.25	228.7	2.045	1
45.55	699.9	1.990	2
47.55	464.4	1.911	1
47.90	1609.7	1.897	4
48.40	489.0	1.879	1
48.80	276.8	1.865	1
49.35	2483.4	1.845	6
50.35	853.1	1.811	2
50.75	214.6	1.797	0
51.15	545.6	1.784	1
51.35	918.9	1.778	2
52.90	315.0	1.729	1
54.15	999.5	1.692	3
55.15	881.6	1.664	2
55.30	649.9	1.650	1
56.80	1050.3	1.619	2
56.95	651.5	1.616	1

Appendix W
Test-Pit Analytical Data

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248
AR6	11097-69-1	AROCLOR-1254

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BBK		BENZO (B&K) FLUORANTHENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
S01		GROSS ALPHA, TOTAL
S02		GROSS BETA, TOTAL
S03		RADIUM 226, TOTAL
S04		RADIUM 228, TOTAL
S05		THORIUM 230, TOTAL
S06		THORIUM 232, TOTAL
S07		URANIUM 234, TOTAL
S08		URANIUM 235, TOTAL
S09		URANIUM 238, TOTAL
S11		URANIUM NATURAL, TOTAL (UNAT)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
CD	7440-43-9	CADMIUM
CR	7440-47-3	CHROMIUM
PB	7439-92-1	LEAD
HG	7439-97-6	MERCURY
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
24A	94-75-7	2,4-D
BHG	58-89-9	BHC-GAMMA(LINDANE)
CRD	57-74-9	CHLORDANE
END	78-20-8	ENDRIN
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
235	93-72-1	SILVEX
TXP	8001-35-2	TOXAPHENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
2MP	95-48-7	2-METHYLPHENOL
3MP	208-39-4	3-METHYLPHENOL
4MP	106-44-5	4-METHYLPHENOL
CRE	93-51-6	CRESOL
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE
HET	67-72-1	HEXACHLOROETHANE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PRD	120-86-1	PYRIDINE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
2BU	78-93-3	2-BUTANONE
BEN	71-43-2	BENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CFM	67-66-3	CHLOROFORM
PCE	127-18-4	TETRACHLOROETHENE
TCE	79-01-6	TRICHLOROETHENE
VC	75-01-4	VINYL CHLORIDE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

Volatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
111	1,1,1-TRICHLOROETHANE	UG/KG	23	2	0.0870	320.000	760,000.000	380,160.000	379,840.000
112	1,1,2-TRICHLOROETHANE	UG/KG	23	1	0.0435	530,000.000	530,000.000	530,000.000	0.000
11A	1,1-DICHLOROETHANE	UG/KG	23	1	0.0435	550,000.000	550,000.000	550,000.000	0.000
1DE	1,1-DICHLOROETHENE	UG/KG	23	2	0.0870	330.000	740,000.000	370,165.000	369,835.000
12A	1,2-DICHLOROETHANE	UG/KG	23	1	0.0435	360,000.000	360,000.000	360,000.000	0.000
DCE	1,2-DICHLOROETHENE (TOTAL)	UG/KG	23	2	0.0870	440.000	1,100,000.000	550,220.000	549,780.000
12P	1,2-DICHLOROPROPANE	UG/KG	23	1	0.0435	540,000.000	540,000.000	540,000.000	0.000
2BU	2-BUTANONE	UG/KG	3	2	0.6667	110.000	190.000	150.000	40.000
4M2	4-METHYL-2-PENTANONE	UG/KG	23	2	0.0870	11.000	530,000.000	265,005.500	264,994.500
ACT	ACETONE	UG/KG	23	14	0.6087	71.000	30,000.000	6,024.357	8,523.788
BEN	BENZENE	UG/KG	23	12	0.5217	11.000	1,100,000.000	101,380.333	301,678.142
BDM	BROMODICHLOROMETHANE	UG/KG	23	1	0.0435	400,000.000	400,000.000	400,000.000	0.000
BFM	BROMOFORM	UG/KG	23	1	0.0435	390,000.000	390,000.000	390,000.000	0.000
BRM	BROMOMETHANE	UG/KG	23	1	0.0435	390,000.000	390,000.000	390,000.000	0.000
CDS	CARBON DISULFIDE	UG/KG	23	3	0.1304	19.000	560,000.000	186,733.000	263,939.635
CCL	CARBON TETRACHLORIDE	UG/KG	23	2	0.0870	330.000	900,000.000	450,165.000	449,835.000
CBN	CHLOROBENZENE	UG/KG	23	1	0.0435	620,000.000	620,000.000	620,000.000	0.000
CFM	CHLOROFORM	UG/KG	23	4	0.1739	35.000	550,000.000	137,733.750	238,022.133
C13	CIS-1,3-DICHLOROPROPENE	UG/KG	23	1	0.0435	190,000.000	190,000.000	190,000.000	0.000
DBC	DIBROMOCHLOROMETHANE	UG/KG	23	1	0.0435	340,000.000	340,000.000	340,000.000	0.000
EBN	ETHYLBENZENE	UG/KG	23	7	0.3043	58.000	960,000.000	140,555.429	334,570.509
MCL	METHYLENE CHLORIDE	UG/KG	23	3	0.1304	39.000	670,000.000	223,443.000	315,763.500
STY	STYRENE	UG/KG	23	3	0.1304	230.000	550,000.000	183,533.333	259,131.071
PCE	TETRACHLOROETHENE	UG/KG	23	2	0.0870	350.000	850,000.000	425,175.000	424,825.000
TOL	TOLUENE	UG/KG	23	13	0.5652	8.000	860,000.000	79,864.077	227,243.800
T13	TRANS-1,3-DICHLOROPROPENE	UG/KG	23	1	0.0435	710,000.000	710,000.000	710,000.000	0.000
TCE	TRICHLOROETHENE	UG/KG	23	1	0.0435	770,000.000	770,000.000	770,000.000	0.000
XY	XYLENE (TOTAL)	UG/KG	23	11	0.4783	300.000	4,000,000.000	393,045.455	1,141,649.958

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:	00000	00000	00000	00000	DUP
STATION ID:	TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:			4.00		
1,1,1-TRICHLOROETHANE UG/KG	760000DY	320DYJ	36UY	34UYJ	1400UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	620000UY	870UY	36UYJ	34UYJ	1400UYJ
1,1,2-TRICHLOROETHANE UG/KG	5300000DYJ	870UY	36UY	34UYJ	1400UYJ
1,1-DICHLOROETHANE UG/KG	5500000DYJ	870UY	36UY	34UYJ	1400UYJ
1,1-DICHLOROETHENE UG/KG	7400000DY	330DYJ	36UY	34UYJ	1400UYJ
1,2-DICHLOROETHANE UG/KG	3600000DYJ	870UY	36UY	34UYJ	1400UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	11000000DY	440DYJ	36UY	34UYJ	1400UYJ
1,2-DICHLOROPROPANE UG/KG	5400000DYJ	870UY	36UY	34UYJ	1400UYJ
2-BUTANONE UG/KG	UYR	UYR	UYR	190DYJ	UYR
2-HEXANONE UG/KG	1200000UY	1700UY	72UYJ	67UYJ	2900UYJ
4-METHYL-2-PENTANONE UG/KG	530000DYJ	1700UY	72UY	67UYJ	2900UYJ
ACETONE UG/KG	1200000UY	15000DY	750DYJ	1300DYJ	4400DYJ
BENZENE UG/KG	11000000DY	1400DY	35DYJ	34UYJ	1400UYJ
BROMODICHLOROMETHANE UG/KG	4000000DYJ	870UY	36UY	34UYJ	1400UYJ
BROMOFORM UG/KG	3900000DYJ	870UY	36UY	34UYJ	1400UYJ
BROMOMETHANE UG/KG	3900000DYJ	1700UY	72UY	67UYJ	2900UYJ
CARBON DISULFIDE UG/KG	5600000DYJ	180DYJ	36UY	34UYJ	1400UYJ
CARBON TETRACHLORIDE UG/KG	9000000DY	330DYJ	36UY	34UYJ	1400UYJ
CHLOROBENZENE UG/KG	6200000DYJ	870UY	36UY	34UYJ	1400UYJ
CHLOROETHANE UG/KG	1200000UY	1700UY	72UY	67UYJ	2900UYJ
CHLOROFORM UG/KG	5500000DYJ	250DYJ	36UY	34UYJ	1400UYJ
CHLOROMETHANE UG/KG	1200000UY	1700UY	72UY	67UYJ	2900UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	1900000DYJ	870UY	36UY	34UYJ	1400UYJ
DIBROMOCHLOROMETHANE UG/KG	3400000DYJ	870UY	36UY	34UYJ	1400UYJ
ETHYLBENZENE UG/KG	9600000DY	7200DY	58DY	34UYJ	1400UYJ
METHYLENE CHLORIDE UG/KG	6700000DY	290DYJ	36UY	79UYJ	1400UYJ
STYRENE UG/KG	5500000DYJ	870UY	36UY	34UYJ	1400UYJ
TETRACHLOROETHENE UG/KG	8500000DY	350DYJ	36UY	34UYJ	1400UYJ
TOLUENE UG/KG	8600000DY	500DYJ	51DY	41DYJ	1400UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	7100000DY	870UY	36UY	34UYJ	1400UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:		00000	00000	00000	00000	DUP
STATION ID:		TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:		05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:				4.00		
TRICHLOROETHENE	UG/KG	7700000DY	870UY	36UY	34UYJ	1400UYJ
VINYL ACETATE	UG/KG	12000000UY	1700UY	72UY	67UYJ	2900UYJ
VINYL CHLORIDE	UG/KG	12000000UY	1700UY	72UY	67UYJ	2900UYJ
XYLENE (TOTAL)	UG/KG	40000000DY	48000DY	500DY	34UYJ	1400UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,1,2-TRICHLOROETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,1-DICHLOROETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,1-DICHLOROETHENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,2-DICHLOROETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	8UY	6UY	8UY	9UY	6UYJ
1,2-DICHLOROPROPANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
2-BUTANONE UG/KG	110DY	UYR	UYR	UYR	12UYJ
2-HEXANONE UG/KG	16UY	12UY	16UY	18UY	12UYJ
4-METHYL-2-PENTANONE UG/KG	16UY	12UY	16UY	18UY	12UYJ
ACETONE UG/KG	1100UY	12UY	71DYJ	120DYJ	12UYJ
BENZENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
BROMODICHLOROMETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
BROMOFORM UG/KG	8UY	6UY	8UY	9UY	6UYJ
BROMOMETHANE UG/KG	16UY	12UY	16UY	18UY	12UYJ
CARBON DISULFIDE UG/KG	8UY	6UY	8UY	9UY	6UYJ
CARBON TETRACHLORIDE UG/KG	8UY	6UY	8UY	9UY	6UYJ
CHLOROBENZENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
CHLOROETHANE UG/KG	16UY	12UY	16UY	18UY	12UYJ
CHLOROFORM UG/KG	8UY	6UY	8UY	9UY	6UYJ
CHLOROMETHANE UG/KG	16UY	12UY	16UY	18UY	12UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
DIBROMOCHLOROMETHANE UG/KG	8UY	6UY	8UY	9UY	6UYJ
ETHYLBENZENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
METHYLENE CHLORIDE UG/KG	16UY	6UY	29UY	39DY	6UYJ
STYRENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
TETRACHLOROETHENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
TOLUENE UG/KG	55DY	6UY	8UY	9UY	6UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	8UY	6UY	8UY	9UY	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
TRICHLOROETHENE UG/KG	8UY	6UY	8UY	9UY	6UYJ
VINYL ACETATE UG/KG	16UY	12UY	16UY	18UY	12UYJ
VINYL CHLORIDE UG/KG	16UY	12UY	16UY	18UY	12UYJ
XYLENE (TOTAL) UG/KG	8UY	6UY	8UY	9UY	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
1,1,2,2-TETRACHLOROETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
1,1,2-TRICHLOROETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
1,1-DICHLOROETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
1,1-DICHLOROETHENE UG/KG	820UY	780UY	790UY	40UY	8UY
1,2-DICHLOROETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	820UY	780UY	790UY	40UY	8UY
1,2-DICHLOROPROPANE UG/KG	820UY	780UY	790UY	40UY	8UY
2-BUTANONE UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
4-METHYL-2-PENTANONE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
ACETONE UG/KG	1600UY	9200DY	30000DY	8200YJ	2300YJ
BENZENE UG/KG	1900DY	860DY	1900DY	40UY	8UY
BROMODICHLOROMETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
BROMOFORM UG/KG	820UY	780UY	790UY	40UY	8UY
BROMOMETHANE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
CARBON DISULFIDE UG/KG	820UY	780UY	790UY	40UY	8UY
CARBON TETRACHLORIDE UG/KG	820UY	780UY	790UY	40UY	8UY
CHLOROBENZENE UG/KG	820UY	780UY	790UY	40UY	8UY
CHLOROETHANE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
CHLOROFORM UG/KG	820UY	780UY	790UY	40UY	8UY
CHLOROMETHANE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
CIS-1,3-DICHLOROPROPENE UG/KG	820UY	780UY	790UY	40UY	8UY
DIBROMOCHLOROMETHANE UG/KG	820UY	780UY	790UY	40UY	8UY
ETHYLBENZENE UG/KG	250DYJ	780UY	180DYJ	40UY	8UY
METHYLENE CHLORIDE UG/KG	820UY	780UY	790UY	40UY	8UY
STYRENE UG/KG	230DYJ	780UY	790UY	40UY	8UY
TETRACHLOROETHENE UG/KG	820UY	780UY	790UY	40UY	8UY
TOLUENE UG/KG	570DYJ	900DY	2000DY	8DYJ	8UY
TRANS-1,3-DICHLOROPROPENE UG/KG	820UY	780UY	790UY	40UY	8UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
TRICHLOROETHENE UG/KG	820UY	780UY	790UY	40UY	8UY
VINYL ACETATE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
VINYL CHLORIDE UG/KG	1600UY	1600UY	1600UY	80UY	17UY
XYLENE (TOTAL) UG/KG	1600DY	2400DY	3800DY	40UY	8UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,1,2,2-TETRACHLOROETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,1,2-TRICHLOROETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,1-DICHLOROETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,1-DICHLOROETHENE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,2-DICHLOROETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,2-DICHLOROETHENE (TOTAL) UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
1,2-DICHLOROPROPANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
2-BUTANONE UG/KG	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
4-METHYL-2-PENTANONE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
ACETONE UG/KG	17000UYJ	1600UYJ	13000UYJ	6100DYJ	150DYJ
BENZENE UG/KG	64000DY	11000DY	35000DY	1300UYJ	68DYJ
BROMODICHLOROMETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
BROMOFORM UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
BROMOMETHANE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
CARBON DISULFIDE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
CARBON TETRACHLORIDE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
CHLOROBENZENE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
CHLOROETHANE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
CHLOROFORM UG/KG	8500UY	800UY	6400UY	650DYJ	13UYJ
CHLOROMETHANE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
CIS-1,3-DICHLOROPROPENE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
DIBROMOCHLOROMETHANE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
ETHYLBENZENE UG/KG	8500UY	2200DY	14000DY	1300UYJ	13UYJ
METHYLENE CHLORIDE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
STYRENE UG/KG	8500UY	370DYJ	6400UY	1300UYJ	13UYJ
TETRACHLOROETHENE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
TOLUENE UG/KG	94000DY	4100DY	76000DY	1300UYJ	13UYJ
TRANS-1,3-DICHLOROPROPENE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
TRICHLOROETHENE UG/KG	8500UY	800UY	6400UY	1300UYJ	13UYJ
VINYL ACETATE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
VINYL CHLORIDE UG/KG	17000UY	1600UY	13000UY	2600UYJ	26UYJ
XYLENE (TOTAL) UG/KG	160000DY	10000DY	91000DY	5900DYJ	13UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE UG/KG	57UYJ	34UY	7UY
1,1,2,2-TETRACHLOROETHANE UG/KG	57UYJ	34UY	7UY
1,1,2-TRICHLOROETHANE UG/KG	57UYJ	34UY	7UY
1,1-DICHLOROETHANE UG/KG	57UYJ	34UY	7UY
1,1-DICHLOROETHENE UG/KG	57UYJ	34UY	7UY
1,2-DICHLOROETHANE UG/KG	57UYJ	34UY	7UY
1,2-DICHLOROETHENE (TOTAL) UG/KG	57UYJ	34UY	7UY
1,2-DICHLOROPROPANE UG/KG	57UYJ	34UY	7UY
2-BUTANONE UG/KG	UYR	UYR	UYR
2-HEXANONE UG/KG	110UYJ	68UY	15UY
4-METHYL-2-PENTANONE UG/KG	110UYJ	68UY	11DYJ
ACETONE UG/KG	16000DYJ	1700UYJ	200DYJ
BENZENE UG/KG	390DYJ	11DYJ	7UY
BROMODICHLOROMETHANE UG/KG	57UYJ	34UY	7UY
BROMOFORM UG/KG	57UYJ	34UY	7UY
BROMOMETHANE UG/KG	110UYJ	68UY	15UY
CARBON DISULFIDE UG/KG	57UYJ	19DYJ	7UY
CARBON TETRACHLORIDE UG/KG	57UYJ	34UY	7UY
CHLOROBENZENE UG/KG	57UYJ	34UY	7UY
CHLOROETHANE UG/KG	110UYJ	68UY	15UY
CHLOROFORM UG/KG	35DYJ	34UY	7UY
CHLOROMETHANE UG/KG	110UYJ	68UY	15UY
CIS-1,3-DICHLOROPROPENE UG/KG	57UYJ	34UY	7UY
DIBROMOCHLOROMETHANE UG/KG	57UYJ	34UY	7UY
ETHYLBENZENE UG/KG	57UYJ	5UY	7UY
METHYLENE CHLORIDE UG/KG	55UYJ	34UY	7UY
STYRENE UG/KG	57UYJ	34UY	7UY
TETRACHLOROETHENE UG/KG	57UYJ	34UY	7UY
TOLUENE UG/KG	57UYJ	8DYJ	7UY
TRANS-1,3-DICHLOROPROPENE UG/KG	57UYJ	34UY	7UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
TRICHLOROETHENE UG/KG	57UYJ	34UY	7UY
VINYL ACETATE UG/KG	110UYJ	68UY	15UY
VINYL CHLORIDE UG/KG	110UYJ	68UY	15UY
XYLENE (TOTAL) UG/KG	57UYJ	300DYJ	7UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
12B	1,2-DICHLOROBENZENE	UG/KG	23	1	0.0435	140.000	140.000	140.000	0.000
2MN	2-METHYLNAPHTHALENE	UG/KG	23	2	0.0870	830.000	1,300.000	1,065.000	235.000
462	4,6-DINITRO-2-METHYLPHENOL	UG/KG	22	1	0.0455	710.000	710.000	710.000	0.000
4MP	4-METHYLPHENOL	UG/KG	21	5	0.2381	67.000	1,070.000	296.800	388.182
ACN	ACENAPHTHENE	UG/KG	23	1	0.0435	59.000	59.000	59.000	0.000
ACY	ACENAPHTHYLENE	UG/KG	23	1	0.0435	78.000	78.000	78.000	0.000
ATR	ANTHRACENE	UG/KG	23	3	0.1304	60.000	150.000	113.333	38.586
BBK	BENZO (B&K) FLUORANTHENE	UG/KG	3	3	1.0000	360.000	680.000	483.333	140.555
BAA	BENZO(A)ANTHRACENE	UG/KG	23	7	0.3043	68.000	630.000	274.000	182.832
BAP	BENZO(A)PYRENE	UG/KG	23	7	0.3043	130.000	650.000	290.000	163.794
BBF	BENZO(B)FLUORANTHENE	UG/KG	20	5	0.2500	70.000	1,300.000	526.000	433.571
BGP	BENZO(GHI)PERYLENE	UG/KG	23	4	0.1739	89.000	330.000	179.750	90.251
BZA	BENZOIC ACID	UG/KG	23	1	0.0435	960,000.000	960,000.000	960,000.000	0.000
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	23	5	0.2174	80.000	900.000	259.400	320.551
CAF	CAFFEINE	UG/KG	23	8	0.3478	79.000	6,000.000	2,657.375	2,120.540
CRY	CHRYSENE	UG/KG	23	8	0.3478	82.000	860.000	309.125	241.335
DBP	DI-N-BUTYL PHTHALATE	UG/KG	23	2	0.0870	77.000	83.000	80.000	3.000
DBA	DIBENZO(A,H)ANTHRACENE	UG/KG	23	1	0.0435	120.000	120.000	120.000	0.000
DBF	DIBENZOFURAN	UG/KG	23	1	0.0435	83.000	83.000	83.000	0.000
FLA	FLUORANTHENE	UG/KG	23	8	0.3478	130.000	1,700.000	537.500	505.365
FLE	FLUORENE	UG/KG	23	2	0.0870	82.000	104.000	93.000	11.000
ICP	INDENO(1,2,3-CD)PYRENE	UG/KG	23	5	0.2174	84.000	460.000	224.800	135.780
ISP	ISOPHORONE	UG/KG	23	1	0.0435	47.000	47.000	47.000	0.000
NAP	NAPHTHALENE	UG/KG	23	4	0.1739	79.000	330.000	173.750	99.625
NTB	NITROBENZENE	UG/KG	23	1	0.0435	95.000	95.000	95.000	0.000
PCP	PENTACHLOROPHENOL	UG/KG	23	3	0.1304	220.000	52,000.000	33,073.333	23,320.322
PAN	PHENANTHRENE	UG/KG	23	8	0.3478	78.000	1,100.000	376.000	337.412
PHE	PHENOL	UG/KG	22	2	0.0909	60.000	4,900.000	2,480.000	2,420.000
PYR	PYRENE	UG/KG	23	7	0.3043	64.000	1,300.000	590.571	384.034
API	a-PINENE	UG/KG	23	1	0.0435	160.000	160.000	160.000	0.000
DLI	d-LIMONENE	UG/KG	23	2	0.0870	160.000	14,000.000	7,080.000	6,920.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:	00000	00000	00000	00000	DUP
STATION ID:	TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:			4.00		
1,2,4-TRICHLOROBENZENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
1,2-DICHLOROBENZENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
1,3-DICHLOROBENZENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
1,4-DICHLOROBENZENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
2,4,5-TRICHLOROPHENOL UG/KG	500000UYJ	2200UY	140000UY	UYR	UYR
2,4,6-TRICHLOROPHENOL UG/KG	100000UYJ	460UY	29000UY	UYR	UYR
2,4-DICHLOROPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
2,4-DIMETHYLPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
2,4-DINITROPHENOL UG/KG	500000UYJ	2200UY	140000UY	UYR	UYR
2,4-DINITROTOLUENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
2,6-DINITROTOLUENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
2-CHLORONAPHTHALENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
2-CHLOROPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
2-METHYLNAPHTHALENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
2-METHYLPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
2-NITROANILINE UG/KG	500000UYJ	2200UY	140000UY	2100UYJ	3700UYJ
2-NITROPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
3,3'-DICHLOROBENZIDINE UG/KG	200000UYJ	920UY	58000UY	880UYJ	1500UYJ
3-NITROANILINE UG/KG	500000UYJ	UYR	140000UY	2100UYJ	3700UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	500000UYJ	2200UY	140000UY	7100YJ	UYR
4-BROMOPHENYL PHENYL ETHER UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
4-CHLOROANILINE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
4-METHYLPHENOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
4-NITROANILINE UG/KG	500000UYJ	2200UY	140000UY	2100UYJ	3700UYJ
4-NITROPHENOL UG/KG	500000UYJ	2200UY	140000UY	UYR	UYR
ACENAPHTHENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
ACENAPHTHYLENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
ANTHRACENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ

NNN+/-XXA8CCCDO POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:	00000	00000	00000	00000	DUP
STATION ID:	TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:			4.00		
BENZO (B&K) FLUORANTHENE					
BENZO(A)ANTHRACENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
BENZO(A)PYRENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
BENZO(B)FLUORANTHENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
BENZO(GHI)PERYLENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
BENZO(K)FLUORANTHENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
BENZOIC ACID UG/KG	500000UY	2200UY	140000UY	2100UYJ	3700UYJ
BENZYL ALCOHOL UG/KG	100000UY	460UY	29000UY	UYR	UYR
BENZYL BUTYL PHTHALATE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
BIS(2-CHLOROETHYL)ETHER UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	100000UYJ	460UY	29000UY	1700UYJ	1400UYJ
CAFFEINE UG/KG	100000UY	2900DY	29000UY	440UYJ	760UYJ
CHRYSENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
DI-N-BUTYL PHTHALATE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
DI-N-OCTYL PHTHALATE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
DIBENZO(A,H)ANTHRACENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
DIBENZOFURAN UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
DIETHYL PHTHALATE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
DIMETHYL PHTHALATE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
FLUORANTHENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
FLUORENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
HEXACHLOROBENZENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
HEXACHLOROBUTADIENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
HEXACHLOROCYCLOPENTADIENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
HEXACHLOROETHANE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
INDENO(1,2,3-CD)PYRENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
ISOPHORONE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
N-NITROSODINPROPYLAMINE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:	00000	00000	00000	00000	DUP
STATION ID:	TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:			4.00		
N-NITROSODIPHENYLAMINE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
NAPHTHALENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
NITROBENZENE UG/KG	100000UY	460UY	29000UY	440UYJ	760UYJ
PENTACHLOROPHENOL UG/KG	500000UYJ	2200UY	140000UY	47000DYJ	52000DYJ
PHENANTHRENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
PHENOL UG/KG	100000UY	460UY	29000UY	4900DYJ	UYR
PYRENE UG/KG	100000UYJ	460UY	29000UY	440UYJ	760UYJ
a-PINENE UG/KG	100000UY	160DYJ	29000UY	440UYJ	760UYJ
d-LIMONENE UG/KG	14000DYJ	460UY	29000UY	440UYJ	760UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:		04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:						
1,2,4-TRICHLOROBENZENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
1,2-DICHLOROBENZENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
1,3-DICHLOROBENZENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
1,4-DICHLOROBENZENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	2500UYJ	1900UYJ	2600UY	2800UY	1900UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2,4-DICHLOROPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2,4-DIMETHYLPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2,4-DINITROPHENOL	UG/KG	2500UYJ	1900UYJ	2600UYJ	2800UYJ	1900UYJ
2,4-DINITROTOLUENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2,6-DINITROTOLUENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2-CHLORONAPHTHALENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2-CHLOROPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2-METHYLNAPHTHALENE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2-METHYLPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
2-NITROANILINE	UG/KG	2500UYJ	1900UYJ	2600UY	2800UY	1900UYJ
2-NITROPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	UYR	UYR	UYR	UYR	770UYJ
3-NITROANILINE	UG/KG	2500UYJ	1900UYJ	2600UY	2800UY	1900UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	2500UYJ	1900UYJ	2600UY	2800UY	1900UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
4-CHLORO-3-METHYLPHENOL	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
4-CHLOROANILINE	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
4-METHYLPHENOL	UG/KG	160DYJ	390UYJ	530UY	580UY	390UYJ
4-NITROANILINE	UG/KG	UYR	UYR	UYR	UYR	1900UYJ
4-NITROPHENOL	UG/KG	2500UYJ	1900UYJ	2600UY	2800UY	1900UYJ
ACENAPHTHENE	UG/KG	520UYJ	59DYJ	530UY	580UY	390UYJ
ACENAPHTHYLENE	UG/KG	520UYJ	78DYJ	530UY	580UY	390UYJ
ANTHRACENE	UG/KG	520UYJ	150DYJ	530UY	580UY	390UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
BENZO (B&K) FLUORANTHENE					
BENZO(A)ANTHRACENE UG/KG	520UYJ	6300YJ	1200YJ	580UY	680YJ
BENZO(A)PYRENE UG/KG	520UYJ	6500YJ	1300YJ	580UY	2500YJ
BENZO(B)FLUORANTHENE UG/KG	520UYJ	13000YJ	2200YJ	700YJ	6600YJ
BENZO(GHI)PERYLENE UG/KG	520UYJ	3300YJ	890YJ	580UY	3900YJ
BENZO(K)FLUORANTHENE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
BENZOIC ACID UG/KG	2500UYJ	19000YJ	2600UY	2800UY	19000YJ
BENZYL ALCOHOL UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
BENZYL BUTYL PHTHALATE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
BIS(2-CHLOROETHYL)ETHER UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	520UYJ	800YJ	530UY	1200YJ	9000YJ
CAFFEINE UG/KG	520UYJ	3900YJ	530UY	60000Y	3900YJ
CHRYSENE UG/KG	520UYJ	8600YJ	1500YJ	820YJ	910YJ
DI-N-BUTYL PHTHALATE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
DI-N-OCTYL PHTHALATE UG/KG	520UYJ	3900YJ	530UY	580UY	16000YJ
DIBENZO(A,H)ANTHRACENE UG/KG	520UYJ	1200YJ	530UY	580UY	3900YJ
DIBENZOFURAN UG/KG	520UYJ	830YJ	530UY	580UY	3900YJ
DIETHYL PHTHALATE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
DIMETHYL PHTHALATE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
FLUORANTHENE UG/KG	520UYJ	17000YJ	2000YJ	1800YJ	1300YJ
FLUORENE UG/KG	520UYJ	820YJ	530UY	580UY	3900YJ
HEXACHLOROBENZENE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
HEXACHLOROBUTADIENE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
HEXACHLOROCYCLOPENTADIENE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
HEXACHLOROETHANE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ
INDENO(1,2,3-CD)PYRENE UG/KG	520UYJ	4600YJ	840YJ	580UY	3900YJ
ISOPHORONE UG/KG	520UYJ	3900YJ	530UY	580UY	470YJ
N-NITROSODINPROPYLAMINE UG/KG	520UYJ	3900YJ	530UY	580UY	3900YJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
N-NITROSODIPHENYLAMINE UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
NAPHTHALENE UG/KG	520UYJ	79DYJ	530UY	96DYJ	390UYJ
NITROBENZENE UG/KG	520UYJ	390UYJ	95DYJ	580UY	390UYJ
PENTACHLOROPHENOL UG/KG	2500UYJ	1900UYJ	2600UY	2800UY	1900UYJ
PHENANTHRENE UG/KG	520UYJ	1100DYJ	110DYJ	78DYJ	100DYJ
PHENOL UG/KG	520UYJ	390UYJ	530UY	580UY	60DYJ
PYRENE UG/KG	64DYJ	1300DYJ	240DYJ	580UY	390UYJ
a-PINENE UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ
d-LIMONENE UG/KG	520UYJ	390UYJ	530UY	580UY	390UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
1,2-DICHLOROBENZENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
1,3-DICHLOROBENZENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
1,4-DICHLOROBENZENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2,4,5-TRICHLOROPHENOL UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
2,4,6-TRICHLOROPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2,4-DICHLOROPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2,4-DIMETHYLPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2,4-DINITROPHENOL UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
2,4-DINITROTOLUENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2,6-DINITROTOLUENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2-CHLORONAPHTHALENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2-CHLOROPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2-METHYLNAPHTHALENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2-METHYLPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
2-NITROANILINE UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
2-NITROPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
3,3'-DICHLOROBENZIDINE UG/KG	106000UY	50000UY	50000UY	1100UYJ	1100UYJ
3-NITROANILINE UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
4-BROMOPHENYL PHENYL ETHER UG/KG	53000UY	25000UY	25000UY	530UY	560UY
4-CHLORO-3-METHYLPHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
4-CHLOROANILINE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	53000UY	25000UY	25000UY	530UY	560UY
4-METHYLPHENOL UG/KG	53000UY	25000UY	25000UY	67DYJ	67DYJ
4-NITROANILINE UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
4-NITROPHENOL UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
ACENAPHTHENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
ACENAPHTHYLENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
ANTHRACENE UG/KG	53000UY	25000UY	25000UY	60DYJ	560UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
BENZO (B&K) FLUORANTHENE UG/KG					410DYJ
BENZO(A)ANTHRACENE UG/KG	53000UY	25000UY	25000UY	210DYJ	230DYJ
BENZO(A)PYRENE UG/KG	53000UY	25000UY	25000UY	220DYJ	230DYJ
BENZO(B)FLUORANTHENE UG/KG	53000UY	25000UY	25000UY	380DYJ	
BENZO(GHI)PERYLENE UG/KG	53000UY	25000UY	25000UY	150DYJ	150DYJ
BENZO(K)FLUORANTHENE UG/KG	53000UY	25000UY	25000UY	530UYJ	
BENZOIC ACID UG/KG	9600000DY	120000UY	130000UY	2600UY	2700UY
BENZYL ALCOHOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
BENZYL BUTYL PHTHALATE UG/KG	53000UY	25000UY	25000UY	530UYJ	560UYJ
BIS(2-CHLOROETHOXY) METHANE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
BIS(2-CHLOROETHYL)ETHER UG/KG	53000UY	25000UY	25000UY	530UY	560UY
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	53000UY	25000UY	25000UY	530UY	560UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	53000UY	25000UY	25000UY	98DYJ	99DYJ
CAFFEINE UG/KG	53000UY	4800DYJ	4700DYJ	1000DY	1300DY
CHRYSENE UG/KG	53000UY	25000UY	25000UY	260DYJ	320DYJ
DI-N-BUTYL PHTHALATE UG/KG	53000UY	25000UY	25000UY	77DYJ	83DYJ
DI-N-OCTYL PHTHALATE UG/KG	53000UY	25000UY	25000UY	530UYJ	560UYJ
DIBENZO(A,H)ANTHRACENE UG/KG	53000UY	25000UY	25000UY	530UYJ	560UYJ
DIBENZOFURAN UG/KG	53000UY	25000UY	25000UY	530UY	560UY
DIETHYL PHTHALATE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
DIMETHYL PHTHALATE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
FLUORANTHENE UG/KG	53000UY	25000UY	25000UY	420DYJ	430DYJ
FLUORENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
HEXACHLOROBENZENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
HEXACHLOROBUTADIENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
HEXACHLOROCYCLOPENTADIENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
HEXACHLOROETHANE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
INDENO(1,2,3-CD)PYRENE UG/KG	53000UY	25000UY	25000UY	140DYJ	150DYJ
ISOPHORONE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
N-NITROSODINPROPYLAMINE UG/KG	53000UY	25000UY	25000UY	530UY	560UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
N-NITROSODIPHENYLAMINE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
NAPHTHALENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
NITROBENZENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
PENTACHLOROPHENOL UG/KG	260000UY	120000UY	130000UY	2600UY	2700UY
PHENANTHRENE UG/KG	53000UY	25000UY	25000UY	340DYJ	360DYJ
PHENOL UG/KG	53000UY	25000UY	25000UY	530UY	560UY
PYRENE UG/KG	53000UY	25000UY	25000UY	630DYJ	700DYJ
a-PINENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY
d-LIMONENE UG/KG	53000UY	25000UY	25000UY	530UY	560UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
1,2-DICHLOROBENZENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	140DYJ
1,3-DICHLOROBENZENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
1,4-DICHLOROBENZENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
2,4,5-TRICHLOROPHENOL UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
2,4,6-TRICHLOROPHENOL UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
2,4-DICHLOROPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
2,4-DIMETHYLPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
2,4-DINITROPHENOL UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
2,4-DINITROTOLUENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
2,6-DINITROTOLUENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
2-CHLORONAPHTHALENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
2-CHLOROPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
2-METHYLNAPHTHALENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	1300DYJ
2-METHYLPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
2-NITROANILINE UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
2-NITROPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
3,3'-DICHLOROBENZIDINE UG/KG	54000UYJ	51000UYJ	1020000UY	85000UYJ	1700UYJ
3-NITROANILINE UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
4,6-DINITRO-2-METHYLPHENOL UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
4-BROMOPHENYL PHENYL ETHER UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
4-CHLORO-3-METHYLPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
4-CHLOROANILINE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
4-CHLOROPHENYL PHENYL ETHER UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
4-METHYLPHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
4-NITROANILINE UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
4-NITROPHENOL UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
ACENAPHTHENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
ACENAPHTHYLENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
ANTHRACENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:		00000	00000	00000	00000	A
STATION ID:		TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:		05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:						
BENZO (B&K) FLUORANTHENE						
BENZO(A)ANTHRACENE	UG/KG	27000UYJ	26000UYJ	510000UY	42000UYJ	870UYJ
BENZO(A)PYRENE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
BENZO(B)FLUORANTHENE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
BENZO(GHI)PERYLENE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
BENZO(K)FLUORANTHENE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
BENZOIC ACID	UG/KG	140000UY	130000UY	2500000UY	210000UYJ	4200UYJ
BENZYL ALCOHOL	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
BENZYL BUTYL PHTHALATE	UG/KG	27000UYJ	26000UYJ	510000UY	42000UYJ	870UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	27000UYJ	26000UYJ	510000UY	42000UYJ	870UYJ
CAFFEINE	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
CHRYSENE	UG/KG	27000UYJ	26000UYJ	510000UY	42000UYJ	870UYJ
DI-N-BUTYL PHTHALATE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
DI-N-OCTYL PHTHALATE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
DIBENZOFURAN	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
DIETHYL PHTHALATE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
DIMETHYL PHTHALATE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
FLUORANTHENE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
FLUORENE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
HEXACHLOROBENZENE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
HEXACHLOROBUTADIENE	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
HEXACHLOROETHANE	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	27000UYJ	26000UYJ	510000UYJ	42000UYJ	870UYJ
ISOPHORONE	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
N-NITROSODINPROPYLAMINE	UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
N-NITROSODIPHENYLAMINE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
NAPHTHALENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	330DYJ
NITROBENZENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
PENTACHLOROPHENOL UG/KG	140000UYJ	130000UY	2500000UY	210000UYJ	4200UYJ
PHENANTHRENE UG/KG	27000UYJ	26000UY	510000UY	42000UYJ	870UYJ
PHENOL UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
PYRENE UG/KG	27000UYJ	26000UYJ	510000UY	42000UYJ	870UYJ
a-PINENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ
d-LIMONENE UG/KG	27000UY	26000UY	510000UY	42000UYJ	870UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
1,2,4-TRICHLOROBENZENE UG/KG	750UYJ	450UY	490UY
1,2-DICHLOROBENZENE UG/KG	750UYJ	450UY	490UY
1,3-DICHLOROBENZENE UG/KG	750UYJ	450UY	490UY
1,4-DICHLOROBENZENE UG/KG	750UYJ	450UY	490UY
2,4,5-TRICHLOROPHENOL UG/KG	3600UYJ	2200UY	2400UY
2,4,6-TRICHLOROPHENOL UG/KG	750UYJ	450UY	490UY
2,4-DICHLOROPHENOL UG/KG	750UYJ	450UY	490UY
2,4-DIMETHYLPHENOL UG/KG	750UYJ	450UY	490UY
2,4-DINITROPHENOL UG/KG	3600UYJ	2200UY	2400UY
2,4-DINITROTOLUENE UG/KG	750UYJ	450UY	490UY
2,6-DINITROTOLUENE UG/KG	750UYJ	450UY	490UY
2-CHLORONAPHTHALENE UG/KG	750UYJ	450UY	490UY
2-CHLOROPHENOL UG/KG	750UYJ	450UY	490UY
2-METHYLNAPHTHALENE UG/KG	830DYJ	450UY	490UY
2-METHYLPHENOL UG/KG	750UYJ	450UY	490UY
2-NITROANILINE UG/KG	3600UYJ	2200UY	2400UY
2-NITROPHENOL UG/KG	750UYJ	450UY	490UY
3,3'-DICHLOROBENZIDINE UG/KG	1500UYJ	890UYJ	970UY
3-NITROANILINE UG/KG	3600UYJ	2200UY	2400UY
4,6-DINITRO-2-METHYLPHENOL UG/KG	3600UYJ	2200UY	2400UY
4-BROMOPHENYL PHENYL ETHER UG/KG	750UYJ	450UY	490UY
4-CHLORO-3-METHYLPHENOL UG/KG	750UYJ	450UY	490UY
4-CHLOROANILINE UG/KG	750UYJ	450UY	490UY
4-CHLOROPHENYL PHENYL ETHER UG/KG	750UYJ	450UY	490UY
4-METHYLPHENOL UG/KG	1070DYJ	120DYJ	490UY
4-NITROANILINE UG/KG	3600UYJ	2200UY	2400UY
4-NITROPHENOL UG/KG	3600UYJ	2200UY	2400UY
ACENAPHTHENE UG/KG	750UYJ	450UY	490UY
ACENAPHTHYLENE UG/KG	750UYJ	450UY	490UY
ANTHRACENE UG/KG	750UYJ	450UY	130DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
BENZO (B&K) FLUORANTHENE UG/KG		360DYJ	680DY
BENZO(A)ANTHRACENE UG/KG	750UYJ	210DYJ	450DYJ
BENZO(A)PYRENE UG/KG	750UYJ	170DYJ	380DYJ
BENZO(B)FLUORANTHENE UG/KG	750UYJ		
BENZO(GHI)PERYLENE UG/KG	750UYJ	450UYJ	490UY
BENZO(K)FLUORANTHENE UG/KG	750UYJ		
BENZOIC ACID UG/KG	3600UYJ	2200UY	2400UY
BENZYL ALCOHOL UG/KG	750UYJ	450UY	490UY
BENZYL BUTYL PHTHALATE UG/KG	750UYJ	450UYJ	490UY
BIS(2-CHLOROETHOXY) METHANE UG/KG	750UYJ	450UY	490UY
BIS(2-CHLOROETHYL)ETHER UG/KG	750UYJ	450UY	490UY
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	750UYJ	450UY	490UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	750UYJ	450UYJ	490UY
CAFFEINE UG/KG	750UYJ	79DYJ	480DYJ
CHRYSENE UG/KG	750UYJ	230DYJ	480DYJ
DI-N-BUTYL PHTHALATE UG/KG	750UYJ	450UY	490UY
DI-N-OCTYL PHTHALATE UG/KG	750UYJ	450UYJ	490UY
DIBENZO(A,H)ANTHRACENE UG/KG	750UYJ	450UYJ	490UY
DIBENZOFURAN UG/KG	750UYJ	450UY	490UY
DIETHYL PHTHALATE UG/KG	750UYJ	450UY	490UY
DIMETHYL PHTHALATE UG/KG	750UYJ	450UY	490UY
FLUORANTHENE UG/KG	750UYJ	270DYJ	970DY
FLUORENE UG/KG	750UYJ	450UY	104DYJ
HEXACHLOROBENZENE UG/KG	750UYJ	450UY	490UY
HEXACHLOROBUTADIENE UG/KG	750UYJ	450UY	490UY
HEXACHLOROCYCLOPENTADIENE UG/KG	750UYJ	450UY	490UY
HEXACHLOROETHANE UG/KG	750UYJ	450UY	490UY
INDENO(1,2,3-CD)PYRENE UG/KG	750UYJ	450UYJ	290DYJ
ISOPHORONE UG/KG	750UYJ	450UY	490UY
N-NITROSODINPROPYLAMINE UG/KG	750UYJ	450UY	490UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
N-NITROSODIPHENYLAMINE UG/KG	750UYJ	450UY	490UY
NAPHTHALENE UG/KG	190DYJ	450UY	490UY
NITROBENZENE UG/KG	750UYJ	450UY	490UY
PENTACHLOROPHENOL UG/KG	3600UYJ	220DYJ	2400UY
PHENANTHRENE UG/KG	750UYJ	200DYJ	720DY
PHENOL UG/KG	750UYJ	450UY	490UY
PYRENE UG/KG	750UYJ	360DYJ	840DY
a-PINENE UG/KG	750UYJ	450UY	490UY
d-LIMONENE UG/KG	160DYJ	450UY	490UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Pesticides and PCBs

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: PEST

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
DDD	4,4'-DDD	UG/KG	23	1	0.0435	37,000.000	37,000.000	37,000.000	0.000
DDE	4,4'-DDE	UG/KG	23	2	0.0870	216.000	4,300.000	2,258.000	2,042.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:		00000	00000	00000	00000	DUP
STATION ID:		TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:		05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:				4.00		
4,4'-DDD	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
4,4'-DDE	UG/KG	24000UY	220UY	3500UY	216DYJ	370UYJ
4,4'-DDT	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
ALDRIN	UG/KG	12000UY	110UY	1700UY	UYR	UYR
ALPHA-CHLORDANE	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
AROCLOR-1016	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
AROCLOR-1221	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
AROCLOR-1232	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
AROCLOR-1242	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
AROCLOR-1248	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
AROCLOR-1254	UG/KG	240000UY	2200UY	35000UY	1100UYJ	3700UYJ
AROCLOR-1260	UG/KG	240000UY	2200UY	35000UY	1100UYJ	3700UYJ
BHC-ALPHA	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
BHC-BETA	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
BHC-DELTA	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
BHC-GAMMA(LINDANE)	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
DIELDRIN	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
ENDOSULFAN I	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
ENDOSULFAN II	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
ENDOSULFAN SULFATE	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
ENDRIN	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
ENDRIN KETONE	UG/KG	24000UY	220UY	3500UY	110UYJ	370UYJ
GAMMA-CHLORDANE	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
HEPTACHLOR	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
HEPTACHLOR EPOXIDE	UG/KG	12000UY	110UY	1700UY	53UYJ	180UYJ
METHOXYCHLOR	UG/KG	120000UY	1100UY	17000UY	530UYJ	1800UYJ
TOXAPHENE	UG/KG	240000UY	2200UY	35000UY	1100UYJ	3700UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
4,4'-DDD UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
4,4'-DDE UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
4,4'-DDT UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
ALDRIN UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
ALPHA-CHLORDANE UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
AROCLOR-1016 UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
AROCLOR-1221 UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
AROCLOR-1232 UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
AROCLOR-1242 UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
AROCLOR-1248 UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
AROCLOR-1254 UG/KG	250UYJ	1900UYJ	260UYJ	280UY	1900UYJ
AROCLOR-1260 UG/KG	250UYJ	1900UYJ	260UYJ	280UY	1900UYJ
BHC-ALPHA UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
BHC-BETA UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
BHC-DELTA UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
BHC-GAMMA(LINDANE) UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
DIELDRIN UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
ENDOSULFAN I UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
ENDOSULFAN II UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
ENDOSULFAN SULFATE UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
ENDRIN UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
ENDRIN KETONE UG/KG	25UYJ	190UYJ	26UYJ	28UY	190UYJ
GAMMA-CHLORDANE UG/KG	1300UYJ	940UYJ	130UYJ	140UY	940UYJ
HEPTACHLOR UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
HEPTACHLOR EPOXIDE UG/KG	130UYJ	94UYJ	13UYJ	14UY	94UYJ
METHOXYCHLOR UG/KG	130UYJ	940UYJ	130UYJ	140UY	940UYJ
TOXAPHENE UG/KG	250UYJ	1900UYJ	260UYJ	280UY	1900UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:		00000	00000	DUP	00000	DUP
STATION ID:		TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:		05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:						
4,4'-DDD	UG/KG	37000DYJ	3000UY	3000UY	260UYJ	130UYJ
4,4'-DDE	UG/KG	4300DYJ	3000UY	3000UY	260UYJ	1300UYJ
4,4'-DDT	UG/KG	3200UYJ	3000UY	3000UY	260UYJ	130UYJ
ALDRIN	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
ALPHA-CHLORDANE	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
AROCLOR-1016	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
AROCLOR-1221	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
AROCLOR-1232	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
AROCLOR-1242	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
AROCLOR-1248	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
AROCLOR-1254	UG/KG	32000UYJ	30000UY	30000UY	2600UYJ	1300UYJ
AROCLOR-1260	UG/KG	32000UYJ	30000UY	30000UY	2600UYJ	1300UYJ
BHC-ALPHA	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
BHC-BETA	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
BHC-DELTA	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
BHC-GAMMA(LINDANE)	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
DIELDRIN	UG/KG	3200UYJ	3000UY	3000UY	260UYJ	130UYJ
ENDOSULFAN I	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
ENDOSULFAN II	UG/KG	3200UYJ	3000UY	3000UY	260UYJ	130UYJ
ENDOSULFAN SULFATE	UG/KG	3200UYJ	3000UY	3000UY	260UYJ	400UYJ
ENDRIN	UG/KG	3200UYJ	3000UY	3000UY	260UYJ	130UYJ
ENDRIN KETONE	UG/KG	3200UYJ	3000UY	3000UY	260UYJ	130UYJ
GAMMA-CHLORDANE	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	6700UYJ
HEPTACHLOR	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
HEPTACHLOR EPOXIDE	UG/KG	1600UYJ	1500UY	1500UY	130UYJ	670UYJ
METHOXYCHLOR	UG/KG	16000UYJ	15000UY	15000UY	1300UYJ	670UYJ
TOXAPHENE	UG/KG	32000UYJ	30000UY	30000UY	2600UYJ	1300UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
4,4'-DDD UG/KG	3200UY	3100UY	2400UY	5100UYJ	42UYJ
4,4'-DDE UG/KG	3200UY	3100UY	2400UY	5100UYJ	42UYJ
4,4'-DDT UG/KG	3200UY	3100UY	3500UY	5100UYJ	42UYJ
ALDRIN UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
ALPHA-CHLORDANE UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
AROCLOR-1016 UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
AROCLOR-1221 UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
AROCLOR-1232 UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
AROCLOR-1242 UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
AROCLOR-1248 UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
AROCLOR-1254 UG/KG	32000UY	31000UY	24000UY	51000UYJ	420UYJ
AROCLOR-1260 UG/KG	32000UY	31000UY	24000UY	51000UYJ	420UYJ
BHC-ALPHA UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
BHC-BETA UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
BHC-DELTA UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
BHC-GAMMA(LINDANE) UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
DIELDRIN UG/KG	3200UY	3100UY	2400UY	5100UYJ	42UYJ
ENDOSULFAN I UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
ENDOSULFAN II UG/KG	10300UY	3100UY	2400UY	5100UYJ	42UYJ
ENDOSULFAN SULFATE UG/KG	3200UY	3100UY	2400UY	5100UYJ	42UYJ
ENDRIN UG/KG	3200UY	3100UY	2400UY	5100UYJ	42UYJ
ENDRIN KETONE UG/KG	3200UY	3100UY	2400UY	5100UYJ	42UYJ
GAMMA-CHLORDANE UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
HEPTACHLOR UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
HEPTACHLOR EPOXIDE UG/KG	1600UY	1500UY	1200UY	2600UYJ	21UYJ
METHOXYCHLOR UG/KG	16000UY	15000UY	12000UY	26000UYJ	210UYJ
TOXAPHENE UG/KG	32000UY	31000UY	24000UY	51000UYJ	420UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:		B	00000	00000
STATION ID:		TP-88	TP-89	TP-91
SAMPLE DATE:		05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:				
SAMPLE MATRIX:		WS	WS	WS
UPPER DEPTH:		2.00	1.00	3.00
LOWER DEPTH:				
4,4'-DDD	UG/KG	360UYJ	220UY	120UY
4,4'-DDE	UG/KG	360UYJ	220UY	120UY
4,4'-DDT	UG/KG	360UYJ	220UY	120UY
ALDRIN	UG/KG	180UYJ	110UY	59UY
ALPHA-CHLORDANE	UG/KG	1800UYJ	1100UY	590UY
AROCLOR-1016	UG/KG	1800UYJ	1100UY	590UY
AROCLOR-1221	UG/KG	1800UYJ	1100UY	590UY
AROCLOR-1232	UG/KG	1800UYJ	1100UY	590UY
AROCLOR-1242	UG/KG	1800UYJ	1100UY	590UY
AROCLOR-1248	UG/KG	1800UYJ	1100UY	590UY
AROCLOR-1254	UG/KG	3600UYJ	2200UY	1200UY
AROCLOR-1260	UG/KG	3600UYJ	2200UY	1200UY
BHC-ALPHA	UG/KG	180UYJ	110UY	59UY
BHC-BETA	UG/KG	180UYJ	110UY	59UY
BHC-DELTA	UG/KG	180UYJ	110UY	59UY
BHC-GAMMA(LINDANE)	UG/KG	180UYJ	110UY	59UY
DIELDRIN	UG/KG	360UYJ	220UY	120UY
ENDOSULFAN I	UG/KG	180UYJ	110UY	59UY
ENDOSULFAN II	UG/KG	360UYJ	220UY	120UY
ENDOSULFAN SULFATE	UG/KG	360UYJ	220UY	120UY
ENDRIN	UG/KG	360UYJ	220UY	120UY
ENDRIN KETONE	UG/KG	360UYJ	220UY	120UY
GAMMA-CHLORDANE	UG/KG	1800UYJ	1100UY	590UY
HEPTACHLOR	UG/KG	180UYJ	110UY	59UY
HEPTACHLOR EPOXIDE	UG/KG	180UYJ	110UY	59UY
METHOXYCHLOR	UG/KG	1800UYJ	1100UY	590UY
TOXAPHENE	UG/KG	3600UYJ	2200UY	1200UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Metals and Cyanide

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	MG/KG	23	21	0.9130	79.400	47,900.000	8,111.924	12,556.275
SB	ANTIMONY	MG/KG	23	8	0.3478	2.800	16.600	8.688	3.995
AS	ARSENIC	MG/KG	23	21	0.9130	0.980	306.000	34.023	70.502
BA	BARIUM	MG/KG	20	20	1.0000	0.610	198.000	66.416	50.124
BE	BERYLLIUM	MG/KG	20	4	0.2000	1.400	7.300	2.975	2.498
CD	CADMIUM	MG/KG	23	13	0.5652	1.200	10.000	3.377	2.253
CA	CALCIUM	MG/KG	23	23	1.0000	282.000	265,000.000	66,338.304	87,858.796
CR	CHROMIUM	MG/KG	23	19	0.8261	3.200	53,800.000	4,848.421	13,425.369
CO	COBALT	MG/KG	23	11	0.4783	3.500	7.300	5.355	1.443
CU	COPPER	MG/KG	21	21	1.0000	20.300	3,800.000	602.024	1,011.000
CN	CYANIDE	MG/KG	23	9	0.3913	0.340	452.000	51.238	141.693
FE	IRON	MG/KG	23	23	1.0000	146.000	69,100.000	13,640.478	14,188.859
PB	LEAD	MG/KG	20	20	1.0000	13.400	3,660.000	323.355	773.327
MG	MAGNESIUM	MG/KG	23	22	0.9565	28.700	4,250.000	1,528.136	1,157.875
MN	MANGANESE	MG/KG	23	22	0.9565	2.100	697.000	186.100	156.964
HG	MERCURY	MG/KG	23	20	0.8696	0.070	28.700	2.548	6.158
NI	NICKEL	MG/KG	23	20	0.8696	5.200	88.400	17.120	17.035
K	POTASSIUM	MG/KG	23	21	0.9130	47.700	1,570.000	518.876	429.516
SE	SELENIUM	MG/KG	23	6	0.2609	0.520	2.900	1.148	0.819
AG	SILVER	MG/KG	23	6	0.2609	0.310	1.200	0.772	0.350
NA	SODIUM	MG/KG	23	23	1.0000	39.900	28,800.000	3,183.530	6,917.110
TL	THALLIUM	MG/KG	23	12	0.5217	0.290	1.200	0.756	0.254
V	VANADIUM	MG/KG	20	16	0.8000	6.100	40.700	16.131	9.876
ZN	ZINC	MG/KG	23	23	1.0000	2.900	6,520.000	630.552	1,534.258

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:		00000	00000	00000	00000	DUP
STATION ID:		TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:		05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:				4.00		
ALUMINUM	MG/KG	8.8UY	1010DY	4420DY	3160DYJ	1290DYJ
ANTIMONY	MG/KG	2.8DYJ	8.3DYJ	16.6DYJ	2.4UY	4.1UYJ
ARSENIC	MG/KG	0.45UY	14.6DY	54.5DY	2.1DYJ	4.3DYJ
BARIUM	MG/KG	1.1DYJ	70.9DY	DYR	25.4DYJ	19.7DYJ
BERYLLIUM	MG/KG	0.9UY	DYR	DYR	1.1UY	1.8UYJ
CADMIUM	MG/KG	0.9UYJ	1.1UYJ	4.9DYJ	1.3UYJ	2.3UYJ
CALCIUM	MG/KG	282DYJ	254000DY	376000DY	26700DY	47000DYJ
CHROMIUM	MG/KG	1.4UY	16.7DY	396DY	31000DY	53800DYJ
COBALT	MG/KG	2.7UY	3.3UY	6.9DYJ	3.7UY	6.4UYJ
COPPER	MG/KG	59.6DY	162DY	431DY	20.3DYJ	UYR
CYANIDE	MG/KG	0.56UY	0.35UY	0.36UY	1.3DY	0.99DYJ
IRON	MG/KG	146DY	11500DY	69100DY	6470DYJ	3650DYJ
LEAD	MG/KG	244DY	176DY	DYR	29.1DY	113DYJ
MAGNESIUM	MG/KG	28.7DYJ	476DYJ	2720DY	2060DY	2300DYJ
MANGANESE	MG/KG	5.6DY	384DY	697DY	108DYJ	89DYJ
MERCURY	MG/KG	0.07DYJ	0.18DY	1.9DYJ	0.41DYJ	0.31DYJ
NICKEL	MG/KG	2UY	11.4DY	88.4DYJ	9.9DYJ	9.2DYJ
POTASSIUM	MG/KG	21.4UY	1470DY	587DYJ	246DYJ	271DYJ
SELENIUM	MG/KG	0.45UYJ	2.9DYJ	1.4UYJ	0.27UY	0.46UYJ
SILVER	MG/KG	0.23UY	0.28UYJ	0.73DYJ	0.27UY	0.46UYJ
SODIUM	MG/KG	142DYJ	3000DY	1210DYJ	297DYJ	5180YJ
THALLIUM	MG/KG	0.29DYJ	0.45DYJ	0.66DYJ	0.56DYJ	0.92DYJ
VANADIUM	MG/KG	3.4UY	7.2DYJ	17.6DYJ	DYR	14.7DYJ
ZINC	MG/KG	2.9DYJ	156DY	688DY	44.7DYJ	22DYJ

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:		04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:						
ALUMINUM	MG/KG	47900DYJ	4630DYJ	3240DYJ	121DYJ	5610DYJ
ANTIMONY	MG/KG	2.9UY	2.1UY	12DYJ	10.3DYJ	2.1UY
ARSENIC	MG/KG	20.1DY	4DYJ	15.6DY	0.98DYJ	1.5DYJ
BARIUM	MG/KG	18.8DYJ	49.4DYJ	34DYJ	198DYJ	93.9DYJ
BERYLLIUM	MG/KG	7.3DY	1.4DY	1.3UY	1.4UY	0.94UY
CADMIUM	MG/KG	1.9DYJ	1.2DYJ	10DYJ	1.7UYJ	2.3DYJ
CALCIUM	MG/KG	176000DY	3540DY	265000DY	263000DY	94100Y
CHROMIUM	MG/KG	34DY	1220DY	3.2UYJ	3.5UYJ	40.8DY
COBALT	MG/KG	4.5UY	3.5DYJ	4.5UY	4.9UY	6.3DYJ
COPPER	MG/KG	337DYJ	36.1DYJ	DYR	48.9DYJ	59.9DYJ
CYANIDE	MG/KG	0.4UY	0.34DYJ	0.4UY	452DY	0.29UY
IRON	MG/KG	9890DY	29000DY	13500DY	291DY	10800DY
LEAD	MG/KG	293DY	43.6DY	69.2DY	145DY	31.2DY
MAGNESIUM	MG/KG	579DYJ	909DYJ	1030DYJ	16.1UY	4250DY
MANGANESE	MG/KG	115DYJ	231DYJ	408DYJ	2.1DYJ	277DYJ
MERCURY	MG/KG	5.8DY	3.6DY	0.26DY	0.07UY	0.05UY
NICKEL	MG/KG	10.2DYJ	7.6DYJ	10DYJ	5.2DYJ	15DY
POTASSIUM	MG/KG	47.7DYJ	201DYJ	214DYJ	59.3DYJ	1200DY
SELENIUM	MG/KG	1.1DYJ	1.2UYJ	1.1DYJ	0.35UYJ	0.23UY
SILVER	MG/KG	0.32UY	0.31DYJ	0.32UY	0.35UY	0.23UY
SODIUM	MG/KG	283DYJ	39.9DYJ	228DYJ	298DYJ	261DY
THALLIUM	MG/KG	0.99DYJ	0.66DYJ	0.68DYJ	0.73DYJ	0.23UY
VANADIUM	MG/KG	6.4DYJ	DYR	6.1DYJ	5.2UY	DYR
ZINC	MG/KG	607DYJ	272DYJ	6520DYJ	9.4DYJ	51.2DYJ

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:		TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:		00000	00000	DUP	00000	DUP
STATION ID:		TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:		05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:						
ALUMINUM	MG/KG	79.4DY	3440DY	5030DY	6500DY	5980DY
ANTIMONY	MG/KG	2.4UY	2.2UY	2.3UY	5.6DYJ	7.7DYJ
ARSENIC	MG/KG	1.1DYJ	21.4DY	16.7DY	11.4DYJ	20.7DYJ
BARIUM	MG/KG	4.5DYJ	87.5DY	113DY	DYR	DYR
BERYLLIUM	MG/KG	1.1UY	1UY	1UY	DYR	1.3UY
CADMIUM	MG/KG	1.1UYJ	1.5DYJ	1UY	1.6DYJ	1.3UYJ
CALCIUM	MG/KG	686DYJ	15200DY	19400DY	27700DY	36600DY
CHROMIUM	MG/KG	3.2DY	100DY	125DY	141DY	151DY
COBALT	MG/KG	3.2UY	3UY	4DYJ	4.2DYJ	6.7DYJ
COPPER	MG/KG	1680DY	242DY	180DY	113DY	141DY
CYANIDE	MG/KG	0.33UY	0.31UY	0.32UY	1.1DY	3.2DY
IRON	MG/KG	2630DY	10100DY	12000DY	10800DY	10600DY
LEAD	MG/KG	13.4DYJ	282DY	290DY	DYR	DYR
MAGNESIUM	MG/KG	84.4DYJ	788DYJ	1310DY	1570DYJ	1530DYJ
MANGANESE	MG/KG	11.1DY	102DY	141DY	227DY	206DY
MERCURY	MG/KG	0.19DY	0.38DY	0.55DY	1.2DYJ	2.4DYJ
NICKEL	MG/KG	2.4UY	14.5DY	15.7DY	17.6DYJ	19DYJ
POTASSIUM	MG/KG	84.4DYJ	409DYJ	621DYJ	675DYJ	604DYJ
SELENIUM	MG/KG	0.53UY	0.75DYJ	0.52DYJ	0.52DYJ	1.7UYJ
SILVER	MG/KG	0.26UYJ	0.25UYJ	0.25UYJ	0.32UY	0.33UY
SODIUM	MG/KG	62.3DYJ	960DYJ	912DYJ	691DYJ	871DYJ
THALLIUM	MG/KG	0.26UY	0.25UY	0.25UY	0.83DYJ	1.2DYJ
VANADIUM	MG/KG	4UY	9.2DYJ	14.1DYJ	37.4DYJ	40.7DYJ
ZINC	MG/KG	10.3DYJ	77.6DY	106DY	221DY	333DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:		TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:		00000	00000	00000	00000	A
STATION ID:		TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:		05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:						
ALUMINUM	MG/KG	17900DY	1360DY	7.9UY	2970DYJ	40500DYJ
ANTIMONY	MG/KG	2.4UY	2.3UY	1.8UY	3.8UYJ	4.8UYJ
ARSENIC	MG/KG	3.7DY	3.6DY	0.41UYJ	18.9DYJ	171DYJ
BARIUM	MG/KG	57.3DY	47.9DYJ	0.61DYJ	106DYJ	112DYJ
BERYLLIUM	MG/KG	1.6DY	1UY	0.81UY	1.7UYJ	2.1UYJ
CADMIUM	MG/KG	2.4DYJ	1UY	0.81UY	3.4DYJ	3.7DYJ
CALCIUM	MG/KG	18000DY	7160DY	303DYJ	60000DYJ	129000DYJ
CHROMIUM	MG/KG	524DY	44.3DY	1.2UY	482DYJ	97.9DYJ
COBALT	MG/KG	4.1DYJ	3.1UY	2.4UY	5.5DYJ	6.9DYJ
COPPER	MG/KG	1060DY	708DY	166DY	100DYJ	3800DYJ
CYANIDE	MG/KG	0.34UY	0.32UY	0.25UY	0.73DYJ	0.66UYJ
IRON	MG/KG	20100DY	14900DY	234DY	15600DYJ	5130DYJ
LEAD	MG/KG	3660DY	31.2DYJ	35.2DYJ	161DYJ	247DYJ
MAGNESIUM	MG/KG	839DYJ	474DYJ	30.9DYJ	2070DYJ	4150DYJ
MANGANESE	MG/KG	92.5DY	95.8DY	0.81UY	301DYJ	56.1DYJ
MERCURY	MG/KG	0.12DYJ	28.7DY	0.04UY	1.8DYJ	0.61DYJ
NICKEL	MG/KG	10.3DYJ	8.9DYJ	1.8UY	20.7DYJ	15.3DYJ
POTASSIUM	MG/KG	247DYJ	252DYJ	19.3UY	313DYJ	1570DYJ
SELENIUM	MG/KG	0.54UYJ	0.51UYJ	0.41UYJ	0.85UYJ	1.1UYJ
SILVER	MG/KG	0.33DYJ	0.25UYJ	0.2UYJ	0.42UYJ	1.1DYJ
SODIUM	MG/KG	12200DY	182DYJ	107DYJ	913DYJ	28800DYJ
THALLIUM	MG/KG	0.27UY	0.25UY	0.2UY	0.42UYJ	0.53UYJ
VANADIUM	MG/KG	7.9DYJ	10.2DYJ	3UY	18.6DYJ	10.6DYJ
ZINC	MG/KG	4410DY	67.3DY	16.2DYJ	289DYJ	1610DYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
NON-TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
ALUMINUM MG/KG	22000DYJ	2930DY	6390DY
ANTIMONY MG/KG	4.1UYJ	6.2DYJ	2.7UY
ARSENIC MG/KG	306DYJ	13.6DYJ	8.7DY
BARIUM MG/KG	61.2DYJ	90.1DY	137DY
BERYLLIUM MG/KG	1.8UYJ	1.6DY	1.2UY
CADMIUM MG/KG	4.6DYJ	4.3DYJ	2.1DYJ
CALCIUM MG/KG	125000DYJ	168000DY	64800DY
CHROMIUM MG/KG	249DYJ	367ODY	25.1DY
COBALT MG/KG	7.3DYJ	3.5DYJ	3.6UY
COPPER MG/KG	3110DYJ	75.7DY	112DY
CYANIDE MG/KG	0.86DYJ	0.62DYJ	0.37UY
IRON MG/KG	234000DYJ	27200DY	6690DY
LEAD MG/KG	54.2DYJ	399DY	150DY
MAGNESIUM MG/KG	2180DYJ	1900DY	2340DY
MANGANESE MG/KG	139DYJ	160DY	246DY
MERCURY MG/KG	1DYJ	1.2DY	0.27DY
NICKEL MG/KG	25.6DYJ	15.5DY	12.4DY
POTASSIUM MG/KG	479DYJ	396DYJ	950DYJ
SELENIUM MG/KG	0.91UYJ	0.54UYJ	0.59UYJ
SILVER MG/KG	0.96DYJ	1.2DYJ	0.3UYJ
SODIUM MG/KG	18300DYJ	746DYJ	2200DY
THALLIUM MG/KG	1.1DYJ	0.27UY	0.3UY
VANADIUM MG/KG	17.4DYJ	19DYJ	21DYJ
ZINC MG/KG	274DYJ	52.1DY	112DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Radionuclides

Glossary of Data Qualifier Codes and Definitions Used for Radiological Data

Definitions of data qualifiers used for organic and inorganic analytical data are defined at the bottom of each data sheet. The definitions for the data qualifiers for the radiological data, however, are different. The following definitions should, therefore, be used for radiological data qualifiers.:

U - The parameter was analyzed for, but was not detected above the level of the associated value. The associated value is either the minimum detectable activity (MDA) or the sample-specific lower limit of detection (LLD), or the observed value.

J - The associated value is estimated because one or more quality acceptance criteria were not met.

UJ - The parameter was analyzed for but was not detected. The nondetection could be due to one or more quality control problems. The associated value is an estimated MDA or LLD, or observed value.

H - Holding times exceeded.

D - Duplicate precision criteria not met.

S - Matrix spike recovery criteria not met.

C - Calibration criteria not met.

B - Blank contamination present.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT
ALL OBSERVATIONS
SAMPLE ANALYSIS: RAD

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
S01	GROSS ALPHA, TOTAL	PCI/G	23	19	0.8261	12.100	6,240.000	541.168	1,374.729
S02	GROSS BETA, TOTAL	PCI/G	23	19	0.8261	12.600	2,040.000	199.668	445.381
S03	RADIUM 226, TOTAL	PCI/G	23	22	0.9565	0.200	50.500	6.659	10.301
S04	RADIUM 228, TOTAL	PCI/G	23	11	0.4783	1.200	128.000	17.964	35.093
S05	THORIUM 230, TOTAL	PCI/G	23	9	0.3913	0.500	159.000	18.500	49.675
S06	THORIUM 232, TOTAL	PCI/G	23	20	0.8696	0.300	213.000	15.205	45.774
S07	URANIUM 234, TOTAL	PCI/G	23	12	0.5217	0.600	48.500	5.567	12.977
S08	URANIUM 235, TOTAL	PCI/G	23	9	0.3913	0.300	11.600	1.822	3.472
S09	URANIUM 238, TOTAL	PCI/G	23	11	0.4783	1.100	40.500	5.445	11.150
S11	URANIUM NATURAL, TOTAL (UNAT)	PCI/G	11	7	0.6364	1.000	96.700	16.486	32.800

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT
ALL OBSERVATIONS

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-106	TP-107	TP-119
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00
LOWER DEPTH:			4.00
GROSS ALPHA, TOTAL PCI/G	28.1UY	27.8 +/- 8.1DY	15.9 +/- 6.7DY
GROSS BETA, TOTAL PCI/G	3.9UYJB	22.2 +/- 4.7DY	20.2 +/- 4.6DY
RADIUM 226, TOTAL PCI/G	0.3 +/- 0.2DY	9 +/- 0.9DY	5.5 +/- 0.7DY
RADIUM 228, TOTAL PCI/G	1.8UYJB	6.7UYJB	1.9UYJDB
THORIUM 230, TOTAL PCI/G	1.6 +/- 0.5DY	0.8 +/- 0.2DY	0.7 +/- 0.2DY
THORIUM 232, TOTAL PCI/G	0.3UY	2.8 +/- 0.4DY	2.2 +/- 0.3DY
URANIUM 234, TOTAL PCI/G	0.1UY	1.2 +/- 0.4DY	2.7 +/- 0.5DYJD
URANIUM 235, TOTAL PCI/G	0.5UY	0.4 +/- 0.2DY	0.3 +/- 0.2DYJD
URANIUM 238, TOTAL PCI/G	0.6UY	1.1 +/- 0.4DY	1.1 +/- 0.4DYJD
URANIUM NATURAL, TOTAL (UNAT)			

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SAMPLE ID:	TP-22-01	TP-22D-01	TP-23-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	TP-22	TP-22D	TP-23
SAMPLE DATE:	04/02/1992	04/02/1992	04/03/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	2.00	3.50
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	14.1 +/- 3DY	12.1 +/- 3DY	2.5UY
GROSS BETA, TOTAL PCI/G	18.2 +/- 3.2DY	15.1 +/- 2.9DY	9.5UY
RADIUM 226, TOTAL PCI/G	4.2 +/- 0.8DY	1.3 +/- 0.5DY	1.7 +/- 0.5DY
RADIUM 228, TOTAL PCI/G	0.6UY	1.5UY	0.5UY
THORIUM 230, TOTAL PCI/G	0.5UY	0.4UY	0.9 +/- 0.6DY
THORIUM 232, TOTAL PCI/G	0.6 +/- 0.5DY	0.2UY	0.7 +/- 0.5DY
URANIUM 234, TOTAL PCI/G	1 +/- 0.5DY	0.4UY	0.6 +/- 0.4DY
URANIUM 235, TOTAL PCI/G	0.2UY	0.1UY	0.2UY
URANIUM 238, TOTAL PCI/G	0.7UY	0.2UY	1.1 +/- 0.5DY
URANIUM NATURAL, TOTAL (UNAT)			

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT
ALL OBSERVATIONS

SAMPLE ID:	TP-25-01	TP-32-01	TP-42-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-25	TP-32	TP-42
SAMPLE DATE:	04/03/1992	04/06/1992	04/07/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	0.60	3.00	1.00
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	35.6 +/- 4.5DY	19.2 +/- 3.4DY	44.6 +/- 5.1DY
GROSS BETA, TOTAL PCI/G	52.8 +/- 4DY	12.6 +/- 2.9DY	13.8 +/- 3DY
RADIUM 226, TOTAL PCI/G	8.4 +/- 1.1DY	4.9 +/- 0.9DY	0.4 +/- 0.3DY
RADIUM 228, TOTAL PCI/G	3 +/- 1.1DY	2.5 +/- 1DY	1.5UY
THORIUM 230, TOTAL PCI/G	1.3 +/- 0.6DY	0.5 +/- 0.4DY	0.3UY
THORIUM 232, TOTAL PCI/G	3.2 +/- 1DY	1.7 +/- 0.7DY	1.8 +/- 0.7DY
URANIUM 234, TOTAL PCI/G	2.3 +/- 0.7DY	0.8 +/- 0.4DY	1 +/- 0.5DY
URANIUM 235, TOTAL PCI/G	0.3 +/- 0.2DY	0.3 +/- 0.2DY	0.2UY
URANIUM 238, TOTAL PCI/G	1.3 +/- 0.6DY	1.8 +/- 0.5DY	0.2UY
URANIUM NATURAL, TOTAL (UNAT)			

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-57-01	TP-76-01	TP-79-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-57	TP-76	TP-79
SAMPLE DATE:	04/10/1992	05/04/1992	05/05/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	1.00
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	13.9 +/- 3.1DY	48.6 +/- 24.7DY	603 +/- 109DY
GROSS BETA, TOTAL PCI/G	23.4 +/- 3.5DY	31.7 +/- 15.9DY	237 +/- 50.8DY
RADIUM 226, TOTAL PCI/G	2.1 +/- 0.6DY	0.2 +/- 0.1DY	8.9 +/- 0.9DY
RADIUM 228, TOTAL PCI/G	0.2UYJS	1.6UY	12.2 +/- 0.9DY
THORIUM 230, TOTAL PCI/G	0.6UY	0.3UYJB	4UYJB
THORIUM 232, TOTAL PCI/G	0.7 +/- 0.6DY	0.5 +/- 0.2DY	23.3 +/- 1.7DY
URANIUM 234, TOTAL PCI/G	0.7 +/- 0.5DY	0.4UYJCB	3.5 +/- 1.3DYJC
URANIUM 235, TOTAL PCI/G	0.2UY	1.1 +/- 0.7DYJC	1.2 +/-DYJC
URANIUM 238, TOTAL PCI/G	1.5 +/- 0.7DY	1.1UYJC	5.5 +/- 0.7DYJC
URANIUM NATURAL, TOTAL (UNAT) PCI/G		0.6UY	7 +/-DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT
ALL OBSERVATIONS

SAMPLE ID:	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	DUP	00000	DUP
STATION ID:	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	1.00	2.00	2.00
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	915 +/- 138DY	88.3 +/- 13.1DY	90.1 +/- 13.2DY
GROSS BETA, TOTAL PCI/G	387 +/- 54.9DY	47.9 +/- 5.7DY	45.7 +/- 5.6DY
RADIUM 226, TOTAL PCI/G	7.4 +/- 0.7DY	15.6 +/- 1.2DY	9.1 +/- 0.9DY
RADIUM 228, TOTAL PCI/G	10.8 +/- 0.7DY	15.6 +/- 2DYJDS	11.8UYJDB
THORIUM 230, TOTAL PCI/G	1.8UYJB	0.9 +/- 0.2DY	0.8 +/- 0.2DY
THORIUM 232, TOTAL PCI/G	11.1 +/- 0.8DY	5 +/- 0.4DY	4.8 +/- 0.4DY
URANIUM 234, TOTAL PCI/G	1.9UYJCB	2.7 +/- 0.6DYJD	1.8 +/- 0.6DYJD
URANIUM 235, TOTAL PCI/G	0.4UYJC	0.5 +/- 0.2DYJD	0.2UYJD
URANIUM 238, TOTAL PCI/G	2.5 +/- 1.2DYJC	2 +/- 0.5DYJD	1.5 +/- 0.6DYJD
URANIUM NATURAL, TOTAL (UNAT) PCI/G	3.7 +/-DY		

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-84	TP-85	TP-87
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	134 +/- 34.6DY	356 +/- 73.2DY	7UY
GROSS BETA, TOTAL PCI/G	76.1 +/- 17.7DY	166 +/- 36.4DY	4.5UY
RADIUM 226, TOTAL PCI/G	0.9 +/- 0.3DY	4.4 +/- 0.6DY	0.1UY
RADIUM 228, TOTAL PCI/G	1.2 +/- 0.6DY	4.9 +/- 1.1DY	0.4UYJD
THORIUM 230, TOTAL PCI/G	0.2UYJB	0.9UYJB	0.4UYJB
THORIUM 232, TOTAL PCI/G	1.3 +/- 0.3DY	6.2 +/- 0.7DY	0.3 +/- 0.2DY
URANIUM 234, TOTAL PCI/G	1.1UYJCB	1.1UYJCB	0.4UYJCB
URANIUM 235, TOTAL PCI/G	0.4UYJC	0.4UYJC	0.4UYJCD
URANIUM 238, TOTAL PCI/G	0.3UYJC	0.5UYJC	0.8UYJC
URANIUM NATURAL, TOTAL (UNAT) PCI/G	0.6UY	1.3 +/-DY	0.6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT
ALL OBSERVATIONS

SAMPLE ID:	TP-87B-01	TP-88-01	TP-88-01
SUB-SAMPLE ID:	00000	A	B
STATION ID:	TP-87B	TP-88	TP-88
SAMPLE DATE:	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	1.00	1.00	2.00
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	414 +/- 102DY	65UY	967 +/- 162DY
GROSS BETA, TOTAL PCI/G	193 +/- 47DY	50.6UY	221 +/- 57.9DY
RADIUM 226, TOTAL PCI/G	5.1 +/- 0.7DY	0.8 +/- 0.3DY	1.6 +/- 0.4DY
RADIUM 228, TOTAL PCI/G	11.1 +/- 1.4DY	0.8UY	2.6 +/- 0.9DY
THORIUM 230, TOTAL PCI/G	3.4UYJB	0.6UYJSB	1.4UYJB
THORIUM 232, TOTAL PCI/G	18.7 +/- 1.5DY	1UYJS	1.3 +/- 0.4DY
URANIUM 234, TOTAL PCI/G	1.1UYJCB	1.1UYJCB	0.4UYJCB
URANIUM 235, TOTAL PCI/G	0.2UYJC	0.7 +/- 0.5DYJC	0.4UYJC
URANIUM 238, TOTAL PCI/G	1.2UYJC	1.2UYJC	1.2UYJC
URANIUM NATURAL, TOTAL (UNAT) PCI/G	2.3 +/-DY	0.6UY	1 +/-DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-89-01	TP-91-01
SUB-SAMPLE ID:	00000	00000
STATION ID:	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/08/1992
SAMPLE TIME:		
SAMPLE MATRIX:	WS	WS
UPPER DEPTH:	1.00	3.00
LOWER DEPTH:		
GROSS ALPHA, TOTAL PCI/G	243 +/- 126DY	6240 +/- 354DY
GROSS BETA, TOTAL PCI/G	170 +/- 71.4DY	2040 +/- 105DY
RADIUM 226, TOTAL PCI/G	4.2 +/- 0.6DY	50.5 +/- 2.2DY
RADIUM 228, TOTAL PCI/G	5.7 +/- 1.4DY	128 +/- 5DYJD
THORIUM 230, TOTAL PCI/G	1.9UYJB	159 +/- 46.4DY
THORIUM 232, TOTAL PCI/G	4.9 +/- 0.6DY	213 +/- 55.8DY
URANIUM 234, TOTAL PCI/G	0.6UYJCB	48.5 +/- 12.1DYJC
URANIUM 235, TOTAL PCI/G	0.5UYJC	11.6 +/- 5.9DYJCD
URANIUM 238, TOTAL PCI/G	0.1UYJC	40.5 +/- 11.1DYJC
URANIUM NATURAL, TOTAL (UNAT) PCI/G	3.4 +/-DY	96.7 +/-DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

TCLP Volatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - DETECTED OBSERVATIONS
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
12A	1,2-DICHLOROETHANE	UG/L	23	2	0.0870	13.000	22.000	17.500	4.500
2BU	2-BUTANONE	UG/L	17	1	0.0588	50.000	50.000	50.000	0.000
BEN	BENZENE	UG/L	23	5	0.2174	10.000	5,900.000	1,259.000	2,321.410
PCE	TETRACHLOROETHENE	UG/L	23	8	0.3478	6.000	680.000	317.625	217.393
TCE	TRICHLOROETHENE	UG/L	23	7	0.3043	43.000	320.000	158.857	105.270
VC	VINYL CHLORIDE	UG/L	23	1	0.0435	130.000	130.000	130.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:	00000	00000	00000	00000	DUP
STATION ID:	TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:			4.00		
1,1-DICHLOROETHENE UG/L	25UY	25UY	25UY	25UY	25UY
1,2-DICHLOROETHANE UG/L	25UY	25UY	25UY	25UY	25UY
2-BUTANONE UG/L	50UY	50UY	UYR	50UY	50UY
BENZENE UG/L	5900DY	25UY	25UY	25UY	25UY
CARBON TETRACHLORIDE UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROBENZENE UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROFORM UG/L	25UY	25UY	25UY	25UY	25UY
TETRACHLOROETHENE UG/L	25UY	25UY	25UY	680DYJ	540DYJ
TRICHLOROETHENE UG/L	25UY	25UY	25UY	290DY	210DYJ
VINYL CHLORIDE UG/L	50UY	50UY	50UY	50UY	50UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
1,1-DICHLOROETHENE UG/L	25UY	25UY	25UY	25UY	25UY
1,2-DICHLOROETHANE UG/L	25UY	25UY	25UY	25UY	25UY
2-BUTANONE UG/L	50UY	50UY	50UY	50UY	UYR
BENZENE UG/L	25UY	25UY	25UY	25UY	25UY
CARBON TETRACHLORIDE UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROBENZENE UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROFORM UG/L	25UY	25UY	25UY	25UY	25UY
TETRACHLOROETHENE UG/L	420DYJ	290DYJ	320DYJ	260DYJ	82UY
TRICHLOROETHENE UG/L	1100YJ	72DYJ	67DYJ	43DYJ	25UY
VINYL CHLORIDE UG/L	50UY	50UY	50UY	50UY	50UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
1,1-DICHLOROETHENE UG/L	25UY	25UY	25UY	25UY	25UY
1,2-DICHLOROETHANE UG/L	13DYJ	25UY	25UY	25UY	22DYJ
2-BUTANONE UG/L	UYR	50DYJ	UYR	UYR	UYR
BENZENE UG/L	45DY	25UY	25UY	25UY	25UY
CARBON TETRACHLORIDE UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROBENZENE UG/L	25UY	25UY	DYR	25UY	25UY
CHLOROFORM UG/L	25UY	25UY	25UY	25UY	25UY
TETRACHLOROETHENE UG/L	25UY	25UY	25UY	25UY	25UY
TRICHLOROETHENE UG/L	25UY	25UY	25UY	25UY	25UY
VINYL CHLORIDE UG/L	50UY	50UY	50UY	50UY	50UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:		00000	00000	00000	00000	A
STATION ID:		TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:		05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:						
1,1-DICHLOROETHENE	UG/L	25UY	25UY	25UY	25UY	25UY
1,2-DICHLOROETHANE	UG/L	25UY	25UY	25UY	25UY	25UY
2-BUTANONE	UG/L	50UY	50UY	50UY	50UY	50UY
BENZENE	UG/L	25UY	160DY	180DY	10DYJ	25UY
CARBON TETRACHLORIDE	UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROBENZENE	UG/L	25UY	25UY	25UY	25UY	25UY
CHLOROFORM	UG/L	25UY	25UY	25UY	25UY	25UY
TETRACHLOROETHENE	UG/L	6DYJ	25DYJ	25UY	25UY	25UY
TRICHLOROETHENE	UG/L	320DY	25UY	25UY	25UY	25UY
VINYL CHLORIDE	UG/L	130DY	50UY	50UY	50UY	50UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
1,1-DICHLOROETHENE UG/L	25UY	25UY	25UY
1,2-DICHLOROETHANE UG/L	25UY	25UY	25UY
2-BUTANONE UG/L	50UY	50UY	50UY
BENZENE UG/L	25UY	25UY	25UY
CARBON TETRACHLORIDE UG/L	25UY	25UY	25UY
CHLOROBENZENE UG/L	25UY	25UY	25UY
CHLOROFORM UG/L	25UY	25UY	25UY
TETRACHLOROETHENE UG/L	25UY	25UY	25UY
TRICHLOROETHENE UG/L	25UY	25UY	25UY
VINYL CHLORIDE UG/L	50UY	50UY	50UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

TCLP Semivolatiles

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - DETECTED OBSERVATIONS
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
245	2,4,5-TRICHLOROPHENOL	UG/L	21	2	0.0952	110.000	130.000	120.000	10.000
246	2,4,6-TRICHLOROPHENOL	UG/L	21	1	0.0476	24.000	24.000	24.000	0.000
2MP	2-METHYLPHENOL	UG/L	21	2	0.0952	4.000	41.000	22.500	18.500
4MP	4-METHYLPHENOL	UG/L	21	10	0.4762	2.000	9,100.000	1,568.300	3,169.631
NTB	NITROBENZENE	UG/L	23	2	0.0870	2,600.000	3,500.000	3,050.000	450.000
PCP	PENTACHLOROPHENOL	UG/L	21	3	0.1429	8.000	260.000	152.667	106.212

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:		TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:		00000	00000	00000	00000	DUP
STATION ID:		TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:		05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:				4.00		
1,4-DICHLOROBENZENE	UG/L	40UY	40UY	40UY	20UYJ	20UYJ
2,4,5-TRICHLOROPHENOL	UG/L	200UY	200UY	200UY	110DYJ	130DYJ
2,4,6-TRICHLOROPHENOL	UG/L	40UY	40UY	40UY	20UYJ	24DYJ
2,4-DINITROTOLUENE	UG/L	40UY	40UY	40UY	20UYJ	20UYJ
2-METHYLPHENOL	UG/L	4DYJ	40UY	40UY	20UYJ	20UYJ
3-METHYLPHENOL	UG/L	40UY	40UY	40UY	20UYJ	20UYJ
4-METHYLPHENOL	UG/L	17DYJ	40UY	6DYJ	6500DYJ	9100DYJ
CRESOL	UG/L	DYR	UYR	DYR	DYR	DYR
HEXACHLOROBENZENE	UG/L	40UY	40UY	40UY	20UYJ	20UYJ
HEXACHLOROBUTADIENE	UG/L	40UY	40UY	40UY	20UYJ	20UYJ
HEXACHLOROETHANE	UG/L	40UY	40UY	40UY	20UYJ	20UYJ
NITROBENZENE	UG/L	40UY	40UY	40UY	2600DYJ	3500DYJ
PENTACHLOROPHENOL	UG/L	200UY	200UY	200UY	260DYJ	190DYJ
PYRIDINE	UG/L	40UY	40UY	40UY	20UYJ	20UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, 8=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN - tentatively identified and estimated, UJ = not detected and det limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	UYR
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	UYR
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	UYR
3-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	UYR
4-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	UYR
CRESOL UG/L	UYR	UYR	UYR	UYR	UYR
HEXACHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	UYR
PYRIDINE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
1,4-DICHLOROBENZENE UG/L	40UY	40UYJ	40UY	40UY	40UY
2,4,5-TRICHLOROPHENOL UG/L	200UY	200UYJ	200UY	200UY	200UY
2,4,6-TRICHLOROPHENOL UG/L	40UY	40UYJ	40UY	40UY	40UY
2,4-DINITROTOLUENE UG/L	40UY	40UYJ	40UY	40UY	40UY
2-METHYLPHENOL UG/L	41DY	40UYJ	40UY	40UY	40UY
3-METHYLPHENOL UG/L	40UY	40UYJ	40UY	40UY	40UY
4-METHYLPHENOL UG/L	23DYJ	3DYJ	7DYJ	40UY	40UY
CRESOL UG/L	DYR	DYR	DYR	UYR	UYR
HEXACHLOROBENZENE UG/L	40UY	40UYJ	40UY	40UY	40UY
HEXACHLOROBUTADIENE UG/L	40UY	40UYJ	40UY	40UY	40UY
HEXACHLOROETHANE UG/L	40UY	40UYJ	40UY	40UY	40UY
NITROBENZENE UG/L	40UY	40UYJ	40UY	40UY	40UY
PENTACHLOROPHENOL UG/L	200UY	200UYJ	200UY	200UY	200UY
PYRIDINE UG/L	40UY	40UYJ	40UY	40UY	40UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
1,4-DICHLOROBENZENE UG/L	40UY	40UY	40UY	40UY	40UY
2,4,5-TRICHLOROPHENOL UG/L	UYR	200UY	200UY	200UY	200UY
2,4,6-TRICHLOROPHENOL UG/L	UYR	40UY	40UY	40UY	40UY
2,4-DINITROTOLUENE UG/L	40UYJ	40UY	40UY	40UY	40UY
2-METHYLPHENOL UG/L	UYR	40UY	40UY	40UY	40UY
3-METHYLPHENOL UG/L	UYR	40UY	40UY	40UY	40UY
4-METHYLPHENOL UG/L	UYR	11DYJ	14DYJ	40UY	40UY
CRESOL UG/L	UYR	DYR	DYR	UYR	UYR
HEXACHLOROBENZENE UG/L	40UYJ	40UY	40UY	40UY	40UY
HEXACHLOROBUTADIENE UG/L	40UY	40UY	40UY	40UY	40UY
HEXACHLOROETHANE UG/L	40UY	40UY	40UY	40UY	40UY
NITROBENZENE UG/L	40UY	40UY	40UY	40UY	40UY
PENTACHLOROPHENOL UG/L	UYR	200UY	200UY	200UY	200UY
PYRIDINE UG/L	40UYJ	40UYJ	UYR	40UYJ	40UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:		B	00000	00000
STATION ID:		TP-88	TP-89	TP-91
SAMPLE DATE:		05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:				
SAMPLE MATRIX:		WS	WS	WS
UPPER DEPTH:		2.00	1.00	3.00
LOWER DEPTH:				
1,4-DICHLOROBENZENE	UG/L	40UY	40UY	40UY
2,4,5-TRICHLOROPHENOL	UG/L	200UY	200UY	200UY
2,4,6-TRICHLOROPHENOL	UG/L	40UY	40UY	40UY
2,4-DINITROTOLUENE	UG/L	40UY	40UY	40UY
2-METHYLPHENOL	UG/L	40UY	40UY	40UY
3-METHYLPHENOL	UG/L	40UY	40UY	40UY
4-METHYLPHENOL	UG/L	40UY	2DYJ	40UY
CRESOL	UG/L	UYR	DYR	UYR
HEXACHLOROBENZENE	UG/L	40UY	40UY	40UY
HEXACHLOROBUTADIENE	UG/L	40UY	40UY	40UY
HEXACHLOROETHANE	UG/L	40UY	40UY	40UY
NITROBENZENE	UG/L	40UY	40UY	40UY
PENTACHLOROPHENOL	UG/L	200UY	8DYJ	200UY
PYRIDINE	UG/L	40UYJ	40UYJ	40UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

TCLP Pesticides and Herbicide

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - DETECTED OBSERVATIONS
SAMPLE ANALYSIS: PEST

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
24A	2,4-D	UG/L	23	6	0.2609	0.830	4.370	2.433	1.298
235	SILVEX	UG/L	20	1	0.0500	0.840	0.840	0.840	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:		TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:		00000	00000	00000	00000	DUP
STATION ID:		TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:		05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:				4.00		
2,4-D	UG/L	0.5UY	0.5UY	2.5UY	4.37DYJN	3.27DYJN
BHC-GAMMA(LINDANE)	UG/L	1UY	1UY	1UY	2.5UY	2.5UY
CHLORDANE	UG/L	2UY	2UY	2UY	5UY	5UY
ENDRIN	UG/L	2UY	2UY	2UY	5UY	5UY
HEPTACHLOR	UG/L	1UY	1UY	1UY	2.5UY	2.5UY
HEPTACHLOR EPOXIDE	UG/L	1UY	1UY	1UY	2.5UY	2.5UY
METHOXYCHLOR	UG/L	10UY	10UY	10UY	25UY	25UY
SILVEX	UG/L	0.5UY	0.5UY	UYR	UYR	UYR
TOXAPHENE	UG/L	20UY	20UY	20UY	50UY	50UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND HERBICIDES

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
2,4-D UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
CHLORDANE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
SILVEX UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:	00000	00000	DUP	00000	DUP
STATION ID:	TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:	05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:					
2,4-D UG/L	3.23DY	0.5UY	0.5UY	0.5UY	0.5UY
BHC-GAMMA(LINDANE) UG/L	UYR	1UY	1UY	0.05UY	0.05UY
CHLORDANE UG/L	2UY	2UY	2UY	0.1UY	0.1UY
DDT UG/L	2UY	2UY	2UY	0.1UY	0.1UY
HEPTACHLOR UG/L	1UY	1UY	1UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	1UY	1UY	1UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	10UY	10UY	10UY	0.5UY	0.5UY
SILVEX UG/L	0.84DYN	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	20UY	20UY	20UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND HERBICIDES

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
2,4-D UG/L	0.83DYN	0.94DYN	1.96DY	0.5UY	0.5UY
BHC-GAMMA(LINDANE) UG/L	1UY	1UY	1UY	1UY	0.05UY
CHLORDANE UG/L	2UY	2UY	2UY	2UY	0.1UY
ENDRIN UG/L	2UY	2UY	2UY	2UY	0.1UY
HEPTACHLOR UG/L	1UY	1UY	1UY	1UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	1UY	1UY	1UY	1UY	0.05UY
METHOXYCHLOR UG/L	10UY	10UY	10UY	10UY	0.5UY
SILVEX UG/L	1UY	1UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	20UY	20UY	20UY	20UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND HERBICIDES

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	B	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
2,4-D UG/L	0.5UY	0.5UY	0.5UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.5UY	0.05UY
CHLORDANE UG/L	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY
HEPTACHLOR UG/L	0.05UY	0.5UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY
SILVEX UG/L	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

TCLP Metals

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - DETECTED OBSERVATIONS
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AS	ARSENIC	UG/L	23	4	0.1739	75.000	1,880.000	779.750	720.639
BA	BARIUM	UG/L	23	23	1.0000	9.000	5,120.000	396.913	1,028.113
CD	CADMIUM	UG/L	23	9	0.3913	4.000	161.000	25.111	48.225
CR	CHROMIUM	UG/L	22	9	0.4091	8.000	12,000.000	2,394.111	4,217.624
PB	LEAD	UG/L	23	6	0.2609	234.000	752.000	512.000	193.300
HG	MERCURY	UG/L	23	7	0.3043	0.100	3.400	0.659	1.121
SE	SELENIUM	UG/L	23	5	0.2174	128.000	1,470.000	640.000	557.544
AG	SILVER	UG/L	23	2	0.0870	7.000	64.000	35.500	28.500

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	TP-106-01	TP-107-01	TP-119-01	TP-22-01	TP-22D-01
SUB-SAMPLE ID:	00000	00000	00000	00000	DUP
STATION ID:	TP-106	TP-107	TP-119	TP-22	TP-22D
SAMPLE DATE:	05/14/1992	05/14/1992	05/19/1992	04/02/1992	04/02/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	3.00	3.00	2.00	2.00
LOWER DEPTH:			4.00		
ARSENIC UG/L	129UY	129UY	750YJ	140UY	140UY
BARIUM UG/L	360YJ	2770Y	5120DYJ	100YJ	90YJ
CADMIUM UG/L	5UY	5DY	80YJ	5UY	5UY
CHROMIUM UG/L	55UY	55UY	780YJ	12000DYJ	81800YJ
LEAD UG/L	100UY	100UY	780Y	100UY	100UY
MERCURY UG/L	0.1UYJ	0.1UYJ	0.1UYJ	0.16DYJ	0.28DY
SELENIUM UG/L	518UY	518UY	2390YJ	1470DY	1150DY
SILVER UG/L	12UY	12UY	70YJ		420YJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	TP-23-01	TP-25-01	TP-32-01	TP-42-01	TP-57-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	TP-23	TP-25	TP-32	TP-42	TP-57
SAMPLE DATE:	04/03/1992	04/03/1992	04/06/1992	04/07/1992	04/10/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	3.50	0.60	3.00	1.00	2.00
LOWER DEPTH:					
ARSENIC UG/L	140UY	140UY	140UYJ	140UYJ	140UYJ
BARIUM UG/L	126DYJ	450DY	544DY	207DY	941DY
CADMIUM UG/L	19DY	8DY	161DY	5UY	7DY
CHROMIUM UG/L	82DY	811DYJ	10UY	10UY	UYR
LEAD UG/L	278DY	651DY	522DY	752DY	234DY
MERCURY UG/L	3.4DY	0.1UY	0.1DYJ	0.1UY	0.14DYJ
SELENIUM UG/L	518UY	518UY	2590UY	518UY	2590UY
SILVER UG/L	42UYJ	42UYJ	42UYJ	42UYJ	42UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		TP-76-01	TP-79-01	TP-79D-01	TP-80-01	TP-80D-01
SUB-SAMPLE ID:		00000	00000	DUP	00000	DUP
STATION ID:		TP-76	TP-79	TP-79D	TP-80	TP-80D
SAMPLE DATE:		05/04/1992	05/05/1992	05/05/1992	05/20/1992	05/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		WS	WS	WS	WS	WS
UPPER DEPTH:		1.00	1.00	1.00	2.00	2.00
LOWER DEPTH:						
ARSENIC	UG/L	129UY	129UY	129UY	200DY	74UY
BARIUM	UG/L	73DYJ	121DYJ	140DYJ	99DYJ	173DYJ
CADMIUM	UG/L	5UY	5UY	5UY	4DYJ	4UY
CHROMIUM	UG/L	55UY	55UY	55UY	18DYJ	8DYJ
LEAD	UG/L	100UY	100UY	100UY	78UY	78UY
MERCURY	UG/L	0.1UYJ	0.1UYJ	0.1UYJ	0.1UYJ	0.1UYJ
SELENIUM	UG/L	518UY	518UY	518UY	213DYJ	128DYJ
SILVER	UG/L	12UY	12UY	12UY	7UY	7UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	TP-84-01	TP-85-01	TP-87-01	TP-87B-01	TP-88-01
SUB-SAMPLE ID:	00000	00000	00000	00000	A
STATION ID:	TP-84	TP-85	TP-87	TP-87B	TP-88
SAMPLE DATE:	05/06/1992	05/06/1992	05/07/1992	05/07/1992	05/07/1992
SAMPLE TIME:					
SAMPLE MATRIX:	WS	WS	WS	WS	WS
UPPER DEPTH:	2.00	1.50	1.00	1.00	1.00
LOWER DEPTH:					
ARSENIC UG/L	129UY	129UY	129UY	129UY	964DY
BARIUM UG/L	106DYJ	238DY	29DYJ	114DYJ	25DYJ
CADMIUM UG/L	5UY	5UY	5UY	5UY	5UY
CHROMIUM UG/L	55UY	55UY	55UY	55UY	55UY
LEAD UG/L	635DY	100UYJ	100UY	100UYJ	100UYJ
MERCURY UG/L	0.1UYJ	0.3DYJ	0.1UYJ	0.1UYJ	0.1UYJ
SELENIUM UG/L	518UY	518UY	518UY	518UY	518UY
SILVER UG/L	12UY	12UY	12UY	12UY	12UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
TCLP - ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	TP-88-01	TP-89-01	TP-91-01
SUB-SAMPLE ID:	8	00000	00000
STATION ID:	TP-88	TP-89	TP-91
SAMPLE DATE:	05/07/1992	05/07/1992	05/08/1992
SAMPLE TIME:			
SAMPLE MATRIX:	WS	WS	WS
UPPER DEPTH:	2.00	1.00	3.00
LOWER DEPTH:			
ARSENIC UG/L	1880DY	129UY	129UY
BARIUM UG/L	280YJ	167DYJ	96DYJ
CADMIUM UG/L	5DY	9DY	5UY
CHROMIUM UG/L	64DYJ	306DY	55UY
LEAD UG/L	100UY	100UY	100UY
MERCURY UG/L	0.23DYJ	0.1UYJ	0.1UYJ
SELENIUM UG/L	518UY	518UY	518UY
SILVER UG/L	12UY	12UY	12UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Field Equipment Rinse Blanks.
Test Pits

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS DETECTED OBSERVATIONS
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
CA	CALCIUM	UG/L	3	2	0.6667	46.000	117.000	81.500	35.500
SE	SELENIUM	UG/L	3	1	0.3333	1.600	1.600	1.600	0.000
NA	SODIUM	UG/L	3	3	1.0000	144.000	362.000	254.667	89.029
TL	THALLIUM	UG/L	3	2	0.6667	1.100	2.100	1.600	0.500

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS DETECTED OBSERVATIONS
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	3	1	0.3333	5.000	5.000	5.000	0.000
DOP	DI-N-OCTYL PHTHALATE	UG/L	3	1	0.3333	2.000	2.000	2.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS DETECTED OBSERVATIONS
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
ACT	ACETONE	UG/L	3	1	0.3333	9.000	9.000	9.000	0.000
MCL	METHYLENE CHLORIDE	UG/L	3	3	1.0000	2.000	3.000	2.667	0.471

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248
AR6	11097-69-1	AROCLOR-1254

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE
HBU	87-68-3	HEXACHLOROBUTADIENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:	04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
ALUMINUM UG/L	39UY	39UY	39UY
ANTIMONY UG/L	9UY	9UY	9UY
ARSENIC UG/L	2UYJ	2UY	2UY
BARIUM UG/L	5UY	3UY	3UY
BERYLLIUM UG/L	4UY	4UY	4UY
CADMIUM UG/L	5UY	UYR	UYR
CALCIUM UG/L	21UY	117DYJ	46DYJ
CHROMIUM UG/L	10UY	6UY	6UY
COBALT UG/L	14UY	12UY	12UY
COPPER UG/L	9UY	7UY	7UY
CYANIDE UG/L	5UY	5UY	5UY
IRON UG/L	21UY	21UY	21UY
LEAD UG/L	1UYJ	UYR	UYR
MAGNESIUM UG/L	46UY	46UY	46UY
MANGANESE UG/L	UYR	4UY	4UY
MERCURY UG/L	0.1UY	0.1UY	0.1UY
NICKEL UG/L	15UY	9UY	9UY
POTASSIUM UG/L	95UY	95UY	95UY
SELENIUM UG/L	1UY	2UY	1.6DYJ
SILVER UG/L	1UY	1UY	1UY
SODIUM UG/L	144DYJ	362DYJ	258DYJ
THALLIUM UG/L	2.1DYJ	1UY	1.1DYJ
VANADIUM UG/L	15UY	UYR	UYR
ZINC UG/L	UYR	6UY	6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND HERBICIDES

SAMPLE ID:	TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:	04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	1UY	1UY	1UY
AROCLOR-1260 UG/L	1UY	1UY	1UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY
DIELDRIN UG/L	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:	04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	20UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	20UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	20UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	20UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	20UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	20UY
2,4-DINITROPHENOL UG/L	50UY	50UY	100UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	20UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	20UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	20UY
2-CHLOROPHENOL UG/L	10UY	10UY	20UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	20UY
2-METHYLPHENOL UG/L	10UY	10UY	20UY
2-NITROANILINE UG/L	50UY	50UY	100UY
2-NITROPHENOL UG/L	10UY	10UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	40UY
3-NITROANILINE UG/L	50UY	50UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	20UY
4-CHLOROANILINE UG/L	10UY	10UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	20UY
4-METHYLPHENOL UG/L	10UY	10UY	20UY
4-NITROANILINE UG/L	50UY	50UY	100UY
4-NITROPHENOL UG/L	50UY	50UY	100UY
ACENAPHTHENE UG/L	10UY	10UY	20UY
ACENAPHTHYLENE UG/L	10UY	10UY	20UY
ANTHRACENE UG/L	10UY	10UY	20UY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:		00000	00000	00000
STATION ID:		TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:		04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:				
SAMPLE MATRIX:		AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
BENZO(A)ANTHRACENE	UG/L	10UY	10UY	20UY
BENZO(A)PYRENE	UG/L	10UY	10UY	20UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY	20UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY	20UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY	20UY
BENZOIC ACID	UG/L	50UY	50UY	100UY
BENZYL ALCOHOL	UG/L	10UY	10UY	20UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY	20UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	10UY	5DYJ	20UY
CAFFEINE	UG/L	10UY	10UY	20UY
CHRYSENE	UG/L	10UY	10UY	20UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	10UY	20UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	2DYJ	20UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY	20UY
DIBENZOFURAN	UG/L	10UY	10UY	20UY
DIETHYL PHTHALATE	UG/L	10UY	10UY	20UY
DIMETHYL PHTHALATE	UG/L	10UY	10UY	20UY
FLUORANTHENE	UG/L	10UY	10UY	20UY
FLUORENE	UG/L	10UY	10UY	20UY
HEXACHLOROBENZENE	UG/L	10UY	10UY	20UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY	20UY
HEXACHLOROETHANE	UG/L	10UY	10UY	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY	20UY
ISOPHORONE	UG/L	10UY	10UY	20UY
N-NITROSODINPROPYLAMINE	UG/L	10UY	10UY	20UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY	20UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:	04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
NAPHTHALENE UG/L	10UY	10UY	20UY
NITROBENZENE UG/L	10UY	10UY	20UY
PENTACHLOROPHENOL UG/L	50UY	50UY	100UY
PHENANTHRENE UG/L	10UY	10UY	20UY
PHENOL UG/L	10UY	10UY	20UY
PYRENE UG/L	10UY	10UY	20UY
a-PINENE UG/L	10UY	10UY	20UY
d-LIMONENE UG/L	10UY	10UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:		00000	00000	00000
STATION ID:		TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:		04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:				
SAMPLE MATRIX:		AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
1,1,1-TRICHLOROETHANE	UG/L	5UY	5UY	5UY
1,1,2,2-TETRACHLOROETHANE	UG/L	5UY	5UY	5UY
1,1,2-TRICHLOROETHANE	UG/L	5UY	5UY	5UY
1,1-DICHLOROETHANE	UG/L	5UY	5UY	5UY
1,1-DICHLOROETHENE	UG/L	5UY	5UY	5UY
1,2-DICHLOROETHANE	UG/L	5UY	5UY	5UY
1,2-DICHLOROETHENE (TOTAL)	UG/L	5UY	5UY	5UY
1,2-DICHLOROPROPANE	UG/L	5UY	5UY	5UY
2-BUTANONE	UG/L	UYR	UYR	UYR
2-HEXANONE	UG/L	10UY	10UY	10UY
4-METHYL-2-PENTANONE	UG/L	10UY	10UYJ	10UYJ
ACETONE	UG/L	10UYJ	10UYJ	9DYJ
BENZENE	UG/L	5UY	5UY	5UY
BROMODICHLOROMETHANE	UG/L	5UY	5UY	5UY
BROMOFORM	UG/L	5UY	5UYJ	5UYJ
BROMOMETHANE	UG/L	10UY	10UY	10UY
CARBON DISULFIDE	UG/L	5UY	5UY	5UY
CARBON TETRACHLORIDE	UG/L	5UY	5UY	5UY
CHLOROBENZENE	UG/L	5UY	5UY	5UY
CHLOROETHANE	UG/L	10UY	10UY	10UY
CHLOROFORM	UG/L	5UY	5UY	5UY
CHLOROMETHANE	UG/L	10UY	10UY	10UY
CIS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UYJ
DIBROMOCHLOROMETHANE	UG/L	5UY	5UY	5UY
ETHYLBENZENE	UG/L	5UY	5UY	5UY
METHYLENE CHLORIDE	UG/L	3DYJ	3DYJ	2DYJ
STYRENE	UG/L	5UY	5UY	5UY
TETRACHLOROETHENE	UG/L	5UY	5UY	5UY
TOLUENE	UG/L	5UY	5UY	5UY
TRANS-1,3-DICHLOROPROPENE	UG/L	5UY	5UY	5UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - TEST PIT SAMPLES
AQUEOUS BLANKS ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	TP-FB-01	TP-FB-02	TP-FB-03
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	TP-FB-01	TP-FB-02	TP-FB-03
SAMPLE DATE:	04/07/1992	05/07/1992	05/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
TRICHLOROETHENE UG/L	5UY	5UY	5UY
VINYL ACETATE UG/L	10UY	10UY	UYR
VINYL CHLORIDE UG/L	10UY	10UY	10UY
XYLENE (TOTAL) UG/L	5UY	5UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Appendix X
Groundwater Analytical Data

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
D3C		1,2-DIBROMO-3-CHLOROPROPANE
12E		1,2-DIBROMOETHANE
12B	95-50-1	1,2-DICHLOROBENZENE
12A	107-06-2	1,2-DICHLOROETHANE
12P	78-87-5	1,2-DICHLOROPROPANE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BCM		BROMOCHLOROMETHANE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C12		CIS-1,2-DICHLOROETHYLENE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T1E	156-60-5	TRANS-1,2-DICHLOROETHENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
S01		GROSS ALPHA, TOTAL
S02		GROSS BETA, TOTAL
S03		RADIUM 226, TOTAL
S04		RADIUM 228, TOTAL
S05		THORIUM 230, TOTAL
S06		THORIUM 232, TOTAL
S07		URANIUM 234, TOTAL
S08		URANIUM 235, TOTAL
S09		URANIUM 238, TOTAL

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

Volatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER
DETECTED OBSERVATIONS - NO TICS (GW009.TXT)
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
111	1,1,1-TRICHLOROETHANE	UG/L	51	2	0.0392	0.200	0.400	0.300	0.100
11A	1,1-DICHLOROETHANE	UG/L	51	3	0.0588	0.200	0.300	0.267	0.047
1DE	1,1-DICHLOROETHENE	UG/L	51	1	0.0196	0.200	0.200	0.200	0.000
12B	1,2-DICHLOROBENZENE	UG/L	51	1	0.0196	0.400	0.400	0.400	0.000
12A	1,2-DICHLOROETHANE	UG/L	51	3	0.0588	0.200	1.000	0.533	0.340
12P	1,2-DICHLOROPROPANE	UG/L	51	1	0.0196	0.400	0.400	0.400	0.000
13B	1,3-DICHLOROBENZENE	UG/L	51	1	0.0196	0.200	0.200	0.200	0.000
14B	1,4-DICHLOROBENZENE	UG/L	51	1	0.0196	0.400	0.400	0.400	0.000
ACT	ACETONE	UG/L	5	2	0.4000	16.000	21.000	18.500	2.500
BEN	BENZENE	UG/L	51	18	0.3529	0.200	33,000.000	1,925.444	7,538.957
CFM	CHLOROFORM	UG/L	51	14	0.2745	0.200	1.000	0.500	0.256
C12	CIS-1,2-DICHLOROETHYLENE	UG/L	51	19	0.3725	0.200	2,300.000	167.658	533.747
C13	CIS-1,3-DICHLOROPROPENE	UG/L	51	1	0.0196	0.400	0.400	0.400	0.000
DBC	DIBROMOCHLOROMETHANE	UG/L	51	1	0.0196	0.400	0.400	0.400	0.000
EBN	ETHYLBENZENE	UG/L	51	5	0.0980	0.200	1,100.000	368.700	464.308
MCL	METHYLENE CHLORIDE	UG/L	51	1	0.0196	15.000	15.000	15.000	0.000
STY	STYRENE	UG/L	51	1	0.0196	0.200	0.200	0.200	0.000
PCE	TETRACHLOROETHENE	UG/L	51	11	0.2157	0.200	4.000	1.000	1.069
TOL	TOLUENE	UG/L	51	9	0.1765	0.050	1,500.000	225.361	478.811
T1E	TRANS-1,2-DICHLOROETHENE	UG/L	51	1	0.0196	0.600	0.600	0.600	0.000
TCE	TRICHLOROETHENE	UG/L	51	13	0.2549	0.400	4.000	2.015	1.143
VC	VINYL CHLORIDE	UG/L	51	5	0.0980	1.000	2,100.000	765.400	798.906
XY	XYLENE (TOTAL)	UG/L	51	11	0.2157	0.800	4,000.000	621.155	1,334.716

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1000UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	1UYJ	UYR	1UYJ
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1000UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY	1000UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1000UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1000UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UY	5UY	5000UY	5UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5000UY	5UY
ACETONE UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE UG/L	2DY	1UY	1UY	560DYJ	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY	1000UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1000UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1000UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1000UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
CHLOROFORM UG/L	1UY	1UY	1UY	1000UY	0.5DYJ
CHLOROMETHANE UG/L	1UY	1UY	1UY	1000UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	1UY	2300DY	0.2DYJ
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1000UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1000UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1100DY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	15DY	2000UY	2UY
STYRENE UG/L	1UY	1UY	1UY	1000UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	1000UY	0.2DYJ
TOLUENE UG/L	0.2DYJ	1UY	1UY	520DYJ	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1000UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1000UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY	1000UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	2100DY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	4000DY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	0.4DYJ	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	1UYJ	1UY
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY	1UY	1UYJ
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	5UYJ
2-HEXANONE UG/L	5UY	5UY	5UY	5UY	5UYJ
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5UY	5UYJ
ACETONE UG/L	UYR	UYR	UYR	UYR	5UYJ
BENZENE UG/L	2DY	1UY	0.2DYJ	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	1UY	1DY	1UY	1UY
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	0.8DYJ	0.9DYJ	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	1UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	0.3DYJ	1UY	1UY
TOLUENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	0.8DYJ	4DY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	200UY	1UY	0.2DYJ	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	0.2DYJ
1,2-DICHLOROPROPANE UG/L	200UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	1000UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE UG/L	1000UY	5UY	5UY	5UY	5UY
ACETONE UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE UG/L	230DY	1UY	1UY	1UY	0.4DYJ
BROMOCHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	200UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	200UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1900UY	1UY	80Y	3DY	0.7DYJ
CIS-1,3-DICHLOROPROPENE UG/L	200UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	400UY	2UY	2UY	2UY	2UY
STYRENE UG/L	200UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	200UY	1UY	0.8DYJ	1UY	2DY
TOLUENE UG/L	200UY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	200UY	1UY	1UY	0.6DYJ	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	200UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	200UY	1UY	3DY	2DY	0.4DYJ
VINYL CHLORIDE UG/L	1200DY	1UY	1DY	1UY	1UY
XYLENE (TOTAL) UG/L	200UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:	07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	0.2DYJ	1UY	1UY	10UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	10UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	10UY
1,1-DICHLOROETHANE UG/L	1UY	0.2DYJ	1UY	1UY	10UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	10UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	1UYJ	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	10UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	10UY
1,2-DICHLOROETHANE UG/L	1DYJ	1UY	1UY	1UY	10UY
1,2-DICHLOROPROPANE UG/L	1UY	0.4DYJ	1UY	1UY	10UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	10UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	10UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UY	5UY	5UY	50UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5UY	50UY
ACETONE UG/L	21DYJ	UYR	UYR	UYR	UYR
BENZENE UG/L	0.2DYJ	0.3DYJ	1UY	1UY	55DY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	10UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	10UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	10UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	10UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	10UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	10UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	10UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	10UY
CHLOROFORM UG/L	0.6DYJ	1UY	0.2DYJ	0.3DYJ	10UY
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	10UY
CIS-1,2-DICHLOROETHYLENE UG/L	21DY	1UY	1UY	1UY	4DYJ
CIS-1,3-DICHLOROPROPENE UG/L	1UY	0.4DYJ	1UY	1UY	10UY
DIBROMOCHLOROMETHANE UG/L	1UY	0.4DYJ	1UY	1UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:		07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ETHYLBENZENE	UG/L	1UY	0.2DYJ	1UY	1UY	10UY
METHYLENE CHLORIDE	UG/L	2UY	2UY	2UY	2UY	20UY
STYRENE	UG/L	1UY	1UY	1UY	1UY	10UY
TETRACHLOROETHENE	UG/L	0.9DYJ	0.3DYJ	1UY	1DY	10UY
TOLUENE	UG/L	0.2DYJ	1UY	1UY	1UY	10UY
TRANS-1,2-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	10UY
TRANS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	10UY
TRICHLOROETHENE	UG/L	4DY	1UY	1UY	1UY	10UY
VINYL CHLORIDE	UG/L	6DY	1UY	1UY	1UY	10UY
XYLENE (TOTAL)	UG/L	7UY	0.9DYJ	7UY	1UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	0.4DYJ	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	0.4DYJ	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	5UYJ	5UY	5UYJ	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UYJ	5UY	5UYJ	5UY	5UY
ACETONE UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE UG/L	1UY	0.2DYJ	0.2DYJ	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	1DY	1UY	0.4DYJ	0.6DYJ	0.7DYJ
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	8DY	0.4DYJ	1UY	1DY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	0.3DYJ
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	2UY
STYRENE UG/L	1UY	1UY	0.2DYJ	1UY	1UY
TETRACHLOROETHENE UG/L	4DY	0.3DYJ	1UY	1UY	0.8DYJ
TOLUENE UG/L	1UY	1UY	1UY	1UY	0.3DYJ
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	3DY	1UY	1UY	1DY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	3DY	1UY	2DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:		08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	0.3DYJ	0.3DYJ	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	1UY	1UY
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	5UY
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UY	1UYJ	1UYJ
1,3-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	5UYJ	5UYJ
2-HEXANONE	UG/L	5UYJ	5UYJ	5UY	5UYJ	5UYJ
4-METHYL-2-PENTANONE	UG/L	5UYJ	5UYJ	5UY	5UYJ	5UYJ
ACETONE	UG/L	UYR	UYR	UYR	1UYJ	5UYJ
BENZENE	UG/L	1DY	1UY	1UY	1UY	190DY
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM	UG/L	0.3DYJ	0.3DYJ	1UY	1UY	1UY
CHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	6DY	6DY	2DY	1UY	810DY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:	08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	3DY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	2UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TOLUENE UG/L	4DY	1UY	1UY	1UY	3DY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	2DY	2DY	1DYJ	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	520DY
XYLENE (TOTAL) UG/L	16DY	5DY	1UY	1UY	1DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		OBMW1-01	OBMW10-01	OBMW11-01	OBMW12-01	OBMW13-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW1	OBMW10	OBMW11	OBMW12	OBMW13
SAMPLE DATE:		07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE	UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE	UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE	UG/L	0.5DYJ	1UY	4DY	1UY	1UY
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	6UY	0.5DYJ	11DY	1UY	1UY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW1-01	OBMW10-01	OBMW11-01	OBMW12-01	OBMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW1	OBMW10	OBMW11	OBMW12	OBMW13
SAMPLE DATE:	07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	2UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TOLUENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1DY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW13D-01	OBMW14-01	OBMW15-01	OBMW17-01	OBMW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW13D	OBMW14	OBMW15	OBMW17	OBMW2
SAMPLE DATE:	07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	4000UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	1UYJ	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	4000UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY	1UY	4000UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	4000UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	4000UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UY	5UY	5UY	20000UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5UY	20000UY
ACETONE UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE UG/L	1UY	1UY	1UY	1UY	33000DY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	4000UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	4000UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	4000UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	4000UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
CHLOROFORM UG/L	1UY	1UY	0.6DYJ	0.2DYJ	4000UY
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	4000UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	1UY	2DY	4000UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	4000UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	4000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW13D-01	OBMW14-01	OBMW15-01	OBMW17-01	OBMW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW13D	OBMW14	OBMW15	OBMW17	OBMW2
SAMPLE DATE:	07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	4000UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	8000UY
STYRENE UG/L	1UY	1UY	1UY	1UY	4000UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	0.4DYJ	4000UY
TOLUENE UG/L	1UY	1UY	1UY	1UY	4000UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	4000UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	4000UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY	2DY	4000UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	4000UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	4000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW3-01	08MW4-01	08MW5-01	08MW6-01	08MW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW3	08MW4	08MW5	08MW6	08MW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	200UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	200UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	200UY	0.2DYJ	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	1000UYJ	5UY	5UYJ	5UY	5UY
4-METHYL-2-PENTANONE UG/L	1000UYJ	5UY	5UYJ	5UY	5UY
ACETONE UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE UG/L	610DY	1UY	2DY	1UY	1UY
BROMOCHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	200UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	200UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	200UY	1UY	1UY	1UY	1UY
CHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	200UY	1UY	1UY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	200UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	200UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW3-01	OBMW4-01	OBMW5-01	OBMW6-01	OBMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW3	OBMW4	OBMW5	OBMW6	OBMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	740DY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	400UY	2UY	2UY	2UY	2UY
STYRENE UG/L	200UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	200UY	1UY	1UY	1UY	1UY
TOLUENE UG/L	1500DY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	200UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	200UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	200UY	1UY	1UY	1UY	1UY
VINYL CHLORIDE UG/L	200UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	2800DY	0.8DYJ	2DY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		08MW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:		08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,1-DICHLOROETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	UYR	1UYJ
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE	UG/L	5UYJ	5UY	5UYJ	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	5UYJ	5UY	5UYJ	5UY	5UY
ACETONE	UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
BROMOFORM	UG/L	1UY	1UY	1UYJ	1UY	1UY
BROMOMETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CARBON DISULFIDE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CHLOROBENZENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CHLOROFORM	UG/L	0.3DYJ	1UY	1UYJ	1UY	1UY
CHLOROMETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UYJ	1UY	1UY
DIBROMOCHLOROMETHANE	UG/L	1UY	1UY	1UYJ	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:	08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UYJ	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UYJ	2UY	2UY
STYRENE UG/L	1UY	1UY	1UYJ	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UYJ	1UY	1UY
TOLUENE UG/L	0.5DYJ	1UY	0.05DYJ	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UYJ	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UYJ	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UYJ	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UYJ	1UY	1UY
XYLENE (TOTAL) UG/L	2DY	1UY	1UYJ	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		WELL8-01
SUB-SAMPLE ID:		00000
STATION ID:		WELL8
SAMPLE DATE:		07/24/1992
SAMPLE TIME:		
SAMPLE MATRIX:		GW
UPPER DEPTH:		
LOWER DEPTH:		
1,1,1-TRICHLOROETHANE	UG/L	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY
1,1-DICHLOROETHANE	UG/L	1UY
1,1-DICHLOROETHENE	UG/L	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	1UY
1,2-DIBROMOETHANE	UG/L	1UY
1,2-DICHLOROBENZENE	UG/L	1UY
1,2-DICHLOROETHANE	UG/L	1UY
1,2-DICHLOROPROPANE	UG/L	1UYJ
1,3-DICHLOROBENZENE	UG/L	1UY
1,4-DICHLOROBENZENE	UG/L	0.4DYJ
2-BUTANONE	UG/L	5UYJ
2-HEXANONE	UG/L	5UYJ
4-METHYL-2-PENTANONE	UG/L	5UYJ
ACETONE	UG/L	16DYJ
BENZENE	UG/L	1UY
BROMOCHLOROMETHANE	UG/L	1UY
BROMODICHLOROMETHANE	UG/L	1UY
BROMOFORM	UG/L	1UY
BROMOMETHANE	UG/L	1UY
CARBON DISULFIDE	UG/L	1UY
CARBON TETRACHLORIDE	UG/L	1UY
CHLOROBENZENE	UG/L	1UY
CHLOROETHANE	UG/L	1UY
CHLOROFORM	UG/L	1UY
CHLOROMETHANE	UG/L	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	1UY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY
DIBROMOCHLOROMETHANE	UG/L	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMC CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	WELL8-01
SUB-SAMPLE ID:	00000
STATION ID:	WELL8
SAMPLE DATE:	07/24/1992
SAMPLE TIME:	
SAMPLE MATRIX:	GW
UPPER DEPTH:	
LOWER DEPTH:	

ETHYLBENZENE UG/L	1UY
METHYLENE CHLORIDE UG/L	2UY
STYRENE UG/L	1UY
TETRACHLOROETHENE UG/L	1UY
TOLUENE UG/L	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY
TRICHLOROETHENE UG/L	1UY
VINYL CHLORIDE UG/L	1UY
XYLENE (TOTAL) UG/L	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER
DETECTED OBSERVATIONS - NO TICS (GW009.TXT)
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
24M	2,4-DIMETHYLPHENOL	UG/L	45	1	0.0222	13.000	13.000	13.000	0.000
2MN	2-METHYLNAPHTHALENE	UG/L	51	2	0.0392	2.000	21.000	11.500	9.500
2MP	2-METHYLPHENOL	UG/L	45	1	0.0222	7.000	7.000	7.000	0.000
4MP	4-METHYLPHENOL	UG/L	45	1	0.0222	4.000	4.000	4.000	0.000
4NP	4-NITROPHENOL	UG/L	46	1	0.0217	63.000	63.000	63.000	0.000
ACN	ACENAPHTHENE	UG/L	51	2	0.0392	1.000	1.000	1.000	0.000
BBP	BENZYL BUTYL PHTHALATE	UG/L	51	2	0.0392	12.000	25.000	18.500	6.500
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	51	10	0.1961	1.000	940.000	111.600	277.448
CAF	CAFFEINE	UG/L	51	2	0.0392	2.000	2.000	2.000	0.000
DBP	DI-N-BUTYL PHTHALATE	UG/L	51	10	0.1961	1.000	4.000	1.900	0.943
DOP	DI-N-OCTYL PHTHALATE	UG/L	51	2	0.0392	3.000	5.000	4.000	1.000
NAP	NAPHTHALENE	UG/L	51	3	0.0588	3.000	180.000	77.000	75.113
PCP	PENTACHLOROPHENOL	UG/L	46	2	0.0435	6.000	17.000	11.500	5.500
PHE	PHENOL	UG/L	45	1	0.0222	13.000	13.000	13.000	0.000
PYR	PYRENE	UG/L	51	2	0.0392	3.000	3.000	3.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	UYR	100UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
2,4-DICHLOROPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	UYR	13DYJ	20UY
2,4-DINITROPHENOL UG/L	100UY	100UY	UYR	100UY	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	21DY	20UY
2-METHYLPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UY	40UYJ	40UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UYJ	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	UYR	100UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	20UY	20UY	UYR	20UY	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	100UY	100UY	63DYJ	100UY	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID UG/L	100UY	100UY	100UY	100UY	100UY
BENZYL ALCOHOL UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
CAFFEINE UG/L	20UY	2DYJ	20UY	20UY	20UY
CHRYSENE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-OCTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZO(A,H)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UY	20UY	20UY	180DY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	17DYJ	100UY	100UY
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL UG/L	20UY	20UY	UYR	20UY	20UY
PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY	20UY

NN.N+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	UYR	100UY	UYR	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
2,4-DICHLOROPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
2,4-DINITROPHENOL UG/L	100UY	UYR	100UY	UYR	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UY	40UY	40UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	UYR	100UY	UYR	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	20UY	UYR	20UY	UYR	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	100UY	UYR	100UY	UYR	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID UG/L	100UY	100UY	100UY	100UY	100UY
BENZYL ALCOHOL UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	20UY	17UY	54UY	20UY	380UY
CAFFEINE UG/L	20UY	20UY	20UY	20UY	20UY
CHRYSENE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-OCTYL PHTHALATE UG/L	20UY	2UY	20UY	20UY	42UY
DIBENZO(A,H)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	UYR	100UY	UYR	100UY
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL UG/L	20UY	UYR	20UY	UYR	20UY
PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DINITROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UY	40UY	80UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID UG/L	100UY	100UY	100UY	100UY	100UY
BENZYL ALCOHOL UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	92UY	20UY	61DY	20UY	2DYJ
CAFFEINE UG/L	20UY	20UY	20UY	20UY	20UY
CHRYSENE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-OCTYL PHTHALATE UG/L	20UY	20UY	3DYJ	20UY	20UY
DIBENZO(A,H)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL UG/L	20UY	20UY	20UY	20UY	20UY
PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:	07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	22UY	20UY	20UY	20UY	20UYJ
1,2-DICHLOROBENZENE UG/L	22UY	20UY	20UY	20UY	20UYJ
1,3-DICHLOROBENZENE UG/L	22UY	20UY	20UY	20UY	20UYJ
1,4-DICHLOROBENZENE UG/L	22UY	20UY	20UY	20UY	20UYJ
2,4,5-TRICHLOROPHENOL UG/L	110UY	100UY	100UY	100UY	100UYJ
2,4,6-TRICHLOROPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
2,4-DICHLOROPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
2,4-DIMETHYLPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
2,4-DINITROPHENOL UG/L	110UY	100UY	100UY	100UY	100UYJ
2,4-DINITROTOLUENE UG/L	22UY	20UY	20UY	20UY	20UYJ
2,6-DINITROTOLUENE UG/L	22UY	20UY	20UY	20UY	20UYJ
2-CHLORONAPHTHALENE UG/L	22UY	20UY	20UY	20UY	20UYJ
2-CHLOROPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
2-METHYLNAPHTHALENE UG/L	22UY	20UY	20UY	20UY	20UYJ
2-METHYLPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
2-NITROANILINE UG/L	110UY	100UY	100UY	100UY	100UYJ
2-NITROPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
3,3'-DICHLOROBENZIDINE UG/L	44UY	80UY	40UY	40UYJ	80UYJ
3-NITROANILINE UG/L	110UY	100UY	100UY	UYR	100UYJ
4,6-DINITRO-2-METHYLPHENOL UG/L	110UY	100UY	100UY	100UY	100UYJ
4-BROMOPHENYL PHENYL ETHER UG/L	22UY	20UY	20UY	20UY	20UYJ
4-CHLORO-3-METHYLPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
4-CHLOROANILINE UG/L	22UY	20UY	20UY	20UY	20UYJ
4-CHLOROPHENYL PHENYL ETHER UG/L	22UY	20UY	20UY	20UY	20UYJ
4-METHYLPHENOL UG/L	22UY	20UY	20UY	20UY	20UYJ
4-NITROANILINE UG/L	110UY	100UY	100UY	100UY	100UYJ
4-NITROPHENOL UG/L	110UY	100UY	100UY	100UY	100UYJ
ACENAPHTHENE UG/L	22UY	20UY	20UY	20UY	20UYJ
ACENAPHTHYLENE UG/L	22UY	20UY	20UY	20UY	20UYJ
ANTHRACENE UG/L	22UY	20UY	20UY	20UY	20UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:	07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	22UY	20UY	20UY	20UYJ	20UYJ
BENZO(A)PYRENE UG/L	22UY	20UY	20UY	20UY	20UYJ
BENZO(B)FLUORANTHENE UG/L	22UY	20UY	20UY	20UY	20UYJ
BENZO(GHI)PERYLENE UG/L	22UY	20UY	20UY	20UY	20UYJ
BENZO(K)FLUORANTHENE UG/L	22UY	20UY	20UY	20UY	20UYJ
BENZOIC ACID UG/L	110UY	100UY	100UY	100UY	100UYJ
BENZYL ALCOHOL UG/L	22UY	20UY	20UY	20UY	20UYJ
BENZYL BUTYL PHTHALATE UG/L	22UY	20UY	20UY	20UYJ	20UYJ
BIS(2-CHLOROETHOXY) METHANE UG/L	22UY	20UY	20UY	20UY	20UYJ
BIS(2-CHLOROETHYL)ETHER UG/L	22UY	20UY	20UY	20UY	20UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/L	22UY	20UY	20UY	20UY	20UYJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	48UY	81DY	20UY	20UYJ	20DYJ
CAFFEINE UG/L	22UY	20UY	20UY	20UY	20UYJ
CHRYSENE UG/L	22UY	20UY	20UY	20UYJ	20UYJ
DI-N-BUTYL PHTHALATE UG/L	22UY	20UY	20UY	20UY	20UYJ
DI-N-OCTYL PHTHALATE UG/L	17UY	5DYJ	20UY	20UY	20UYJ
DIBENZO(A,H)ANTHRACENE UG/L	22UY	20UY	20UY	20UY	20UYJ
DIBENZOFURAN UG/L	22UY	20UY	20UY	20UY	20UYJ
DIETHYL PHTHALATE UG/L	22UY	20UY	20UY	20UY	20UYJ
DIMETHYL PHTHALATE UG/L	22UY	20UY	20UY	20UY	20UYJ
FLUORANTHENE UG/L	22UY	20UY	20UY	20UY	20UYJ
FLUORENE UG/L	22UY	20UY	20UY	20UY	20UYJ
HEXACHLOROBENZENE UG/L	22UY	20UY	20UY	20UY	20UYJ
HEXACHLOROBUTADIENE UG/L	22UY	20UY	20UY	20UY	20UYJ
HEXACHLOROCYCLOPENTADIENE UG/L	22UY	20UY	20UY	20UY	20UYJ
HEXACHLOROETHANE UG/L	22UY	20UY	20UY	20UY	20UYJ
INDENO(1,2,3-CD)PYRENE UG/L	22UY	20UY	20UY	20UY	20UYJ
ISOPHORONE UG/L	22UY	20UY	20UY	20UY	20UYJ
N-NITROSODINPROPYLAMINE UG/L	22UY	20UY	20UY	20UY	20UYJ
N-NITROSODIPHENYLAMINE UG/L	22UY	20UY	20UY	20UY	20UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:		07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
NAPHTHALENE	UG/L	22UY	20UY	20UY	20UY	20UYJ
NITROBENZENE	UG/L	22UY	20UY	20UY	20UYJ	20UYJ
PENTACHLOROPHENOL	UG/L	110UY	100UY	100UY	100UY	60YJ
PHENANTHRENE	UG/L	22UY	20UY	20UY	20UY	20UYJ
PHENOL	UG/L	22UY	20UY	20UY	20UY	20UYJ
PYRENE	UG/L	22UY	20UY	20UY	20UYJ	20UYJ
a-PINENE	UG/L	22UY	20UY	20UY	20UY	20UYJ
d-LIMONENE	UG/L	22UY	20UY	20UY	20UY	20UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UYJ	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UYJ	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UYJ	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UYJ	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UYJ	100UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
2,4-DICHLOROPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
2,4-DINITROPHENOL UG/L	100UY	100UY	100UYJ	100UY	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UYJ	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UYJ	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UYJ	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UYJ	20UY	20UY
2-METHYLPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
2-NITROANILINE UG/L	100UY	100UY	100UYJ	100UY	100UY
2-NITROPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	80UY	40UYJ	40UY	40UY
3-NITROANILINE UG/L	100UY	100UY	100UYJ	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	100UYJ	100UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UYJ	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UYJ	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UYJ	20UY	20UY
4-METHYLPHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
4-NITROANILINE UG/L	100UY	100UY	100UYJ	100UY	100UY
4-NITROPHENOL UG/L	100UY	100UY	100UYJ	100UY	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UYJ	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UYJ	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UYJ	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UY	20UY	20UYJ	20UY	20UY
BENZO(A)PYRENE UG/L	20UY	20UY	20UYJ	20UY	20UY
BENZO(B)FLUORANTHENE UG/L	20UY	20UY	20UYJ	20UY	20UY
BENZO(GHI)PERYLENE UG/L	20UY	20UY	20UYJ	20UY	20UY
BENZO(K)FLUORANTHENE UG/L	20UY	20UY	20UYJ	20UY	20UY
BENZOIC ACID UG/L	100UY	100UY	100UYJ	100UY	100UY
BENZYL ALCOHOL UG/L	20UY	20UY	20UYJ	20UY	20UY
BENZYL BUTYL PHTHALATE UG/L	20UY	20UY	20UYJ	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UY	20UY	20UYJ	20UY	20UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UY	20UY	20UYJ	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UY	20UY	20UYJ	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	20UY	20UY	20UYJ	20UY	20UY
CAFFEINE UG/L	20UY	20UY	20UYJ	20UY	20UY
CHRYSENE UG/L	20UY	20UY	20UYJ	20UY	20UY
DI-N-BUTYL PHTHALATE UG/L	1DYJ	20UY	2DYJ	20UY	20UY
DI-N-OCTYL PHTHALATE UG/L	20UY	20UY	20UYJ	20UY	20UY
DIBENZO(A,H)ANTHRACENE UG/L	20UY	20UY	20UYJ	20UY	20UY
DIBENZOFURAN UG/L	20UY	20UY	20UYJ	20UY	20UY
DIETHYL PHTHALATE UG/L	20UY	20UY	20UYJ	20UY	20UY
DIMETHYL PHTHALATE UG/L	20UY	20UY	20UYJ	20UY	20UY
FLUORANTHENE UG/L	20UY	20UY	20UYJ	20UY	20UY
FLUORENE UG/L	20UY	20UY	20UYJ	20UY	20UY
HEXACHLOROBENZENE UG/L	20UY	20UY	20UYJ	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UYJ	20UY	20UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UY	20UY	20UYJ	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UYJ	20UY	20UY
INDENO(1,2,3-CD)PYRENE UG/L	20UY	20UY	20UYJ	20UY	20UY
ISOPHORONE UG/L	20UY	20UY	20UYJ	20UY	20UY
N-NITROSODINPROPYLAMINE UG/L	20UY	20UY	20UYJ	20UY	20UY
N-NITROSODIPHENYLAMINE UG/L	20UY	20UY	20UYJ	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UY	20UY	20UYJ	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UYJ	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UYJ	100UY	100UY
PHENANTHRENE UG/L	20UY	20UY	20UYJ	20UY	20UY
PHENOL UG/L	20UY	20UY	20UYJ	20UY	20UY
PYRENE UG/L	20UY	20UY	20UYJ	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UYJ	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UYJ	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:	08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DINITROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UY	40UY	40UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:	08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID UG/L	100UY	100UY	100UY	100UY	100UY
BENZYL ALCOHOL UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE UG/L	20UY	20UY	20UY	12DYJ	25DY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	20UY	20UY	80UY	530UY	25UY
CAFFEINE UG/L	20UY	20UY	20UY	20UY	20UY
CHRYSENE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE UG/L	20UY	1DYJ	20UY	20UY	20UY
DI-N-OCTYL PHTHALATE UG/L	20UY	20UY	20UY	30UY	20UY
DIBENZO(A,H)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:	08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL UG/L	20UY	20UY	20UY	20UY	20UY
PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW1-01	OBMW10-01	OBMW11-01	OBMW12-01	OBMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW1	OBMW10	OBMW11	OBMW12	OBMW13
SAMPLE DATE:	07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	UYR	100UY	100UY	100UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
2,4-DICHLOROPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
2,4-DIMETHYLPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
2,4-DINITROPHENOL UG/L	UYR	100UY	100UY	100UY	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UY	40UY	80UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	UYR	100UY	100UY	100UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	UYR	20UY	20UY	20UY	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	UYR	100UY	100UY	100UY	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW1-01	08MW10-01	08MW11-01	08MW12-01	08MW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW1	08MW10	08MW11	08MW12	08MW13
SAMPLE DATE:	07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID UG/L	UYR	100UY	100UY	100UY	100UY
BENZYL ALCOHOL UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	310UY	53UY	20UY	940DY	1DYJ
CAFFEINE UG/L	20UY	20UY	20UY	20UY	20UY
CHRYSENE UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE UG/L	20UY	20UY	20UY	3DYJ	1DYJ
DI-N-OCTYL PHTHALATE UG/L	33UY	26UY	20UY	48UY	20UY
DIBENZO(A,H)ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		OBMW1-01	OBMW10-01	OBMW11-01	OBMW12-01	OBMW13-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW1	OBMW10	OBMW11	OBMW12	OBMW13
SAMPLE DATE:		07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
NAPHTHALENE	UG/L	20UY	20UY	20UY	20UY	20UY
NITROBENZENE	UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL	UG/L	UYR	100UY	100UY	100UY	100UY
PHENANTHRENE	UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL	UG/L	UYR	20UY	20UY	20UY	20UY
PYRENE	UG/L	20UY	20UY	20UY	20UY	20UY
a-PINENE	UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE	UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	08MW13D-01	08MW14-01	08MW15-01	08MW17-01	08MW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW13D	08MW14	08MW15	08MW17	08MW2
SAMPLE DATE:	07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UYJ	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UYJ	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UYJ	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UYJ	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UY	100UYJ	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
2,4-DICHLOROPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
2,4-DINITROPHENOL UG/L	100UY	100UY	100UY	100UYJ	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UYJ	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UYJ	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UYJ	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	20UYJ	20UY
2-METHYLPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UYJ	100UY
2-NITROPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UYJ	40UYJ	80UY
3-NITROANILINE UG/L	100UY	100UY	UYR	100UYJ	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	100UY	100UYJ	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UYJ	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UYJ	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UYJ	20UY
4-METHYLPHENOL UG/L	20UY	20UY	20UY	20UYJ	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UYJ	100UY
4-NITROPHENOL UG/L	100UY	100UY	100UY	100UYJ	100UY
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UYJ	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UYJ	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UYJ	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		08MW13D-01	08MW14-01	08MW15-01	08MW17-01	08MW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW13D	08MW14	08MW15	08MW17	08MW2
SAMPLE DATE:		07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
BENZO(A)ANTHRACENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
BENZO(A)PYRENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
BENZO(B)FLUORANTHENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
BENZO(GHI)PERYLENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
BENZO(K)FLUORANTHENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
BENZOIC ACID	UG/L	100UY	100UY	100UY	100UYJ	100UY
BENZYL ALCOHOL	UG/L	20UY	20UY	20UY	20UYJ	20UY
BENZYL BUTYL PHTHALATE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY	20UY	20UY	20UYJ	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY	20UY	20UY	20UYJ	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UY	20UY	20UY	20UYJ	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	2DYJ	20UY	20UYJ	3DYJ	4DYJ
CAFFEINE	UG/L	20UY	20UY	20UY	2DYJ	20UY
CHRYSENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
DI-N-BUTYL PHTHALATE	UG/L	2DYJ	20UY	20UY	1DYJ	20UY
DI-N-OCTYL PHTHALATE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
DIBENZO(A,H)ANTHRACENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
DIBENZOFURAN	UG/L	20UY	20UY	20UY	20UYJ	20UY
DIETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UYJ	20UY
DIMETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UYJ	20UY
FLUORANTHENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
FLUORENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
HEXACHLOROBENZENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
HEXACHLOROBUTADIENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
HEXACHLOROETHANE	UG/L	20UY	20UY	20UY	20UYJ	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
ISOPHORONE	UG/L	20UY	20UY	20UY	20UYJ	20UY
N-NITROSODINPROPYLAMINE	UG/L	20UY	20UY	20UY	20UYJ	20UY
N-NITROSODIPHENYLAMINE	UG/L	20UY	20UY	20UY	20UYJ	20UY

NN.N+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		OBMW13D-01	OBMW14-01	OBMW15-01	OBMW17-01	OBMW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW13D	OBMW14	OBMW15	OBMW17	OBMW2
SAMPLE DATE:		07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
NAPHTHALENE	UG/L	20UY	20UY	20UY	20UYJ	3DYJ
NITROBENZENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
PENTACHLOROPHENOL	UG/L	100UY	100UY	100UY	100UYJ	100UY
PHENANTHRENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
PHENOL	UG/L	20UY	20UY	20UY	20UYJ	20UY
PYRENE	UG/L	20UY	20UY	20UYJ	20UYJ	20UY
a-PINENE	UG/L	20UY	20UY	20UY	20UYJ	20UY
d-LIMONENE	UG/L	20UY	20UY	20UY	20UYJ	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW3-01	08MW4-01	08MW5-01	08MW6-01	08MW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW3	08MW4	08MW5	08MW6	08MW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UY	UYR	UYR
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UY	UYR	UYR
2,4-DICHLOROPHENOL UG/L	20UY	20UY	20UY	UYR	UYR
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	20UY	UYR	UYR
2,4-DINITROPHENOL UG/L	100UY	100UY	100UY	UYR	UYR
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	20UY	UYR	UYR
2-METHYLNAPHTHALENE UG/L	2DYJ	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	7DYJ	20UY	20UY	UYR	UYR
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	20UY	20UY	20UY	UYR	UYR
3,3'-DICHLOROBENZIDINE UG/L	40UY	80UY	40UY	40UY	40UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	100UY	UYR	UYR
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	20UY	UYR	UYR
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	40YJ	20UY	20UY	UYR	UYR
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	100UY	100UY	100UY	UYR	UYR
ACENAPHTHENE UG/L	20UY	20UY	20UY	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

	SAMPLE ID:	OBMW3-01	OBMW4-01	OBMW5-01	OBMW6-01	OBMW7-01
	SUB-SAMPLE ID:	00000	00000	00000	00000	00000
	STATION ID:	OBMW3	OBMW4	OBMW5	OBMW6	OBMW7
	SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
	SAMPLE TIME:					
	SAMPLE MATRIX:	GW	GW	GW	GW	GW
	UPPER DEPTH:					
	LOWER DEPTH:					
BENZO(A)ANTHRACENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID	UG/L	100UY	100UY	100UY	UYR	100UY
BENZYL ALCOHOL	UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	20UY	2DYJ	20UY	90UY	20UY
CAFFEINE	UG/L	20UY	20UY	20UY	20UY	20UY
CHRYSENE	UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE	UG/L	2DYJ	4DYJ	2DYJ	20UY	20UY
DI-N-OCTYL PHTHALATE	UG/L	20UY	20UY	20UY	44UY	20UY
DIBENZO(A,H)ANTHRACENE	UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN	UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE	UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE	UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE	UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE	UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW3-01	OBMW4-01	OBMW5-01	OBMW6-01	OBMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW3	OBMW4	OBMW5	OBMW6	OBMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	48DY	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UY	UYR	UYR
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL UG/L	13DYJ	20UY	20UY	UYR	UYR
PYRENE UG/L	20UY	20UY	20UY	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	08MW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:	08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
2,4,6-TRICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DICHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DIMETHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2,4-DINITROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
2,4-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-CHLOROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLNAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
2-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
2-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
2-NITROPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
3,3'-DICHLOROBENZIDINE UG/L	40UY	40UY	40UY	40UY	40UY
3-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
4-BROMOPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROANILINE UG/L	20UY	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY	20UY	20UY	20UY	20UY
4-METHYLPHENOL UG/L	20UY	20UY	20UY	20UY	20UY
4-NITROANILINE UG/L	100UY	100UY	100UY	100UY	100UY
4-NITROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
ACENAPHTHENE UG/L	20UY	1DYJ	1DYJ	20UY	20UY
ACENAPHTHYLENE UG/L	20UY	20UY	20UY	20UY	20UY
ANTHRACENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		OBMW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:		08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
BENZO(A)ANTHRACENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(A)PYRENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY	20UY
BENZOIC ACID	UG/L	100UY	100UY	100UY	100UY	100UY
BENZYL ALCOHOL	UG/L	20UY	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UY	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
CAFFEINE	UG/L	20UY	20UY	20UY	20UY	20UY
CHRYSENE	UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
DI-N-OCTYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZO(A,H)ANTHRACENE	UG/L	20UY	20UY	20UY	20UY	20UY
DIBENZOFURAN	UG/L	20UY	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY	20UY
FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY	20UY
FLUORENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY	20UY	20UY	20UY	20UY
HEXACHLOROETHANE	UG/L	20UY	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	20UY	20UY	20UY	20UY	20UY
ISOPHORONE	UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE	UG/L	20UY	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE	UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:	08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UY	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UY	100UY	100UY
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY	20UY
PHENOL UG/L	20UY	20UY	20UY	20UY	20UY
PYRENE UG/L	20UY	3DYJ	3DYJ	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		WELL8-01
SUB-SAMPLE ID:		00000
STATION ID:		WELL8
SAMPLE DATE:		07/24/1992
SAMPLE TIME:		
SAMPLE MATRIX:		GW
UPPER DEPTH:		
LOWER DEPTH:		
1,2,4-TRICHLOROBENZENE	UG/L	20UY
1,2-DICHLOROBENZENE	UG/L	20UY
1,3-DICHLOROBENZENE	UG/L	20UY
1,4-DICHLOROBENZENE	UG/L	20UY
2,4,5-TRICHLOROPHENOL	UG/L	100UY
2,4,6-TRICHLOROPHENOL	UG/L	20UY
2,4-DICHLOROPHENOL	UG/L	20UY
2,4-DIMETHYLPHENOL	UG/L	20UY
2,4-DINITROPHENOL	UG/L	100UY
2,4-DINITROTOLUENE	UG/L	20UY
2,6-DINITROTOLUENE	UG/L	20UY
2-CHLORONAPHTHALENE	UG/L	20UY
2-CHLOROPHENOL	UG/L	20UY
2-METHYLNAPHTHALENE	UG/L	20UY
2-METHYLPHENOL	UG/L	20UY
2-NITROANILINE	UG/L	100UY
2-NITROPHENOL	UG/L	20UY
3,3'-DICHLOROBENZIDINE	UG/L	40UY
3-NITROANILINE	UG/L	100UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	100UY
4-BROMOPHENYL PHENYL ETHER	UG/L	20UY
4-CHLORO-3-METHYLPHENOL	UG/L	20UY
4-CHLOROANILINE	UG/L	20UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	20UY
4-METHYLPHENOL	UG/L	20UY
4-NITROANILINE	UG/L	100UY
4-NITROPHENOL	UG/L	100UY
ACENAPHTHENE	UG/L	20UY
ACENAPHTHYLENE	UG/L	20UY
ANTHRACENE	UG/L	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		WELL8-01
SUB-SAMPLE ID:		00000
STATION ID:		WELL8
SAMPLE DATE:		07/24/1992
SAMPLE TIME:		
SAMPLE MATRIX:		GW
UPPER DEPTH:		
LOWER DEPTH:		
BENZO(A)ANTHRACENE	UG/L	20UY
BENZO(A)PYRENE	UG/L	20UY
BENZO(B)FLUORANTHENE	UG/L	20UY
BENZO(GHI)PERYLENE	UG/L	20UY
BENZO(K)FLUORANTHENE	UG/L	20UY
BENZOIC ACID	UG/L	100UY
BENZYL ALCOHOL	UG/L	20UY
BENZYL BUTYL PHTHALATE	UG/L	20UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	20UY
CAFFEINE	UG/L	20UY
CHRYSENE	UG/L	20UY
DI-N-BUTYL PHTHALATE	UG/L	20UY
DI-N-OCTYL PHTHALATE	UG/L	20UY
DIBENZO(A,H)ANTHRACENE	UG/L	20UY
DIBENZOFURAN	UG/L	20UY
DIETHYL PHTHALATE	UG/L	20UY
DIMETHYL PHTHALATE	UG/L	20UY
FLUORANTHENE	UG/L	20UY
FLUORENE	UG/L	20UY
HEXACHLOROBENZENE	UG/L	20UY
HEXACHLOROBUTADIENE	UG/L	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY
HEXACHLOROETHANE	UG/L	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	20UY
ISOPHORONE	UG/L	20UY
N-NITROSODINPROPYLAMINE	UG/L	20UY
N-NITROSODIPHENYLAMINE	UG/L	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	WELL8-01
SUB-SAMPLE ID:	00000
STATION ID:	WELL8
SAMPLE DATE:	07/24/1992
SAMPLE TIME:	
SAMPLE MATRIX:	GW
UPPER DEPTH:	
LOWER DEPTH:	
NAPHTHALENE UG/L	20UY
NITROBENZENE UG/L	20UY
PENTACHLOROPHENOL UG/L	100UY
PHENANTHRENE UG/L	20UY
PHENOL UG/L	20UY
PYRENE UG/L	20UY
a-PINENE UG/L	20UY
d-LIMONENE UG/L	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Pesticides and PCBs

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER
DETECTED OBSERVATIONS - NO TICS (GW009.TXT)
SAMPLE ANALYSIS: PEST

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
BHG	BHC-GAMMA(LINDANE)	UG/L	51	6	0.1176	0.070	0.290	0.145	0.081
DIE	DIELDRIN	UG/L	51	3	0.0588	0.140	0.490	0.257	0.165
HCE	HEPTACHLOR EPOXIDE	UG/L	51	1	0.0196	0.100	0.100	0.100	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.1UY	1UY	10UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	5UY	50UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	5UY	5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	5UY	5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	5UY	5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	5UY	5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	5UY	5UY	0.5UY
AROCLOR-1254 UG/L	1UY	1UY	10UY	10UY	1UY
AROCLOR-1260 UG/L	1UY	1UY	10UY	10UY	1UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
DIELDRIN UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.5UY	5UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	1UY	1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	5UY	50UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.5UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	5UY	5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	10UY	10UY	1UY

NNN+/-XXABCC POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	10UY	1UY	1UY	1UY	1UY
AROCLOR-1260 UG/L	10UY	1UY	1UY	1UY	1UY
BHC-ALPHA UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.5UY	0.05UY	0.05UY	0.29DY	0.05UY
DIELDRIN UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	10UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS - CHEMICAL OBSERVATIONS MATRIX
S[illegible]AYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

	SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
	SUB-SAMPLE ID:	00000	00000	00000	00000	00000
	STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
	SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
	SAMPLE TIME:					
	SAMPLE MATRIX:	GW	GW	GW	GW	GW
	UPPER DEPTH:					
	LOWER DEPTH:					
4,4'-DDD	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.19UY
4,4'-DDT	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254	UG/L	1UY	1UY	1UY	1UY	1UY
AROCLOR-1260	UG/L	1UY	1UY	1UY	1UY	1UY
BHC-ALPHA	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.5UY	0.05UY	2UY	0.05UY	0.089DY
DIELDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE	UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:		07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
4,4'-DDD	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
4,4'-DDE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
4,4'-DDT	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ALDRIN	UG/L	0.067UYJ	0.05UY	0.05UY	0.05UY	0.5UY
ALPHA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1016	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1221	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1232	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1242	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1248	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1254	UG/L	1UY	1UY	1UY	1UY	10UY
AROCLOR-1260	UG/L	1UY	1UY	1UY	1UY	10UY
BHC-ALPHA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
BHC-BETA	UG/L	0.05UY	0.19UY	0.055UY	0.05UY	0.5UY
BHC-DELTA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY	0.05UY	0.05UY	0.071DY	0.5UY
DIELDRIN	UG/L	0.1UY	0.49DY	0.14DY	0.1UY	1UY
ENDOSULFAN I	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
ENDOSULFAN II	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ENDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ENDRIN KETONE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
GAMMA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
HEPTACHLOR	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY	0.1DY	0.05UY	0.05UY	0.5UY
METHOXYCHLOR	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
TOXAPHENE	UG/L	1UY	1UY	1UY	1UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:		08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
4,4'-DDD	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254	UG/L	1UY	1UY	1UY	1UY	1UY
AROCLOR-1260	UG/L	1UY	1UY	1UY	1UY	1UY
BHC-ALPHA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY	0.14DY	0.05UY	0.05UY	0.05UY
DIELDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	0.1UY	0.11UY	0.1UY	0.1UY
ENDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:		08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
4,4'-DDD	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
ALPHA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1016	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1221	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1232	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1242	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1248	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
AROCLOR-1254	UG/L	1UY	1UY	1UY	1UY	1UY
AROCLOR-1260	UG/L	1UY	1UY	1UY	1UY	1UY
BHC-ALPHA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
BHC-BETA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
BHC-DELTA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
DIELDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
ENDOSULFAN II	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
HEPTACHLOR	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.5UY
METHOXYCHLOR	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		08MW1-01	08MW10-01	08MW11-01	08MW12-01	08MW13-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW1	08MW10	08MW11	08MW12	08MW13
SAMPLE DATE:		07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
4,4'-DDD	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254	UG/L	1UY	1UY	1UY	1UY	1UY
AROCLOR-1260	UG/L	1UY	1UY	1UY	1UY	1UY
BHC-ALPHA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY	0.05UY	0.21DY	0.05UY	0.07DY
DIELDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	0.29UY	0.19UY	0.1UY	0.1UY
ENDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		08MW13D-01	08MW14-01	08MW15-01	08MW17-01	08MW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW13D	08MW14	08MW15	08MW17	08MW2
SAMPLE DATE:		07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
4,4'-DDD	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
4,4'-DDE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
4,4'-DDT	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ALDRIN	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
ALPHA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	140UY
AROCLOR-1016	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	50UY
AROCLOR-1221	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	50UY
AROCLOR-1232	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	50UY
AROCLOR-1242	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	50UY
AROCLOR-1248	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	50UY
AROCLOR-1254	UG/L	1UY	1UY	1UY	1UY	10UY
AROCLOR-1260	UG/L	1UY	1UY	1UY	1UY	10UY
BHC-ALPHA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
BHC-BETA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
BHC-DELTA	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
DIELDRIN	UG/L	0.1UY	0.1UY	0.14DY	0.1UY	1UY
ENDOSULFAN I	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
ENDOSULFAN II	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ENDRIN	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
ENDRIN KETONE	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	1UY
GAMMA-CHLORDANE	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	50UY
HEPTACHLOR	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY	0.05UY	0.05UY	0.05UY	5UY
METHOXYCHLOR	UG/L	0.5UY	0.5UY	0.5UY	0.5UY	5UY
TOXAPHENE	UG/L	1UY	1UY	1UY	1UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		OBMW3-01	OBMW4-01	OBMW5-01	OBMW6-01	OBMW7-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW3	OBMW4	OBMW5	OBMW6	OBMW7
SAMPLE DATE:		08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
4,4'-DDD	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
ALDRIN	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254	UG/L	1UY	10UY	1UY	1UY	1UY
AROCLOR-1260	UG/L	1UY	10UY	1UY	1UY	1UY
BHC-ALPHA	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
BHC-BETA	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
BHC-DELTA	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
DIELDRIN	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
ENDRIN	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE	UG/L	0.1UY	1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY	0.5UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR	UG/L	0.5UY	5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE	UG/L	1UY	10UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	OBMW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:	08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	1UY	1UY	1UY	1UY	1UY
AROCLOR-1260 UG/L	1UY	1UY	1UY	1UY	1UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
DIELDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		WELL8-01
SUB-SAMPLE ID:		00000
STATION ID:		WELL8
SAMPLE DATE:		07/24/1992
SAMPLE TIME:		
SAMPLE MATRIX:		GW
UPPER DEPTH:		
LOWER DEPTH:		
4,4'-DDD	UG/L	0.1UY
4,4'-DDE	UG/L	0.1UY
4,4'-DDT	UG/L	0.1UY
ALDRIN	UG/L	0.05UY
ALPHA-CHLORDANE	UG/L	0.5UY
AROCLOR-1016	UG/L	0.5UY
AROCLOR-1221	UG/L	0.5UY
AROCLOR-1232	UG/L	0.5UY
AROCLOR-1242	UG/L	0.5UY
AROCLOR-1248	UG/L	0.5UY
AROCLOR-1254	UG/L	1UY
AROCLOR-1260	UG/L	1UY
BHC-ALPHA	UG/L	0.05UY
BHC-BETA	UG/L	0.05UY
BHC-DELTA	UG/L	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY
DIELDRIN	UG/L	0.1UY
ENDOSULFAN I	UG/L	0.05UY
ENDOSULFAN II	UG/L	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY
ENDRIN	UG/L	0.1UY
ENDRIN KETONE	UG/L	0.1UY
GAMMA-CHLORDANE	UG/L	0.5UY
HEPTACHLOR	UG/L	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY
METHOXYCHLOR	UG/L	0.5UY
TOXAPHENE	UG/L	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Metals and Cyanide

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	WELL8-01
SUB-SAMPLE ID:	00000
STATION ID:	WELL8
SAMPLE DATE:	07/24/1992
SAMPLE TIME:	
SAMPLE MATRIX:	GW
UPPER DEPTH:	
LOWER DEPTH:	

ALUMINUM UG/L	10500DY
ANTIMONY UG/L	8.5DYJ
ARSENIC UG/L	2UY
BARIUM UG/L	41DYJ
BERYLLIUM UG/L	1DY
CADMIUM UG/L	5UY
CALCIUM UG/L	8550DYJ
CHROMIUM UG/L	31DYJ
COBALT UG/L	12UY
COPPER UG/L	22UY
CYANIDE UG/L	5UY
IRON UG/L	2450DY
LEAD UG/L	6.3DYJ
LITHIUM UG/L	78300DY
MAGNESIUM UG/L	1080DYJ
MANGANESE UG/L	461DY
MERCURY UG/L	0.1UY
NICKEL UG/L	21UY
POTASSIUM UG/L	2130DYJ
SELENIUM UG/L	1UYJ
SILVER UG/L	1UYJ
SODIUM UG/L	12100DY
THALLIUM UG/L	2UYJ
VANADIUM UG/L	15UY
ZINC UG/L	11DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER
DETECTED OBSERVATIONS - NO TICS (GW009.TXT)
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	UG/L	37	36	0.9730	212.000	290,000.000	28,617.861	53,794.333
SB	ANTIMONY	UG/L	51	8	0.1569	6.100	11.600	8.863	1.884
AS	ARSENIC	UG/L	50	30	0.6000	2.400	131.000	20.257	31.160
BA	BARIUM	UG/L	51	51	1.0000	13.000	2,860.000	551.471	701.538
BE	BERYLLIUM	UG/L	51	21	0.4118	2.000	63.000	11.238	12.765
CD	CADMIUM	UG/L	33	13	0.3939	6.000	42.000	17.462	12.689
CA	CALCIUM	UG/L	51	51	1.0000	141.000	732,000.000	201,188.059	176,273.166
CR	CHROMIUM	UG/L	47	44	0.9362	6.000	580.000	116.432	133.159
CO	COBALT	UG/L	42	16	0.3810	12.000	270.000	61.063	63.272
CU	COPPER	UG/L	51	26	0.5098	7.000	657.000	93.346	127.388
CN	CYANIDE	UG/L	51	8	0.1569	10.400	8,780.000	1,123.913	2,893.814
FE	IRON	UG/L	51	50	0.9804	456.000	645,000.000	53,990.420	102,451.700
PB	LEAD	UG/L	49	44	0.8980	1.400	173.000	38.493	43.826
LI	LITHIUM	UG/L	51	43	0.8431	9.000	78,300.000	2,484.372	11,749.666
MG	MAGNESIUM	UG/L	51	50	0.9804	1,080.000	94,500.000	32,369.400	24,448.109
MN	MANGANESE	UG/L	50	50	1.0000	46.000	17,100.000	3,465.600	3,355.408
HG	MERCURY	UG/L	51	18	0.3529	0.110	0.740	0.283	0.191
NI	NICKEL	UG/L	43	36	0.8372	13.000	584.000	107.222	127.827
K	POTASSIUM	UG/L	51	51	1.0000	1,000.000	137,000.000	27,130.784	31,296.909
SE	SELENIUM	UG/L	27	4	0.1481	2.600	6.500	5.025	1.458
AG	SILVER	UG/L	51	1	0.0196	1.200	1.200	1.200	0.000
NA	SODIUM	UG/L	51	51	1.0000	207.000	1,440,000.000	79,081.118	198,048.249
V	VANADIUM	UG/L	43	30	0.6977	17.000	965.000	134.500	179.413
ZN	ZINC	UG/L	51	43	0.8431	8.000	1,400.000	166.674	255.813

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01	B38W04B-01	B38W05B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992	07/27/1992	07/23/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	DYR	DYR	212DY	468DY	14100DY
ANTIMONY UG/L	7UY	7UY	7UYJ	7UY	7UY
ARSENIC UG/L	5.2DYJ	2.5DYJ	3.4DYJ	8.9DYJ	3.6DYJ
BARIUM UG/L	90DYJ	320DYJ	13DYJ	351DY	371DY
BERYLLIUM UG/L	5DY	2UY	2UY	4DYJ	2UY
CADMIUM UG/L	6DY	5UY	DYR	DYR	DYR
CALCIUM UG/L	44100DDY	92800DY	413000DYJ	85500DYJ	84500DYJ
CHROMIUM UG/L	18DYJ	29DY	29DY	31DY	244DY
COBALT UG/L	22UY	22UY	12UY	12UY	14DYJ
COPPER UG/L	22UYJ	22UYJ	22UY	22UY	31DYJ
CYANIDE UG/L	5UY	5UY	5UY	5UY	5UY
IRON UG/L	42300DY	4500DY	31000DY	129000DY	20400DY
LEAD UG/L	4.6DYJ	3.1DYJ	1.4DYJ	50DY	20.4DY
LITHIUM UG/L	2540DY	9UYJ	100DY	1740DY	26DY
MAGNESIUM UG/L	30200DY	4480DYJ	63800DY	10500DY	13500DY
MANGANESE UG/L	2220DY	1630DY	8880DYJ	8200DYJ	795DYJ
MERCURY UG/L	0.21DY	0.18DYJ	0.1UY	0.1UY	0.1UY
NICKEL UG/L	54DY	27DYJ	24DYJ	50DY	141DY
POTASSIUM UG/L	79700DY	2240DYJ	42500DYJ	15900DY	5200DY
SELENIUM UG/L	10UYJ	2UYJ	1UYJ	5UYJ	1UYJ
SILVER UG/L	1UY	1.2DYJ	1UY	1UY	1UY
SODIUM UG/L	102000DYJ	8730DYJ	19100DY	77000DY	18000DY
THALLIUM UG/L	10UYJ	2UYJ	10UYJ	10UYJ	2UY
VANADIUM UG/L	92DY	32DYJ	64DY	35DYJ	34DYJ
ZINC UG/L	26DY	67DY	6UYJ	6UYJ	60DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	B38W06B-01	B38W12A-01	B38W12B-01	B38W18D-01	B38W7B-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W12A	B38W12B	B38W18D	B38W7B
SAMPLE DATE:	07/28/1992	07/30/1992	07/30/1992	07/23/1992	07/24/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	DYR	4040DY	310DY	305DY	2740DY
ANTIMONY UG/L	7UY	11.6DYJ	5UY	7UY	7UY
ARSENIC UG/L	2.8DYJ	8.6DYJ	2UY	20UY	2UY
BARIUM UG/L	176DYJ	126DYJ	102DYJ	24DYJ	133DYJ
BERYLLIUM UG/L	2UY	2UY	2UY	2UY	2UY
CADMIUM UG/L	5UY	5UY	5UY	DYR	UYR
CALCIUM UG/L	140000DY	578000DY	93000DY	151000DYJ	445000DYJ
CHROMIUM UG/L	6DYJ	13DYJ	11DYJ	39DY	47DY
COBALT UG/L	22UY	12DYJ	12UY	12UY	12UY
COPPER UG/L	22UYJ	7UY	7UY	22UY	22UY
CYANIDE UG/L	5UY	8780DY	5UY	5UY	5UY
IRON UG/L	15100DY	10300DY	1020DY	15000DY	52100DY
LEAD UG/L	2UYJ	DYR	DYR	5.8DYJ	9DY
LITHIUM UG/L	565DY	71DY	9UYJ	3400DY	65DY
MAGNESIUM UG/L	115000DY	137000DY	208000DYJ	147000DY	503000DY
MANGANESE UG/L	2820DY	2940DY	46DY	4300DYJ	4570DYJ
MERCURY UG/L	0.17DYJ	0.11DYJ	0.1UY	0.1UY	0.1UY
NICKEL UG/L	21UY	40DY	21UY	34DYJ	40DY
POTASSIUM UG/L	12400DY	3540DYJ	3240DYJ	7450DY	10100DY
SELENIUM UG/L	10UYJ	UYR	UYR	1UYJ	1UYJ
SILVER UG/L	1UY	1UYJ	1UYJ	1UY	1UY
SODIUM UG/L	106000DYJ	39900DY	25000DY	33000DY	293000DY
THALLIUM UG/L	2UYJ	2UY	2UYJ	2UYJ	2UY
VANADIUM UG/L	31DYJ	15UY	15UY	26DYJ	18DYJ
ZINC UG/L	6UY	31DY	14DYJ	114DY	17DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	BRMW1-01	BRMW10-01	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW1	BRMW10	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/29/1992	07/28/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	DYR	DYR	342DY	597DY	2790DY
ANTIMONY UG/L	7UY	7UY	7UY	5UY	7UY
ARSENIC UG/L	2UY	4.5DYJ	2UYJ	2UY	4.6DYJ
BARIUM UG/L	48DYJ	289DYJ	100DYJ	196DYJ	195DYJ
BERYLLIUM UG/L	2UY	2UY	2UY	2UY	2UY
CADMIUM UG/L	7DY	5UY	DYR	5UY	UYR
CALCIUM UG/L	196000DY	136000DY	99500DY	102000DY	80400DY
CHROMIUM UG/L	19DY	9DYJ	DYR	228DY	DYR
COBALT UG/L	22UY	22UY	UYR	12UY	UYR
COPPER UG/L	22UYJ	22UY	7UY	7UY	7UY
CYANIDE UG/L	5UY	5UY	5UYJ	5UY	5UYJ
IRON UG/L	1630DY	4850DY	456DY	2250DY	3330DY
LEAD UG/L	5.2DY	7.4DY	2UY	32.6DYJ	3.8DY
LITHIUM UG/L	3910DY	9UYJ	15DYJ	18DYJ	477DY
MAGNESIUM UG/L	78000DY	34600DY	11300DY	16400DY	25000DY
MANGANESE UG/L	1990DY	928DY	421DY	59DYJ	444DY
MERCURY UG/L	0.15DYJ	0.11DYJ	0.1UY	0.1UY	0.1UY
NICKEL UG/L	21UY	21UY	UYR	39DYJ	DYR
POTASSIUM UG/L	14700DY	10400DY	3250DYJ	4900DYJ	9140DY
SELENIUM UG/L	10UYJ	2UYJ	UYR	UYR	UYR
SILVER UG/L	1UY	1UY	1UYJ	1UYJ	1UYJ
SODIUM UG/L	79600DYJ	28100DYJ	18200DY	25000DY	23100DY
THALLIUM UG/L	2UYJ	2UYJ	2UY	2UY	2UYJ
VANADIUM UG/L	36DYJ	43DYJ	UYR	15UY	UYR
ZINC UG/L	19DYJ	30DY	17DYJ	38DY	18DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW14-01	BRMW15-01	BRMW16-01	BRMW17-01	BRMW2-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW14	BRMW15	BRMW16	BRMW17	BRMW2
SAMPLE DATE:	07/29/1992	07/22/1992	07/27/1992	07/23/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	DYR	513DY	DYR	498DY	668DY
ANTIMONY UG/L	7UYJ	7UY	7UY	7UY	7UY
ARSENIC UG/L	2UY	2UY	20UY	2.4DYJ	2UY
BARIUM UG/L	599DYJ	162DYJ	122DYJ	194DYJ	108DYJ
BERYLLIUM UG/L	2UY	2UY	2UY	2UY	2UY
CADMIUM UG/L	5UY	UYR	UYR	DYR	DYR
CALCIUM UG/L	42900DY	68200DY	119000DY	78500DYJ	119000DY
CHROMIUM UG/L	23DY	47DY	211DY	55DY	DYR
COBALT UG/L	22UY	UYR	22UY	12UY	UYR
COPPER UG/L	22UY	9DYJ	23DYJ	22UY	8DYJ
CYANIDE UG/L	5UY	5UYJ	5UY	5UY	5UYJ
IRON UG/L	5020DY	1050DY	5470DY	1330DY	2940DY
LEAD UG/L	22.8DY	2UY	4DYJ	5.5DY	2.6DYJ
LITHIUM UG/L	342DY	9UYJ	80DY	9UY	2460DY
MAGNESIUM UG/L	19600DY	5830DY	12600DY	8870DY	16300DY
MANGANESE UG/L	128DY	DYR	188DY	727DYJ	3170DY
MERCURY UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
NICKEL UG/L	35DY	DYR	30DYJ	56DY	DYR
POTASSIUM UG/L	7910DY	1000DYJ	3500DYJ	1630DYJ	10400DY
SELENIUM UG/L	10UYJ	UYR	2UYJ	1UYJ	UYR
SILVER UG/L	1UYJ	1UYJ	1UY	1UY	1UYJ
SODIUM UG/L	27100DYJ	18100DY	34500DYJ	17600DY	228000DY
THALLIUM UG/L	2UYJ	2UY	2UYJ	2UY	2UYJ
VANADIUM UG/L	15UY	UYR	15UY	21DYJ	UYR
ZINC UG/L	49DY	24DY	6UYJ	6UYJ	13DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW3-01	BRMW4-01	BRMW5-01	BRMW6-01	BRMW7-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:		08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	18800DY	1600DY	2040DY	DYR	4510DY
ANTIMONY	UG/L	5UYJ	7UY	10.7DYJ	7UY	5UY
ARSENIC	UG/L	5.3DYJ	5.5DYJ	20.3DY	2UY	2UY
BARIUM	UG/L	172DYJ	138DYJ	162DYJ	85DYJ	374DY
BERYLLIUM	UG/L	2UY	2UY	2UY	2UY	2UY
CADMIUM	UG/L	5UY	DYR	5UY	5UY	5UY
CALCIUM	UG/L	154000DY	76800DY	184000DY	96400DY	108000DY
CHROMIUM	UG/L	8DYJ	DYR	6DYJ	172DY	17DYJ
COBALT	UG/L	12UY	UYR	12DYJ	22UY	12UY
COPPER	UG/L	10DYJ	7DYJ	7UY	22UYJ	20DYJ
CYANIDE	UG/L	5UY	5UYJ	5UY	5UY	10.4DY
IRON	UG/L	6970DY	1160DY	5410DY	1990DY	3190DY
LEAD	UG/L	17.5DYJ	2.4DYJ	3DYJ	2UY	19.8DYJ
LITHIUM	UG/L	201DY	9DYJ	308DY	9UYJ	144DY
MAGNESIUM	UG/L	70300DY	28200DY	46200DYJ	10300DY	6860DY
MANGANESE	UG/L	212DY	466DY	4700DY	347DY	76DY
MERCURY	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
NICKEL	UG/L	21UY	DYR	34DYJ	85DY	40DY
POTASSIUM	UG/L	3980DYJ	9600DY	26700DYJ	5380DY	52500DY
SELENIUM	UG/L	UYR	UYR	UYR	10UYJ	UYR
SILVER	UG/L	1UYJ	1UYJ	1UYJ	1UY	1UYJ
SODIUM	UG/L	23600DY	32300DY	46800DY	50000DYJ	39200DY
THALLIUM	UG/L	2UY	2UY	2UYJ	2UYJ	2UYJ
VANADIUM	UG/L	15UY	UYR	15UY	36DYJ	15UY
ZINC	UG/L	26DY	226DY	29DY	8DYJ	122DY

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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW8-01	BRMW8D-01	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW8	BRMW8D	BRMW9	MISS4A	MISS4B
SAMPLE DATE:		08/03/1992	08/03/1992	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	866DY	625DY	5970DY	349DY	39UY
ANTIMONY	UG/L	5UY	11DYJ	7.1DYJ	7UY	7UY
ARSENIC	UG/L	2UY	2UY	2UY	20UY	20UY
BARIUM	UG/L	106DYJ	106DYJ	183DYJ	17DYJ	98DY
BERYLLIUM	UG/L	2UY	2UY	2UY	2UY	2UY
CADMIUM	UG/L	5UY	5UY	5UY	UYR	DYR
CALCIUM	UG/L	155000DY	157000DY	152000DY	36500DYJ	110000DYJ
CHROMIUM	UG/L	6UY	6UY	17DY	6UY	15DY
COBALT	UG/L	12UY	12UY	12UY	12UY	12UY
COPPER	UG/L	7UY	7UY	9DYJ	22UY	22UY
CYANIDE	UG/L	13.7DY	15.5DY	5UY	18.8DY	5UY
IRON	UG/L	817DY	518DY	7150DY	1510DY	21100DY
LEAD	UG/L	1UYJ	2.4DYJ	4.1DYJ	2.8DYJ	3.7DY
LITHIUM	UG/L	34DY	38DY	9UY	9UY	42DY
MAGNESIUM	UG/L	60900DY	62400DY	10500DY	9320DY	13400DY
MANGANESE	UG/L	837DY	835DY	970DY	1570DYJ	4020DYJ
MERCURY	UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
NICKEL	UG/L	25DYJ	24DYJ	21UY	13DY	17DY
POTASSIUM	UG/L	6930DY	7230DY	4340DYJ	50400DY	23300DY
SELENIUM	UG/L	UYR	UYR	UYR	5UYJ	5UYJ
SILVER	UG/L	1UYJ	1UYJ	1UYJ	1UY	1UY
SODIUM	UG/L	35900DY	36500DY	84300DY	40900DY	112000DY
THALLIUM	UG/L	2UYJ	2UYJ	2UYJ	2UY	2UYJ
VANADIUM	UG/L	15UY	15UY	15UY	15UY	17DYJ
ZINC	UG/L	42DY	43DY	23DY	6UYJ	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	OBMW1-01	OBMW10-01	OBMW11-01	OBMW12-01	OBMW13-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW1	OBMW10	OBMW11	OBMW12	OBMW13
SAMPLE DATE:	07/29/1992	07/30/1992	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	DYR	19100DY	20800DY	20700DY	104000DY
ANTIMONY UG/L	7UY	6.1DYJ	7UY	5UY	7UY
ARSENIC UG/L	20.7DY	12.4DY	10DYJ	2UY	16.2DY
BARIUM UG/L	1030DYJ	317DY	340DY	696DY	2170DY
BERYLLIUM UG/L	12DY	2UY	2DYJ	4DYJ	21DY
CADMIUM UG/L	10DY	5UY	DYR	5UY	DYR
CALCIUM UG/L	156000DY	56000DY	162000DY	365000DY	470000DY
CHROMIUM UG/L	138DY	39DY	49DY	32DY	217DY
COBALT UG/L	61DY	25DYJ	DYR	31DYJ	DYR
COPPER UG/L	128DY	69DY	33DY	43DY	148DY
CYANIDE UG/L	5UY	5UY	20DYJ	5UY	5UYJ
IRON UG/L	142000DY	25100DY	29500DY	24300DY	218000DY
LEAD UG/L	111DY	41.5DYJ	72.1DY	12.2DYJ	73.3DY
LITHIUM UG/L	661DY	16DYJ	52DYJ	19DYJ	348DY
MAGNESIUM UG/L	34200DY	28600DY	10600DY	20200DYJ	62000DY
MANGANESE UG/L	17100DY	1650DY	5700DY	3180DY	8810DY
MERCURY UG/L	0.36DY	0.1UY	0.1UY	0.1UY	0.14DYJ
NICKEL UG/L	114DY	96DY	DYR	56DY	217DY
POTASSIUM UG/L	53900DY	137000DY	13700DY	6180DY	63600DY
SELENIUM UG/L	10UYJ	UYR	UYR	UYR	UYR
SILVER UG/L	1UY	1UYJ	1UYJ	1UYJ	1UYJ
SODIUM UG/L	132000DYJ	95500DY	31500DY	16200DY	106000DY
THALLIUM UG/L	10UYJ	2UYJ	2UY	2UY	2UYJ
VANADIUM UG/L	200DY	62DY	DYR	27DYJ	255DY
ZINC UG/L	332DY	70DY	131DY	117DY	453DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		OBMW13D-01	OBMW14-01	OBMW15-01	OBMW17-01	OBMW2-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW13D	OBMW14	OBMW15	OBMW17	OBMW2
SAMPLE DATE:		07/22/1992	07/29/1992	07/22/1992	07/23/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	116000DY	DYR	48200DY	97700DY	13200DY
ANTIMONY	UG/L	7UY	7UY	7UY	7UY	7UY
ARSENIC	UG/L	19.4DY	129DY	2.9DYJ	14.7DY	DYR
BARIUM	UG/L	2780DY	1450DYJ	838DY	1210DY	200DY
BERYLLIUM	UG/L	21DY	10DY	5DY	2UY	3DYJ
CADMIUM	UG/L	42DY	10DY	23DY	42DY	DYR
CALCIUM	UG/L	498000DYJ	542000DY	106000DYJ	141DY	6260000DY
CHROMIUM	UG/L	237DY	127DY	532DY	165DY	380DY
COBALT	UG/L	115DY	22UY	43DYJ	119DY	DYR
COPPER	UG/L	181DY	92DYJ	37DY	121DY	56DY
CYANIDE	UG/L	5UY	5UY	5UY	5UY	5UYJ
IRON	UG/L	238000DY	137000DY	64800DY	28UY	49600DY
LEAD	UG/L	66.7DY	64.2DY	24.5DY	91.6DY	64.6DY
LITHIUM	UG/L	3570DY	664DY	44DY	84DY	360DY
MAGNESIUM	UG/L	64200DY	35300DY	19000DY	6UY	39200DY
MANGANESE	UG/L	6310DYJ	5600DY	1830DYJ	4470DYJ	3630DY
MERCURY	UG/L	0.17DYJ	0.1UY	0.1UY	0.14DYJ	0.14DYJ
NICKEL	UG/L	241DY	101DY	564DY	241DY	DYR
POTASSIUM	UG/L	63600DY	32100DYJ	10000DY	24800DYJ	40400DYJ
SELENIUM	UG/L	5.5DYJ	10UYJ	5.5DYJ	6.5DYJ	UYR
SILVER	UG/L	1UY	1UY	1UY	1UY	1UYJ
SODIUM	UG/L	191000DY	27100DYJ	23200DY	207DYJ	120000DY
THALLIUM	UG/L	10UYJ	10UYJ	2UYJ	10UY	2UYJ
VANADIUM	UG/L	350DY	230DY	97DY	174DY	DYR
ZINC	UG/L	535DY	228DY	132DY	6UYJ	70DY

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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	OBMW3-01	OBMW4-01	OBMW5-01	OBMW6-01	OBMW7-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW3	OBMW4	OBMW5	OBMW6	OBMW7
SAMPLE DATE:	08/03/1992	07/22/1992	08/03/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	34400DY	34900DY	70800DY	DYR	46000DY
ANTIMONY UG/L	5UY	7UY	8.4DYJ	7UY	5UY
ARSENIC UG/L	29.1DY	31.8DY	131DY	12.3DY	10.8DY
BARIUM UG/L	933DY	867DY	2530DY	518DYJ	734DY
BERYLLIUM UG/L	5DY	6DY	16DY	2DY	7DY
CADMIUM UG/L	5UY	DYR	11DY	5UY	7DY
CALCIUM UG/L	337000DY	524000DY	356000DY	136000DY	732000DY
CHROMIUM UG/L	266DY	232DY	231DY	58DY	88DY
COBALT UG/L	47DYJ	DYR	91DY	22UY	53DY
COPPER UG/L	32DY	111DY	227DY	42DYJ	78DY
CYANIDE UG/L	5UY	5UYJ	5UY	5UY	5UY
IRON UG/L	58000DY	59800DY	158000DY	30700DY	65900DY
LEAD UG/L	39.1DYJ	114DY	166DYJ	45.1DY	38.8DYJ
LITHIUM UG/L	676DY	571DY	902DY	11DYJ	133DY
MAGNESIUM UG/L	43400DYJ	56500DY	68500DY	22100DY	52700DY
MANGANESE UG/L	9460DY	3830DY	5870DY	4860DY	9160DY
MERCURY UG/L	0.25DY	0.74DY	0.54DY	0.1UY	0.52DY
NICKEL UG/L	89DY	DYR	157DY	62DY	106DY
POTASSIUM UG/L	32800DYJ	60000DY	13900DY	10100DY	23000DY
SELENIUM UG/L	UYR	UYR	UYR	10UYJ	UYR
SILVER UG/L	1UYJ	1UYJ	1UYJ	1UY	1UYJ
SODIUM UG/L	52500DY	18600DY	130000DY	59200DYJ	10400DY
THALLIUM UG/L	2UYJ	2UYJ	2UYJ	2UYJ	2UY
VANADIUM UG/L	96DY	DYR	315DY	89DY	88DY
ZINC UG/L	179DY	192DY	438DY	127DY	218DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER SAMPLES
ALL OBSERVATIONS - NO TICS (SD-128.TXT)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	08MW8-01	WELL1-01	WELL1D-01	WELL2-01	WELL5-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW8	WELL1	WELL1D	WELL2	WELL5
SAMPLE DATE:	08/03/1992	07/28/1992	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	290000DY	DYR	DYR	DYR	41600DY
ANTIMONY UG/L	7.5DYJ	7UY	7UY	7UY	7UY
ARSENIC UG/L	2UY	7.7DYJ	9.5DYJ	51.2DY	21.4DY
BARIUM UG/L	2860DY	749DYJ	833DYJ	1540DYJ	329DY
BERYLLIUM UG/L	63DY	10DY	9DY	13DY	8DY
CADMIUM UG/L	25DY	5UY	6DY	10DY	28DY
CALCIUM UG/L	201000DY	60600DY	61800DY	240000DY	228000DYJ
CHROMIUM UG/L	580DY	99DY	102DY	171DY	55DY
COBALT UG/L	270DY	22UY	26DYJ	37DYJ	21DY
COPPER UG/L	657DY	22UY	22UY	166DY	89DY
CYANIDE UG/L	76.6DY	5UY	5UY	56.3DY	5UY
IRON UG/L	645000DY	93400DY	95600DY	152000DY	58400DY
LEAD UG/L	127DYJ	32.6DY	36.9DY	173DY	59.3DY
LITHIUM UG/L	301DY	46DY	50DY	161DY	142DY
MAGNESIUM UG/L	94500DYJ	52500DY	54500DY	91500DY	32800DYJ
MANGANESE UG/L	7550DY	3160DY	3200DY	6370DY	2590DYJ
MERCURY UG/L	0.52DY	0.1UY	0.1UY	0.52DY	0.12DYJ
NICKEL UG/L	584DY	88DY	98DY	146DY	92DY
POTASSIUM UG/L	56700DY	108000DY	115000DY	64300DY	13000DY
SELENIUM UG/L	UYR	2UYJ	10UYJ	2.6DYJ	5UYJ
SILVER UG/L	1UYJ	1UY	1UY	1UY	1UY
SODIUM UG/L	1440000DY	29700DYJ	29800DYJ	113000DYJ	38000DY
THALLIUM UG/L	2UYJ	10UYJ	10UYJ	10UY	10UY
VANADIUM UG/L	965DY	122DYJ	131DYJ	253DY	96DY
ZINC UG/L	1400DY	193DY	216DY	892DY	177DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Radionuclides

Glossary of Data Qualifier Codes and Definitions Used for Radiological Data

Definitions of data qualifiers used for organic and inorganic analytical data are defined at the bottom of each data sheet. The definitions for the data qualifiers for the radiological data, however, are different. The following definitions should, therefore, be used for radiological data qualifiers.:

U - The parameter was analyzed for, but was not detected above the level of the associated value. The associated value is either the minimum detectable activity (MDA) or the sample-specific lower limit of detection (LLD), or the observed value.

J - The associated value is estimated because one or more quality acceptance criteria were not met.

UJ - The parameter was analyzed for but was not detected. The nondetection could be due to one or more quality control problems. The associated value is an estimated MDA or LLD, or observed value.

H - Holding times exceeded.

D - Duplicate precision criteria not met.

S - Matrix spike recovery criteria not met.

C - Calibration criteria not met.

B - Blank contamination present.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: RAD

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
S01	GROSS ALPHA, TOTAL	PCI/L	50	14	0.2800	5.700	53.800	22.736	13.620
S02	GROSS BETA, TOTAL	PCI/L	50	25	0.5000	4.200	132.000	30.400	29.048
S03	RADIUM 226, TOTAL	PCI/L	50	26	0.5200	0.900	5.800	2.146	1.394
S04	RADIUM 228, TOTAL	PCI/L	50	11	0.2200	2.900	6.400	4.845	1.001
S05	THORIUM 230, TOTAL	PCI/L	50	25	0.5000	0.700	2.500	1.200	0.415
S06	THORIUM 232, TOTAL	PCI/L	50	7	0.1400	0.500	0.900	0.714	0.155
S07	URANIUM 234, TOTAL	PCI/L	50	21	0.4200	0.500	12.400	4.354	3.110
S08	URANIUM 235, TOTAL	PCI/L	50	15	0.3000	0.200	11.100	1.960	2.905
S09	URANIUM 238, TOTAL	PCI/L	50	16	0.3200	1.100	14.500	4.894	3.477

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	B38W01S-01	B38W02D-01	B38W03B-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B
SAMPLE DATE:	07/28/1992	07/28/1992	07/27/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	7.6UY	6.1UYJS	37.9 +/- 26.6DY
GROSS BETA, TOTAL PCI/L	41 +/- 20.4DY	1UY	53.6 +/- 21.2DY
RADIUM 226, TOTAL PCI/L	1.2UY	0.1UY	0.2UY
RADIUM 228, TOTAL PCI/L	1.2UY	2.9UY	1.7UY
THORIUM 230, TOTAL PCI/L	1.2UY	1UY	1.7UY
THORIUM 232, TOTAL PCI/L	1.1UY	1.2UY	1.5UY
URANIUM 234, TOTAL PCI/L	0.9UY	1.5UY	16.5UYJS
URANIUM 235, TOTAL PCI/L	0.4UY	0.4UY	4.4UYJS
URANIUM 238, TOTAL PCI/L	0.8UY	1.4UY	15.2UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:	B38W04B-01	B38W05B-01	B38W06B-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	B38W04B	B38W05B	B38W06B
SAMPLE DATE:	07/27/1992	07/23/1992	07/28/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	2.6UY	2.3UY	4UY
GROSS BETA, TOTAL PCI/L	13.2UY	4UY	10.5UY
RADIUM 226, TOTAL PCI/L	1.2UY	2.4 +/- 1.1DY	1.2UY
RADIUM 228, TOTAL PCI/L	0.4UY	3.4UYJB	3.8 +/- 1.9DY
THORIUM 230, TOTAL PCI/L	1UY	1.3 +/- 0.7DY	1.4UY
THORIUM 232, TOTAL PCI/L	0.9UY	0.2UY	1.3UY
URANIUM 234, TOTAL PCI/L	4.3UYJC	3.7UY	12.1UYJS
URANIUM 235, TOTAL PCI/L	0.2UYJC	0.3UY	3.2UYJS
URANIUM 238, TOTAL PCI/L	4UYJC	4.7UY	11.2UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	B38W12A-01	B38W12B-01	B38W18D-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	B38W12A	B38W12B	B38W18D
SAMPLE DATE:	07/30/1992	07/30/1992	07/23/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	27.3UY	1.5UY	19 +/- 10.4DY
GROSS BETA, TOTAL PCI/L	76.6 +/- 14.5DY	6.9UY	9 +/- 6DY
RADIUM 226, TOTAL PCI/L	0.9UY	0.8UY	0.4UY
RADIUM 228, TOTAL PCI/L	2.7UYJB	1UYJB	3UYJB
THORIUM 230, TOTAL PCI/L	1.5UY	1.1 +/- 0.8DY	1.5 +/- 0.8DY
THORIUM 232, TOTAL PCI/L	1.1UY	0.4UY	0.7 +/- 0.5DY
URANIUM 234, TOTAL PCI/L	5.8 +/- 0.7DY	1.9 +/- 0.3DY	2.1 +/- 0.9DY
URANIUM 235, TOTAL PCI/L	0.5 +/- 0.2DY	0.2 +/- 0.1DY	0.2UY
URANIUM 238, TOTAL PCI/L	4.3 +/- 0.6DY	1.1 +/- 0.2DY	2.3 +/- 1.1DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:	B38W78-01	BRMW1-01	BRMW10-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	B38W78	BRMW1	BRMW10
SAMPLE DATE:	07/24/1992	07/29/1992	07/28/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	5.7 +/- 3.7DY	22.9UY	9.1UY
GROSS BETA, TOTAL PCI/L	20 +/- 2.8DY	11.3UY	9.4 +/- 6.1DY
RADIUM 226, TOTAL PCI/L	0.9UY	1.8 +/- 1.1DY	1.2 +/- 1DY
RADIUM 228, TOTAL PCI/L	2UYJB	2.6UYJB	4.3UYJB
THORIUM 230, TOTAL PCI/L	2.5 +/- 0.6DY	0.9 +/- 0.5DY	4.6UYJS
THORIUM 232, TOTAL PCI/L	0.2UY	0.4UY	4.1UYJS
URANIUM 234, TOTAL PCI/L	0.5UY	1UY	8.7UYJC
URANIUM 235, TOTAL PCI/L	0.1UY	0.2UY	5.5 +/- 3.5DYJC
URANIUM 238, TOTAL PCI/L	0.5UY	0.8UY	8.1UYJC

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	BRMW11-01	BRMW12-01	BRMW13-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	BRMW11	BRMW12	BRMW13
SAMPLE DATE:	07/21/1992	07/31/1992	07/22/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	9.6UY	0.7UY	9.2UY
GROSS BETA, TOTAL PCI/L	2UY	4.2 +/- 2.1DY	4.7UY
RADIUM 226, TOTAL PCI/L	1.3 +/- 0.6DY	0.5UY	0.9 +/- 0.7DY
RADIUM 228, TOTAL PCI/L	3.3UY	2.9 +/- 2DY	1.4UYJB
THORIUM 230, TOTAL PCI/L	0.9 +/- 0.6DY	1.6UY	1.4 +/- 0.7DY
THORIUM 232, TOTAL PCI/L	1.3UY	1.4UY	0.5 +/- 0.4DY
URANIUM 234, TOTAL PCI/L	1.1UY	2.1 +/- 0.6DY	1.7 +/- 1.3DY
URANIUM 235, TOTAL PCI/L	0.3UYJD	0.2 +/- 0.1DY	0.6UY
URANIUM 238, TOTAL PCI/L	0.8UY	0.9UY	0.1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:	BRMW14-01	BRMW15-01	BRMW16-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	BRMW14	BRMW15	BRMW16
SAMPLE DATE:	07/29/1992	07/22/1992	07/27/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	20 +/- 7.4DY	2.4UY	7.8UY
GROSS BETA, TOTAL PCI/L	15.2 +/- 4.5DY	7.8UY	11.6 +/- 4.7DY
RADIUM 226, TOTAL PCI/L	0.9UY	1.1 +/- 0.7DY	1.2UY
RADIUM 228, TOTAL PCI/L	3.4UYJB	1.4UYJB	1.5UY
THORIUM 230, TOTAL PCI/L	0.7 +/- 0.6DY	1.2 +/- 0.7DY	1.4UY
THORIUM 232, TOTAL PCI/L	0.1UY	0.3UY	1.3UY
URANIUM 234, TOTAL PCI/L	10.3 +/- 1DY	1.3UY	4.5 +/- 2.1DY
URANIUM 235, TOTAL PCI/L	1.9 +/- 0.4DY	0.5UY	1.5 +/- 1DY
URANIUM 238, TOTAL PCI/L	8 +/- 0.8DY	1.7UY	6.9 +/- 2.3DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW17-01	BRMW2-01	BRMW3-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	BRMW17	BRMW2	BRMW3
SAMPLE DATE:	07/23/1992	07/22/1992	08/03/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	5.9UY	10.7UY	13.2 +/- 7.2DY
GROSS BETA, TOTAL PCI/L	0.7UY	5.5UY	10.9 +/- 4.3DY
RADIUM 226, TOTAL PCI/L	1.6 +/- 0.8DY	0.9UY	3.6 +/- 1.1DY
RADIUM 228, TOTAL PCI/L	0.5UYJB	0.3UYJB	1.4UY
THORIUM 230, TOTAL PCI/L	1.2 +/- 0.5DY	0.9 +/- 0.6DY	1UY
THORIUM 232, TOTAL PCI/L	0.1UY	0.1UY	0.7UY
URANIUM 234, TOTAL PCI/L	0.2UY	1.8UY	5.1 +/- 0.7DY
URANIUM 235, TOTAL PCI/L	0.4UY	0.6UY	0.1UY
URANIUM 238, TOTAL PCI/L	1.4UY	2.2UY	3.8 +/- 0.6DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	BRMW4-01	BRMW5-01	BRMW6-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	BRMW4	BRMW5	BRMW6
SAMPLE DATE:	07/22/1992	08/03/1992	07/29/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	2.1UY	1UY	2.53UY
GROSS BETA, TOTAL PCI/L	2.3UY	12.2 +/- 7.1DY	4.6 +/- 2.1DY
RADIUM 226, TOTAL PCI/L	0.8UY	1.5 +/- 1DY	1.2 +/- 1DY
RADIUM 228, TOTAL PCI/L	1.6UYJB	3.5UY	0.6UYBJ
THORIUM 230, TOTAL PCI/L	1.6 +/- 0.7DY	1.3 +/- 0.9DY	0.7UY
THORIUM 232, TOTAL PCI/L	0.8 +/- 0.5DY	0.2UY	0.7UY
URANIUM 234, TOTAL PCI/L	0.9UY	4.5 +/- 1.1DY	0.3UY
URANIUM 235, TOTAL PCI/L	0.1UY	0.2UY	0.1UY
URANIUM 238, TOTAL PCI/L	1.7UY	2.8 +/- 0.9DY	0.1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:	BRMW7-01	BRMW8-01	BRMW8D-01
SUB-SAMPLE ID:	00000	00000	DUP
STATION ID:	BRMW7	BRMW8	BRMW8D
SAMPLE DATE:	07/30/1992	08/03/1992	08/03/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	1.9UY	1.7UY	1.6UY
GROSS BETA, TOTAL PCI/L	4.4UY	2.7UY	4.9UY
RADIUM 226, TOTAL PCI/L	1.5 +/- 1DY	1.3UY	0.7UY
RADIUM 228, TOTAL PCI/L	1.7UYJB	3.5UY	3.5UY
THORIUM 230, TOTAL PCI/L	1.4 +/- 0.8DY	0.6UY	0.6UY
THORIUM 232, TOTAL PCI/L	0.6UY	0.2UY	0.3UY
URANIUM 234, TOTAL PCI/L	2.2 +/- 0.5DY	3.8 +/- 0.7DY	3.6 +/- 0.6DY
URANIUM 235, TOTAL PCI/L	0.1UY	0.3 +/- 0.2DY	0.3 +/- 0.2DY
URANIUM 238, TOTAL PCI/L	1.8 +/- 0.5DY	2.6 +/- 0.6DY	2.5 +/- 0.5DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	BRMW9-01	MISS4A-01	MISS4B-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	BRMW9	MISS4A	MISS4B
SAMPLE DATE:	07/31/1992	07/24/1992	07/24/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	11.2 +/- 6.8DY	13.6 +/- 5.5DY	3.9UY
GROSS BETA, TOTAL PCI/L	15 +/- 4.2DY	33 +/- 4.8DY	22.2 +/- 5.9DY
RADIUM 226, TOTAL PCI/L	0.4UY	1.2UY	0.7UY
RADIUM 228, TOTAL PCI/L	5.5 +/- 2.2DY	1.6UY	2.2UYJB
THORIUM 230, TOTAL PCI/L	1.9UY	1.6UY	0.6UY
THORIUM 232, TOTAL PCI/L	1.7UY	1.4UY	0.3UY
URANIUM 234, TOTAL PCI/L	0.5 +/- 0.3DY	19UYJS	1.4UY
URANIUM 235, TOTAL PCI/L	0.1UY	5.1UY	0.1UY
URANIUM 238, TOTAL PCI/L	0.2UY	17.6UYJS	1.4UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW1-01	08MW10-01	08MW11-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	08MW1	08MW10	08MW11
SAMPLE DATE:	07/29/1992	07/30/1992	07/21/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	53.8 +/- 16.6DY	16.9 +/- 10.7DY	3.5UY
GROSS BETA, TOTAL PCI/L	61.3 +/- 10.7DY	132 +/- 10.4DY	12.3UY
RADIUM 226, TOTAL PCI/L	5.8 +/- 1.6DY	1.1UY	1.6 +/- 0.7DY
RADIUM 228, TOTAL PCI/L	5.1 +/- 1.9DY	3.8 +/- 2DY	3.3UY
THORIUM 230, TOTAL PCI/L	0.8 +/- 0.6DY	1.9UY	1.1 +/- 0.6DY
THORIUM 232, TOTAL PCI/L	0.5UY	1.7UY	1.1UY
URANIUM 234, TOTAL PCI/L	6.03 +/- 4.2DY	1.3UYJS	2.2UY
URANIUM 235, TOTAL PCI/L	4.7 +/- 2.7DY	0.7UYJS	0.1UYJD
URANIUM 238, TOTAL PCI/L	2.8UY	1.1UYJS	0.4UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	08MW12-01	08MW13-01	08MW13D-01
SUB-SAMPLE ID:	00000	00000	DUP
STATION ID:	08MW12	08MW13	08MW13D
SAMPLE DATE:	07/31/1992	07/22/1992	07/22/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	16.6UY	6.4UY	7.1UY
GROSS BETA, TOTAL PCI/L	1.1UY	23.4UY	24.4UY
RADIUM 226, TOTAL PCI/L	1.2UY	0.6UY	1.4 +/- 0.7DY
RADIUM 228, TOTAL PCI/L	5 +/- 2.1DY	1.5UYJB	2.6UYJB
THORIUM 230, TOTAL PCI/L	2UY	1.4 +/- 0.8DY	0.9 +/- 0.7DY
THORIUM 232, TOTAL PCI/L	1.7UY	0.1UY	0.9 +/- 0.6DY
URANIUM 234, TOTAL PCI/L	0.5UY	27.4UYJS	3.7UYJS
URANIUM 235, TOTAL PCI/L	0.2UY	2.1UYJS	1.3UYJS
URANIUM 238, TOTAL PCI/L	0.9UY	34.9UYJS	4.7UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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SAMPLE ID:	OBMW14-01	OBMW14D-01	OBMW15-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	OBMW14	OBMW14D	OBMW15
SAMPLE DATE:	07/29/1992	07/29/1992	07/22/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	37.2 +/- 17.7DY	22UY	6.6UY
GROSS BETA, TOTAL PCI/L	41.1 +/- 12DY	19.4 +/- 11DY	1.2UY
RADIUM 226, TOTAL PCI/L	1.2 +/- 1DY	1UY	1.2 +/- 0.7DY
RADIUM 228, TOTAL PCI/L	2.3UYJB	1.8UYJB	1.8UYJB
THORIUM 230, TOTAL PCI/L	0.7UY	0.5UY	0.7 +/- 0.4DY
THORIUM 232, TOTAL PCI/L	0.2UY	0.1UY	0.5 +/- 0.3DY
URANIUM 234, TOTAL PCI/L	2.7 +/- 0.4DY	0.2UY	0.1UY
URANIUM 235, TOTAL PCI/L	0.6 +/- 0.2DY	0.1UY	0.2UY
URANIUM 238, TOTAL PCI/L	3 +/- 0.4DY	0.1UY	1.9UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW17-01	OBMW2-01	OBMW3-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	OBMW17	OBMW2	OBMW3
SAMPLE DATE:	07/23/1992	07/22/1992	08/03/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	5.4UY	12.9UY	12.5UY
GROSS BETA, TOTAL PCI/L	8.6 +/- 4.9DY	11.7UY	15.5UY
RADIUM 226, TOTAL PCI/L	0.9 +/- 0.7DY	0.3UY	4.8 +/- 1.2DY
RADIUM 228, TOTAL PCI/L	3.6UYJB	1.3UYJB	6.4 +/- 2.5DY
THORIUM 230, TOTAL PCI/L	0.9 +/- 0.7DY	0.4UY	1.6 +/- 1.1DY
THORIUM 232, TOTAL PCI/L	0.5UY	0.3UY	0.5UY
URANIUM 234, TOTAL PCI/L	2UY	8.7UY	3.8 +/- 0.8DY
URANIUM 235, TOTAL PCI/L	0.2UY	3.1UY	0.4 +/- 0.2DY
URANIUM 238, TOTAL PCI/L	2.6UY	11.1UY	3 +/- 0.7DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS

SAMPLE ID:	OBMW4-01	OBMW5-01	OBMW6-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	OBMW4	OBMW5	OBMW6
SAMPLE DATE:	07/22/1992	08/03/1992	07/29/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	42.4UY	20.5UY	8.4 +/- 4DY
GROSS BETA, TOTAL PCI/L	22.2UY	8.6UY	12.5 +/- 2.5DY
RADIUM 226, TOTAL PCI/L	2.3 +/- 0.8DY	3.7 +/- 1.1DY	1.4 +/- 1DY
RADIUM 228, TOTAL PCI/L	6UYJB	5.5 +/- 2.5DY	3.2UYJB
THORIUM 230, TOTAL PCI/L	0.9 +/- 0.5DY	0.8 +/- 0.5DY	0.3UY
THORIUM 232, TOTAL PCI/L	0.1UY	0.7 +/- 0.3DY	0.6UY
URANIUM 234, TOTAL PCI/L	9.1UYJS	2 +/- 0.8DY	1.4 +/- 1.4DY
URANIUM 235, TOTAL PCI/L	11.1 +/- 5.8DYJS	0.2UY	0.1UY
URANIUM 238, TOTAL PCI/L	14.5 +/- 9.3DYJS	0.5UY	1.2UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	OBMW7-01	OBMW8-01	WELL1-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	OBMW7	OBMW8	WELL1
SAMPLE DATE:	07/30/1992	08/03/1992	07/28/1992
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	3.3UY	40.7 +/- 16DY	20.3 +/- 12.1DY
GROSS BETA, TOTAL PCI/L	0.9UY	13.1 +/- 7.9DY	65.4 +/- 10.2DY
RADIUM 226, TOTAL PCI/L	1.7 +/- 1.1DY	5.8 +/- 1.3DY	1.9 +/- 1DY
RADIUM 228, TOTAL PCI/L	0.2UYJB	4.6 +/- 2.4DY	6.1 +/- 2.1DY
THORIUM 230, TOTAL PCI/L	0.4UY	1 +/- 0.6DY	0.8UY
THORIUM 232, TOTAL PCI/L	0.2UY	0.2UY	1UY
URANIUM 234, TOTAL PCI/L	12.4 +/- 1.1DY	4.6 +/- 0.9DY	0.5UYJS
URANIUM 235, TOTAL PCI/L	0.5 +/- 0.2DY	0.7 +/- 0.4DY	1.3UYJS
URANIUM 238, TOTAL PCI/L	7.2 +/- 0.8DY	4.4 +/- 0.9DY	4.4UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	WELL2-01	WELL5-01
SUB-SAMPLE ID:	00000	00000
STATION ID:	WELL2	WELL5
SAMPLE DATE:	07/28/1992	07/27/1992
SAMPLE TIME:		
SAMPLE MATRIX:	GW	GW
UPPER DEPTH:		
LOWER DEPTH:		
GROSS ALPHA, TOTAL PCI/L	10.7UY	20.4 +/- 6.4DY
GROSS BETA, TOTAL PCI/L	49.6 +/- 15.9DY	18.5 +/- 3.5DY
RADIUM 226, TOTAL PCI/L	1.4 +/- 1DY	2.6 +/- 1.2DY
RADIUM 228, TOTAL PCI/L	4.6 +/- 2DY	2.8UYJB
THORIUM 230, TOTAL PCI/L	2.2UY	2 +/- 0.9DY
THORIUM 232, TOTAL PCI/L	1.9UY	0.9 +/- 0.7DY
URANIUM 234, TOTAL PCI/L	4.3UYJC	10.4 +/- 0.9DY
URANIUM 235, TOTAL PCI/L	1.2UYJC	1 +/- 0.3DY
URANIUM 238, TOTAL PCI/L	0.2UYJC	10.1 +/- 0.8DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Field Equipment Rinse Blanks and Trip Blanks – Groundwater

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

is report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
D3C		1,2-DIBROMO-3-CHLOROPROPANE
12E		1,2-DIBROMOETHANE
12B	95-50-1	1,2-DICHLOROBENZENE
12A	107-06-2	1,2-DICHLOROETHANE
12P	78-87-5	1,2-DICHLOROPROPANE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BCM		BROMOCHLOROMETHANE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C12		CIS-1,2-DICHLOROETHYLENE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T1E	156-60-5	TRANS-1,2-DICHLOROETHENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (BLANKS)
DETECTED OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
ACT	ACETONE	UG/L	1	1	1.0000	1.000	1.000	1.000	0.000
BEN	BENZENE	UG/L	13	1	0.0769	10.000	10.000	10.000	0.000
CFM	CHLOROFORM	UG/L	13	1	0.0769	0.600	0.600	0.600	0.000
C12	CIS-1,2-DICHLOROETHYLENE	UG/L	13	2	0.1538	0.500	2.000	1.250	0.750
MCL	METHYLENE CHLORIDE	UG/L	13	11	0.8462	0.900	3.000	1.718	0.871
XY	XYLENE (TOTAL)	UG/L	13	1	0.0769	3.000	3.000	3.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (BLANKS)
DETECTED OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
BBP	BENZYL BUTYL PHTHALATE	UG/L	4	1	0.2500	94.000	94.000	94.000	0.000
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	4	1	0.2500	90.000	90.000	90.000	0.000
DBP	DI-N-BUTYL PHTHALATE	UG/L	4	1	0.2500	3.000	3.000	3.000	0.000
DOP	DI-N-OCTYL PHTHALATE	UG/L	4	1	0.2500	28.000	28.000	28.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (BLANKS)
DETECTED OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
CA	CALCIUM	UG/L	4	3	0.7500	54.000	256.000	132.667	88.308
FE	IRON	UG/L	4	1	0.2500	117.000	117.000	117.000	0.000
PB	LEAD	UG/L	4	1	0.2500	3.200	3.200	3.200	0.000
LI	LITHIUM	UG/L	4	1	0.2500	11.000	11.000	11.000	0.000
MG	MAGNESIUM	UG/L	4	2	0.5000	14.000	63.000	38.500	24.500
MN	MANGANESE	UG/L	4	1	0.2500	5.000	5.000	5.000	0.000
HG	MERCURY	UG/L	4	1	0.2500	0.180	0.180	0.180	0.000
NA	SODIUM	UG/L	4	4	1.0000	206.000	796.000	380.000	241.217
V	VANADIUM	UG/L	4	1	0.2500	27.000	27.000	27.000	0.000
ZN	ZINC	UG/L	4	1	0.2500	16.000	16.000	16.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	GW-TB-03	GW-TB-04	GW-TB-05	GW-TB-06	GW-TB-07
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	GW-TB-03	GW-TB-04	GW-TB-05	GW-TB-06	GW-TB-07
SAMPLE DATE:	07/23/1992	07/24/1992	07/27/1992	07/28/1992	07/29/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	1UYJ	1UY	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UYJ	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	5UYJ	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UYJ	5UY	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UY	5UYJ	5UY	5UY	5UY
ACETONE UG/L	UYR	10YJ	UYR	UYR	UYR
BENZENE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	0.5DYJ	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	GW-TB-03	GW-TB-04	GW-TB-05	GW-TB-06	GW-TB-07
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	GW-TB-03	GW-TB-04	GW-TB-05	GW-TB-06	GW-TB-07
SAMPLE DATE:	07/23/1992	07/24/1992	07/27/1992	07/28/1992	07/29/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	3DY	3DY	1DYJ	1DYJ	1DYJ
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TOLUENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	GW-TB-08	GW-TB-09	GW-TB-10
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	GW-TB-08	GW-TB-09	GW-TB-10
SAMPLE DATE:	07/30/1992	07/31/1992	08/03/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UY	5UYJ
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UYJ
ACETONE UG/L	UYR	UYR	UYR
BENZENE UG/L	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	0.6DYJ	1UY
CHLOROMETHANE UG/L	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	GW-TB-08	GW-TB-09	GW-TB-10
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	GW-TB-08	GW-TB-09	GW-TB-10
SAMPLE DATE:	07/30/1992	07/31/1992	08/03/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
ETHYLBENZENE UG/L	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2DYJ	3DY	0.90YJ
STYRENE UG/L	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY
TOLUENE UG/L	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04	GW-TB-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04	GW-TB-02
SAMPLE DATE:	07/22/1992	07/27/1992	07/29/1992	07/30/1992	07/22/1992
SAMPLE TIME:					
SAMPLE MATRIX:	AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE UG/L	UYR	UYR	UYR	UYR	UYR
BENZENE UG/L	10DY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	2DY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04	GW-TB-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04	GW-TB-02
SAMPLE DATE:		07/22/1992	07/27/1992	07/29/1992	07/30/1992	07/22/1992
SAMPLE TIME:						
SAMPLE MATRIX:		AQ	AQ	AQ	AQ	AQ
UPPER DEPTH:						
LOWER DEPTH:						
ETHYLBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE	UG/L	1DYJ	2UY	2UY	1DYJ	2DY
STYRENE	UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
TOLUENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
VINYL CHLORIDE	UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL)	UG/L	1UY	3DY	1UY	1UY	1UY

NN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
UN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SUB-SAMPLE ID:		00000	00000	00000	00000
STATION ID:		GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SAMPLE DATE:		07/22/1992	07/27/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:		AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY
1,2-DICHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY
1,3-DICHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY
1,4-DICHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY
2,4,5-TRICHLOROPHENOL	UG/L	100UY	100UY	100UY	100UY
2,4,6-TRICHLOROPHENOL	UG/L	20UY	20UY	20UY	20UY
2,4-DICHLOROPHENOL	UG/L	20UY	20UY	20UY	20UY
2,4-DIMETHYLPHENOL	UG/L	20UY	20UY	20UY	20UY
2,4-DINITROPHENOL	UG/L	100UY	100UY	100UY	100UY
2,4-DINITROTOLUENE	UG/L	20UY	20UY	20UY	20UY
2,6-DINITROTOLUENE	UG/L	20UY	20UY	20UY	20UY
2-CHLORONAPHTHALENE	UG/L	20UY	20UY	20UY	20UY
2-CHLOROPHENOL	UG/L	20UY	20UY	20UY	20UY
2-METHYLNAPHTHALENE	UG/L	20UY	20UY	20UY	20UY
2-METHYLPHENOL	UG/L	20UY	20UY	20UY	20UY
2-NITROANILINE	UG/L	100UY	100UY	100UY	100UY
2-NITROPHENOL	UG/L	20UY	20UY	20UY	20UY
3,3'-DICHLOROBENZIDINE	UG/L	40UY	40UYJ	40UY	40UY
3-NITROANILINE	UG/L	100UY	100UYJ	100UY	100UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	100UY	100UY	100UY	100UY
4-BROMOPHENYL PHENYL ETHER	UG/L	20UY	20UY	20UY	20UY
4-CHLORO-3-METHYLPHENOL	UG/L	20UY	20UY	20UY	20UY
4-CHLOROANILINE	UG/L	20UY	20UY	20UY	20UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	20UY	20UY	20UY	20UY
4-METHYLPHENOL	UG/L	20UY	20UY	20UY	20UY
4-NITROANILINE	UG/L	100UY	100UY	100UY	100UY
4-NITROPHENOL	UG/L	100UY	100UY	100UY	100UY
ACENAPHTHENE	UG/L	20UY	20UY	20UY	20UY
ACENAPHTHYLENE	UG/L	20UY	20UY	20UY	20UY
ANTHRACENE	UG/L	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SUB-SAMPLE ID:		00000	00000	00000	00000
STATION ID:		GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SAMPLE DATE:		07/22/1992	07/27/1992	07/29/1992	07/30/1992
SAMPLE TIME:					
SAMPLE MATRIX:		AQ	AQ	AQ	AQ
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE	UG/L	20UY	20UY	20UY	20UY
BENZO(A)PYRENE	UG/L	20UY	20UY	20UY	20UY
BENZO(B)FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY
BENZO(GHI)PERYLENE	UG/L	20UY	20UY	20UY	20UY
BENZO(K)FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY
BENZOIC ACID	UG/L	100UY	100UY	100UY	100UY
BENZYL ALCOHOL	UG/L	20UY	20UY	20UY	20UY
BENZYL BUTYL PHTHALATE	UG/L	20UY	20UY	20UY	94DY
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY	20UY	20UY	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY	20UY	20UY	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UY	20UY	20UY	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	20UY	20UY	20UY	900YB
CAFFEINE	UG/L	20UY	20UY	20UY	20UY
CHRYSENE	UG/L	20UY	20UY	20UY	20UY
DI-N-BUTYL PHTHALATE	UG/L	20UY	20UY	20UY	3DYJ
DI-N-OCTYL PHTHALATE	UG/L	20UY	20UY	20UY	28DYB
DIBENZO(A,H)ANTHRACENE	UG/L	20UY	20UY	20UY	20UY
DIBENZOFURAN	UG/L	20UY	20UY	20UY	20UY
DIETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY
DIMETHYL PHTHALATE	UG/L	20UY	20UY	20UY	20UY
FLUORANTHENE	UG/L	20UY	20UY	20UY	20UY
FLUORENE	UG/L	20UY	20UY	20UY	20UY
HEXACHLOROBENZENE	UG/L	20UY	20UY	20UY	20UY
HEXACHLOROBUTADIENE	UG/L	20UY	20UY	20UY	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY	20UY	20UY	20UY
HEXACHLOROETHANE	UG/L	20UY	20UY	20UY	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	20UY	20UY	20UY	20UY
ISOPHORONE	UG/L	20UY	20UY	20UY	20UY
N-NITROSODINPROPYLAMINE	UG/L	20UY	20UY	20UY	20UY
N-NITROSODIPHENYLAMINE	UG/L	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SUB-SAMPLE ID:	00000	00000	00000	00000
STATION ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SAMPLE DATE:	07/22/1992	07/27/1992	07/29/1992	07/30/1992
SAMPLE TIME:				
SAMPLE MATRIX:	AQ	AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
NAPHTHALENE UG/L	20UY	20UY	20UY	20UY
NITROBENZENE UG/L	20UY	20UY	20UY	20UY
PENTACHLOROPHENOL UG/L	100UY	100UY	100UY	100UY
PHENANTHRENE UG/L	20UY	20UY	20UY	20UY
PHENOL UG/L	20UY	20UY	20UY	20UY
PYRENE UG/L	20UY	20UY	20UY	20UY
a-PINENE UG/L	20UY	20UY	20UY	20UY
d-LIMONENE UG/L	20UY	20UY	20UY	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY); A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMP E ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SUB-SAMPLE ID:	00000	00000	00000	00000
STATION ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SAMPLE DATE:	07/22/1992	07/27/1992	07/29/1992	07/30/1992
SAMPLE TIME:				
SAMPLE MATRIX:	AQ	AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	1UY	1UY	1UY	1UY
AROCLOR-1260 UG/L	1UY	1UY	1UY	1UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY	0.05UY
DIELDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPHAN MAYWOOD - GROUNDWATER (BLANKS)
ALL OBSERVATIONS - NO TICS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SUB-SAMPLE ID:	00000	00000	00000	00000
STATION ID:	GW-FB-01	GW-FB-02	GW-FB-03	GW-FB-04
SAMPLE DATE:	07/22/1992	07/27/1992	07/29/1992	07/30/1992
SAMPLE TIME:				
SAMPLE MATRIX:	AQ	AQ	AQ	AQ
UPPER DEPTH:				
LOWER DEPTH:				
ALUMINUM UG/L	39UY	39UY	39UY	44UY
ANTIMONY UG/L	7UY	7UY	7UY	5UY
ARSENIC UG/L	2UY	2UY	2UY	2UY
BARIUM UG/L	3UY	3UY	3UY	3UY
BERYLLIUM UG/L	2UY	2UY	2UY	2UY
CADMIUM UG/L	UYR	UYR	5UY	5UY
CALCIUM UG/L	19UY	256DYJ	54DYJ	88DYJ
CHROMIUM UG/L	6UY	6UY	6UY	6UY
COBALT UG/L	12UY	22UY	22UY	12UY
COPPER UG/L	22UY	22UY	22UYJ	7UY
CYANIDE UG/L	5UY	5UY	5UY	5UY
IRON UG/L	28UY	117DY	28UY	28UY
LEAD UG/L	1UY	2UY	2UY	3.2DYJ
LITHIUM UG/L	9UY	9UY	9UYJ	11DYJ
MAGNESIUM UG/L	6UY	46UY	63DYJ	14DYJ
MANGANESE UG/L	4UY	4UY	5DYJ	4UY
MERCURY UG/L	0.1UY	0.1UY	0.18DYJ	0.1UY
NICKEL UG/L	9UY	21UY	21UY	21UY
POTASSIUM UG/L	61UY	61UY	61UY	61UY
SELENIUM UG/L	1UYJ	2UYJ	2UYJ	UYR
SILVER UG/L	1UY	1UY	1UY	1UYJ
SODIUM UG/L	206DYJ	267DYJ	796DYJ	251DYJ
THALLIUM UG/L	2UY	2UY	2UY	2UY
VANADIUM UG/L	15UY	15UY	27DYJ	15UY
ZINC UG/L	6UYJ	16DYJ	6UY	6UY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Focused Investigation Analytical Data

Groundwater

Volatile Organic Data

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (INCLUDES DUPLICATES)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VOLATILE ORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
111	1,1,1-TRICHLOROETHANE	UG/L	52	7	0.1346	0.100	44.000	12.671	18.907
1TE	1,1,2,2-TETRACHLOROETHANE	UG/L	52	2	0.0385	0.300	2.000	1.150	0.850
112	1,1,2-TRICHLOROETHANE	UG/L	52	1	0.0192	0.500	0.500	0.500	0.000
11A	1,1-DICHLOROETHANE	UG/L	52	1	0.0192	0.300	0.300	0.300	0.000
12E	1,2-DIBROMOETHANE	UG/L	48	1	0.0208	0.400	0.400	0.400	0.000
12A	1,2-DICHLOROETHANE	UG/L	52	3	0.0577	0.400	19.000	6.800	8.630
12P	1,2-DICHLOROPROPANE	UG/L	52	1	0.0192	0.300	0.300	0.300	0.000
13B	1,3-DICHLOROBENZENE	UG/L	48	6	0.1250	0.100	0.500	0.200	0.141
2BU	2-BUTANONE	UG/L	5	1	0.2000	2.000	2.000	2.000	0.000
ACT	ACETONE	UG/L	47	1	0.0213	6.000	6.000	6.000	0.000
BEN	BENZENE	UG/L	52	10	0.1923	0.100	27,000.000	2,783.460	8,073.904
BFM	BROMOFORM	UG/L	52	1	0.0192	0.300	0.300	0.300	0.000
CCL	CARBON TETRACHLORIDE	UG/L	52	1	0.0192	6.000	6.000	6.000	0.000
CFM	CHLOROFORM	UG/L	52	13	0.2500	0.200	3.000	0.662	0.727
CLM	CHLOROMETHANE	UG/L	52	5	0.0962	0.200	0.700	0.400	0.190
C12	CIS-1,2-DICHLOROETHYLENE	UG/L	48	17	0.3542	0.100	1,000.000	61.359	234.689
C13	CIS-1,3-DICHLOROPROPENE	UG/L	52	1	0.0192	0.200	0.200	0.200	0.000
EBN	ETHYLBENZENE	UG/L	52	7	0.1346	0.100	1,400.000	467.300	510.605
MCL	METHYLENE CHLORIDE	UG/L	52	1	0.0192	130.000	130.000	130.000	0.000
PCE	TETRACHLOROETHENE	UG/L	52	13	0.2500	0.100	4.000	1.077	1.155
TOL	TOLUENE	UG/L	52	9	0.1731	0.100	710.000	114.611	232.923
TCE	TRICHLOROETHENE	UG/L	52	16	0.3077	0.100	520.000	62.850	161.801
VC	VINYL CHLORIDE	UG/L	52	12	0.2308	0.200	1,800.000	152.375	496.807
XY	XYLENE (TOTAL)	UG/L	52	6	0.1154	0.100	4,900.000	2,303.350	2,044.011

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T1E	156-60-5	TRANS-1,2-DICHLOROETHENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	B38W01S-02	B38W02D-02	B38W03B-02	B38W04B-02	B38W05B-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05B
SAMPLE DATE:	07/28/1993	07/27/1993	07/21/1993	07/29/1993	07/19/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
1,1,2-TRICHLOROETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
1,1-DICHLOROETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
1,1-DICHLOROETHENE UG/L	5UY	5UY	1UY	1000UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L			1UYJ	UYR	1UYJ
1,2-DIBROMOETHANE UG/L			1UY	1000UY	1UY
1,2-DICHLOROBENZENE UG/L			1UY	1000UY	1UY
1,2-DICHLOROETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
1,2-DICHLOROETHENE (TOTAL) UG/L	5UY	5UY			
1,2-DICHLOROPROPANE UG/L	5UY	5UY	1UY	1000UY	1UY
1,3-DICHLOROBENZENE UG/L			1UY	1000UY	1UY
1,4-DICHLOROBENZENE UG/L			1UY	1000UY	1UY
2-BUTANONE UG/L	10UY	10UY	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER UG/L	10UY	10UY			
2-HEXANONE UG/L	10UYJ	10UYJ	5UY	5000UY	5UY
4-METHYL-2-PENTANONE UG/L	10UY	10UY	5UY	5000UY	5UY
ACETONE UG/L	10UYJB	11UYJB	21UYJ	5000UYJ	11UYJ
ACROLEIN UG/L	10UYJ	10UYJ			
ACRYLONITRILE UG/L	10UY	10UY			
BENZENE UG/L	5UY	10UY	1UY	1000UY	1UY
BROMOCHLOROMETHANE UG/L			1UY	1000UY	1UY
BROMODICHLOROMETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
BROMOFORM UG/L	5UY	5UY	1UYJ	1000UY	1UY
BROMOMETHANE UG/L	10UY	10UY	1UYJ	1000UY	1UY
CARBON DISULFIDE UG/L	5UY	5UY	1UY	1000UY	1UY
CARBON TETRACHLORIDE UG/L	5UY	5UY	1UY	1000UY	1UY
CHLOROBENZENE UG/L	5UY	5UY	1UY	1000UY	1UY
CHLOROETHANE UG/L	10UY	10UY	1UY	1000UY	1UY
CHLOROFORM UG/L	5UY	5UY	1UY	1000UY	0.4DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	B38W01S-02	B38W02D-02	B38W03B-02	B38W04B-02	B38W05B-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W01S	B38W02D	B38W03B	B38W04B	B38W05B
SAMPLE DATE:	07/28/1993	07/27/1993	07/21/1993	07/29/1993	07/19/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	10UY	10UY	1UY	1000UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L			1UY	1000UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	5UY	5UY	1UY	1000UY	1UY
DIBROMOCHLOROMETHANE UG/L	5UY	5UY	1UY	1000UY	1UY
ETHYLBENZENE UG/L	5UY	5UY	1UY	980DYJ	1UY
METHYLENE CHLORIDE UG/L	5UY	5UY	2UY	2000UY	2UYJ
STYRENE UG/L	5UY	5UY	1UY	1000UY	1UY
TETRACHLOROETHENE UG/L	5UY	5UY	1UY	1000UY	0.3DYJ
TOLUENE UG/L	5UY	5UY	1UY	1000UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L			1UY	1000UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	5UY	5UY	1UY	1000UY	1UY
TRICHLOROETHENE UG/L	5UY	5UY	1UY	1000UY	1UY
VINYL ACETATE UG/L	10UY	10UY			
VINYL CHLORIDE UG/L	10UY	10UY	1UY	1000UY	1UY
XYLENE (TOTAL) UG/L	5UY	5UY	1UY	4900DY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	B38W06B-02	B38W07B-02	B38W12A-02	B38W12B-02	B38W18D-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W07B	B38W12A	B38W12B	B38W18D
SAMPLE DATE:	07/20/1993	07/23/1993	07/30/1993	07/30/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	3DY	1UY	0.2DYJ	5UY
1,1,2,2-TETRACHLOROETHANE UG/L	2DY	1UY	1UY	1UY	5UY
1,1,2-TRICHLOROETHANE UG/L	0.5DYJ	1UY	1UY	1UY	5UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	5UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	5UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	1UYJ	UYR	UYR	UYR	
1,2-DIBROMOETHANE UG/L	0.4DYJ	1UY	1UY	1UY	
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	5UY
1,2-DICHLOROETHENE (TOTAL) UG/L					5UY
1,2-DICHLOROPROPANE UG/L	0.3DYJ	1UY	1UY	1UY	5UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	10UY
2-CHLOROETHYLVINYL ETHER UG/L					10UY
2-HEXANONE UG/L	5UY	5UY	5UY	5UY	10UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5UY	10UY
ACETONE UG/L	19UYJ	5UYJ	5UYJ	6UYJ	6UY
ACROLEIN UG/L					10UYJ
ACRYLONITRILE UG/L					10UY
BENZENE UG/L	0.3DYJ	1UY	1UY	1UY	5UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	5UY
BROMOFORM UG/L	0.3DYJ	1UY	1UY	1UY	5UY
BROMOMETHANE UG/L	1UYJ	1UYJ	1UY	1UY	10UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	5UY
CARBON TETRACHLORIDE UG/L	1UY	1UYJ	1UY	1UY	5UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	5UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	10UY
CHLOROFORM UG/L	1UY	1UY	1UY	1DY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	B38W06B-02	B38W07B-02	B38W12A-02	B38W12B-02	B38W18D-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W06B	B38W07B	B38W12A	B38W12B	B38W18D
SAMPLE DATE:	07/20/1993	07/23/1993	07/30/1993	07/30/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	10UY
CIS-1,2-DICHLOROETHYLENE UG/L	0.5DYJ	1UY	0.5DYJ	0.3DYJ	
CIS-1,3-DICHLOROPROPENE UG/L	0.2DYJ	1UY	1UY	1UY	5UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	5UY
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	5UY
METHYLENE CHLORIDE UG/L	2UY	2UYJ	2UY	2UY	19UY
STYRENE UG/L	1UY	1UY	1UY	1UY	5UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	0.4DYJ	5UY
TOLUENE UG/L	1UY	0.3DYJ	1UY	1UY	5UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	5UY
TRICHLOROETHENE UG/L	1UY	3DY	0.5DYJ	4DY	5UY
VINYL ACETATE UG/L					10UY
VINYL CHLORIDE UG/L	0.2DYJ	1UY	1UY	1UY	10UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	B38W18D-02	B38W48D-02	BRMW01-02	BRMW02-02	BRMW02D-02
SUB-SAMPLE ID:	DUP	DUP	00000	00000	DUP
STATION ID:	B38W18D	B38W48D	BRMW1	BRMW2	BRMW2D
SAMPLE DATE:	07/21/1993	07/29/1993	07/28/1993	07/20/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	5UY	100UY	100UY	2UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	5UY	100UY	100UY	2UY	1UY
1,1,2-TRICHLOROETHANE UG/L	5UY	100UY	100UY	2UY	1UY
1,1-DICHLOROETHANE UG/L	5UY	100UY	100UY	2UY	1UY
1,1-DICHLOROETHENE UG/L	5UY	100UY	100UY	2UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L		100UYJ	100UYJ	2UYJ	1UYJ
1,2-DIBROMOETHANE UG/L		100UY	100UY	2UY	1UY
1,2-DICHLOROBENZENE UG/L		100UY	100UY	2UY	1UY
1,2-DICHLOROETHANE UG/L	5UY	100UY	100UY	2UY	1UY
1,2-DICHLOROETHENE (TOTAL) UG/L	5UY				
1,2-DICHLOROPROPANE UG/L	5UY	100UY	100UY	2UY	1UY
1,3-DICHLOROBENZENE UG/L		100UY	100UY	2UY	1UY
1,4-DICHLOROBENZENE UG/L		100UY	100UY	2UY	1UY
2-BUTANONE UG/L	10UY	UYR	UYR	UYR	20YJ
2-CHLOROETHYLVINYL ETHER UG/L	10UY				
2-HEXANONE UG/L	10UY	500UY	500UY	10UY	5UY
4-METHYL-2-PENTANONE UG/L	10UY	500UY	500UY	10UY	5UY
ACETONE UG/L	7UY	500UYJ	500UYJ	37UYJ	20UYJ
ACROLEIN UG/L	10UYJ				
ACRYLONITRILE UG/L	10UY				
BENZENE UG/L	5UY	100UY	340DY	0.4DYJ	0.3DYJ
BROMOCHLOROMETHANE UG/L		100UY	100UY	2UY	1UY
BROMODICHLOROMETHANE UG/L	5UY	100UY	100UY	2UY	1UY
BROMOFORM UG/L	5UY	100UY	100UY	2UYJ	1UYJ
BROMOMETHANE UG/L	10UY	100UY	100UY	2UYJ	1UYJ
CARBON DISULFIDE UG/L	5UY	100UYJ	100UYJ	2UY	1UY
CARBON TETRACHLORIDE UG/L	5UY	100UYJ	100UYJ	2UY	1UY
CHLOROBENZENE UG/L	5UY	100UY	100UY	2UY	1UY
CHLOROETHANE UG/L	10UY	100UY	100UY	2UY	1UY
CHLOROFORM UG/L	5UY	100UY	100UY	2UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W18D-02	B38W48D-02	BRMW01-02	BRMW02-02	BRMW02D-02
SUB-SAMPLE ID:	DUP	DUP	00000	00000	DUP
STATION ID:	B38W18D	B38W48D	BRMW1	BRMW2	BRMW2D
SAMPLE DATE:	07/21/1993	07/29/1993	07/28/1993	07/20/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	10UY	100UY	100UY	2UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L		100UY	1000DY	0.8DYJ	0.6DYJ
CIS-1,3-DICHLOROPROPENE UG/L	5UY	100UY	100UY	2UY	1UY
DIBROMOCHLOROMETHANE UG/L	5UY	100UY	100UY	2UY	1UY
ETHYLBENZENE UG/L	5UY	1400DY	17DYJ	2UY	1UY
METHYLENE CHLORIDE UG/L	18UY	200UY	200UY	4UY	2UY
STYRENE UG/L	5UY	100UY	100UY	2UY	1UY
TETRACHLOROETHENE UG/L	5UY	100UY	100UY	2UY	1UY
TOLUENE UG/L	5UY	320DY	100UY	2UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L		100UY	100UY	2UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	5UY	100UY	100UY	2UY	1UY
TRICHLOROETHENE UG/L	5UY	100UY	100UY	2UY	1UY
VINYL ACETATE UG/L	10UY				
VINYL CHLORIDE UG/L	10UY	100UY	1800DY	1DYJ	0.9DYJ
XYLENE (TOTAL) UG/L	5UY	4800DY	100UY	2UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		BRMW03-02	BRMW04-02	BRMW05-02	BRMW06-02	BRMW07-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:		08/02/1993	07/29/1993	08/02/1993	07/26/1993	07/30/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	0.4DYJ	1UY	1UY	1UY
1,2-DICHLOROETHENE (TOTAL)						
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	0.2DYJ	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER						
2-HEXANONE	UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE	UG/L	UYR	7UYJ	15UYJ	5UYJ	UYR
ACROLEIN						
ACRYLONITRILE						
BENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE	UG/L	1UY	1UY	1UY	1UYJ	1UY
CARBON DISULFIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UY	1UY	1UY	1UYJ	1UY
CHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM	UG/L	0.2DYJ	1UY	1UY	0.5DYJ	0.2DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW03-02	BRMW04-02	BRMW05-02	BRMW06-02	BRMW07-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW3	BRMW4	BRMW5	BRMW6	BRMW7
SAMPLE DATE:	08/02/1993	07/29/1993	08/02/1993	07/26/1993	07/30/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	0.1DYJ	5UY	0.3DYJ	1UY	3DY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UYJ	2UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	4DY	0.3DYJ	0.9DYJ	1UY	2DY
TOLUENE UG/L	0.1DYJ	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	0.2DYJ	2DY	0.4DYJ	1UY	3DY
VINYL ACETATE					
VINYL CHLORIDE UG/L	1UY	0.3DYJ	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	0.1DYJ	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	BRMW08-02	BRMW09-02	BRMW10-02	BRMW11-02	BRMW12-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW8	BRMW9	BRMW10	BRMW11	BRMW12
SAMPLE DATE:	08/03/1993	08/03/1993	07/21/1993	07/28/1993	08/02/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	0.3DYJ	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	1UYJ	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHENE (TOTAL)					
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER					
2-HEXANONE UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE UG/L	5UYJ	5UYJ	21UYJ	5UYJ	6UYJ
ACROLEIN					
ACRYLONITRILE					
BENZENE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UYJ	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UYJ	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	0.5DYJ	1UY	0.2DYJ	0.9DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	BRMW08-02	BRMW09-02	BRMW10-02	BRMW11-02	BRMW12-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW8	BRMW9	BRMW10	BRMW11	BRMW12
SAMPLE DATE:	08/03/1993	08/03/1993	07/21/1993	07/28/1993	08/02/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	6DY	1UY	1UY	7DY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	2UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	0.5DYJ	1UY
TOLUENE UG/L	0.2DYJ	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	3DY	1UY	1UY	2DY	1UY
VINYL ACETATE					
VINYL CHLORIDE UG/L	0.4DYJ	1UY	1UY	0.9DYJ	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		BRMW12D-02	BRMW13-02	BRMW14-02	BRMW15-02	BRMW16-02
SUB-SAMPLE ID:		DUP	00000	00000	00000	00000
STATION ID:		BRMW12	BRMW13	BRMW14	BRMW15	BRMW16
SAMPLE DATE:		08/02/1993	07/27/1993	07/29/1993	07/19/1993	07/20/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	0.1DYJ	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	1UYJ	1UYJ
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	1UY	1DYJ	1UY	1UY
1,2-DICHLOROETHENE (TOTAL)						
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER						
2-HEXANONE	UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE	UG/L	5UYJ	5UYJ	9UYJ	6DYJ	5UYJ
ACROLEIN						
ACRYLONITRILE						
BENZENE	UG/L	1UY	1UY	1UY	1UY	0.3DYJ
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM	UG/L	1UY	1UY	1UY	1UY	1UYJ
BROMOMETHANE	UG/L	1UY	1UY	1UY	1UY	1UYJ
CARBON DISULFIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM	UG/L	0.8DYJ	0.2DYJ	1UY	3DY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	BRMW12D-02	BRMW13-02	BRMW14-02	BRMW15-02	BRMW16-02
SUB-SAMPLE ID:	DUP	00000	00000	00000	00000
STATION ID:	BRMW12	BRMW13	BRMW14	BRMW15	BRMW16
SAMPLE DATE:	08/02/1993	07/27/1993	07/29/1993	07/19/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	1UY	1UY	0.2DYJ	0.4DYJ	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	0.5DYJ	14UY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UYJ	2UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	3DY	1DY	0.2DYJ	1UY
TOLUENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	0.4DYJ	4DY	1UY	1UY
VINYL ACETATE					
VINYL CHLORIDE UG/L	1UY	0.2DYJ	4DY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW17-02	MISS4B-02	MW1-02	OBMW01-02	OBMW02-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW17	MISS4B	MW1	OBMW1	OBMW2
SAMPLE DATE:	07/23/1993	07/22/1993	07/23/1993	07/27/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	0.3DYJ	1UY	500UY	1UY	2000UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	500UY	1UY	2000UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	1UYJ	1UYJ	UYR	UYR	2000UYJ
1,2-DIBROMOETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	500UY	1UY	2000UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
1,2-DICHLOROETHENE (TOTAL)					
1,2-DICHLOROPROPANE UG/L	1UY	1UY	500UY	1UY	2000UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	500UY	1UY	2000UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	500UY	1UY	2000UY
2-BUTANONE UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER					
2-HEXANONE UG/L	5UY	5UY	2500UY	5UY	10000UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	2500UY	5UY	10000UY
ACETONE UG/L	5UYJ	9UYJ	UYR	10UYJ	21000UYJ
ACROLEIN					
ACRYLONITRILE					
BENZENE UG/L	1UY	3DY	500UY	1UY	27000DY
BROMOCHLOROMETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
BROMOFORM UG/L	1UYJ	1UYJ	500UY	1UY	2000UYJ
BROMOMETHANE UG/L	1UYJ	1UYJ	500UYJ	1UY	2000UYJ
CARBON DISULFIDE UG/L	1UY	1UY	500UY	1UY	2000UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	500UYJ	1UY	2000UY
CHLOROBENZENE UG/L	1UY	1UY	500UY	1UY	2000UY
CHLOROETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
CHLOROFORM UG/L	0.2DYJ	1UY	500UY	1UY	2000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	BRMW17-02	MISS4B-02	MW1-02	OBMW01-02	OBMW02-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW17	MISS4B	MW1	OBMW1	OBMW2
SAMPLE DATE:	07/23/1993	07/22/1993	07/23/1993	07/27/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
CHLOROMETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	10DY	500UY	1UY	2000UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	500UY	1UY	2000UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	500UY	1UY	2000UY
ETHYLBENZENE UG/L	1UY	1UY	600DY	1UY	2000UY
METHYLENE CHLORIDE UG/L	2UY	2UY	1300YJ	0.8UY	4000UY
STYRENE UG/L	1UY	1UY	500UY	1UY	2000UY
TETRACHLOROETHENE UG/L	0.9DYJ	1UY	500UY	1UY	2000UY
TOLUENE UG/L	1UY	1UY	710DY	1UY	2000UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	500UY	1UY	2000UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	500UY	1UY	2000UY
TRICHLOROETHENE UG/L	1UY	1UY	500UY	1UY	2000UY
VINYL ACETATE					
VINYL CHLORIDE UG/L	1UY	20DY	500UY	1UY	2000UY
XYLENE (TOTAL) UG/L	1UY	1UY	2900DY	1UY	2000UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		08MW03-02	08MW04-02	08MW05-02	08MW06-02	08MW07-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW3	08MW4	08MW5	08MW6	08MW7
SAMPLE DATE:		08/02/1993	07/29/1993	08/02/1993	07/26/1993	07/30/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	44DY	41DY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	25UY	25UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	25UY	25UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	19DYJ	25UY	1UY	1UY	1UY
1,2-DICHLOROETHENE (TOTAL)						
1,2-DICHLOROPROPANE	UG/L	25UY	25UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	25UY	25UY	1UY	0.5DYJ	1UY
1,4-DICHLOROBENZENE	UG/L	25UY	25UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER						
2-HEXANONE	UG/L	120UY	120UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	120UY	120UY	5UY	5UY	5UY
ACETONE	UG/L	360UYJ	160UYJ	5UYJ	11UYJ	DYR
ACROLEIN						
ACRYLONITRILE						
BENZENE	UG/L	490DY	25UY	0.1DYJ	1UY	0.2DYJ
BROMOCHLOROMETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
BROMOFORM	UG/L	25UY	25UY	1UY	1UY	1UY
BROMOMETHANE	UG/L	25UY	25UY	1UY	1UYJ	1UY
CARBON DISULFIDE	UG/L	25UY	25UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	25UY	6DYJ	1UY	1UYJ	1UY
CHLOROBENZENE	UG/L	25UY	25UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
CHLOROFORM	UG/L	25UY	25UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		08MW03-02	08MW04-02	08MW05-02	08MW06-02	08MW07-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW3	08MW4	08MW5	08MW6	08MW7
SAMPLE DATE:		08/02/1993	07/29/1993	08/02/1993	07/26/1993	07/30/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
CHLOROMETHANE	UG/L	25UY	25UY	0.5DYJ	0.2DYJ	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	25UY	25UY	0.2DYJ	1UY	1UY
CIS-1,3-DICHLOROPROPENE	UG/L	25UY	25UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE	UG/L	25UY	25UY	1UY	1UY	1UY
ETHYLBENZENE	UG/L	2700Y	4DYJ	0.1DYJ	1UY	1UY
METHYLENE CHLORIDE	UG/L	7UY	5UY	2UY	2UYJ	2UY
STYRENE	UG/L	25UY	25UY	1UY	1UY	1UY
TETRACHLOROETHENE	UG/L	25UY	25UY	1UY	1UY	1UY
TOLUENE	UG/L	25UY	25UY	0.4DYJ	0.2DYJ	1UY
TRANS-1,2-DICHLOROETHENE	UG/L	25UY	25UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE	UG/L	25UY	25UY	1UY	1UY	1UY
TRICHLOROETHENE	UG/L	460DY	520DY	1UY	1UY	1UY
VINYL ACETATE						
VINYL CHLORIDE	UG/L	25UY	25UY	1UY	1UY	1UY
XYLENE (TOTAL)	UG/L	1200DY	20DYJ	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		08MW08-02	08MW10-02	08MW11-02	08MW12-02	08MW13-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW8	08MW10	08MW11	08MW12	08MW13
SAMPLE DATE:		08/03/1993	07/30/1993	07/28/1993	07/29/1993	07/27/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	UYR	UYR	UYR
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHENE (TOTAL)						
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	0.1DYJ	1UY	1UY	0.1DYJ	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER						
2-HEXANONE	UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE	UG/L	UYR	11UYJ	5UYJ	7UYJ	0.24UYJ
ACROLEIN						
ACRYLONITRILE						
BENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE	UG/L	1UY	1UY	1UY	1UY	1UYJ
CARBON DISULFIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UY	1UY	1UY	1UY	1UYJ
CHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		08MW08-02	08MW10-02	08MW11-02	08MW12-02	08MW13-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW8	08MW10	08MW11	08MW12	08MW13
SAMPLE DATE:		08/03/1993	07/30/1993	07/28/1993	07/29/1993	07/27/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
CHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	1UY	0.3DYJ	12DY	1UY	1UY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
ETHYLBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE	UG/L	2UY	2UY	2UY	2UY	2UYJ
STYRENE	UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
TOLUENE	UG/L	1UY	1UY	1UY	0.2DYJ	1UY
TRANS-1,2-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE	UG/L	1UY	1UY	1DYJ	1UY	1UY
VINYL ACETATE						
VINYL CHLORIDE	UG/L	1UY	1UY	0.4DYJ	1UY	0.2DYJ
XYLENE (TOTAL)	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		08MW14-02	08MW15-02	08MW17-02	WELL1-02	WELL2-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW14	08MW15	08M17	WELL1	WELL2
SAMPLE DATE:		07/26/1993	07/19/1993	07/23/1993	07/21/1993	07/21/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/L	1UY	0.1DYJ	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	1UY	1UY	0.3DYJ	1UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	UYR	UYR	1UYJ	1UYJ	1UYJ
1,2-DIBROMOETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHENE (TOTAL)						
1,2-DICHLOROPROPANE	UG/L	1UY	1UY	1UY	1UY	1UY
1,3-DICHLOROBENZENE	UG/L	1UY	0.2DYJ	1UY	1UY	1UY
1,4-DICHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE	UG/L	UYR	UYR	UYR	UYR	UYR
2-CHLOROETHYLVINYL ETHER						
2-HEXANONE	UG/L	5UY	5UY	5UY	5UY	5UY
4-METHYL-2-PENTANONE	UG/L	5UY	5UY	5UY	5UY	5UY
ACETONE	UG/L	5UYJ	7UYJ	7UYJ	12UYJ	9UYJ
ACROLEIN						
ACRYLONITRILE						
BENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM	UG/L	1UY	1UYJ	1UY	1UYJ	1UYJ
BROMOMETHANE	UG/L	1UYJ	1UY	1UYJ	1UYJ	1UYJ
CARBON DISULFIDE	UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE	UG/L	1UYJ	1UY	1UYJ	1UY	1UY
CHLOROBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM	UG/L	1UY	0.5DYJ	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		OBMW14-02	OBMW15-02	OBMW17-02	WELL1-02	WELL2-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		OBMW14	OBMW15	OBM17	WELL1	WELL2
SAMPLE DATE:		07/26/1993	07/19/1993	07/23/1993	07/21/1993	07/21/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
CHLOROMETHANE	UG/L	1UY	1UY	0.7DYJ	1UY	1UY
CIS-1,2-DICHLOROETHYLENE	UG/L	1UY	1UY	1DY	1UY	1UY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE	UG/L	1UY	1UY	1UY	1UY	1UY
ETHYLBENZENE	UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE	UG/L	2UYJ	2UY	2UY	2UY	2UY
STYRENE	UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE	UG/L	1UY	0.1DYJ	0.4DYJ	1UY	1UY
TOLUENE	UG/L	1UY	0.1DYJ	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE	UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE	UG/L	1UY	0.1DYJ	2DY	1UY	1UY
VINYL ACETATE						
VINYL CHLORIDE	UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL)	UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		WELL5-02	WELL8-02
SUB-SAMPLE ID:		00000	00000
STATION ID:		WELL5	WELL8
SAMPLE DATE:		07/20/1993	07/22/1993
SAMPLE TIME:			
SAMPLE MATRIX:		GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE	UG/L	1UY	25UY
1,1,2,2-TETRACHLOROETHANE	UG/L	1UY	25UY
1,1,2-TRICHLOROETHANE	UG/L	1UY	25UY
1,1-DICHLOROETHANE	UG/L	1UY	25UY
1,1-DICHLOROETHENE	UG/L	1UY	25UY
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	1UYJ	25UYJ
1,2-DIBROMOETHANE	UG/L	1UY	25UY
1,2-DICHLOROBENZENE	UG/L	1UY	25UY
1,2-DICHLOROETHANE	UG/L	1UY	25UY
1,2-DICHLOROETHENE (TOTAL)			
1,2-DICHLOROPROPANE	UG/L	1UY	25UY
1,3-DICHLOROBENZENE	UG/L	0.1DYJ	25UY
1,4-DICHLOROBENZENE	UG/L	1UY	25UY
2-BUTANONE	UG/L	UYR	UYR
2-CHLOROETHYLVINYL ETHER			
2-HEXANONE	UG/L	5UY	120UY
4-METHYL-2-PENTANONE	UG/L	5UY	120UY
ACETONE	UG/L	8UYJ	200UYJ
ACROLEIN			
ACRYLONITRILE			
BENZENE	UG/L	1UY	25UY
BROMOCHLOROMETHANE	UG/L	1UY	25UY
BROMODICHLOROMETHANE	UG/L	1UY	25UY
BROMOFORM	UG/L	1UY	25UYJ
BROMOMETHANE	UG/L	1UY	25UYJ
CARBON DISULFIDE	UG/L	1UY	25UY
CARBON TETRACHLORIDE	UG/L	1UY	25UY
CHLOROBENZENE	UG/L	1UY	25UY
CHLOROETHANE	UG/L	1UY	25UY
CHLOROFORM	UG/L	1UY	25UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		WELL5-02	WELL8-02
SUB-SAMPLE ID:		00000	00000
STATION ID:		WELL5	WELL8
SAMPLE DATE:		07/20/1993	07/22/1993
SAMPLE TIME:			
SAMPLE MATRIX:		GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
CHLOROMETHANE	UG/L	1UY	25UY
CIS-1,2-DICHLOROETHYLENE	UG/L	1UY	25UY
CIS-1,3-DICHLOROPROPENE	UG/L	1UY	25UY
DIBROMOCHLOROMETHANE	UG/L	1UY	25UY
ETHYLBENZENE	UG/L	1UY	25UY
METHYLENE CHLORIDE	UG/L	2UYJ	50UY
STYRENE	UG/L	1UY	25UY
TETRACHLOROETHENE	UG/L	1UY	25UY
TOLUENE	UG/L	1UY	25UY
TRANS-1,2-DICHLOROETHENE	UG/L	1UY	25UY
TRANS-1,3-DICHLOROPROPENE	UG/L	1UY	25UY
TRICHLOROETHENE	UG/L	1UY	25UY
VINYL ACETATE			
VINYL CHLORIDE	UG/L	1UY	25UY
XYLENE (TOTAL)	UG/L	1UY	25UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organic Data

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (INCLUDES DUPLICATES)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
14B	1,4-DICHLOROBENZENE	UG/L	48	1	0.0208	4.000	4.000	4.000	0.000
24M	2,4-DIMETHYLPHENOL	UG/L	44	1	0.0227	4.000	4.000	4.000	0.000
2MN	2-METHYLNAPHTHALENE	UG/L	48	4	0.0833	3.000	45.000	18.750	15.943
4MP	4-METHYLPHENOL	UG/L	44	1	0.0227	3.000	3.000	3.000	0.000
4NP	4-NITROPHENOL	UG/L	44	1	0.0227	12.000	12.000	12.000	0.000
BZA	BENZOIC ACID	UG/L	44	1	0.0227	5.000	5.000	5.000	0.000
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	48	14	0.2917	2.000	100.000	15.071	25.064
ISP	ISOPHORONE	UG/L	48	1	0.0208	17.000	17.000	17.000	0.000
NAP	NAPHTHALENE	UG/L	48	4	0.0833	27.000	160.000	97.250	51.436
PHE	PHENOL	UG/L	44	1	0.0227	6.000	6.000	6.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
D3C		1,2-DIBROMO-3-CHLOROPROPANE
12E	106934	1,2-DIBROMOETHANE
12B	95-50-1	1,2-DICHLOROBENZENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
2BU	78-93-3	2-BUTANONE
2CV	110-75-8	2-CHLOROETHYLVINYL ETHER
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
ACL	107-02-8	ACROLEIN
ACR	107-13-1	ACRYLONITRILE
BEN	71-43-2	BENZENE
BCM		BROMOCHLOROMETHANE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C12		CIS-1,2-DICHLOROETHYLENE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	B38W03B-02	B38W04B-02	B38W05B-02	B38W06B-02	B38W07B-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W03B	B38W04B	B38W05B	B38W06B	B38W07B
SAMPLE DATE:	07/21/1993	07/29/1993	07/19/1993	07/20/1993	07/23/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
2,4,5-TRICHLOROPHENOL UG/L	UYR	50UY	50UY	50UYJ	50UY
2,4,6-TRICHLOROPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
2,4-DICHLOROPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
2,4-DIMETHYLPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
2,4-DINITROPHENOL UG/L	UYR	50UY	50UY	50UYJ	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
2-CHLOROPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10DYJ	10UY	10UYJ	10UY
2-METHYLPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
2-NITROANILINE UG/L	50UY	50UYJ	50UY	50UYJ	50UY
2-NITROPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UYJ	20UY	20UYJ	20UY
3-NITROANILINE UG/L	50UY	50UYJ	50UY	50UYJ	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	UYR	50UY	50UY	50UYJ	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UYJ	10UY	10UYJ	10UY
4-CHLORO-3-METHYLPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
4-CHLOROANILINE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UYJ	10UY	10UYJ	10UY
4-METHYLPHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
4-NITROANILINE UG/L	50UY	50UYJ	50UY	50UYJ	50UY
4-NITROPHENOL UG/L	UYR	50UY	50UY	50UYJ	50UY
ACENAPHTHENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
ACENAPHTHYLENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
ANTHRACENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	B38W03B-02	B38W04B-02	B38W05B-02	B38W06B-02	B38W07B-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W03B	B38W04B	B38W05B	B38W06B	B38W07B
SAMPLE DATE:	07/21/1993	07/29/1993	07/19/1993	07/20/1993	07/23/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BENZO(A)PYRENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BENZOIC ACID UG/L	UYR	50UY	50UY	50UYJ	50UY
BENZYL ALCOHOL UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UYJ	10UY	10UYJ	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UYJ	10UYJ	10UY	10UYJ	37UY
CHRYSENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
DIBENZOFURAN UG/L	10UY	10UYJ	10UY	10UYJ	10UY
DIETHYL PHTHALATE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
FLUORANTHENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
FLUORENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
HEXACHLOROBENZENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
HEXACHLOROETHANE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
ISOPHORONE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
N-NITROSODINPROPYLAMINE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
NAPHTHALENE UG/L	10UY	72DYJ	10UY	10UYJ	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W03B-02	B38W04B-02	B38W05B-02	B38W06B-02	B38W07B-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	B38W03B	B38W04B	B38W05B	B38W06B	B38W07B
SAMPLE DATE:	07/21/1993	07/29/1993	07/19/1993	07/20/1993	07/23/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
PENTACHLOROPHENOL UG/L	UYR	50UY	50UY	50UYJ	50UY
PHENANTHRENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY
PHENOL UG/L	UYR	10UY	10UY	10UYJ	10UY
PYRENE UG/L	10UY	10UYJ	10UY	10UYJ	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	B38W12A-02	B38W12B-02	B38W4BD-02	BRMW01-02	BRMW02-02
SUB-SAMPLE ID:	00000	00000	DUP	00000	00000
STATION ID:	B38W12A	B38W12B	B38W4BD	BRMW1	BRMW2
SAMPLE DATE:	07/30/1993	07/30/1993	07/29/1993	07/28/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UYJ
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UYJ
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UYJ
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UYJ
2,4,5-TRICHLOROPHENOL UG/L	UYR	50UY	50UY	50UY	50UYJ
2,4,6-TRICHLOROPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
2,4-DICHLOROPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
2,4-DIMETHYLPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
2,4-DINITROPHENOL UG/L	UYR	50UY	50UY	50UY	50UYJ
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UYJ
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UYJ
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UYJ
2-CHLOROPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
2-METHYLNAPHTHALENE UG/L	10UY	10UY	17DY	10UY	10UYJ
2-METHYLPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UYJ
2-NITROPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UYJ
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UYJ
4,6-DINITRO-2-METHYLPHENOL UG/L	UYR	50UY	50UY	50UY	50UYJ
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UYJ
4-CHLORO-3-METHYLPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UYJ
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UYJ
4-METHYLPHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UYJ
4-NITROPHENOL UG/L	UYR	50UY	50UY	50UY	50UYJ
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UYJ
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UYJ
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	B38W12A-02	B38W12B-02	B38W48D-02	BRMW01-02	BRMW02-02
SUB-SAMPLE ID:	00000	00000	DUP	00000	00000
STATION ID:	B38W12A	B38W12B	B38W48D	BRMW1	BRMW2
SAMPLE DATE:	07/30/1993	07/30/1993	07/29/1993	07/28/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UYJ
BENZO(A)PYRENE UG/L	10UY	10UY	10UY	10UY	10UYJ
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UYJ
BENZO(GHI)PERYLENE UG/L	10UY	10UY	10UY	10UY	10UYJ
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UYJ
BENZOIC ACID UG/L	UYR	50UY	50UY	50UY	50UYJ
BENZYL ALCOHOL UG/L	10UY	10UY	10UY	10UY	10UYJ
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UYJ
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	10UY	10UY	10UYJ
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	10UY	10UY	10UYJ
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	10UY	10UY	10UYJ
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UY	10UY	10UY	3DYJ	10UYJ
CHRYSENE UG/L	10UY	10UY	10UY	10UY	10UYJ
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UYJ
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UYJ
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UYJ
DIBENZOFURAN UG/L	10UY	10UY	10UY	10UY	10UYJ
DIETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UYJ
DIMETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UYJ
FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UYJ
FLUORENE UG/L	10UY	10UY	10UY	10UY	10UYJ
HEXACHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UYJ
HEXACHLOROBUTADIENE UG/L	10UY	10UY	10UY	10UY	10UYJ
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	10UY	10UY	10UYJ
HEXACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UYJ
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	10UY	10UY	10UYJ
ISOPHORONE UG/L	10UY	10UY	10UY	10UY	10UYJ
N-NITROSODINPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UYJ
N-NITROSODIPHENYLAMINE UG/L	10UY	10UY	10UY	10UY	10UYJ
NAPHTHALENE UG/L	10UY	10UY	130DY	10UY	10UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	B38W12A-02	B38W12B-02	B38W4BD-02	BRMW01-02	BRMW02-02
SUB-SAMPLE ID:	00000	00000	DUP	00000	00000
STATION ID:	B38W12A	B38W12B	B38W4BD	BRMW1	BRMW2
SAMPLE DATE:	07/30/1993	07/30/1993	07/29/1993	07/28/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UYJ
PENTACHLOROPHENOL UG/L	UYR	50UY	50UY	50UY	50UYJ
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UYJ
PHENOL UG/L	UYR	10UY	10UY	10UY	10UYJ
PYRENE UG/L	10UY	10UY	10UY	10UY	10UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW02D-02	BRMW03-02	BRMW04-02	BRMW05-02	BRMW06-02
SUB-SAMPLE ID:	DUP	00000	00000	00000	00000
STATION ID:	BRMW2D	BRMW3	BRMW4	BRMW5	BRMW6
SAMPLE DATE:	07/20/1993	08/02/1993	07/29/1993	08/02/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UYJ	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UYJ	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UYJ	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UYJ	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UYJ	50UY	50UY	UYR	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
2,4-DICHLOROPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
2,4-DIMETHYLPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
2,4-DINITROPHENOL UG/L	50UYJ	50UY	50UY	UYR	50UY
2,4-DINITROTOLUENE UG/L	10UYJ	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UYJ	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UYJ	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
2-METHYLNAPHTHALENE UG/L	10UYJ	10UY	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
2-NITROANILINE UG/L	50UYJ	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UYJ	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UYJ	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UYJ	50UY	50UY	UYR	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UYJ	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
4-CHLOROANILINE UG/L	10UYJ	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UYJ	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
4-NITROANILINE UG/L	50UYJ	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UYJ	50UY	50UY	UYR	50UY
ACENAPHTHENE UG/L	10UYJ	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UYJ	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UYJ	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	BRMW02D-02	BRMW03-02	BRMW04-02	BRMW05-02	BRMW06-02
SUB-SAMPLE ID:	DUP	00000	00000	00000	00000
STATION ID:	BRMW2D	BRMW3	BRMW4	BRMW5	BRMW6
SAMPLE DATE:	07/20/1993	08/02/1993	07/29/1993	08/02/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UYJ	10UY	10UY	10UY	10UY
BENZO(A)PYRENE UG/L	10UYJ	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE UG/L	10UYJ	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE UG/L	10UYJ	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE UG/L	10UYJ	10UY	10UY	10UY	10UY
BENZOIC ACID UG/L	50UYJ	50UY	50UY	UYR	50UY
BENZYL ALCOHOL UG/L	10UYJ	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE UG/L	10UYJ	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UYJ	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UYJ	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UYJ	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UYJ	10UY	10UY	34DY	180UY
CHRYSENE UG/L	10UYJ	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE UG/L	10UYJ	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE UG/L	10UYJ	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UYJ	10UY	10UY	10UY	10UY
DIBENZOFURAN UG/L	10UYJ	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE UG/L	10UYJ	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE UG/L	10UYJ	10UY	10UY	10UY	10UY
FLUORANTHENE UG/L	10UYJ	10UY	10UY	10UY	10UY
FLUORENE UG/L	10UYJ	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE UG/L	10UYJ	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE UG/L	10UYJ	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UYJ	10UY	10UY	10UY	10UY
HEXACHLOROETHANE UG/L	10UYJ	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UYJ	10UY	10UY	10UY	10UY
ISOPHORONE UG/L	10UYJ	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE UG/L	10UYJ	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE UG/L	10UYJ	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UYJ	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW02D-02	BRMW03-02	BRMW04-02	BRMW05-02	BRMW06-02
SUB-SAMPLE ID:	DUP	00000	00000	00000	00000
STATION ID:	BRMW2D	BRMW3	BRMW4	BRMW5	BRMW6
SAMPLE DATE:	07/20/1993	08/02/1993	07/29/1993	08/02/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UYJ	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UYJ	50UY	50UY	UYR	50UY
PHENANTHRENE UG/L	10UYJ	10UY	10UY	10UY	10UY
PHENOL UG/L	10UYJ	10UY	10UY	UYR	10UY
PYRENE UG/L	10UYJ	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW07-02	BRMW08-02	BRMW09-02	BRMW10-02	BRMW11-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW7	BRMW8	BRMW9	BRMW10	BRMW11
SAMPLE DATE:	07/30/1993	08/03/1993	08/03/1993	07/21/1993	07/28/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW07-02	BRMW08-02	BRMW09-02	BRMW10-02	BRMW11-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW7	BRMW8	BRMW9	BRMW10	BRMW11
SAMPLE DATE:	07/30/1993	08/03/1993	08/03/1993	07/21/1993	07/28/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	5DYJ	9DYJ	3DYJ	10UYJ	10UY
CHRYSENE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW07-02	BRMW08-02	BRMW09-02	BRMW10-02	BRMW11-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW7	BRMW8	BRMW9	BRMW10	BRMW11
SAMPLE DATE:	07/30/1993	08/03/1993	08/03/1993	07/21/1993	07/28/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW12-02	BRMW12D-02	BRMW13-02	BRMW14-02	BRMW15-02
SUB-SAMPLE ID:	00000	DUP	00000	00000	00000
STATION ID:	BRMW12	BRMW12	BRMW13	BRMW14	BRMW15
SAMPLE DATE:	08/02/1993	08/02/1993	07/27/1993	07/29/1993	07/19/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW12-02	BRMW12D-02	BRMW13-02	BRMW14-02	BRMW15-02
SUB-SAMPLE ID:	00000	DUP	00000	00000	00000
STATION ID:	BRMW12	BRMW12	BRMW13	BRMW14	BRMW15
SAMPLE DATE:	08/02/1993	08/02/1993	07/27/1993	07/29/1993	07/19/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	2DYJ	21DY	210UY	6DYJ	3DYJ
CHRYSENE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW12-02	BRMW12D-02	BRMW13-02	BRMW14-02	BRMW15-02
SUB-SAMPLE ID:	00000	DUP	00000	00000	00000
STATION ID:	BRMW12	BRMW12	BRMW13	BRMW14	BRMW15
SAMPLE DATE:	08/02/1993	08/02/1993	07/27/1993	07/29/1993	07/19/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW16-02	BRMW17-02	MISS4B-02	MW1-02	OBMW01-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW16	BRMW17	MISS4B	MW1	OBMW1
SAMPLE DATE:	07/20/1993	07/23/1993	07/22/1993	07/23/1993	07/27/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	UYR
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
2,4-DICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
2,4-DINITROPHENOL UG/L	50UY	50UY	50UY	50UY	UYR
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
2-METHYLNAPHTHALENE UG/L	10UY	10UY	10UY	45DY	10UY
2-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	50UY	50UY	UYR
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	UYR
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY	50UY	50UY	UYR
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		BRMW16-02	BRMW17-02	MISS4B-02	MW1-02	OBMW01-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		BRMW16	BRMW17	MISS4B	MW1	OBMW1
SAMPLE DATE:		07/20/1993	07/23/1993	07/22/1993	07/23/1993	07/27/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
BENZO(A)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID	UG/L	50UY	50UY	50UY	50UY	UYR
BENZYL ALCOHOL	UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	10UY	10UY	10UYJ	100DY	80UY
CHRYSENE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN	UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE	UG/L	10UY	50UY	10UY	10UY	10UY
FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE	UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE	UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE	UG/L	10UY	10UY	10UY	160DY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	BRMW16-02	BRMW17-02	MISS4B-02	MW1-02	OBMW01-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	BRMW16	BRMW17	MISS4B	MW1	OBMW1
SAMPLE DATE:	07/20/1993	07/23/1993	07/22/1993	07/23/1993	07/27/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	UYR
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	10UY	10UY	10UY	UYR
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	08MW02-02	08MW03-02	08MW04-02	08MW05-02	08MW06-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW2	08MW3	08MW4	08MW5	08MW6
SAMPLE DATE:	07/20/1993	08/02/1993	07/29/1993	08/02/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	4DYJ	10UY	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	3DYJ	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	3DYJ	10UY	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	08MW02-02	08MW03-02	08MW04-02	08MW05-02	08MW06-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW2	08MW3	08MW4	08MW5	08MW6
SAMPLE DATE:	07/20/1993	08/02/1993	07/29/1993	08/02/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID UG/L	50UY	5DYJ	50UY	50UY	50UY
BENZYL ALCOHOL UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UY	10UY	10UY	10UY	230UY
CHRYSENE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE UG/L	17DY	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	27DY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	08MW02-02	08MW03-02	08MW04-02	08MW05-02	08MW06-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW2	08MW3	08MW4	08MW5	08MW6
SAMPLE DATE:	07/20/1993	08/02/1993	07/29/1993	08/02/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	6DYJ	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW07-02	08MW08-02	08MW10-02	08MW11-02	08MW12-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW7	08MW8	08MW10	08MW11	08MW12
SAMPLE DATE:	07/30/1993	08/03/1993	07/30/1993	07/28/1993	07/29/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UY	10UY	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW07-02	08MW08-02	08MW10-02	08MW11-02	08MW12-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW7	08MW8	08MW10	08MW11	08MW12
SAMPLE DATE:	07/30/1993	08/03/1993	07/30/1993	07/28/1993	07/29/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UY	10UY	11DY	2DYJ	10UY
CHRYSENE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	OBMW07-02	OBMW08-02	OBMW10-02	OBMW11-02	OBMW12-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	OBMW7	OBMW8	OBMW10	OBMW11	OBMW12
SAMPLE DATE:	07/30/1993	08/03/1993	07/30/1993	07/28/1993	07/29/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	10UY	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	08MW13-02	08MW14-02	08MW15-02	08MW17-02	WELL1-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW13	08MW14	08MW15	08M17	WELL1
SAMPLE DATE:	07/27/1993	07/26/1993	07/19/1993	07/23/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UYJ	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UYJ	50UY	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UYJ	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY	50UY	50UY	50UY
4-NITROPHENOL UG/L	12DYJ	50UYJ	50UY	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		08MW13-02	08MW14-02	08MW15-02	08MW17-02	WELL1-02
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		08MW13	08MW14	08MW15	08M17	WELL1
SAMPLE DATE:		07/27/1993	07/26/1993	07/19/1993	07/23/1993	07/21/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
BENZO(A)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(A)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
BENZOIC ACID	UG/L	50UY	50UY	50UY	50UY	50UY
BENZYL ALCOHOL	UG/L	10UY	10UY	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	230UY	190UY	4DYJ	10UY	10UYJ
CHRYSENE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY	10UY	10UY	10UY
DIBENZOFURAN	UG/L	10UY	10UY	10UY	10UY	10UY
DIETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
DIMETHYL PHTHALATE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORANTHENE	UG/L	10UY	10UY	10UY	10UY	10UY
FLUORENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBENZENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY	10UY	10UY	10UY
HEXACHLOROETHANE	UG/L	10UY	10UY	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY	10UY	10UY	10UY
ISOPHORONE	UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE	UG/L	10UY	10UY	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY	10UY	10UY	10UY
NAPHTHALENE	UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	08MW13-02	08MW14-02	08MW15-02	08MW17-02	WELL1-02
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	08MW13	08MW14	08MW15	08M17	WELL1
SAMPLE DATE:	07/27/1993	07/26/1993	07/19/1993	07/23/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
NITROBENZENE UG/L	10UY	10UY	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UYJ	50UY	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY	10UY	10UY	10UY
PHENOL UG/L	10UY	10UYJ	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	WELL2-02	WELL5-02	WELL8-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	WELL2	WELL5	WELL8
SAMPLE DATE:	07/21/1993	07/20/1993	07/22/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	12UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	12UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	12UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	4DYJ
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	59UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	12UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	12UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	12UY
2,4-DINITROPHENOL UG/L	50UY	50UY	59UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	12UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	12UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	12UY
2-CHLOROPHENOL UG/L	10UY	10UY	12UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	12UY
2-METHYLPHENOL UG/L	10UY	10UY	12UY
2-NITROANILINE UG/L	50UY	50UY	59UY
2-NITROPHENOL UG/L	10UY	10UY	12UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	24UY
3-NITROANILINE UG/L	50UY	50UY	59UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	59UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	12UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	12UY
4-CHLOROANILINE UG/L	10UY	10UY	12UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	12UY
4-METHYLPHENOL UG/L	10UY	10UY	12UY
4-NITROANILINE UG/L	50UY	50UY	59UY
4-NITROPHENOL UG/L	50UY	50UY	59UY
ACENAPHTHENE UG/L	10UY	10UY	12UY
ACENAPHTHYLENE UG/L	10UY	10UY	12UY
ANTHRACENE UG/L	10UY	10UY	12UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	WELL2-02	WELL5-02	WELL8-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	WELL2	WELL5	WELL8
SAMPLE DATE:	07/21/1993	07/20/1993	07/22/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
BENZO(A)ANTHRACENE UG/L	10UY	10UY	12UY
BENZO(A)PYRENE UG/L	10UY	10UY	12UY
BENZO(B)FLUORANTHENE UG/L	10UY	10UY	12UY
BENZO(GHI)PERYLENE UG/L	10UY	10UY	12UY
BENZO(K)FLUORANTHENE UG/L	10UY	10UY	12UY
BENZOIC ACID UG/L	50UY	50UY	59UY
BENZYL ALCOHOL UG/L	10UY	10UY	12UY
BENZYL BUTYL PHTHALATE UG/L	10UY	10UY	12UY
BIS(2-CHLOROETHOXY) METHANE UG/L	10UY	10UY	12UY
BIS(2-CHLOROETHYL)ETHER UG/L	10UY	10UY	12UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	10UY	10UY	12UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	10UYJ	10UY	8DYJ
CHRYSENE UG/L	10UY	10UY	12UY
DI-N-BUTYL PHTHALATE UG/L	10UY	10UY	12UY
DI-N-OCTYL PHTHALATE UG/L	10UY	10UY	12UY
DIBENZO(A,H)ANTHRACENE UG/L	10UY	10UY	12UY
DIBENZOFURAN UG/L	10UY	10UY	12UY
DIETHYL PHTHALATE UG/L	10UY	10UY	12UY
DIMETHYL PHTHALATE UG/L	10UY	10UY	12UY
FLUORANTHENE UG/L	10UY	10UY	12UY
FLUORENE UG/L	10UY	10UY	12UY
HEXACHLOROBENZENE UG/L	10UY	10UY	12UY
HEXACHLOROBUTADIENE UG/L	10UY	10UY	12UY
HEXACHLOROCYCLOPENTADIENE UG/L	10UY	10UY	12UY
HEXACHLOROETHANE UG/L	10UY	10UY	12UY
INDENO(1,2,3-CD)PYRENE UG/L	10UY	10UY	12UY
ISOPHORONE UG/L	10UY	10UY	12UY
N-NITROSODINPROPYLAMINE UG/L	10UY	10UY	12UY
N-NITROSODIPHENYLAMINE UG/L	10UY	10UY	12UY
NAPHTHALENE UG/L	10UY	10UY	12UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	WELL2-02	WELL5-02	WELL8-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	WELL2	WELL5	WELL8
SAMPLE DATE:	07/21/1993	07/20/1993	07/22/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
NITROBENZENE UG/L	10UY	10UY	12UY
PENTACHLOROPHENOL UG/L	50UY	50UY	59UY
PHENANTHRENE UG/L	10UY	10UY	12UY
PHENOL UG/L	10UY	10UY	12UY
PYRENE UG/L	10UY	10UY	12UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Pesticide Data

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (INCLUDES DUPLICATES)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: PESTICIDES

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
CRA	ALPHA-CHLORDANE	UG/L	6	1	0.1667	0.640	0.640	0.640	0.000
DIE	DIELDRIN	UG/L	6	3	0.5000	0.190	0.570	0.400	0.158
CRG	GAMMA-CHLORDANE	UG/L	6	1	0.1667	0.580	0.580	0.580	0.000
HCE	HEPTACHLOR EPOXIDE	UG/L	6	1	0.1667	0.210	0.210	0.210	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDA	7421-43-4	ENDRIN ALDEHYDE
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS:

SAMPLE ID:	B38W05B-02	B38W18D-02	B38W18D-02	BRMW15-02	BRMW16-02
SUB-SAMPLE ID:	00000	00000	DUP	00000	00000
STATION ID:	B38W05B	B38W18D	B38W18D	BRMW15	BRMW16
SAMPLE DATE:	07/19/1993	07/21/1993	07/21/1993	07/19/1993	07/20/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.24UY	0.24UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.23UY	0.05UY	0.05UY	0.29UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
DIELDRIN UG/L	0.19DY	0.1UY	0.1UY	0.57DY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN ALDEHYDE					
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES

SAMPLE ID:		08MW15-02
SUB-SAMPLE ID:		00000
STATION ID:		08MW15
SAMPLE DATE:		07/19/1993
SAMPLE TIME:		
SAMPLE MATRIX:		GW
UPPER DEPTH:		
LOWER DEPTH:		
4,4'-DDD	UG/L	0.23UY
4,4'-DDE	UG/L	0.1UY
4,4'-DDT	UG/L	0.1UY
ALDRIN	UG/L	0.05UY
ALPHA-CHLORDANE	UG/L	0.64DY
BHC-ALPHA	UG/L	0.05UY
BHC-BETA	UG/L	0.72UY
BHC-DELTA	UG/L	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY
DIELDRIN	UG/L	0.44DY
ENDOSULFAN I	UG/L	0.05UY
ENDOSULFAN II	UG/L	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY
ENDRIN	UG/L	0.1UY
ENDRIN ALDEHYDE	UG/L	0.1UY
ENDRIN KETONE		
GAMMA-CHLORDANE	UG/L	0.58DY
HEPTACHLOR	UG/L	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.21DY
METHOXYCHLOR	UG/L	0.5UY
TOXAPHENE	UG/L	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Metals (Total and Filtered) and Cyanide

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (INCLUDES DUPLICATES)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: INORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	UG/L	51	46	0.9020	82.800	11,500.000	762.435	1,749.054
SB	ANTIMONY	UG/L	52	1	0.0192	47.900	47.900	47.900	0.000
AS	ARSENIC	UG/L	42	16	0.3810	1.300	169.000	28.800	48.124
BA	BARIUM	UG/L	52	51	0.9808	12.000	1,250.000	170.004	195.440
BE	BERYLLIUM	UG/L	52	6	0.1154	4.000	8.700	5.733	1.669
CD	CADMIUM	UG/L	52	18	0.3462	5.100	20.000	8.294	3.269
CA	CALCIUM	UG/L	52	52	1.0000	11,200.000	605,000.000	158,565.385	130,040.696
CR	CHROMIUM	UG/L	49	18	0.3673	7.000	542.000	74.406	129.790
CO	COBALT	UG/L	52	12	0.2308	7.200	19.100	13.300	4.213
CU	COPPER	UG/L	52	11	0.2115	8.200	60.500	18.764	14.778
CN	CYANIDE	UG/L	13	5	0.3846	14.400	476.000	196.700	212.929
FE	IRON	UG/L	51	49	0.9608	26.700	45,700.000	6,727.422	9,429.893
PB	LEAD	UG/L	27	11	0.4074	1.600	8.400	4.618	2.192
MG	MAGNESIUM	UG/L	52	52	1.0000	1,120.000	92,500.000	21,846.346	18,079.306
MN	MANGANESE	UG/L	52	51	0.9808	9.000	14,100.000	2,604.727	3,101.482
HG	MERCURY	UG/L	47	4	0.0851	0.130	0.250	0.185	0.051
NI	NICKEL	UG/L	51	28	0.5490	11.300	416.000	63.786	101.301
K	POTASSIUM	UG/L	52	51	0.9808	760.000	111,000.000	16,433.333	22,350.535
SE	SELENIUM	UG/L	51	10	0.1961	2.000	14.500	6.250	5.393
AG	SILVER	UG/L	52	2	0.0385	2.800	5.300	4.050	1.250
NA	SODIUM	UG/L	52	52	1.0000	6,820.000	283,000.000	60,210.192	60,502.549
TL	THALLIUM	UG/L	52	1	0.0192	1.000	1.000	1.000	0.000
V	VANADIUM	UG/L	49	19	0.3878	14.500	72.600	28.853	13.448
ZN	ZINC	UG/L	39	25	0.6410	6.100	239.000	37.696	51.254

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - GROUNDWATER (FILTERED)
DETECTED OBSERVATIONS ONLY.
SAMPLE ANALYSIS: INORGANICS

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	UG/L	27	18	0.6667	29.900	687.000	214.050	144.786
SB	ANTIMONY	UG/L	28	0	0.0000	0.000	0.000	0.000	0.000
AS	ARSENIC	UG/L	23	9	0.3913	1.500	235.000	39.478	70.545
BA	BARIUM	UG/L	28	28	1.0000	10.000	1,020.000	207.454	214.038
BE	BERYLLIUM	UG/L	28	2	0.0714	4.300	5.200	4.750	0.450
CD	CADMIUM	UG/L	24	4	0.1667	7.000	16.000	10.350	3.419
CA	CALCIUM	UG/L	28	28	1.0000	27,300.000	614,000.000	158,382.143	114,669.877
CR	CHROMIUM	UG/L	26	3	0.1154	6.000	27.200	15.733	8.741
CO	COBALT	UG/L	28	2	0.0714	11.400	15.600	13.500	2.100
CU	COPPER	UG/L	28	1	0.0357	9.800	9.800	9.800	0.000
FE	IRON	UG/L	25	18	0.7200	154.000	32,400.000	7,807.389	9,093.122
PB	LEAD	UG/L	19	1	0.0526	4.100	4.100	4.100	0.000
MG	MAGNESIUM	UG/L	28	28	1.0000	3,510.000	86,600.000	24,465.357	20,072.791
MN	MANGANESE	UG/L	28	28	1.0000	6.800	15,400.000	3,597.032	3,816.868
HG	MERCURY	UG/L	25	2	0.0800	0.120	0.210	0.165	0.045
NI	NICKEL	UG/L	27	12	0.4444	12.500	129.000	32.758	31.204
K	POTASSIUM	UG/L	28	27	0.9643	1,010.000	115,000.000	22,660.741	27,362.306
SE	SELENIUM	UG/L	28	1	0.0357	14.000	14.000	14.000	0.000
AG	SILVER	UG/L	28	0	0.0000	0.000	0.000	0.000	0.000
NA	SODIUM	UG/L	28	28	1.0000	6,370.000	291,000.000	67,922.143	59,961.091
TL	THALLIUM	UG/L	28	1	0.0357	2.000	2.000	2.000	0.000
V	VANADIUM	UG/L	26	11	0.4231	12.500	36.600	22.955	8.689
ZN	ZINC	UG/L	28	17	0.6071	6.000	116.000	24.635	27.708

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	B38W01S-02	B38W02D-02	B38W02D-02	B38W03B-02	B38W03B-02
SUB-SAMPLE ID:	00000	00000	FILT	00000	FILT
STATION ID:	B38W01S	B38W02D	B38W02D	B38W03B	B38W03B
SAMPLE DATE:	07/28/1993	07/27/1993	07/27/1993	07/21/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	297DY	82.8DYB	29.9DYB	336DY	320DY
ANTIMONY UG/L	47.9DYBJ	47UY	47UY	12UY	12UY
ARSENIC UG/L	2UY	2UY	2UY	1.3DYJ	1.5DYJ
BARIUM UG/L	19.1UYB	385DY	348DY	12DY	10DY
BERYLLIUM UG/L	4DYB	1UYJ	1UYJ	5UY	5UY
CADMIUM UG/L	5UY	5UY	5UY	5UY	5UY
CALCIUM UG/L	4270000DY	89000DY	80700DY	295000DY	290000DY
CHROMIUM UG/L	5UY	7.9DYB	5UY	6UY	6DYJ
COBALT UG/L	8UY	8UY	8UY	17UY	17UY
COPPER UG/L	6UY	6UY	6UY	9UY	9UY
CYANIDE					
IRON UG/L	31000DY	103UY	60.3UY	64200Y	154DY
LEAD UG/L	20UYJ	2UYJ	2UYJ	DYR	1UY
MAGNESIUM UG/L	369000Y	38300YB	35100YB	335000YJ	326000YJ
MANGANESE UG/L	2880DYJ	2220DYJ	1600DYJ	5580DY	5450DY
MERCURY UG/L				0.1UYJ	0.1UY
NICKEL UG/L	14.8DYB	14.8DYB	14UY	18UY	18UY
POTASSIUM UG/L	59500DY	6480YJ	6480YJ	80800DY	77200DY
SELENIUM UG/L	20UYJ	2UYJ	2UYJ	10UYJ	10UYJ
SILVER UG/L	6UY	6UY	6UY	2UYJ	2UYJ
SODIUM UG/L	911000Y	78200Y	72200Y	1100000Y	1090000Y
THALLIUM UG/L	4UY	4UY	4UY	1UYJ	1UYJ
VANADIUM UG/L	45.2UYB	32.6UY	23.1UY	24UY	27DY
ZINC UG/L	9UY	15.2DYB	9.6DYB	DYR	11DY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	B38W04B-02	B38W04B-02	B38W05B-02	B38W06B-02	B38W07B-02
SUB-SAMPLE ID:	00000	FILT	00000	00000	00000
STATION ID:	B38W04B	B38W04B	B38W05B	B38W06B	B38W07B
SAMPLE DATE:	07/29/1993	07/29/1993	07/19/1993	07/20/1993	07/23/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	163DY	127DYJ	211DY	193DY	97.2DY
ANTIMONY UG/L	14UY	14UY	12UY	12UY	11UY
ARSENIC UG/L	3.3DYJ	2UYJ	1UY	1UY	UYR
BARIUM UG/L	434DY	414DY	160DY	235DY	60.4DY
BERYLLIUM UG/L	4UY	4UY	5UY	5UY	4UY
CADMIUM UG/L	5UYJ	5UY	5UY	5UY	8.2DY
CALCIUM UG/L	102000DY	103000DY	83200DY	137000DY	70900DY
CHROMIUM UG/L	6UYJ	6UYJ	9DYJ	8DYJ	6UY
COBALT UG/L	7UY	7UY	17UY	17UY	7UY
COPPER UG/L	8UY	8UY	9UY	9UY	8.2DY
CYANIDE					
IRON UG/L	144000DY	31500DY	273DY	147000DY	179DY
LEAD UG/L	7.6DY	UYR	DYR	1UY	1UYJ
MAGNESIUM UG/L	110000DY	109000DY	9960DYJ	128000DYJ	52100DY
MANGANESE UG/L	9290DY	9990DY	300Y	2860DY	2380DY
MERCURY UG/L	0.1UY	0.1UY	0.1UYJ	0.1UYJ	0.1UY
NICKEL UG/L	13.9DY	11UY	18UY	18UY	11UY
POTASSIUM UG/L	6860DY	5360DY	9200DY	11900DY	10300DY
SELENIUM UG/L	2UYJ	2UYJ	2UYJ	2DYJ	2UYJ
SILVER UG/L	1UYJ	1UYJ	2UYJ	2UYJ	2UY
SODIUM UG/L	1110000DY	1030000DY	171000DY	1270000DY	436000DY
THALLIUM UG/L	1UYJ	1UYJ	1UYJ	1UYJ	1UY
VANADIUM UG/L	12UYJ	12UYJ	24UY	24UY	12UY
ZINC UG/L	6UY	13.9DY	DYR	DYR	13DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	B38W12A-02	B38W12A-02	B38W12B-02	B38W12B-02	B38W18D-02
SUB-SAMPLE ID:	00000	DUP	00000	FILT	00000
STATION ID:	B38W12A	B38W12A	B38W12B	B38W12B	B38W18D
SAMPLE DATE:	07/30/1993	07/30/1993	07/30/1993	07/30/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	4500Y		145DY	90UY	158DYB
ANTIMONY UG/L	14UY		14UY	14UY	47UY
ARSENIC UG/L	2UY		2UY	2UY	2.5DYB
BARIUM UG/L	24.2DY		92.2DY	91.4DY	13.1DYB
BERYLLIUM UG/L	4DYJ		4UY	4UY	1.9UYB
CADMIUM UG/L	5UY		5UY	5UY	5UY
CALCIUM UG/L	523000DY		949000DY	1030000DY	1440000DY
CHROMIUM UG/L	6UYJ		15.8DYJ	6UYJ	22.8DY
COBALT UG/L	7UY		9.2DY	7UY	17DYB
COPPER UG/L	8UYJ		8UY	8UYJ	6UY
CYANIDE UG/L	438DY	476DY	5UY		
IRON UG/L	13000DYJ		505DYJ	17UY	151000DYJ
LEAD UG/L	1UY		1.9DYJ	1UY	2UYJ
MAGNESIUM UG/L	9610DY		216000DY	226000DY	129000DY
MANGANESE UG/L	2180DY		52.9DYJ	27.2DY	3720DYJ
MERCURY UG/L	0.1UYJ		0.1UYJ	0.1UYJ	
NICKEL UG/L	11UY		147DY	129DY	36.5DYB
POTASSIUM UG/L	2030DY		2540DY	2280DY	6910DY
SELENIUM UG/L	14DYJ		2.7DYJ	2UYJ	2UYJ
SILVER UG/L	2UY		2UY	2UY	6UYJ
SODIUM UG/L	368000DY		237000DY	249000DY	271000DY
THALLIUM UG/L	1UYJ		1UY	1UY	4UYJ
VANADIUM UG/L	14.5DY		23DY	12UYJ	10.1UYB
ZINC UG/L	16.1DY		6UY	12.7DY	113DY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		B38W18D-02	B38W18D-02	B38W4BD-02	B38W4BD-02	BRMW01-02
SUB-SAMPLE ID:		DUP	DUPFI	DUP	DUPFI	00000
STATION ID:		B38W18D	B38W18D	B38W4BD	B38W4BD	BRMW1
SAMPLE DATE:		07/21/1993	07/21/1993	07/29/1993	07/29/1993	07/28/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	1300YB	134DYB	DYR	DYR	309DY
ANTIMONY	UG/L	47UY	47UY	14UY	14UY	14UY
ARSENIC	UG/L	2.3UYB	2UY	2UY	2UY	2UY
BARIUM	UG/L	12DYB	12DYB	439DY	413DY	44.7DY
BERYLLIUM	UG/L	1.9UYB	1.9UY	4UY	4UY	4UY
CADMIUM	UG/L	5UY	5UY	5.4DYJ	DYR	5UYJ
CALCIUM	UG/L	1470000DY	1510000DY	1060000DY	1040000DY	2210000DY
CHROMIUM	UG/L	23.9DY	27.2DY	6UYJ	6UYJ	6UYJ
COBALT	UG/L	17.7DYB	15.6DYB	7UY	7UY	14.1DY
COPPER	UG/L	6UY	6UY	8UY	8UY	8UY
CYANIDE						
IRON	UG/L	154000DYJ	160000DYJ	106000DY	28500DY	11800DY
LEAD	UG/L	2UYJ	2UYJ	DYR	UYR	UYR
MAGNESIUM	UG/L	131000DY	136000DY	111000DY	108000DY	814000DY
MANGANESE	UG/L	3760DYJ	4010DYJ	10100DY	9810DY	2830DY
MERCURY	UG/L			0.1UY	0.1UY	0.1UY
NICKEL	UG/L	37.6DYB	34.5DYB	11UY	11UY	34.4DY
POTASSIUM	UG/L	6520DY	5650DY	5390DY	4780DY	9860DY
SELENIUM	UG/L	2UYJ	2UYJ	2UYJ	2UYJ	2UYJ
SILVER	UG/L	6UYJ	6UYJ	1UYJ	1UYJ	1UYJ
SODIUM	UG/L	27900DY	28300DY	1060000DY	998000DY	2830000DY
THALLIUM	UG/L	4UYJ	4UYJ	1UYJ	1UYJ	5UYJ
VANADIUM	UG/L	9UY	11.6UYB	12UYJ	12UYJ	12UY
ZINC	UG/L	138DY	116DY	6UY	6UY	6UYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		BRMW01-02	BRMW02-02	BRMW02D-02	BRMW03-02	BRMW04-02
SUB-SAMPLE ID:		FILT	00000	DUP	00000	00000
STATION ID:		BRMW1	BRMW2	BRMW2D	BRMW3	BRMW4
SAMPLE DATE:		07/28/1993	07/20/1993	07/20/1993	08/02/1993	07/29/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	2300DY	1290DY	1820DY	1120DY	1470DY
ANTIMONY	UG/L	14UY	12UY	12UY	14UY	14UY
ARSENIC	UG/L	2UY	1UY	1UY	2.9DYJ	2.1DYJ
BARIUM	UG/L	42.8DY	88DY	87DY	67.2DY	107DY
BERYLLIUM	UG/L	4UY	5UY	5UY	4UY	4UY
CADMIUM	UG/L	UYR	6DY	5UY	5UY	5.6DYJ
CALCIUM	UG/L	227000DY	126000DY	124000DY	56000DY	72500DY
CHROMIUM	UG/L	6UYJ	7DYJ	7DYJ	6UY	6UYJ
COBALT	UG/L	7UY	17UY	17UY	8.2DY	7UY
COPPER	UG/L	8UY	15DY	12DY	9.3DY	8UY
CYANIDE						
IRON	UG/L	UYR	17400DY	16400DY	54.7DY	211DY
LEAD	UG/L	UYR	DYR	DYR	1UY	DYR
MAGNESIUM	UG/L	83700DY	196000DYJ	195000DYJ	28300DY	25000DY
MANGANESE	UG/L	2910DY	3490DY	3480DY	100YJ	378DY
MERCURY	UG/L	0.1UY	0.1UYJ	0.1UYJ	0.1UYJ	0.1UY
NICKEL	UG/L	37.8DY	24DY	31DY	11.3DY	15.7DY
POTASSIUM	UG/L	10000DY	7300DY	7080DY	2390DY	8480DY
SELENIUM	UG/L	2UYJ	2UYJ	2UYJ	2UYJ	2UYJ
SILVER	UG/L	1UYJ	2UYJ	2UYJ	2UY	1UYJ
SODIUM	UG/L	291000DY	235000DY	233000DY	19300DY	33300DY
THALLIUM	UG/L	5UYJ	1UYJ	1UYJ	1UY	1UYJ
VANADIUM	UG/L	14.6DY	24UY	24UY	27.2DY	12UYJ
ZINC	UG/L	35.5DYJ	DYR	DYR	10.5DY	6UY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	BRMW04-02	BRMW05-02	BRMW06-02	BRMW07-02	BRMW07-02
SUB-SAMPLE ID:	FILT	00000	00000	00000	FILT
STATION ID:	BRMW4	BRMW5	BRMW6	BRMW7	BRMW7
SAMPLE DATE:	07/29/1993	08/02/1993	07/26/1993	07/30/1993	07/30/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	157DY	156DY	90UY	90UY	111DY
ANTIMONY UG/L	14UY	14UY	11UY	14UY	14UY
ARSENIC UG/L	3.1DYJ	20.9DY	UYR	2UY	2UY
BARIUM UG/L	98.9DY	118DY	99.7DY	163DY	153DY
BERYLLIUM UG/L	4UY	4UY	4UY	4UY	4UY
CADMIUM UG/L	5UY	5UY	6.9DY	5UY	5UY
CALCIUM UG/L	691000DY	1320000DY	818000DY	1120000DY	1060000DY
CHROMIUM UG/L	6UYJ	6UYJ	542DY	6UYJ	6UY
COBALT UG/L	7UY	7UY	7UY	7UY	7UY
COPPER UG/L	8UY	8UYJ	14.3DY	8UYJ	8UY
CYANIDE UG/L		5UY		26.5DY	
IRON UG/L	DYR	2660DYJ	1310DY	31DY	17UY
LEAD UG/L	UYR	5.2DYJ	DYR	4.5DYJ	1UY
MAGNESIUM UG/L	253000DY	372000DY	107000DY	82600DY	81900DY
MANGANESE UG/L	3700DY	3140DY	63.8DY	3UY	7.7DYJ
MERCURY UG/L	0.1UY	0.1UYJ	0.1UY	0.1UYJ	0.1UYJ
NICKEL UG/L	12.5DY	21DY	31.9DY	11.8DY	11UY
POTASSIUM UG/L	8730DY	14300DY	125000DY	242000DYJ	276000DYJ
SELENIUM UG/L	2UYJ	2UYJ	2UYJ	2UYJ	2UYJ
SILVER UG/L	1UYJ	2.8DY	2UY	5.3DY	2UY
SODIUM UG/L	342000DY	345000DY	323000DY	366000DY	362000DY
THALLIUM UG/L	1UYJ	1UY	1UY	1UYJ	1UY
VANADIUM UG/L	12UYJ	12UYJ	21.7DY	12UYJ	34.2DY
ZINC UG/L	6UY	24.7DY	34DY	6UY	6UY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	BRMW07D-02	BRMW08-02	BRMW09-02	BRMW09-02	BRMW10-02
SUB-SAMPLE ID:	DUP	00000	00000	FILT	00000
STATION ID:	BRMW7	BRMW8	BRMW9	BRMW9	BRMW10
SAMPLE DATE:	07/30/1993	08/03/1993	08/03/1993	08/03/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L		181DY	414DY	196DY	170DY
ANTIMONY UG/L		14UY	14UY	14UY	12UY
ARSENIC UG/L		2UY	2UY	2UY	1.3DY
BARIUM UG/L		74.2DY	98.2DY	92.7DY	85DY
BERYLLIUM UG/L		4UYJ	5.8DYJ	4UY	5UY
CADMIUM UG/L		5UY	5UY	5UY	5UY
CALCIUM UG/L		149000DY	1150000DY	1180000DY	1280000DY
CHROMIUM UG/L		6UY	UYR	UYR	6UY
COBALT UG/L		16.1DY	11.1DY	7UY	19DYJ
COPPER UG/L		8UY	8UY	8UYJ	10DY
CYANIDE UG/L	28.6DY	14.4DY	5UY		
IRON UG/L		316DYJ	2220DYJ	17UY	60DY
LEAD UG/L		5.2DYJ	1UY	1UY	DYR
MAGNESIUM UG/L		60300DY	96300DY	9920DY	37800DYJ
MANGANESE UG/L		1000DYJ	75.5DYJ	6.8DY	838DY
MERCURY UG/L		0.25DY	DYR	UYR	0.1UYJ
NICKEL UG/L		16.2DYJ	58.6DYJ	24.3DY	36DY
POTASSIUM UG/L		4710DY	1280DY	1010DY	8670DY
SELENIUM UG/L		2UY	2.9DYJ	2UYJ	2.1DYJ
SILVER UG/L		2UY	2UY	2UY	2UYJ
SODIUM UG/L		34500DY	28300DY	28000DY	25200DY
THALLIUM UG/L		1UY	1UY	1UY	1UYJ
VANADIUM UG/L		34.9DY	26.6DY	UYR	24UY
ZINC UG/L		6UY	6UY	6UYJ	DYR

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	BRMW11-02	BRMW12-02	BRMW12D-02	BRMW13-02	BRMW14-02
SUB-SAMPLE ID:	00000	00000	DUP	00000	00000
STATION ID:	BRMW11	BRMW12	BRMW12	BRMW13	BRMW14
SAMPLE DATE:	07/28/1993	08/02/1993	08/02/1993	07/27/1993	07/29/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	117DY	200DY	90UY	148DY	90UY
ANTIMONY UG/L	14UY	14UY	14UY	11UY	14UY
ARSENIC UG/L	2UY	2UY	2UY	UYR	2UY
BARIUM UG/L	103DY	105DY	101DY	69.7DY	201DY
BERYLLIUM UG/L	4UY	4UY	4UYJ	4UY	4UY
CADMIUM UG/L	5UYJ	5UY	5UY	6.1DY	7.6DYJ
CALCIUM UG/L	1010000DY	790000DY	770000DY	713000DY	746000DY
CHROMIUM UG/L	6UYJ	108DY	95.9DY	6UY	6UYJ
COBALT UG/L	7UY	7UY	7.2DY	7UY	7UY
COPPER UG/L	8UY	8UYJ	8UY	8UY	8UY
CYANIDE UG/L		5UY			
IRON UG/L	90DY	274DYJ	260DYJ	218DY	26.7DY
LEAD UG/L	UYR	2.2DYJ	1.6DYJ	DYR	UYR
MAGNESIUM UG/L	114000DY	136000DY	130000DY	221000DY	371000DY
MANGANESE UG/L	988DY	41.2DYJ	17.8DYJ	17.7DY	54.4DY
MERCURY UG/L	0.1UY	0.1UYJ	0.14DYJ	0.1UY	0.1UY
NICKEL UG/L	12.7DY	366DY	416DY	11UY	11UY
POTASSIUM UG/L	2750DY	142000DY	142000DY	5490DY	28600DY
SELENIUM UG/L	2UYJ	2UYJ	2UYJ	2UYJ	2UYJ
SILVER UG/L	1UYJ	2UY	2UY	2UY	1UYJ
SODIUM UG/L	201000DY	244000DY	230000DY	200000DY	466000DY
THALLIUM UG/L	5UYJ	1UY	1UY	1DY	1UYJ
VANADIUM UG/L	12UY	UYR	34.2DY	17.1DY	12UY
ZINC UG/L	6UY	7.7DYJ	11.4DY	23DY	6UY

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SAMPLE ID:		BRMW14-02	BRMW15-02	BRMW16-02	BRMW17-02	MISS48-02
SUB-SAMPLE ID:		FILT	00000	00000	00000	00000
STATION ID:		BRMW14	BRMW15	BRMW16	BRMW17	MISS48
SAMPLE DATE:		07/29/1993	07/19/1993	07/20/1993	07/23/1993	07/22/1993
SAMPLE TIME:						
SAMPLE MATRIX:		GW	GW	GW	GW	GW
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	UG/L	90UY	158DY	130DY	90UY	116DY
ANTIMONY	UG/L	14UY	12UY	12UY	11UY	11UY
ARSENIC	UG/L	2UY	1UY	1UY	UYR	UYR
BARIUM	UG/L	205DY	160DY	39DY	125DY	199DY
BERYLLIUM	UG/L	4UY	5UY	5UY	4UY	4UY
CADMIUM	UG/L	5UYJ	5UY	5UY	5UY	8.7DYJ
CALCIUM	UG/L	75600DY	57600DY	128000DY	75600DY	105000DY
CHROMIUM	UG/L	6UYJ	25DY	24DYJ	6UY	6UY
COBALT	UG/L	7UY	17UY	17UY	7UY	7UY
COPPER	UG/L	8UY	9UY	9UY	8UY	8UY
CYANIDE						
IRON	UG/L	17UY	522DY	356DY	57.3DY	186000DY
LEAD	UG/L	UYR	DYR	DYR	1UYJ	1UYJ
MAGNESIUM	UG/L	37900DY	47000DYJ	117000DYJ	8030DY	18400DY
MANGANESE	UG/L	52.2DY	34DY	9DY	27.8DY	3130DY
MERCURY	UG/L	0.1UY	0.1UYJ	0.1UYJ	0.1UY	0.1UY
NICKEL	UG/L	17.5DY	18UY	18UY	11UY	11UY
POTASSIUM	UG/L	2820DY	760DY	1970DY	930DY	35800DY
SELENIUM	UG/L	2UYJ	2UY	5.7DYJ	2UYJ	10UYJ
SILVER	UG/L	1UYJ	2UYJ	2UYJ	2UY	2UY
SODIUM	UG/L	47200DY	20700DY	38900DY	17800DY	83000DY
THALLIUM	UG/L	1UYJ	1UYJ	1UYJ	1UY	1UY
VANADIUM	UG/L	12UY	24UY	24UY	12UY	12UY
ZINC	UG/L	6UY	DYR	DYR	26DY	13DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	MISS4B-02	MW1-02	MW1-02	OBMW01-02	OBMW01-02
SUB-SAMPLE ID:	FILT	00000	FILT	00000	FILT
STATION ID:	MISS4B	MW1	MW1	OBMW1	OBMW1
SAMPLE DATE:	07/22/1993	07/23/1993	07/23/1993	07/27/1993	07/27/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	90UY	1030DY	90UY	876DY	161DY
ANTIMONY UG/L	11UY	11UY	11UY	11UY	11UY
ARSENIC UG/L	UYR	DYR	DYR	DYR	DYR
BARIUM UG/L	171DY	342DY	308DY	243DY	261DY
BERYLLIUM UG/L	4UY	4UY	4UY	4UY	4UY
CADMIUM UG/L	5UY	7.7DYJ	5UY	5UY	9.9DY
CALCIUM UG/L	97200DY	116000DY	109000DY	150000DY	164000DY
CHROMIUM UG/L	6UY	6UY	6UY	6UY	6UY
COBALT UG/L	7UY	7UY	7UY	9DY	7UY
COPPER UG/L	8UY	60.5DY	8UY	8UY	8UY
CYANIDE					
IRON UG/L	6190DY	6530DY	3680DY	9970DY	9390DY
LEAD UG/L	1UYJ	DYR	DYR	1UYJ	1UYJ
MAGNESIUM UG/L	15900DY	10700DY	9980DY	16000DY	17200DY
MANGANESE UG/L	3120DY	13100DY	12600DY	14100DY	15400DY
MERCURY UG/L	0.1UY	0.1UY	0.1UY	0.1UY	0.1UY
NICKEL UG/L	11UY	11UY	11UY	11UY	11UY
POTASSIUM UG/L	2980DY	4730DY	4480DY	3740DY	4100DY
SELENIUM UG/L	2UYJ	2UYJ	2UYJ	10UYJ	10UYJ
SILVER UG/L	2UY	2UY	2UY	2UY	2UY
SODIUM UG/L	807000DY	1260000DY	1190000DY	1190000DY	1290000DY
THALLIUM UG/L	1UY	1UY	1UY	1UY	1UY
VANADIUM UG/L	12.5DY	12UY	22.3DY	25.2DY	36.6DY
ZINC UG/L	8DY	239DY	8DY	25DY	25DY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	08MW02-02	08MW02-02	08MW03-02	08MW03-02	08MW04-02
SUB-SAMPLE ID:	00000	FILT	00000	FILT	00000
STATION ID:	08MW2	08MW2	08MW3	08MW3	08MW4
SAMPLE DATE:	07/20/1993	07/20/1993	08/02/1993	08/02/1993	07/29/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	664DY	687DY	900DY	90UY	356DYJ
ANTIMONY UG/L	12UY	12UY	14UY	14UY	14UY
ARSENIC UG/L	1UYJ	1UYJ	4.4DY	8DYJ	5.1DY
BARIUM UG/L	17DY	14DY	202DY	180DY	55.3DY
BERYLLIUM UG/L	5UY	5UY	4UY	4UYJ	4UY
CADMIUM UG/L	20DY	16DY	5UY	5UY	5.1DYJ
CALCIUM UG/L	6050000DY	6140000DY	82300DY	85400DY	3420000DY
CHROMIUM UG/L	19DYJ	14DYJ	UYR	6UY	6UYJ
COBALT UG/L	17UY	17UY	7UY	7UY	7UY
COPPER UG/L	34DY	9UY	8UYJ	8UY	8UY
CYANIDE					
IRON UG/L	108000DY	97600DY	2000DYJ	382DYJ	DYR
LEAD UG/L	DYR	1UY	3.4DYJ	1UY	UYR
MAGNESIUM UG/L	337000DYJ	329000DYJ	221000DY	234000DY	317000DY
MANGANESE UG/L	3410DY	3360DY	3840DY	4160DY	1640DY
MERCURY UG/L	0.1UYJ	0.1UY	0.1UYJ	0.1UYJ	0.1UY
NICKEL UG/L	19DY	18DY	13DY	13.6DYJ	11UY
POTASSIUM UG/L	28500DY	28100DY	19900DYJ	26500DYJ	27400DY
SELENIUM UG/L	14.5DYJ	10UYJ	2UYJ	2UYJ	2UYJ
SILVER UG/L	2UYJ	2UYJ	2UY	2UY	1UYJ
SODIUM UG/L	1040000DY	1000000DY	403000DY	439000DY	193000DY
THALLIUM UG/L	1UYJ	1UYJ	1UY	1UY	1UYJ
VANADIUM UG/L	38DY	36DY	UYR	16.7DY	12UYJ
ZINC UG/L	DYR	65DY	16.7DYJ	6UY	6UY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	08MW04-02	08MW05-02	08MW05-02	08MW06-02	08MW06-02
SUB-SAMPLE ID:	FILT	00000	FILT	00000	FILT
STATION ID:	08MW4	08MW5	08MW5	08MW6	08MW6
SAMPLE DATE:	07/29/1993	08/02/1993	08/02/1993	07/26/1993	07/26/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	413DYJ	1300DY	120DYJ	3000DY	90UY
ANTIMONY UG/L	14UY	14UY	14UYJ	11UY	11UY
ARSENIC UG/L	6.8DYJ	169DYJ	235DYJ	DYR	UYR
BARIUM UG/L	66.8DY	1250DY	1020DYJ	143DY	92DY
BERYLLIUM UG/L	4UY	4UY	4UYJ	4UY	4UY
CADMIUM UG/L	DYR	5UY	5UYJ	9.3DY	5UY
CALCIUM UG/L	341000DY	250000DY	200000DYJ	124000DY	116000DY
CHROMIUM UG/L	6UYJ	6UYJ	6UYJ	24.5DY	6UY
COBALT UG/L	7UY	7UY	7UYJ	7UY	7UY
COPPER UG/L	8UY	8UYJ	8UYJ	17.2DY	9.8DY
CYANIDE UG/L		5UY			
IRON UG/L	DYR	457000DYJ	32400DYJ	4620DY	17UY
LEAD UG/L	UYR	6.8DYJ	1UYJ	DYR	1UYJ
MAGNESIUM UG/L	31300DY	52800DY	43200DYJ	17000DY	15500DY
MANGANESE UG/L	1620DY	2820DY	2300DYJ	766DY	475DY
MERCURY UG/L	0.1UY	0.1UYJ	0.1UYJ	0.1UY	0.1UY
NICKEL UG/L	11UY	11UY	11UYJ	11UY	11UY
POTASSIUM UG/L	2920DY	632DY	494DYJ	483DY	428DY
SELENIUM UG/L	10UYJ	14.5DYJ	10UYJ	10UY	10UY
SILVER UG/L	1UYJ	2UY	2UYJ	2UY	2UY
SODIUM UG/L	18100DY	131000DY	109000DYJ	42400DY	40300DY
THALLIUM UG/L	1UYJ	1UY	2DYJ	1UY	1UY
VANADIUM UG/L	12UYJ	17.1DYJ	12UYJ	3DY	12UY
ZINC UG/L	6UY	33.5DY	6UYJ	28DY	19DY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	08MW07-02	08MW07-02	08MW08-02	08MW08-02	08MW10-02
SUB-SAMPLE ID:	00000	FILT	00000	FILT	00000
STATION ID:	08MW7	08MW7	08MW8	08MW8	08MW10
SAMPLE DATE:	07/30/1993	07/30/1993	08/03/1993	08/03/1993	07/30/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	115000Y	90UY	553DY	141DY	977DY
ANTIMONY UG/L	14UY	14UY	14UY	14UY	14UY
ARSENIC UG/L	3.4DYJ	2UY	2UY	2UY	61.4DYS
BARIUM UG/L	179DY	35.2DY	557DY	608DY	178DY
BERYLLIUM UG/L	6.9DY	5.2DYJ	4UYJ	4UYJ	4UY
CADMIUM UG/L	5UY	5UY	5UY	5UY	8DYJ
CALCIUM UG/L	248000DY	249000DY	1330000Y	141000DY	51900DY
CHROMIUM UG/L	16.8DYJ	6UYJ	UYR	6UY	6UYJ
COBALT UG/L	19.1DY	7UY	7UY	11.4DY	7UY
COPPER UG/L	13.3DY	8UYJ	8UYJ	8UY	8UY
CYANIDE UG/L	5UY		5UY		
IRON UG/L	17400DYJ	747DYJ	15100DYJ	14700DY	4070DY
LEAD UG/L	8.4DYJ	1UY	1UY	1UY	UYR
MAGNESIUM UG/L	130000Y	102000Y	158000Y	172000Y	312000Y
MANGANESE UG/L	3110DY	2980DY	1520DYJ	1760DYJ	1940DY
MERCURY UG/L	0.1UYJ	0.1UYJ	0.22DY	0.21DY	0.1UY
NICKEL UG/L	37.1DY	11UY	53.7DY	29DYJ	55.3DY
POTASSIUM UG/L	14000DY	10500DY	3130DY	3890DY	1110000Y
SELENIUM UG/L	2UYJ	14DYJ	2UYJ	2UY	2UYJ
SILVER UG/L	2UY	2UY	2UY	2UY	1UYJ
SODIUM UG/L	6820DY	6370DY	116000DYJ	132000DYJ	124000DY
THALLIUM UG/L	1UY	1UY	1UY	1UY	1UYJ
VANADIUM UG/L	72.6DY	12UYJ	UYR	20.3DY	12UY
ZINC UG/L	43.3DY	6UY	6UYJ	6DY	6.1DY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	OBMW10-02	OBMW11-02	OBMW11-02	OBMW12-02	OBMW12-02
SUB-SAMPLE ID:	FILT	00000	FILT	00000	FILT
STATION ID:	OBMW10	OBMW11	OBMW11	OBMW12	OBMW12
SAMPLE DATE:	07/30/1993	07/28/1993	07/28/1993	07/29/1993	07/29/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	90UY	297DY	164DY	977DY	309DY
ANTIMONY UG/L	14UY	14UY	14UY	14UY	14UY
ARSENIC UG/L	43.2DY	5.6DYJ	2.3DYJ	2UY	2UY
BARIUM UG/L	159DY	69.2DY	64.3DY	320DY	322DY
BERYLLIUM UG/L	4UY	4UY	4UY	5DYJ	4.3DYJ
CADMIUM UG/L	5UYJ	5UYJ	UYR	5UY	5UY
CALCIUM UG/L	526000DY	1330000DY	1340000DY	2180000DY	2190000DY
CHROMIUM UG/L	6UYJ	6UYJ	6UYJ	6UY	UYR
COBALT UG/L	7UY	7UY	7UY	11.9DY	7UY
COPPER UG/L	8UY	8UY	8UY	8UY	8UYJ
CYANIDE UG/L				5UY	
IRON UG/L	1460DY	1180DY	978DY	1960DYJ	17UY
LEAD UG/L	UYR	DYR	UYR	4DYJ	4.1DYJ
MAGNESIUM UG/L	322000DY	112000DY	112000DY	124000DY	122000DY
MANGANESE UG/L	1910DY	3590DY	3600DY	793DY	668DY
MERCURY UG/L	0.1UY	0.1UY	0.1UY	0.13DYJ	0.12DYJ
NICKEL UG/L	50.5DY	11UY	13DY	12.7DYJ	13.4DY
POTASSIUM UG/L	1150000DY	57100DY	56900DY	13600DY	12000DY
SELENIUM UG/L	10UYJ	2DYJ	2UYJ	2UYJ	10UYJ
SILVER UG/L	1UYJ	1UYJ	1UYJ	2UY	2UY
SODIUM UG/L	1280000DY	209000DY	212000DY	172000DY	172000DY
THALLIUM UG/L	1UYJ	5UYJ	5UYJ	1UY	1UYJ
VANADIUM UG/L	12UY	16.3DY	13.6DY	34.8DY	UYR
ZINC UG/L	6UY	6UY	12.1DY	9.2DY	6UYJ

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	08MW13-02	08MW13-02	08MW14-02	08MW15-02	08MW17-02
SUB-SAMPLE ID:	00000	FILT	00000	00000	00000
STATION ID:	08MW13	08MW13	08MW14	08MW15	08M17
SAMPLE DATE:	07/27/1993	07/27/1993	07/26/1993	07/19/1993	07/23/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	1390DY	162DY	575DY	238DY	885DY
ANTIMONY UG/L	11UY	11UY	11UY	12UY	11UY
ARSENIC UG/L	21.6DY	22.1DY	127DY	1UY	DYR
BARIUM UG/L	378DY	346DY	146DY	215DY	78.5DY
BERYLLIUM UG/L	4UY	4UY	4UY	5UY	4UY
CADMIUM UG/L	9.8DY	8.5DY	10DY	5UY	5UY
CALCIUM UG/L	193000DY	186000DY	593000DY	87900DY	29400DY
CHROMIUM UG/L	6UY	6UY	6UY	14DY	6UY
COBALT UG/L	7UY	7UY	7UY	17UY	7UY
COPPER UG/L	8UY	8UY	8UY	9UY	12.6DY
CYANIDE					
IRON UG/L	10600DY	8640DY	15900DY	3460DY	5040DY
LEAD UG/L	1UYJ	1UYJ	1UYJ	DYR	DYR
MAGNESIUM UG/L	22200DY	21400DY	16500DY	7070DYJ	4290DY
MANGANESE UG/L	358DY	348DY	372DY	75DY	189DY
MERCURY UG/L	0.1UY	0.1UY	0.1UY	0.1UYJ	0.1UY
NICKEL UG/L	11UY	11UY	11UY	22DY	DYR
POTASSIUM UG/L	4650DY	4600DY	2820DY	900DY	474DY
SELENIUM UG/L	10UYJ	10UYJ	2UYJ	2.1DYJ	2UYJ
SILVER UG/L	2UY	2UY	2UY	2UYJ	2UY
SODIUM UG/L	8280DY	7820DY	2090DY	2130DY	3660DY
THALLIUM UG/L	1UY	1UY	1UY	1UYJ	1UY
VANADIUM UG/L	34.5DY	18.7DY	45.9DY	24UY	18DY
ZINC UG/L	16DY	7DY	12DY	DYR	52DY

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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	OBMW17-02	WELL1-02	WELL1-02	WELL2-02	WELL2-02
SUB-SAMPLE ID:	FILT	00000	FILT	00000	FILT
STATION ID:	OBM17	WELL1	WELL1	WELL2	WELL2
SAMPLE DATE:	07/23/1993	07/21/1993	07/21/1993	07/21/1993	07/21/1993
SAMPLE TIME:					
SAMPLE MATRIX:	GW	GW	GW	GW	GW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	90UY	167DY	130DY	309DY	261DY
ANTIMONY UG/L	11UY	12UY	12UY	12UY	12UY
ARSENIC UG/L	UYR	1UY	2UYJ	29DYJ	33.3DYJ
BARIUM UG/L	63.6DY	87DY	86DY	152DY	131DY
BERYLLIUM UG/L	4UY	5UY	5UY	5UY	5UY
CADMIUM UG/L	5UY	7DY	5UY	7DY	7DY
CALCIUM UG/L	273000DY	563000DY	558000DY	2330000DY	2160000DY
CHROMIUM UG/L	6UY	6UY	6UY	6UY	6UY
COBALT UG/L	7UY	17UY	17UY	17UY	17UY
COPPER UG/L	8UY	9UY	9UY	9UY	9UY
CYANIDE					
IRON UG/L	292DY	2890DY	2860DY	29400DY	26900DY
LEAD UG/L	1UYJ	DYR	1UY	DYR	1UY
MAGNESIUM UG/L	3930DY	41400DYJ	41700DYJ	92500DYJ	86600DYJ
MANGANESE UG/L	1660DY	2370DY	2350DY	5410DY	5040DY
MERCURY UG/L	0.1UY	0.1UYJ	0.1UY	0.1UYJ	0.1UY
NICKEL UG/L	DYR	18UY	18UY	18UY	18UY
POTASSIUM UG/L	4330DY	68600DY	69400DY	44400DY	42100DY
SELENIUM UG/L	2UY	2UYJ	2UYJ	UYR	2UY
SILVER UG/L	2UY	2UYJ	2UYJ	2UYJ	2UYJ
SODIUM UG/L	344000DY	265000DY	264000DY	98900DY	92300DY
THALLIUM UG/L	1UY	1UYJ	1UYJ	1UYJ	1UYJ
VANADIUM UG/L	12UY	24UY	24UY	24UY	24UY
ZINC UG/L	47DY	DYR	16DY	DYR	7DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - GROUNDWATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		WELL5-02	WELL8-02
SUB-SAMPLE ID:		00000	00000
STATION ID:		WELL5	WELL8
SAMPLE DATE:		07/20/1993	07/22/1993
SAMPLE TIME:			
SAMPLE MATRIX:		GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
ALUMINUM	UG/L	336DY	3810DY
ANTIMONY	UG/L	12UY	11UY
ARSENIC	UG/L	1UY	DYR
BARIUM	UG/L	25DY	31.6DY
BERYLLIUM	UG/L	5UY	8.7DY
CADMIUM	UG/L	5UY	10.9DY
CALCIUM	UG/L	283000DY	112000DY
CHROMIUM	UG/L	6UY	8.7DY
COBALT	UG/L	17UY	7UY
COPPER	UG/L	9UY	8UY
CYANIDE			
IRON	UG/L	22UY	1320DY
LEAD	UG/L	1UYJ	DYR
MAGNESIUM	UG/L	24100DYJ	11200DY
MANGANESE	UG/L	128DY	361DY
MERCURY	UG/L	0.1UYJ	0.1UY
NICKEL	UG/L	18DY	11UY
POTASSIUM	UG/L	5500DY	1580DY
SELENIUM	UG/L	10UY	2UYJ
SILVER	UG/L	2UYJ	2UY
SODIUM	UG/L	319000DY	155000DY
THALLIUM	UG/L	1UYJ	1UY
VANADIUM	UG/L	24UY	16.6DY
ZINC	UG/L	DYR	16DY

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Pump Test Sample Analytical Data

Focused Investigation Groundwater TCL VOC Results from Pump Test

Well No:	NJDEPE	Stepan Property								Sears Property			
		BRTW1-1	BRTW1-1	BRTW1D-1	BRTW1D-1	BRTW1-2	BRTW1-2	BRTW1-3	BRTW1-3	BRTW2-1	BRTW2-1	BRTW2D-1	BRTW2D-1
Date:	Ground Water	10/25/93	10/25/93	10/25/93	10/25/93	10/26/93	10/26/93	10/28/93	10/28/93	11/15/93	11/15/93	11/15/93	11/15/93
Hour Collected From Start of Test:	Quality	7 hrs.	7 hrs.	7 hrs. Duplicate	7 hrs. Duplicate	30 hrs.	30 hrs.	72 hrs.	72 hrs.	0 hrs.	0 hrs.	0 hrs. Duplicate	0 hrs. Duplicate
Volatile Organics (ppb)	Criteria [a]	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL
Toluene	1000	-- U	25	-- U	25	-- U	25	-- U	20	3		1 J	
Ethylbenzene	700	4 J		5 J		-- U	25	-- U	20	-- U	1	-- U	1
Xylene (total)	40	-- U	25	-- U	25	-- U	25	-- U	20	3		2 J	
Benzene	0.2	320		360		320		280		170		93 J	
Methylene Chloride	2	21 J		19 J		42 J		-- U	40	0.6 J		-- UJ	1
Vinyl Chloride	0.08	-- U	25	-- U	25	-- U	25	17 J	20	-- U	1	300 J	
cis-1,2-Dichloroethene	10	-- U	25	-- U	25	-- U	25	11 J	20	240		81 J	
Trans-1,2-Dichloroethene	100	-- U	25	-- U	25	-- U	25	-- U	100	0.9 J		-- U	1
1,2-Dichloroethane	0.3	-- U	25	-- U	25	-- U	25	-- U	20	9		5 J	
4-Methyl-2-pentanone	400	-- U	120	-- U	120	-- U	120	-- U	20	3 J		-- UJ	5
1,1,2,2-Tetrachloroethane	2	-- U	25	-- U	25	-- U	25	-- U	20	1 J		-- UJ	1
Chlorobenzene	4	-- U	25	-- U	25	-- U	25	-- U	100	0.8 J		0.6 J	
1,4-Dichlorobenzene	75	-- U	25	-- U	25	-- U	25	-- U	20	0.5 J		0.5 J	
Acetone	700	-- U	120	-- U	120	-- U	120	-- U	20	52		-- UJ	27
Chloromethane	[b]	-- U	25	-- U	25	-- U	25	-- U	20	-- U	1	-- U	1
1,2-Dichloropropane	0.5	-- U	25	-- U	25	-- U	25	-- U	20	-- U	1	-- U	1
1,2-Dichlorobenzene	600	-- U	25	-- U	25	-- U	25	-- U	20	-- U	1	-- U	1
1,1,2-Trichloroethane	3	-- U	25	-- U	25	-- U	25	-- U	20	-- U	1	-- U	1

[a] New Jersey Groundwater Cleanup Criteria for Class II-A Groundwater, *New Jersey Register*, February 1, 1993.

[b] No criteria currently exists.

Notes:

Analytical data for the pump test samples was not validated.

Only detected values have been presented in this table.

J - Estimated value

-- - Analyte was not detected at the detection limit used for the analysis.

DL - Detection Limit.

Focused Investigation Groundwater TCL VOC Results from Pump Test

		Sears Property						Equipment and Trip Blanks									
Well No:	NJDEPE	BRTW2-2	BRTW2-2	BRTW2-3	BRTW2-3	BRTW2-4	BRTW2-4	TB-1A	TB-1A	TB-2	TB-2	TB-1	TB-1	TB-2	TB-2	FB-1	FB-1
Date:	Ground Water	11/15/93	11/15/93	11/16/93	11/16/93	11/18/93	11/18/93	10/25/93	10/25/93	10/28/93	10/28/93	11/15/93	11/15/93	11/18/93	11/18/93	11/15/93	11/15/93
Hour Collected From Start of Test:	Quality	7 hrs.	7 hrs.	28 hrs.	28 hrs.	72 hrs.	72 hrs.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Criteria [a]							Trip Blnk.	Trip Blnk.	Trip Blnk.	Trip Blnk.	Trip Blnk.	Trip Blnk.	Trip Blnk.	Trip Blnk.		
Volatile Organics (ppb)		Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL
Toluene	1000	2		2		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
Ethylbenzene	700	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
Xylene (total)	40	3		2		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
Benzene	0.2	150		130		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
Methylene Chloride	2	0.5 J		-- U		-- U	2	1 J		1 J		3		2		-- U	1
Vinyl Chloride	0.08	570		570	0.6	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
cis-1,2-Dichloroethene	10	170		170		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
Trans-1,2-Dichloroethene	100	0.7 J		0.5 J		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
1,2-Dichloroethane	0.3	8		7		1		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
4-Methyl-2-pentanone	400	-- UJ	5	-- UJ	5	-- UJ	5	-- U	5	-- U	5	-- UJ	5	-- UJ	5	-- UJ	5
1,1,2,2-Tetrachloroethane	2	-- UJ	1	-- UJ	1	-- UJ	1	-- U	1	-- U	1	-- UJ	1	-- UJ	1	-- UJ	1
Chlorobenzene	4	-- U	1	-- U	1	0.8 J		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
1,4-Dichlorobenzene	75	-- U	1	-- U	1	1		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
Acetone	700	21		-- UJ	33	-- UJ	21	-- U	1	6		3 J		12 J		400 J	
Chloromethane	[b]	0.6 J		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
1,2-Dichloropropane	0.5	-- U	1	-- U	1	1		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
1,2-Dichlorobenzene	600	-- U	1	-- U	1	2		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1
1,1,2-Trichloroethane	3	-- U	1	-- U	1	0.6 J		-- U	1	-- U	1	-- U	1	-- U	1	-- U	1

[a] New Jersey Groundwater Cleanup Criteria for Class II-

[b] No criteria currently exists.

Notes:

Analytical data for the pump test samples was not valida

Only detected values have been presented in this table.

J- Estimated value

-- - Analyte was not detected at the detection limit use

DL - Detection Limit.

OBMW18 and OBMW19 Analytical Data

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	OBMW18-02	OBMW18D-02	OBMW19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	OBMW18	OBMW18D	OBMW19
SAMPLE DATE:	10/20/1993	10/20/1993	10/20/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
ALUMINUM UG/L	423DY	407DY	
ANTIMONY UG/L	4UY	4UY	
ARSENIC UG/L	6.3DYB	5DYB	
BARIUM UG/L	248DY	279DY	
BERYLLIUM UG/L	5.7DYJ	9DYJ	
CADMIUM UG/L	5UY*	DYR	
CALCIUM UG/L	229000DY	230000DY	
CHROMIUM UG/L	6UY	6UY	
COBALT UG/L	8.1DYB	7UY	
COPPER UG/L	8UY	8UY	
IRON UG/L	12000DY	6240DY	
LEAD UG/L	8DYJW	8DYJW	
MAGNESIUM UG/L	38800DY	40000DY	
MANGANESE UG/L	16800DY	15100DY	
MERCURY UG/L	0.11DYB	0.1UY	
NICKEL UG/L	11UY	11UY	
POTASSIUM UG/L	35400DY	36400DY	
SELENIUM UG/L	2UYJW	2UYJW	
SILVER UG/L	1UYJ	1UYJW	
SODIUM UG/L	274000DY	274000DY	
THALLIUM UG/L	2UY	2UY	
VANADIUM UG/L	18.3DYB	12UY	
ZINC UG/L	6UY	11.1DYB	

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	OBMW18-02	OBMW18D-02	OBMW19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	OBMW18	OBMW18D	OBMW19
SAMPLE DATE:	10/20/1993	10/20/1993	10/20/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
1,2,4-TRICHLOROBENZENE UG/L	20UY		
1,2-DICHLOROBENZENE UG/L	20UY		
1,3-DICHLOROBENZENE UG/L	20UY		
1,4-DICHLOROBENZENE UG/L	20UY		
2,4,5-TRICHLOROPHENOL UG/L	100UY		
2,4,6-TRICHLOROPHENOL UG/L	20UY		
2,4-DICHLOROPHENOL UG/L	20UY		
2,4-DIMETHYLPHENOL UG/L	20UY		
2,4-DINITROPHENOL UG/L	100UY		
2,4-DINITROTOLUENE UG/L	20UY		
2,6-DINITROTOLUENE UG/L	20UYJ		
2-CHLORONAPHTHALENE UG/L	20UY		
2-CHLOROPHENOL UG/L	20UY		
2-METHYLNAPHTHALENE UG/L	20UY		
2-METHYLPHENOL UG/L	20UY		
2-NITROANILINE UG/L	100UYJ		
2-NITROPHENOL UG/L	20UY		
3,3'-DICHLOROBENZIDINE UG/L	40UY		
3-NITROANILINE UG/L	100UY		
4,6-DINITRO-2-METHYLPHENOL UG/L	100UY		
4-BROMOPHENYL PHENYL ETHER UG/L	20UY		
4-CHLORO-3-METHYLPHENOL UG/L	20UY		
4-CHLOROANILINE UG/L	20UY		
4-CHLOROPHENYL PHENYL ETHER UG/L	20UY		
4-METHYLPHENOL UG/L	20UY		
4-NITROANILINE UG/L	100UY		
4-NITROPHENOL UG/L	100UY		
ACENAPHTHENE UG/L	20UY		
ACENAPHTHYLENE UG/L	20UYJ		
ANTHRACENE UG/L	20UY		

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		OBMW18-02	OBMW18D-02	OBMW19-02
SUB-SAMPLE ID:		00000	00000	00000
STATION ID:		OBMW18	OBMW18D	OBMW19
SAMPLE DATE:		10/20/1993	10/20/1993	10/20/1993
SAMPLE TIME:				
SAMPLE MATRIX:		GW	GW	GW
UPPER DEPTH:				
LOWER DEPTH:				
BENZO(A)ANTHRACENE	UG/L	20UY		
BENZO(A)PYRENE	UG/L	20UY		
BENZO(B)FLUORANTHENE	UG/L	20UY		
BENZO(GHI)PERYLENE	UG/L	20UY		
BENZO(K)FLUORANTHENE	UG/L	20UY		
BENZOIC ACID	UG/L	100UY		
BENZYL ALCOHOL	UG/L	20UY		
BENZYL BUTYL PHTHALATE	UG/L	20UY		
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY		
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY		
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UYJ		
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	1100UY		
CHRYSENE	UG/L	20UY		
DI-N-BUTYL PHTHALATE	UG/L	20UY		
DI-N-OCTYL PHTHALATE	UG/L	10DYJ		
DIBENZO(A,H)ANTHRACENE	UG/L	20UY		
DIBENZOFURAN	UG/L	20UY		
DIETHYL PHTHALATE	UG/L	2DYJ		
DIMETHYL PHTHALATE	UG/L	20UY		
FLUORANTHENE	UG/L	20UY		
FLUORENE	UG/L	20UY		
HEXACHLOROBENZENE	UG/L	20UY		
HEXACHLOROBUTADIENE	UG/L	20UY		
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY		
HEXACHLOROETHANE	UG/L	20UY		
INDENO(1,2,3-CD)PYRENE	UG/L	20UY		
ISOPHORONE	UG/L	20UY		
N-NITROSODINPROPYLAMINE	UG/L	20UY		
N-NITROSODIPHENYLAMINE	UG/L	20UY		
NAPHTHALENE	UG/L	210DY		

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	08MW18-02	08MW18D-02	08MW19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	08MW18	08MW18D	08MW19
SAMPLE DATE:	10/20/1993	10/20/1993	10/20/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE UG/L	100UY	250UY	2UY
1,1,2,2-TETRACHLOROETHANE UG/L	100UY	250UYJ	2UY
1,1,2-TRICHLOROETHANE UG/L	100UY	250UY	2UY
1,1-DICHLOROETHANE UG/L	100UY	250UY	2UY
1,1-DICHLOROETHENE UG/L	100UY	250UY	2UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	100UY	250UY	2UY
1,2-DIBROMOETHANE UG/L	100UY	250UY	2UY
1,2-DICHLOROBENZENE UG/L	100UY	250UY	2UY
1,2-DICHLOROETHANE UG/L	100UY	250UY	2UY
1,2-DICHLOROPROPANE UG/L	100UY	250UY	2UY
1,3-DICHLOROBENZENE UG/L	100UY	280DY	2UY
1,4-DICHLOROBENZENE UG/L	100UY	250UY	2UY
2-BUTANONE UG/L	UYR	UYR	UYR
2-HEXANONE UG/L	500UY	1200UY	10UY
4-METHYL-2-PENTANONE UG/L	500UY	1200UY	10UY
ACETONE UG/L	UYR	UYR	UYR
BENZENE UG/L	100UY	250UY	21DY
BROMOCHLOROMETHANE UG/L	100UY	250UY	2UY
BROMODICHLOROMETHANE UG/L	100UY	250UY	2UY
BROMOFORM UG/L	100UY	250UY	2UY
BROMOMETHANE UG/L	100UYJ	250UYJ	2UYJ
CARBON DISULFIDE UG/L	100UY	250UY	2UY
CARBON TETRACHLORIDE UG/L	100UY	250UYJ	2UY
CHLOROBENZENE UG/L	100UY	250UY	2UY
CHLOROETHANE UG/L	100UYJ	250UYJ	2UYJ
CHLOROFORM UG/L	100UY	250UY	2UY
CHLOROMETHANE UG/L	100UY	250UYJ	2UY
CIS-1,2-DICHLOROETHYLENE UG/L	100UY	250UY	2UY
CIS-1,3-DICHLOROPROPENE UG/L	100UY	250UY	2UY
DIBROMOCHLOROMETHANE UG/L	100UY	250UY	2UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	OBMW18-02	OBMW18D-02	OBMW19-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	OBMW18	OBMW18D	OBMW19
SAMPLE DATE:	10/20/1993	10/20/1993	10/20/1993
SAMPLE TIME:			
SAMPLE MATRIX:	GW	GW	GW
UPPER DEPTH:			
LOWER DEPTH:			
ETHYLBENZENE UG/L	1400DY	UYR	UYR
METHYLENE CHLORIDE UG/L	200UYJ	500UYJ	4UYJ
STYRENE UG/L	100UY	250UY	2UY
TETRACHLOROETHENE UG/L	100UY	250UY	2UY
TOLUENE UG/L	670DY	380DY	1DYJ
TRANS-1,2-DICHLOROETHENE UG/L	100UY	250UY	2UY
TRANS-1,3-DICHLOROPROPENE UG/L	100UY	250UY	2UY
TRICHLOROETHENE UG/L	100UY	250UY	2UY
VINYL CHLORIDE UG/L	100UYJ	250UYJ	2UYJ
XYLENE (TOTAL) UG/L	6000DY	4600DY	5DY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Appendix Y
Surface Water and Sediment Analytical Data

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
D3C		1,2-DIBROMO-3-CHLOROPROPANE
12E		1,2-DIBROMOETHANE
12B	95-50-1	1,2-DICHLOROBENZENE
12A	107-06-2	1,2-DICHLOROETHANE
12P	78-87-5	1,2-DICHLOROPROPANE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BCM		BROMOCHLOROMETHANE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C12		CIS-1,2-DICHLOROETHYLENE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T1E	156-60-5	TRANS-1,2-DICHLOROETHENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
S01		GROSS ALPHA, TOTAL
S02		GROSS BETA, TOTAL
S03		RADIUM 226, TOTAL
S04		RADIUM 228, TOTAL
S05		THORIUM 230, TOTAL
S06		THORIUM 232, TOTAL
S07		URANIUM 234, TOTAL
S08		URANIUM 235, TOTAL
S09		URANIUM 238, TOTAL

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

Volatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SURFACE WATER
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
CFM	CHLOROFORM	UG/L	8	1	0.1250	3.000	3.000	3.000	0.000
C12	CIS-1,2-DICHLOROETHYLENE	UG/L	8	1	0.1250	3.000	3.000	3.000	0.000
DBC	DIBROMOCHLOROMETHANE	UG/L	8	1	0.1250	0.500	0.500	0.500	0.000
TOL	TOLUENE	UG/L	8	2	0.2500	0.800	2.000	1.400	0.600

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SW01-01	SW02-01	SW03-01	SW04 01	SW05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SW	SW	SW	SW	SW
UPPER DEPTH:					
LOWER DEPTH:					
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	1UY	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UYJ	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	5UYJ	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UYJ	5UY	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UY	5UYJ	5UY	5UY	5UY
ACETONE UG/L	UYR	1UYJ	UYR	UYR	UYR
BENZENE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	1UY	1UY	1UY	1UY
CHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	3DY	1UY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SW01-01	SW02-01	SW03-01	SW04-01	SW05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SW	SW	SW	SW	SW
UPPER DEPTH:					
LOWER DEPTH:					
ETHYLBENZENE UG/L	1UY	1UY	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY	2UY	2UY
STYRENE UG/L	1UY	1UY	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TOLUENE UG/L	2DY	0.8DYJ	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	SW06	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UY	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY
2-BUTANONE UG/L	UYR	UYR	UYR
2-HEXANONE UG/L	5UY	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UY	5UY	5UY
ACETONE UG/L	UYR	UYR	UYR
BENZENE UG/L	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	1UY	3DY
CHLOROMETHANE UG/L	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	0.5DYJ

NNN.+/ XXABCCCDD POSITIONALLY N=VALUE, (+/-XX-ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	SW06	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
ETHYLBENZENE UG/L	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	2UY	2UY	2UY
STYRENE UG/L	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY
TOLUENE UG/L	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SURFACE WATER
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
BBP	BENZYL BUTYL PHTHALATE	UG/L	8	1	0.1250	120.000	120.000	120.000	0.000
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	8	2	0.2500	2.000	120.000	61.000	59.000
DBP	DI-N-BUTYL PHTHALATE	UG/L	8	1	0.1250	1.000	1.000	1.000	0.000
DOP	DI-N-OCTYL PHTHALATE	UG/L	8	1	0.1250	18.000	18.000	18.000	0.000
FLA	FLUORANTHENE	UG/L	8	1	0.1250	2.000	2.000	2.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		SW01-01	SW02-01	SW03-01	SW04-01	SW05-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:		07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SW	SW	SW	SW	SW
UPPER DEPTH:						
LOWER DEPTH:						
1,2,4-TRICHLOROBENZENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
1,2-DICHLOROBENZENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
1,3-DICHLOROBENZENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
1,4-DICHLOROBENZENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
2,4,5-TRICHLOROPHENOL	UG/L	100UYJ	100UY	50UY	100UY	50UY
2,4,6-TRICHLOROPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
2,4-DICHLOROPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
2,4-DIMETHYLPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
2,4-DINITROPHENOL	UG/L	100UYJ	100UY	50UY	100UY	50UY
2,4-DINITROTOLUENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
2,6-DINITROTOLUENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
2-CHLORONAPHTHALENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
2-CHLOROPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
2-METHYLNAPHTHALENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
2-METHYLPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
2-NITROANILINE	UG/L	100UYJ	100UY	50UY	100UY	50UY
2-NITROPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
3,3'-DICHLOROBENZIDINE	UG/L	80UYJ	40UY	20UY	40UY	20UY
3-NITROANILINE	UG/L	100UYJ	100UY	50UY	100UY	50UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	100UYJ	100UY	50UY	100UY	50UY
4-BROMOPHENYL PHENYL ETHER	UG/L	20UYJ	20UY	10UY	20UY	10UY
4-CHLORO-3-METHYLPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
4-CHLOROANILINE	UG/L	20UYJ	20UY	10UY	20UY	10UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	20UYJ	20UY	10UY	20UY	10UY
4-METHYLPHENOL	UG/L	20UYJ	20UY	10UY	20UY	10UY
4-NITROANILINE	UG/L	100UYJ	100UY	50UY	100UY	50UY
4-NITROPHENOL	UG/L	100UYJ	100UY	50UY	100UY	50UY
ACENAPHTHENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
ACENAPHTHYLENE	UG/L	20UYJ	20UY	10UY	20UY	10UY
ANTHRACENE	UG/L	20UYJ	20UY	10UY	20UY	10UY

NNN+/-XXABCCDD POSITIONALLY N=VALUE, (+/- XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SW01-01	SW02-01	SW03-01	SW04-01	SW05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SW	SW	SW	SW	SW
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/L	20UYJ	20UY	10UY	20UY	10UY
BENZO(A)PYRENE UG/L	20UYJ	20UY	10UY	20UY	10UY
BENZO(B)FLUORANTHENE UG/L	20UYJ	20UY	10UY	20UY	10UY
BENZO(GHI)PERYLENE UG/L	20UYJ	20UY	10UY	20UY	10UY
BENZO(K)FLUORANTHENE UG/L	20UYJ	20UY	10UY	20UY	10UY
BENZOIC ACID UG/L	100UYJ	100UY	50UY	100UY	50UY
BENZYL ALCOHOL UG/L	20UYJ	20UY	10UY	20UY	10UY
BENZYL BUTYL PHTHALATE UG/L	20UYJ	20UY	10UY	20UY	120DY
BIS(2-CHLOROETHOXY) METHANE UG/L	20UYJ	20UY	10UY	20UY	10UY
BIS(2-CHLOROETHYL)ETHER UG/L	20UYJ	20UY	10UY	20UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER UG/L	20UYJ	20UY	10UY	20UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	20UYJ	35UY	10UY	20UY	120DY
CAFFEINE UG/L	20UYJ	20UY	10UY	20UY	10UY
CHRYSENE UG/L	20UYJ	20UY	10UY	20UY	10UY
DI-N-BUTYL PHTHALATE UG/L	1DYJ	20UY	10UY	20UY	10UY
DI-N-OCTYL PHTHALATE UG/L	20UYJ	20UY	10UY	20UY	18DY
DIBENZO(A,H)ANTHRACENE UG/L	20UYJ	20UY	10UY	20UY	10UY
DIBENZOFURAN UG/L	20UYJ	20UY	10UY	20UY	10UY
DIETHYL PHTHALATE UG/L	20UYJ	20UY	10UY	20UY	10UY
DIMETHYL PHTHALATE UG/L	20UYJ	20UY	10UY	20UY	10UY
FLUORANTHENE UG/L	2DYJ	20UY	10UY	20UY	10UY
FLUORENE UG/L	20UYJ	20UY	10UY	20UY	10UY
HEXACHLOROBENZENE UG/L	20UYJ	20UY	10UY	20UY	10UY
HEXACHLOROBUTADIENE UG/L	20UYJ	20UY	10UY	20UY	10UY
HEXACHLOROCYCLOPENTADIENE UG/L	20UYJ	20UY	10UY	20UY	10UY
HEXACHLOROETHANE UG/L	20UYJ	20UY	10UY	20UY	10UY
INDENO(1,2,3-CD)PYRENE UG/L	20UYJ	20UY	10UY	20UY	10UY
ISOPHORONE UG/L	20UYJ	20UY	10UY	20UY	10UY
N-NITROSODINPROPYLAMINE UG/L	20UYJ	20UY	10UY	20UY	10UY
N-NITROSODIPHENYLAMINE UG/L	20UYJ	20UY	10UY	20UY	10UY

NNN*/-XXABCCCDD POSITIONALLY N=VALUE, (*/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SW01-01	SW02-01	SW03-01	SW04-01	SW05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SW	SW	SW	SW	SW
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/L	20UYJ	20UY	10UY	20UY	10UY
NITROBENZENE UG/L	20UYJ	20UY	10UY	20UY	10UY
PENTACHLOROPHENOL UG/L	100UYJ	100UY	50UY	100UY	50UY
PHENANTHRENE UG/L	20UYJ	20UY	10UY	20UY	10UY
PHENOL UG/L	20UYJ	20UY	10UY	20UY	10UY
PYRENE UG/L	20UYJ	20UY	10UY	20UY	10UY
a-PINENE UG/L	20UYJ	20UY	10UY	20UY	10UY
d-LIMONENE UG/L	20UYJ	20UY	10UY	20UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	SW06	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
1,2,4-TRICHLOROBENZENE UG/L	10UY	10UY	10UY
1,2-DICHLOROBENZENE UG/L	10UY	10UY	10UY
1,3-DICHLOROBENZENE UG/L	10UY	10UY	10UY
1,4-DICHLOROBENZENE UG/L	10UY	10UY	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY	50UY	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY	10UY	10UY
2,4-DICHLOROPHENOL UG/L	10UY	10UY	10UY
2,4-DIMETHYLPHENOL UG/L	10UY	10UY	10UY
2,4-DINITROPHENOL UG/L	50UY	50UY	50UY
2,4-DINITROTOLUENE UG/L	10UY	10UY	10UY
2,6-DINITROTOLUENE UG/L	10UY	10UY	10UY
2-CHLORONAPHTHALENE UG/L	10UY	10UY	10UY
2-CHLOROPHENOL UG/L	10UY	10UY	10UY
2-METHYLNAPHTHALENE UG/L	10UY	10UY	10UY
2-METHYLPHENOL UG/L	10UY	10UY	10UY
2-NITROANILINE UG/L	50UY	50UY	50UY
2-NITROPHENOL UG/L	10UY	10UY	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY	20UY	20UY
3-NITROANILINE UG/L	50UY	50UY	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY	50UY	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY	10UY	10UY
4-CHLOROANILINE UG/L	10UY	10UY	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY	10UY	10UY
4-METHYLPHENOL UG/L	10UY	10UY	10UY
4-NITROANILINE UG/L	50UY	50UY	50UY
4-NITROPHENOL UG/L	50UY	50UY	50UY
ACENAPHTHENE UG/L	10UY	10UY	10UY
ACENAPHTHYLENE UG/L	10UY	10UY	10UY
ANTHRACENE UG/L	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:		00000	DUP	00000
STATION ID:		SW06	SW06D	SW07
SAMPLE DATE:		07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:				
SAMPLE MATRIX:		SW	SW	SW
UPPER DEPTH:				
LOWER DEPTH:				
BENZO(A)ANTHRACENE	UG/L	10UY	10UY	10UY
BENZO(A)PYRENE	UG/L	10UY	10UY	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY	10UY	10UY
BENZO(GHI)PERYLENE	UG/L	10UY	10UY	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY	10UY	10UY
BENZOIC ACID	UG/L	50UY	50UY	50UY
BENZYL ALCOHOL	UG/L	10UY	10UY	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY	10UY	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY	10UY	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY	10UY	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY	10UY	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	10UY	10UY	2DYJ
CAFFEINE	UG/L	10UY	10UY	10UY
CHRYSENE	UG/L	10UY	10UY	10UY
DI-N-BUTYL PHTHALATE	UG/L	10UY	10UY	10UY
DI-N-OCTYL PHTHALATE	UG/L	10UY	10UY	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY	10UY	10UY
DIBENZOFURAN	UG/L	10UY	10UY	10UY
DIETHYL PHTHALATE	UG/L	10UY	10UY	10UY
DIMETHYL PHTHALATE	UG/L	10UY	10UY	10UY
FLUORANTHENE	UG/L	10UY	10UY	10UY
FLUORENE	UG/L	10UY	10UY	10UY
HEXACHLOROBENZENE	UG/L	10UY	10UY	10UY
HEXACHLOROBUTADIENE	UG/L	10UY	10UY	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY	10UY	10UY
HEXACHLOROETHANE	UG/L	10UY	10UY	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY	10UY	10UY
ISOPHORONE	UG/L	10UY	10UY	10UY
N-NITROSODINPROPYLAMINE	UG/L	10UY	10UY	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY	10UY	10UY

NNN+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	SW06	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
NAPHTHALENE UG/L	10UY	10UY	10UY
NITROBENZENE UG/L	10UY	10UY	10UY
PENTACHLOROPHENOL UG/L	50UY	50UY	50UY
PHENANTHRENE UG/L	10UY	10UY	10UY
PHENOL UG/L	10UY	10UY	10UY
PYRENE UG/L	10UY	10UY	10UY
a-PINENE UG/L	10UY	10UY	10UY
d-LIMONENE UG/L	10UY	10UY	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Pesticides and PCBs

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SURFACE WATER
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: PEST

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
BHG	BHC-GAMMA(LINDANE)	UG/L	8	1	0.1250	0.070	0.070	0.070	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	SW01-01	SW02-01	SW03-01	SW04-01	SW05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SW	SW	SW	SW	SW
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	10UY	1UY	1UY	1UY	1UY
AROCLOR-1260 UG/L	10UY	1UY	1UY	1UY	1UY
BHC-ALPHA UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.5UY	0.05UY	0.05UY	0.07DY	0.05UY
DIELDRIN UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	1UY	0.1UY	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.5UY	0.05UY	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	5UY	0.5UY	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	10UY	1UY	1UY	1UY	1UY

N*.N+/ XXABCCCDD POSITIONALLY N=VALUE, (+/ XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	SW06	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
4,4'-DDD UG/L	0.1UY	0.1UY	0.1UY
4,4'-DDE UG/L	0.1UY	0.1UY	0.1UY
4,4'-DDT UG/L	0.1UY	0.1UY	0.1UY
ALDRIN UG/L	0.05UY	0.05UY	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1016 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1221 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1232 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1242 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1248 UG/L	0.5UY	0.5UY	0.5UY
AROCLOR-1254 UG/L	1UY	1UY	1UY
AROCLOR-1260 UG/L	1UY	1UY	1UY
BHC-ALPHA UG/L	0.05UY	0.05UY	0.05UY
BHC-BETA UG/L	0.05UY	0.05UY	0.05UY
BHC-DELTA UG/L	0.05UY	0.05UY	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY	0.05UY	0.05UY
DIELDRIN UG/L	0.1UY	0.1UY	0.1UY
ENDOSULFAN I UG/L	0.05UY	0.05UY	0.05UY
ENDOSULFAN II UG/L	0.1UY	0.1UY	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY	0.1UY	0.1UY
ENDRIN UG/L	0.1UY	0.1UY	0.1UY
ENDRIN KETONE UG/L	0.1UY	0.1UY	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY	0.5UY	0.5UY
HEPTACHLOR UG/L	0.05UY	0.05UY	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY	0.05UY	0.05UY
METHOXYCHLOR UG/L	0.5UY	0.5UY	0.5UY
TOXAPHENE UG/L	1UY	1UY	1UY

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Metals and Cyanide

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SURFACE WATER
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: METAL

EDMS-009
12/16/92
PAGE: 1

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	UG/L	8	8	1.0000	263.000	8,370.000	1,526.875	2,607.979
SB	ANTIMONY	UG/L	8	1	0.1250	7.300	7.300	7.300	0.000
AS	ARSENIC	UG/L	8	5	0.6250	3.100	12.800	6.300	3.397
BA	BARIUM	UG/L	8	8	1.0000	17.000	238.000	73.750	65.238
CA	CALCIUM	UG/L	8	8	1.0000	6,480.000	104,000.000	60,547.500	34,679.717
CU	COPPER	UG/L	8	4	0.5000	10.000	54.000	24.000	17.720
CN	CYANIDE	UG/L	8	5	0.6250	7.200	17.800	13.160	4.228
FE	IRON	UG/L	8	8	1.0000	723.000	10,100.000	2,720.375	2,858.955
PB	LEAD	UG/L	8	8	1.0000	4.200	184.000	37.488	56.795
LI	LITHIUM	UG/L	8	5	0.6250	14.000	38.000	26.200	9.908
MG	MAGNESIUM	UG/L	8	8	1.0000	904.000	8,810.000	6,183.000	2,885.535
MN	MANGANESE	UG/L	8	8	1.0000	77.000	915.000	340.500	266.548
HG	MERCURY	UG/L	8	1	0.1250	0.230	0.230	0.230	0.000
K	POTASSIUM	UG/L	8	8	1.0000	1,810.000	6,250.000	4,052.500	1,476.362
NA	SODIUM	UG/L	8	8	1.0000	3,210.000	31,700.000	23,978.750	11,856.058
V	VANADIUM	UG/L	1	1	1.0000	16.000	16.000	16.000	0.000
ZN	ZINC	UG/L	8	8	1.0000	6.000	470.000	95.500	145.147

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	SW01-01	SW02-01	SW03-01	SW04-01	SW05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SW01	SW02	SW03	SW04	SW05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SW	SW	SW	SW	SW
UPPER DEPTH:					
LOWER DEPTH:					
ALUMINUM UG/L	8370DY	296DY	263DY	1130DY	473DY
ANTIMONY UG/L	7.3DYJ	7UY	7UY	7UY	7UY
ARSENIC UG/L	12.8DYJ	3.1DYJ	2UYJ	6.2DYJ	2UY
BARIUM UG/L	238DY	17DYJ	63DYJ	84DYJ	33DYJ
BERYLLIUM UG/L	2UY	2UY	2UY	2UY	2UY
CADMIUM UG/L	DYR	UYR	UYR	UYR	DYR
CALCIUM UG/L	1040000DY	64800DYJ	965000DY	855000DY	171000DY
CHROMIUM UG/L	DYR	6UY	UYR	DYR	UYR
COBALT UG/L	UYR	12UY	UYR	UYR	UYR
COPPER UG/L	54DY	22UY	7UY	120YJ	10DYJ
CYANIDE UG/L	5UYJ	5UY	16DYJ	15.8DYJ	5UYJ
IRON UG/L	10100DY	723DY	1330DY	2260DY	2820DY
LEAD UG/L	184DY	9.6DY	10.4DY	32.6DY	11.9DY
LITHIUM UG/L	14DYJ	9UY	17DYJ	25DY	9UYJ
MAGNESIUM UG/L	8280DY	904DYJ	8190DY	8810DY	16900DYJ
MANGANESE UG/L	915DY	85DYJ	313DY	559DY	106DY
MERCURY UG/L	0.23DY	0.1UY	0.1UY	0.1UY	0.1UY
NICKEL UG/L	DYR	9UY	UYR	UYR	UYR
POTASSIUM UG/L	5480DY	1810DYJ	3310DYJ	6250DY	3120DYJ
SELENIUM UG/L	UYR	1UYJ	UYR	UYR	UYR
SILVER UG/L	1UYJ	1UY	1UYJ	1UYJ	1UYJ
SODIUM UG/L	29800DY	3720DYJ	30900DY	30800DY	32100DYJ
THALLIUM UG/L	2UY	2UY	2UY	2UY	2UY
VANADIUM UG/L	DYR	16DYJ	UYR	DYR	UYR
ZINC UG/L	470DY	31DYJ	160YJ	51DY	75DY

NNN*/ XXABCCDD POSITIONALLY N:VALUE, (*/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	SW06-01	SW06D-01	SW07-01
SUB-SAMPLE ID:	00000	DUP	00000
STATION ID:	SW06	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
ALUMINUM UG/L	320DY	283DY	1080DY
ANTIMONY UG/L	7UY	7UY	7UY
ARSENIC UG/L	4.9DYJ	4.5DYJ	2UYJ
BARIUM UG/L	43DYJ	42DYJ	70DYJ
BERYLLIUM UG/L	2UY	2UY	2UY
CADMIUM UG/L	DYR	UYR	DYR
CALCIUM UG/L	72400DY	69800DY	32600DY
CHROMIUM UG/L	UYR	UYR	DYR
COBALT UG/L	UYR	UYR	UYR
COPPER UG/L	7UY	7UY	20DYJ
CYANIDE UG/L	9DYJ	7.2DYJ	17.8DYJ
IRON UG/L	1270DY	1240DY	2020DY
LEAD UG/L	5.5DY	4.2DY	41.7DY
LITHIUM UG/L	38DY	37DY	9UYJ
MAGNESIUM UG/L	7430DY	7260DY	6900DY
MANGANESE UG/L	340DY	329DY	77DY
MERCURY UG/L	0.1UY	0.1UY	0.1UY
NICKEL UG/L	UYR	UYR	UYR
POTASSIUM UG/L	5040DY	4910DYJ	2500DYJ
SELENIUM UG/L	UYR	UYR	UYR
SILVER UG/L	1UYJ	1UYJ	1UYJ
SODIUM UG/L	31700DY	30400DY	31300DY
THALLIUM UG/L	2UY	2UY	2UY
VANADIUM UG/L	UYR	UYR	UYR
ZINC UG/L	10DYJ	6DYJ	105DY

NNN+/ XXABCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Radionuclides

Glossary of Data Qualifier Codes and Definitions Used for Radiological Data

Definitions of data qualifiers used for organic and inorganic analytical data are defined at the bottom of each data sheet. The definitions for the data qualifiers for the radiological data, however, are different. The following definitions should, therefore, be used for radiological data qualifiers.:

U - The parameter was analyzed for, but was not detected above the level of the associated value. The associated value is either the minimum detectable activity (MDA) or the sample-specific lower limit of detection (LLD), or the observed value.

J - The associated value is estimated because one or more quality acceptance criteria were not met.

UJ - The parameter was analyzed for but was not detected. The nondetection could be due to one or more quality control problems. The associated value is an estimated MDA or LLD, or observed value.

H - Holding times exceeded.

D - Duplicate precision criteria not met.

S - Matrix spike recovery criteria not met.

C - Calibration criteria not met.

B - Blank contamination present.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS
SAMPLE ANALYSIS: RAD

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
S01	GROSS ALPHA, TOTAL	PCI/L	8	2	0.2500	7.200	9.300	8.250	1.050
S02	GROSS BETA, TOTAL	PCI/L	8	7	0.8750	4.500	22.300	10.814	6.032
S03	RADIUM 226, TOTAL	PCI/L	8	7	0.8750	0.800	2.600	1.571	0.616
S04	RADIUM 228, TOTAL	PCI/L	8	0	0.0000	0.000	0.000	0.000	0.000
S05	THORIUM 230, TOTAL	PCI/L	8	5	0.6250	0.600	2.100	1.040	0.539
S06	THORIUM 232, TOTAL	PCI/L	8	0	0.0000	0.000	0.000	0.000	0.000
S07	URANIUM 234, TOTAL	PCI/L	8	0	0.0000	0.000	0.000	0.000	0.000
S08	URANIUM 235, TOTAL	PCI/L	8	1	0.1250	1.800	1.800	1.800	0.000
S09	URANIUM 238, TOTAL	PCI/L	8	0	0.0000	0.000	0.000	0.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS

SAMPLE ID:	SW01-01	SW02-01	SW03-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SW01	SW02	SW03
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	6UY	0.3UY	6.6UY
GROSS BETA, TOTAL PCI/L	13.1 +/- 6.3DY	4.5 +/- 1.9DY	5.6 +/- 3.6DY
RADIUM 226, TOTAL PCI/L	2.6 +/- 1.9DY	1.2 +/- 1DY	1 +/- 0.5DY
RADIUM 228, TOTAL PCI/L	5.2UYJB	0.9UYJB	0.9UY
THORIUM 230, TOTAL PCI/L	2.1 +/- 1.6DY	0.3UY	0.6 +/- 0.4DY
THORIUM 232, TOTAL PCI/L	1UY	0.4UY	0.9UY
URANIUM 234, TOTAL PCI/L	7.7UYJS	1.3UY	5.1UYJS
URANIUM 235, TOTAL PCI/L	1.4UYJSD	0.1UY	0.9UYJSD
URANIUM 238, TOTAL PCI/L	7.4UYJS	1.3UY	4.9UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN - tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SW04-01	SW05-01	SW06-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SW04	SW05	SW06
SAMPLE DATE:	07/21/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SW	SW	SW
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/L	0.6UY	2.9UY	9.3 +/- 6DY
GROSS BETA, TOTAL PCI/L	15.6 +/- 5.6DY	2.9UY	6.1 +/- 3.8DY
RADIUM 226, TOTAL PCI/L	1.6 +/- 0.7DY	0.3UY	2.3 +/- 0.8DY
RADIUM 228, TOTAL PCI/L	3.3UY	1.5UY	0.2UY
THORIUM 230, TOTAL PCI/L	0.9 +/- 0.5DY	0.3UY	0.2UY
THORIUM 232, TOTAL PCI/L	1UY	1UY	0.7UY
URANIUM 234, TOTAL PCI/L	1.6UY	5.4UYJS	3.6UY
URANIUM 235, TOTAL PCI/L	0.2UYJD	1.8 +/- 1.3DYJSD	0.6UYJSD
URANIUM 238, TOTAL PCI/L	0.3UY	5.2UYJS	3.4UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER
ALL OBSERVATIONS

SAMPLE ID:	SW06D-01	SW07-01
SUB-SAMPLE ID:	DUP	00000
STATION ID:	SW06D	SW07
SAMPLE DATE:	07/20/1992	07/20/1992
SAMPLE TIME:		
SAMPLE MATRIX:	SW	SW
UPPER DEPTH:		
LOWER DEPTH:		
GROSS ALPHA, TOTAL PCI/L	7.2 +/- 5DY	3.1UY
GROSS BETA, TOTAL PCI/L	8.5 +/- 3.6DY	22.3 +/- 4.8DY
RADIUM 226, TOTAL PCI/L	1.5 +/- 0.6DY	0.8 +/- 0.5DY
RADIUM 228, TOTAL PCI/L	3.3UY	0.4UY
THORIUM 230, TOTAL PCI/L	0.8 +/- 0.4DY	0.8 +/- 0.4DY
THORIUM 232, TOTAL PCI/L	0.8UY	0.7UY
URANIUM 234, TOTAL PCI/L	1.9UY	4.7UY
URANIUM 235, TOTAL PCI/L	0.3UYJD	0.6UYJSD
URANIUM 238, TOTAL PCI/L	1.9UY	4.5UYJS

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Field Equipment Rinse Blank and Trip Blank - Surface Water

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
D3C		1,2-DIBROMO-3-CHLOROPROPANE
12E		1,2-DIBROMOETHANE
12B	95-50-1	1,2-DICHLOROBENZENE
12A	107-06-2	1,2-DICHLOROETHANE
12P	78-87-5	1,2-DICHLOROPROPANE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BCM		BROMOCHLOROMETHANE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C12		CIS-1,2-DICHLOROETHYLENE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T1E	156-60-5	TRANS-1,2-DICHLOROETHENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL SUMMARY STATISTICS
SETPAN MAYWOOD - SURFACE WATER (BLANKS)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
MCL	METHYLENE CHLORIDE	UG/L	3	2	0.6667	1.000	1.000	1.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
SETPAN MAYWOOD - SURFACE WATER (BLANKS)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
CA	CALCIUM	UG/L	1	1	1.0000	64.000	64.000	64.000	0.000
MG	MAGNESIUM	UG/L	1	1	1.0000	38.000	38.000	38.000	0.000
NI	NICKEL	UG/L	1	1	1.0000	13.000	13.000	13.000	0.000
NA	SODIUM	UG/L	1	1	1.0000	385.000	385.000	385.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	SW-FB-03	SW-TB-01	SWGW-TB-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SW-FB-03	SW-TB-01	SWGW-TB-02
SAMPLE DATE:	07/24/1992	07/20/1992	07/21/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE UG/L	1UY	1UY	1UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	1UY	1UY
1,1,2-TRICHLOROETHANE UG/L	1UY	1UY	1UY
1,1-DICHLOROETHANE UG/L	1UY	1UY	1UY
1,1-DICHLOROETHENE UG/L	1UY	1UY	1UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	1UY	UYR	UYR
1,2-DIBROMOETHANE UG/L	1UY	1UY	1UY
1,2-DICHLOROBENZENE UG/L	1UY	1UY	1UY
1,2-DICHLOROETHANE UG/L	1UY	1UY	1UY
1,2-DICHLOROPROPANE UG/L	1UYJ	1UY	1UY
1,3-DICHLOROBENZENE UG/L	1UY	1UY	1UY
1,4-DICHLOROBENZENE UG/L	1UY	1UY	1UY
2-BUTANONE UG/L	5UYJ	UYR	UYR
2-HEXANONE UG/L	5UYJ	5UY	5UY
4-METHYL-2-PENTANONE UG/L	5UYJ	5UY	5UY
ACETONE UG/L	5UYJ	UYR	UYR
BENZENE UG/L	1UY	1UY	1UY
BROMOCHLOROMETHANE UG/L	1UY	1UY	1UY
BROMODICHLOROMETHANE UG/L	1UY	1UY	1UY
BROMOFORM UG/L	1UY	1UY	1UY
BROMOMETHANE UG/L	1UY	1UY	1UY
CARBON DISULFIDE UG/L	1UY	1UY	1UY
CARBON TETRACHLORIDE UG/L	1UY	1UY	1UY
CHLOROBENZENE UG/L	1UY	1UY	1UY
CHLOROETHANE UG/L	1UY	1UY	1UY
CHLOROFORM UG/L	1UY	1UY	1UY
CHLOROMETHANE UG/L	1UY	1UY	1UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	1UY	1UY
CIS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY
DIBROMOCHLOROMETHANE UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SW-FB-03	SW-TB-01	SWGW-TB-02
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SW-FB-03	SW-TB-01	SWGW-TB-02
SAMPLE DATE:	07/24/1992	07/20/1992	07/21/1992
SAMPLE TIME:			
SAMPLE MATRIX:	AQ	AQ	AQ
UPPER DEPTH:			
LOWER DEPTH:			
ETHYLBENZENE UG/L	1UY	1UY	1UY
METHYLENE CHLORIDE UG/L	1DYJ	1DYJ	2UY
STYRENE UG/L	1UY	1UY	1UY
TETRACHLOROETHENE UG/L	1UY	1UY	1UY
TOLUENE UG/L	1UY	1UY	1UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	1UY	1UY
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	1UY	1UY
TRICHLOROETHENE UG/L	1UY	1UY	1UY
VINYL CHLORIDE UG/L	1UY	1UY	1UY
XYLENE (TOTAL) UG/L	1UY	1UY	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SW-FB-03
SUB-SAMPLE ID:	00000
STATION ID:	SW-FB-03
SAMPLE DATE:	07/24/1992
SAMPLE TIME:	
SAMPLE MATRIX:	AQ
UPPER DEPTH:	
LOWER DEPTH:	

1,2,4-TRICHLOROBENZENE	UG/L	20UY
1,2-DICHLOROBENZENE	UG/L	20UY
1,3-DICHLOROBENZENE	UG/L	20UY
1,4-DICHLOROBENZENE	UG/L	20UY
2,4,5-TRICHLOROPHENOL	UG/L	100UY
2,4,6-TRICHLOROPHENOL	UG/L	20UY
2,4-DICHLOROPHENOL	UG/L	20UY
2,4-DIMETHYLPHENOL	UG/L	20UY
2,4-DINITROPHENOL	UG/L	100UY
2,4-DINITROTOLUENE	UG/L	20UY
2,6-DINITROTOLUENE	UG/L	20UY
2-CHLORONAPHTHALENE	UG/L	20UY
2-CHLOROPHENOL	UG/L	20UY
2-METHYLNAPHTHALENE	UG/L	20UY
2-METHYLPHENOL	UG/L	20UY
2-NITROANILINE	UG/L	100UY
2-NITROPHENOL	UG/L	20UY
3,3'-DICHLOROBENZIDINE	UG/L	40UY
3-NITROANILINE	UG/L	100UY
4,6-DINITRO-2-METHYLPHENOL	UG/L	100UY
4-BROMOPHENYL PHENYL ETHER	UG/L	20UY
4-CHLORO-3-METHYLPHENOL	UG/L	20UY
4-CHLOROANILINE	UG/L	20UY
4-CHLOROPHENYL PHENYL ETHER	UG/L	20UY
4-METHYLPHENOL	UG/L	20UY
4-NITROANILINE	UG/L	100UY
4-NITROPHENOL	UG/L	100UY
ACENAPHTHENE	UG/L	20UY
ACENAPHTHYLENE	UG/L	20UY
ANTHRACENE	UG/L	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		SW-FB-03
SUB-SAMPLE ID:		00000
STATION ID:		SW-FB-03
SAMPLE DATE:		07/24/1992
SAMPLE TIME:		
SAMPLE MATRIX:		AQ
UPPER DEPTH:		
LOWER DEPTH:		
BENZO(A)ANTHRACENE	UG/L	20UY
BENZO(A)PYRENE	UG/L	20UY
BENZO(B)FLUORANTHENE	UG/L	20UY
BENZO(GHI)PERYLENE	UG/L	20UY
BENZO(K)FLUORANTHENE	UG/L	20UY
BENZOIC ACID	UG/L	100UY
BENZYL ALCOHOL	UG/L	20UY
BENZYL BUTYL PHTHALATE	UG/L	20UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	20UY
BIS(2-CHLOROETHYL)ETHER	UG/L	20UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	20UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	190UY
CAFFEINE	UG/L	20UY
CHRYSENE	UG/L	20UY
DI-N-BUTYL PHTHALATE	UG/L	20UY
DI-N-OCTYL PHTHALATE	UG/L	20UY
DIBENZO(A,H)ANTHRACENE	UG/L	20UY
DIBENZOFURAN	UG/L	20UY
DIETHYL PHTHALATE	UG/L	20UY
DIMETHYL PHTHALATE	UG/L	20UY
FLUORANTHENE	UG/L	20UY
FLUORENE	UG/L	20UY
HEXACHLOROBENZENE	UG/L	20UY
HEXACHLOROBUTADIENE	UG/L	20UY
HEXACHLOROCYCLOPENTADIENE	UG/L	20UY
HEXACHLOROETHANE	UG/L	20UY
INDENO(1,2,3-CD)PYRENE	UG/L	20UY
ISOPHORONE	UG/L	20UY
N-NITROSODINPROPYLAMINE	UG/L	20UY
N-NITROSODIPHENYLAMINE	UG/L	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SW-FB-03
SUB-SAMPLE ID:	00000
STATION ID:	SW-FB-03
SAMPLE DATE:	07/24/1992
SAMPLE TIME:	
SAMPLE MATRIX:	AQ
UPPER DEPTH:	
LOWER DEPTH:	
NAPHTHALENE UG/L	20UY
NITROBENZENE UG/L	20UY
PENTACHLOROPHENOL UG/L	100UY
PHENANTHRENE UG/L	20UY
PHENOL UG/L	20UY
PYRENE UG/L	20UY
a-PINENE UG/L	20UY
d-LIMONENE UG/L	20UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SURFACE WATER (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:	SW-FB-03
SUB-SAMPLE ID:	00000
STATION ID:	SW-FB-03
SAMPLE DATE:	07/24/1992
SAMPLE TIME:	
SAMPLE MATRIX:	AQ
UPPER DEPTH:	
LOWER DEPTH:	

ALUMINUM UG/L	44UY
ANTIMONY UG/L	7UY
ARSENIC UG/L	2UY
BARIUM UG/L	3UY
BERYLLIUM UG/L	2UY
CADMIUM UG/L	UYR
CALCIUM UG/L	64DY
CHROMIUM UG/L	6UY
COBALT UG/L	12UY
COPPER UG/L	22UY
CYANIDE UG/L	5UY
IRON UG/L	28UY
LEAD UG/L	1UY
LITHIUM UG/L	9UY
MAGNESIUM UG/L	38DYJ
MANGANESE UG/L	4UY
MERCURY UG/L	0.1UY
NICKEL UG/L	13DY
POTASSIUM UG/L	61UY
SELENIUM UG/L	1UYJ
SILVER UG/L	1UY
SODIUM UG/L	385DYJ
THALLIUM UG/L	2UY
VANADIUM UG/L	15UY
ZINC UG/L	6UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		SW-FB-03
SUB-SAMPLE ID:		00000
STATION ID:		SW-FB-03
SAMPLE DATE:		07/24/1992
SAMPLE TIME:		
SAMPLE MATRIX:		AQ
UPPER DEPTH:		
LOWER DEPTH:		
4,4'-DDD	UG/L	0.1UY
4,4'-DDE	UG/L	0.1UY
4,4'-DDT	UG/L	0.1UY
ALDRIN	UG/L	0.05UY
ALPHA-CHLORDANE	UG/L	0.5UY
AROCLOR-1016	UG/L	0.5UY
AROCLOR-1221	UG/L	0.5UY
AROCLOR-1232	UG/L	0.5UY
AROCLOR-1242	UG/L	0.5UY
AROCLOR-1248	UG/L	0.5UY
AROCLOR-1254	UG/L	1UY
AROCLOR-1260	UG/L	1UY
BHC-ALPHA	UG/L	0.05UY
BHC-BETA	UG/L	0.05UY
BHC-DELTA	UG/L	0.05UY
BHC-GAMMA(LINDANE)	UG/L	0.05UY
DIELDRIN	UG/L	0.1UY
ENDOSULFAN I	UG/L	0.05UY
ENDOSULFAN II	UG/L	0.1UY
ENDOSULFAN SULFATE	UG/L	0.1UY
ENDRIN	UG/L	0.1UY
ENDRIN KETONE	UG/L	0.1UY
GAMMA-CHLORDANE	UG/L	0.5UY
HEPTACHLOR	UG/L	0.05UY
HEPTACHLOR EPOXIDE	UG/L	0.05UY
METHOXYCHLOR	UG/L	0.5UY
TOXAPHENE	UG/L	1UY

NNN+/-XXABCCCOD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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Sediment Samples

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,5-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95-57-8	2-CHLOROPHENOL
2MN	91-57-6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2-NITROANILINE
2NP	88-75-5	2-NITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BDM	75-27-4	BROMODICHLOROMETHANE
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
S01		GROSS ALPHA, TOTAL
S02		GROSS BETA, TOTAL
S03		RADIUM 226, TOTAL
S04		RADIUM 228, TOTAL
S05		THORIUM 230, TOTAL
S06		THORIUM 232, TOTAL
S07		URANIUM 234, TOTAL
S08		URANIUM 235, TOTAL
S09		URANIUM 238, TOTAL
S12		URANIUM NATURAL,TOTAL (UNAT)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

Volatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
ACT	ACETONE	UG/KG	7	3	0.4286	23.000	170.000	79.667	64.562
BEN	BENZENE	UG/KG	7	1	0.1429	23.000	23.000	23.000	0.000
CET	CHLOROETHANE	UG/KG	7	1	0.1429	790.000	790.000	790.000	0.000
EBN	ETHYLBENZENE	UG/KG	7	1	0.1429	8.000	8.000	8.000	0.000
TOL	TOLUENE	UG/KG	7	5	0.7143	4.000	310.000	83.600	114.711
XY	XYLENE (TOTAL)	UG/KG	7	1	0.1429	200.000	200.000	200.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:		SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:		07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SD	SD	SD	SD	SD
UPPER DEPTH:						
LOWER DEPTH:						
1,1,1-TRICHLOROETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,1,2,2-TETRACHLOROETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,1,2-TRICHLOROETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,1-DICHLOROETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,1-DICHLOROETHENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,2-DICHLOROETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,2-DICHLOROETHENE (TOTAL)	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
1,2-DICHLOROPROPANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
2-BUTANONE	UG/KG	UYR	UYR	DYR	UYR	UYR
2-HEXANONE	UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
4-METHYL 2-PENTANONE	UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
ACETONE	UG/KG	31UYJ	18UY	170DYJ	46DYJ	18UY
BENZENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
BROMODICHLOROMETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
BROMOFORM	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
BROMOMETHANE	UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
CARBON DISULFIDE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
CARBON TETRACHLORIDE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
CHLOROBENZENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
CHLOROETHANE	UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
CHLOROFORM	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
CHLOROMETHANE	UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
CIS-1,3-DICHLOROPROPENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
DIBROMOCHLOROMETHANE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
ETHYLBENZENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
METHYLENE CHLORIDE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
STYRENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
TETRACHLOROETHENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
TOLUENE	UG/KG	16UYJ	33DY	13DYJ	58DYJ	9UY
TRANS-1,3-DICHLOROPROPENE	UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SD	SD	SD	SD	SD
UPPER DEPTH:					
LOWER DEPTH:					
TRICHLOROETHENE UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY
VINYL ACETATE UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
VINYL CHLORIDE UG/KG	31UYJ	18UY	24UYJ	23UYJ	18UY
XYLENE (TOTAL) UG/KG	16UYJ	9UY	12UYJ	11UYJ	9UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:		SD05D-01	SD06-01
SUB-SAMPLE ID:		00000	00000
STATION ID:		SD05D	SD06
SAMPLE DATE:		07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:		SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
1,1,1-TRICHLOROETHANE	UG/KG	8UY	14UYJ
1,1,2,2-TETRACHLOROETHANE	UG/KG	8UY	14UYJ
1,1,2-TRICHLOROETHANE	UG/KG	8UY	14UYJ
1,1-DICHLOROETHANE	UG/KG	8UY	14UYJ
1,1-DICHLOROETHENE	UG/KG	8UY	14UYJ
1,2-DICHLOROETHANE	UG/KG	8UY	14UYJ
1,2-DICHLOROETHENE (TOTAL)	UG/KG	8UY	14UYJ
1,2-DICHLOROPROPANE	UG/KG	8UY	14UYJ
2-BUTANONE	UG/KG	UYR	UYR
2-HEXANONE	UG/KG	16UY	28UYJ
4-METHYL-2-PENTANONE	UG/KG	16UY	28UYJ
ACETONE	UG/KG	23DYJ	1400UYJ
BENZENE	UG/KG	8UY	23DYJ
BROMODICHLOROMETHANE	UG/KG	8UY	14UYJ
BROMOFORM	UG/KG	8UY	14UYJ
BROMOMETHANE	UG/KG	16UY	28UYJ
CARBON DISULFIDE	UG/KG	8UY	14UYJ
CARBON TETRACHLORIDE	UG/KG	8UY	14UYJ
CHLOROBENZENE	UG/KG	8UY	14UYJ
CHLOROETHANE	UG/KG	16UY	790DYJ
CHLOROFORM	UG/KG	8UY	14UYJ
CHLOROMETHANE	UG/KG	16UY	28UYJ
CIS-1,3-DICHLOROPROPENE	UG/KG	8UY	14UYJ
DIBROMOCHLOROMETHANE	UG/KG	8UY	14UYJ
ETHYLBENZENE	UG/KG	8UY	8DYJ
METHYLENE CHLORIDE	UG/KG	8UY	14UYJ
STYRENE	UG/KG	8UY	14UYJ
TETRACHLOROETHENE	UG/KG	8UY	14UYJ
TOLUENE	UG/KG	4DYJ	310DYJ
TRANS-1,3-DICHLOROPROPENE	UG/KG	8UY	14UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SD05D-01	SD06-01
SUB-SAMPLE ID:	00000	00000
STATION ID:	SD05D	SD06
SAMPLE DATE:	07/20/1992	07/20/1992
SAMPLE TIME:		
SAMPLE MATRIX:	SD	SD
UPPER DEPTH:		
LOWER DEPTH:		
TRICHLOROETHENE UG/KG	8UY	14UYJ
VINYL ACETATE UG/KG	16UY	28UYJ
VINYL CHLORIDE UG/KG	16UY	28UYJ
XYLENE (TOTAL) UG/KG	8UY	200DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Semivolatile Organics

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
2MN	2-METHYLNAPHTHALENE	UG/KG	7	2	0.2857	63.000	95.000	79.000	16.000
4MP	4-METHYLPHENOL	UG/KG	7	4	0.5714	160.000	1,100.000	555.000	377.525
ACN	ACENAPHTHENE	UG/KG	7	2	0.2857	350.000	430.000	390.000	40.000
ACY	ACENAPHTHYLENE	UG/KG	7	4	0.5714	100.000	220.000	152.500	44.371
ATR	ANTHRACENE	UG/KG	7	4	0.5714	110.000	1,400.000	572.500	527.038
BAA	BENZO(A)ANTHRACENE	UG/KG	7	5	0.7143	200.000	5,100.000	1,890.000	1,818.351
BAP	BENZO(A)PYRENE	UG/KG	7	6	0.8571	110.000	5,400.000	1,633.333	1,910.774
BBF	BENZO(B)FLUORANTHENE	UG/KG	7	7	1.0000	190.000	9,300.000	3,737.143	3,751.749
BGP	BENZO(GHI)PERYLENE	UG/KG	7	6	0.8571	140.000	3,600.000	1,205.000	1,234.366
BBP	BENZYL BUTYL PHTHALATE	UG/KG	7	3	0.4286	98.000	500.000	296.000	164.171
BPH	BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	7	7	1.0000	310.000	25,000.000	4,767.143	8,352.850
CAF	CAFFEINE	UG/KG	7	2	0.2857	81.000	510.000	295.500	214.500
CRY	CHRYSENE	UG/KG	7	7	1.0000	140.000	6,500.000	2,550.000	2,568.407
DBP	DI-N-BUTYL PHTHALATE	UG/KG	7	1	0.1429	120.000	120.000	120.000	0.000
DOP	DI-N-OCTYL PHTHALATE	UG/KG	7	1	0.1429	180.000	180.000	180.000	0.000
DBA	DIBENZO(A,H)ANTHRACENE	UG/KG	7	5	0.7143	63.000	930.000	377.600	332.411
DBF	DIBENZOFURAN	UG/KG	7	1	0.1429	290.000	290.000	290.000	0.000
DEP	DIETHYL PHTHALATE	UG/KG	7	1	0.1429	310.000	310.000	310.000	0.000
FLA	FLUORANTHENE	UG/KG	7	7	1.0000	200.000	11,000.000	4,067.143	4,272.051
FLE	FLUORENE	UG/KG	7	2	0.2857	400.000	650.000	525.000	125.000
ICP	INDENO(1,2,3-CD)PYRENE	UG/KG	7	6	0.8571	130.000	4,200.000	1,345.000	1,466.933
NAP	NAPHTHALENE	UG/KG	7	2	0.2857	110.000	110.000	110.000	0.000
PAN	PHENANTHRENE	UG/KG	7	7	1.0000	120.000	7,400.000	2,725.714	2,795.322
PYR	PYRENE	UG/KG	7	7	1.0000	230.000	10,000.000	4,172.857	3,928.797
API	a-PINENE	UG/KG	7	1	0.1429	840.000	840.000	840.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:		SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:		07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SD	SD	SD	SD	SD
UPPER DEPTH:						
LOWER DEPTH:						
1,2,4-TRICHLOROBENZENE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
1,2-DICHLOROBENZENE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
1,3-DICHLOROBENZENE	UG/KG	1000UYJ	580UY	800UYJ	UYJ	610UY
1,4-DICHLOROBENZENE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2,4,5-TRICHLOROPHENOL	UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
2,4,6-TRICHLOROPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2,4-DICHLOROPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2,4-DIMETHYLPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2,4-DINITROPHENOL	UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
2,4-DINITROTOLUENE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2,6-DINITROTOLUENE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2-CHLORONAPHTHALENE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2-CHLOROPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2-METHYLNAPHTHALENE	UG/KG	1000UYJ	63DYJ	95DYJ	750UYJ	610UY
2-METHYLPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
2-NITROANILINE	UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
2-NITROPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
3,3'-DICHLOROBENZIDINE	UG/KG	2100UYJ	1200UY	1600UYJ	1500UYJ	1200UY
3-NITROANILINE	UG/KG	UYR	UYR	UYR	3600UYJ	UYR
4,6-DINITRO-2-METHYLPHENOL	UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
4-BROMOPHENYL PHENYL ETHER	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
4-CHLORO-3-METHYLPHENOL	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
4-CHLOROANILINE	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
4-CHLOROPHENYL PHENYL ETHER	UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
4-METHYLPHENOL	UG/KG	1000UYJ	1100DY	160DYJ	710DYJ	610UY
4-NITROANILINE	UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
4-NITROPHENOL	UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
ACENAPHTHENE	UG/KG	1000UYJ	430DYJ	350DYJ	750UYJ	610UY
ACENAPHTHYLENE	UG/KG	130DYJ	160DYJ	220DYJ	1000YJ	610UY
ANTHRACENE	UG/KG	110DYJ	1400DYJ	660DYJ	120DYJ	610UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
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JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEFAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SD	SD	SD	SD	SD
UPPER DEPTH:					
LOWER DEPTH:					
BENZO(A)ANTHRACENE UG/KG	700DYJ	5100DYJ	2700DYJ	750DYJ	610UY
BENZO(A)PYRENE UG/KG	640DYJ	5400DYJ	2800DYJ	680DYJ	110DYJ
BENZO(B)FLUORANTHENE UG/KG	1100DYJ	9200DYJ	4700DYJ	1300DYJ	190DYJ
BENZO(GHI)PERYLENE UG/KG	680DYJ	3600DYJ	2000DYJ	610DYJ	140DYJ
BENZO(K)FLUORANTHENE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
BENZOIC ACID UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
BENZYL ALCOHOL UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
BENZYL BUTYL PHTHALATE UG/KG	1000UYJ	500DYJ	290DYJ	98DYJ	610UY
BIS(2-CHLOROETHOXY) METHANE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
BIS(2-CHLOROETHYL)ETHER UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
BIS(2-CHLOROISOPROPYL) ETHER UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
BIS(2-ETHYLHEXYL)PHTHALATE UG/KG	520DYJ	40000YJ	2300DYJ	770DYJ	310DYJ
CAFFEINE UG/KG	1000UYJ	580UY	510DYJ	81DYJ	610UY
CHRYSENE UG/KG	780DYJ	6500DYJ	3300DYJ	820DYJ	140DYJ
DI-N-BUTYL PHTHALATE UG/KG	1000UYJ	580UY	120DYJ	750UYJ	610UY
DI-N-OCTYL PHTHALATE UG/KG	1000UYJ	180DYJ	800UYJ	750UYJ	610UY
DIBENZO(A,H)ANTHRACENE UG/KG	230DYJ	580DYJ	930DYJ	85DYJ	610UY
DIBENZOFURAN UG/KG	1000UYJ	290DYJ	800UYJ	750UYJ	610UY
DIETHYL PHTHALATE UG/KG	1000UYJ	310DYJ	800UYJ	750UYJ	610UY
DIMETHYL PHTHALATE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
FLUORANTHENE UG/KG	980DYJ	11000DYJ	5300DYJ	1100DYJ	200DYJ
FLUORENE UG/KG	1000UYJ	650DYJ	400DYJ	750UYJ	610UY
HEXACHLOROBENZENE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
HEXACHLOROBUTADIENE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
HEXACHLOROCYCLOPENTADIENE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
HEXACHLOROETHANE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
INDENO(1,2,3-CD)PYRENE UG/KG	550DYJ	4200DYJ	2300DYJ	690DYJ	130DYJ
ISOPHORONE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
N-NITROSODINPROPYLAMINE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
N-NITROSODIPHENYLAMINE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SD	SD	SD	SD	SD
UPPER DEPTH:					
LOWER DEPTH:					
NAPHTHALENE UG/KG	1000UYJ	110DYJ	110DYJ	750UYJ	610UY
NITROBENZENE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
PENTACHLOROPHENOL UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	2900UY
PHENANTHRENE UG/KG	700DYJ	7400DYJ	4000DYJ	770DYJ	120DYJ
PHENOL UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY
PYRENE UG/KG	1600DYJ	9300DYJ	6200DYJ	1500DYJ	230DYJ
a-PINENE UG/KG	1000UYJ	840DY	800UYJ	750UYJ	610UY
d-LIMONENE UG/KG	1000UYJ	580UY	800UYJ	750UYJ	610UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:		SD05D-01	SD06-01
SUB-SAMPLE ID:		00000	00000
STATION ID:		SD05D	SD06
SAMPLE DATE:		07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:		SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
1,2,4-TRICHLOROBENZENE	UG/KG	530UY	55000UYJ
1,2-DICHLOROBENZENE	UG/KG	530UY	55000UYJ
1,3-DICHLOROBENZENE	UG/KG	530UY	55000UYJ
1,4-DICHLOROBENZENE	UG/KG	530UY	55000UYJ
2,4,5-TRICHLOROPHENOL	UG/KG	2600UY	270000UYJ
2,4,6-TRICHLOROPHENOL	UG/KG	530UY	55000UYJ
2,4-DICHLOROPHENOL	UG/KG	530UY	55000UYJ
2,4-DIMETHYLPHENOL	UG/KG	530UY	55000UYJ
2,4-DINITROPHENOL	UG/KG	2600UY	270000UYJ
2,4-DINITROTOLUENE	UG/KG	530UY	55000UYJ
2,6-DINITROTOLUENE	UG/KG	530UY	55000UYJ
2-CHLORONAPHTHALENE	UG/KG	530UY	55000UYJ
2-CHLOROPHENOL	UG/KG	530UY	55000UYJ
2-METHYLNAPHTHALENE	UG/KG	530UY	55000UYJ
2-METHYLPHENOL	UG/KG	530UY	55000UYJ
2-NITROANILINE	UG/KG	2600UY	270000UYJ
2-NITROPHENOL	UG/KG	530UY	55000UYJ
3,3'-DICHLOROBENZIDINE	UG/KG	1100UY	110000UYJ
3-NITROANILINE	UG/KG	2600UYJ	270000UYJ
4,6-DINITRO-2-METHYLPHENOL	UG/KG	2600UY	270000UYJ
4-BROMOPHENYL PHENYL ETHER	UG/KG	530UY	55000UYJ
4-CHLORO-3-METHYLPHENOL	UG/KG	530UY	55000UYJ
4-CHLOROANILINE	UG/KG	530UY	55000UYJ
4-CHLOROPHENYL PHENYL ETHER	UG/KG	530UY	55000UYJ
4-METHYLPHENOL	UG/KG	250DYJ	55000UYJ
4-NITROANILINE	UG/KG	2600UY	270000UYJ
4-NITROPHENOL	UG/KG	2600UY	270000UYJ
ACENAPHTHENE	UG/KG	530UY	55000UYJ
ACENAPHTHYLENE	UG/KG	530UY	55000UYJ
ANTHRACENE	UG/KG	530UY	55000UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		SD05D-01	SD06-01
SUB-SAMPLE ID:		00000	00000
STATION ID:		SD05D	SD06
SAMPLE DATE:		07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:		SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
BENZO(A)ANTHRACENE	UG/KG	200DYJ	55000UYJ
BENZO(A)PYRENE	UG/KG	170DYJ	55000UYJ
BENZO(B)FLUORANTHENE	UG/KG	370DYJ	93000DYJ
BENZO(GHI)PERYLENE	UG/KG	200DYJ	55000UYJ
BENZO(K)FLUORANTHENE	UG/KG	530UY	55000UYJ
BENZOIC ACID	UG/KG	2600UY	270000UYJ
BENZYL ALCOHOL	UG/KG	530UY	55000UYJ
BENZYL BUTYL PHTHALATE	UG/KG	530UY	55000UYJ
BIS(2-CHLOROETHOXY) METHANE	UG/KG	530UY	55000UYJ
BIS(2-CHLOROETHYL)ETHER	UG/KG	530UY	55000UYJ
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	530UY	55000UYJ
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	470DYJ	25000DYJ
CAFFEINE	UG/KG	530UY	55000UYJ
CHRYSENE	UG/KG	210DYJ	61000DYJ
DI-N-BUTYL PHTHALATE	UG/KG	530UY	55000UYJ
DI-N-OCTYL PHTHALATE	UG/KG	530UY	55000UYJ
DIBENZO(A,H)ANTHRACENE	UG/KG	63DYJ	55000UYJ
DIBENZOFURAN	UG/KG	530UY	55000UYJ
DIETHYL PHTHALATE	UG/KG	530UY	55000UYJ
DIMETHYL PHTHALATE	UG/KG	530UY	55000UYJ
FLUORANTHENE	UG/KG	290DYJ	9600DYJ
FLUORENE	UG/KG	530UY	55000UYJ
HEXACHLOROBENZENE	UG/KG	530UY	55000UYJ
HEXACHLOROBUTADIENE	UG/KG	530UY	55000UYJ
HEXACHLOROCYCLOPENTADIENE	UG/KG	530UY	55000UYJ
HEXACHLOROETHANE	UG/KG	530UY	55000UYJ
INDENO(1,2,3-CD)PYRENE	UG/KG	200DYJ	55000UYJ
ISOPHORONE	UG/KG	530UY	55000UYJ
N-NITROSODINPROPYLAMINE	UG/KG	530UY	55000UYJ
N-NITROSODIPHENYLAMINE	UG/KG	530UY	55000UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SD05D-01	SD06-01
SUB-SAMPLE ID:	00000	00000
STATION ID:	SD05D	SD06
SAMPLE DATE:	07/20/1992	07/20/1992
SAMPLE TIME:		
SAMPLE MATRIX:	SD	SD
UPPER DEPTH:		
LOWER DEPTH:		
NAPHTHALENE UG/KG	530UY	55000UYJ
NITROBENZENE UG/KG	530UYJ	55000UYJ
PENTACHLOROPHENOL UG/KG	2600UY	270000UYJ
PHENANTHRENE UG/KG	190DYJ	5900DYJ
PHENOL UG/KG	530UY	55000UYJ
PYRENE UG/KG	380DYJ	10000DYJ
a-PINENE UG/KG	530UY	55000UYJ
d-LIMONENE UG/KG	530UY	55000UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Pesticides and PCBs

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:	00000	00000	00000	00000	00000
STATION ID:	SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:					
SAMPLE MATRIX:	SD	SD	SD	SD	SD
UPPER DEPTH:					
LOWER DEPTH:					
4,4'-DDD UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
4,4'-DDE UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
4,4'-DDT UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
ALDRIN UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
ALPHA-CHLORDANE UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
AROCLOR-1016 UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
AROCLOR-1221 UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
AROCLOR-1232 UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
AROCLOR-1242 UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
AROCLOR-1248 UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
AROCLOR-1254 UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	3000UY
AROCLOR-1260 UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	3000UY
BHC-ALPHA UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
BHC-BETA UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
BHC-DELTA UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
BHC-GAMMA(LINDANE) UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
DIELDRIN UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
ENDOSULFAN I UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
ENDOSULFAN II UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
ENDOSULFAN SULFATE UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
ENDRIN UG/KG	500UYJ	280UYJ	390UYJ	360UYJ	300UYJ
ENDRIN KETONE UG/KG	500UYJ	280UY	390UYJ	360UYJ	300UY
GAMMA-CHLORDANE UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
HEPTACHLOR UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
HEPTACHLOR EPOXIDE UG/KG	250UYJ	140UY	200UYJ	180UYJ	150UY
METHOXYCHLOR UG/KG	2500UYJ	1400UY	2000UYJ	1800UYJ	1500UY
TOXAPHENE UG/KG	5000UYJ	2800UY	3900UYJ	3600UYJ	3000UY

NN!+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:		SD05D-01	SD06-01
SUB-SAMPLE ID:		00000	00000
STATION ID:		SD05D	SD06
SAMPLE DATE:		07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:		SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
4,4'-DDD	UG/KG	260UY	670UYJ
4,4'-DDE	UG/KG	260UY	670UYJ
4,4'-DDT	UG/KG	260UY	670UYJ
ALDRIN	UG/KG	130UY	330UYJ
ALPHA-CHLORDANE	UG/KG	1300UY	3300UYJ
AROCLOR-1016	UG/KG	1300UY	3300UYJ
AROCLOR-1221	UG/KG	1300UY	3300UYJ
AROCLOR-1232	UG/KG	1300UY	3300UYJ
AROCLOR-1242	UG/KG	1300UY	3300UYJ
AROCLOR-1248	UG/KG	1300UY	3300UYJ
AROCLOR-1254	UG/KG	2600UY	6700UYJ
AROCLOR-1260	UG/KG	2600UY	6700UYJ
BHC-ALPHA	UG/KG	130UY	330UYJ
BHC-BETA	UG/KG	130UY	330UYJ
BHC-DELTA	UG/KG	130UY	330UYJ
BHC-GAMMA(LINDANE)	UG/KG	130UY	330UYJ
DIELDRIN	UG/KG	260UY	670UYJ
ENDOSULFAN I	UG/KG	130UY	330UYJ
ENDOSULFAN II	UG/KG	260UY	670UYJ
ENDOSULFAN SULFATE	UG/KG	260UY	670UYJ
ENDRIN	UG/KG	260UYJ	670UYJ
ENDRIN KETONE	UG/KG	260UY	670UYJ
GAMMA-CHLORDANE	UG/KG	1300UY	3300UYJ
HEPTACHLOR	UG/KG	130UY	330UYJ
HEPTACHLOR EPOXIDE	UG/KG	130UY	330UYJ
METHOXYCHLOR	UG/KG	1300UY	3300UYJ
TOXAPHENE	UG/KG	2600UY	6700UYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Metals and Cyanide

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
AL	ALUMINUM	MG/KG	7	7	1.0000	2,730.000	5,650.000	4,205.714	1,099.102
AS	ARSENIC	MG/KG	7	7	1.0000	2.300	11.100	5.743	2.931
BA	BARIUM	MG/KG	7	7	1.0000	43.700	277.000	116.843	77.992
CD	CADMIUM	MG/KG	7	1	0.1429	3.900	3.900	3.900	0.000
CA	CALCIUM	MG/KG	7	7	1.0000	4,300.000	14,600.000	8,832.857	3,980.609
CR	CHROMIUM	MG/KG	7	7	1.0000	14.500	77.200	40.014	23.319
CO	COBALT	MG/KG	7	1	0.1429	6.400	6.400	6.400	0.000
CU	COPPER	MG/KG	7	7	1.0000	12.100	214.000	71.829	65.358
CN	CYANIDE	MG/KG	7	4	0.5714	0.510	10.700	3.570	4.183
FE	IRON	MG/KG	7	7	1.0000	5,370.000	13,200.000	8,992.857	2,488.354
PB	LEAD	MG/KG	7	7	1.0000	53.900	645.000	211.000	188.762
LI	LITHIUM	MG/KG	7	7	1.0000	5.500	31.600	11.586	8.766
MG	MAGNESIUM	MG/KG	7	7	1.0000	893.000	2,900.000	1,501.857	613.448
MN	MANGANESE	MG/KG	7	7	1.0000	80.600	186.000	130.171	42.049
HG	MERCURY	MG/KG	7	7	1.0000	0.090	0.950	0.430	0.304
NI	NICKEL	MG/KG	7	1	0.1429	7.700	7.700	7.700	0.000
K	POTASSIUM	MG/KG	7	7	1.0000	97.100	325.000	203.871	71.713
SE	SELENIUM	MG/KG	7	6	0.8571	0.490	1.400	0.895	0.292
NA	SODIUM	MG/KG	7	7	1.0000	181.000	531.000	334.714	126.977
V	VANADIUM	MG/KG	7	7	1.0000	10.700	43.400	24.614	10.262
ZN	ZINC	MG/KG	7	7	1.0000	145.000	800.000	371.000	202.051

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		SD01-01	SD02-01	SD03-01	SD04-01	SD05-01
SUB-SAMPLE ID:		00000	00000	00000	00000	00000
STATION ID:		SD01	SD02	SD03	SD04	SD05
SAMPLE DATE:		07/21/1992	07/24/1992	07/20/1992	07/21/1992	07/20/1992
SAMPLE TIME:						
SAMPLE MATRIX:		SD	SD	SD	SD	SD
UPPER DEPTH:						
LOWER DEPTH:						
ALUMINUM	MG/KG	5080DYJ	56500Y	52100YJ	37000YJ	27400Y
ANTIMONY	MG/KG	4.4UYJ	2.5UY	3.4UYJ	3.2UYJ	2.6UY
ARSENIC	MG/KG	11.1DYJ	2.3DYJ	7.3DYJ	7.5DYJ	3.7DY
BARIUM	MG/KG	153DYJ	45.6DYJ	153DYJ	277DYJ	75DY
BERYLLIUM	MG/KG	1.3UYJ	0.71UY	0.97UYJ	0.91UYJ	0.74UY
CADMIUM	MG/KG	3.1UYJ	1.8UYJ	2.4UYJ	2.3UYJ	1.8UY
CALCIUM	MG/KG	9810DYJ	62200YJ	144000YJ	146000YJ	46700YJ
CHROMIUM	MG/KG	14.5DYJ	23.3DY	71.5DYJ	44.5DYJ	23.2DY
COBALT	MG/KG	7.5UYJ	6.4DYJ	5.8UYJ	5.5UYJ	4.4UY
COPPER	MG/KG	38.4DYJ	40.6DY	108DYJ	70DYJ	12.1DY
CYANIDE	MG/KG	10.7DYJ	0.51DYJ	0.67DYJ	2.4DYJ	0.46UY
IRON	MG/KG	8360DYJ	132000Y	108000YJ	78600YJ	53700Y
LEAD	MG/KG	175DYJ	108DY	250DYJ	183DYJ	62.1DY
LITHIUM	MG/KG	8.8DYJ	6.7DY	31.6DYJ	15.5DYJ	7.4DY
MAGNESIUM	MG/KG	12800YJ	29000Y	16300YJ	11900YJ	8930YJ
MANGANESE	MG/KG	160DYJ	137DY	175DYJ	186DYJ	88.2DY
MERCURY	MG/KG	0.4DYJ	0.19DY	0.95DYJ	0.52DYJ	0.090YJ
NICKEL	MG/KG	13.2UYJ	7.4UYJ	10.2UYJ	[illegible]UYJ	7.7DYJ
POTASSIUM	MG/KG	195DYJ	325DYJ	248DYJ	[illegible]YJ	151DYJ
SELENIUM	MG/KG	1.4DYJ	0.35UYJ	0.97DYJ	1DYJ	0.62DYJ
SILVER	MG/KG	0.63UYJ	0.35UYJ	0.49UYJ	0.45UYJ	0.[illegible]UYJ
SODIUM	MG/KG	347DYJ	222DYJ	491DYJ	351DYJ	2[illegible]YJ
THALLIUM	MG/KG	1.3UYJ	0.71UYJ	0.97UYJ	0.91UYJ	0.74UY
VANADIUM	MG/KG	43.4DYJ	19.4DY	31.6DYJ	28.6DYJ	14.7DYJ
ZINC	MG/KG	441DYJ	215DYJ	306DYJ	434DYJ	256DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=[illegible]tected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and [illegible]imated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		SD05D-01	SD06-01
SUB-SAMPLE ID:		00000	00000
STATION ID:		SD05D	SD06
SAMPLE DATE:		07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:		SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
ALUMINUM	MG/KG	2730DY	4330DYJ
ANTIMONY	MG/KG	2.3UY	3.9UYJ
ARSENIC	MG/KG	2.6DYJ	5.7DYJ
BARIUM	MG/KG	43.7DYJ	70.6DYJ
BERYLLIUM	MG/KG	0.65UY	1.1UYJ
CADMIUM	MG/KG	1.6UY	3.9DYJ
CALCIUM	MG/KG	4300DYJ	7830DYJ
CHROMIUM	MG/KG	25.9DY	77.2DYJ
COBALT	MG/KG	3.9UY	6.7UYJ
COPPER	MG/KG	19.7DY	214DYJ
CYANIDE	MG/KG	0.4UY	0.69UYJ
IRON	MG/KG	6760DY	10600DYJ
LEAD	MG/KG	53.9DY	645DYJ
LITHIUM	MG/KG	5.5DY	5.6DYJ
MAGNESIUM	MG/KG	1120DYJ	1500DYJ
MANGANESE	MG/KG	80.6DY	84.4DYJ
MERCURY	MG/KG	0.12DYJ	0.74DYJ
NICKEL	MG/KG	6.8UYJ	11.7UYJ
POTASSIUM	MG/KG	97.1DYJ	256DYJ
SELENIUM	MG/KG	0.49DYJ	0.89DYJ
SILVER	MG/KG	0.32UYJ	0.56UYJ
SODIUM	MG/KG	181DYJ	531DYJ
THALLIUM	MG/KG	0.65UY	1.1UYJ
VANADIUM	MG/KG	10.7DYJ	23.9DYJ
ZINC	MG/KG	145DYJ	800DYJ

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Radionuclides

Glossary of Data Qualifier Codes and Definitions Used for Radiological Data

Definitions of data qualifiers used for organic and inorganic analytical data are defined at the bottom of each data sheet. The definitions for the data qualifiers for the radiological data, however, are different. The following definitions should, therefore, be used for radiological data qualifiers.:

U - The parameter was analyzed for, but was not detected above the level of the associated value. The associated value is either the minimum detectable activity (MDA) or the sample-specific lower limit of detection (LLD), or the observed value.

J - The associated value is estimated because one or more quality acceptance criteria were not met.

UJ - The parameter was analyzed for but was not detected. The nondetection could be due to one or more quality control problems. The associated value is an estimated MDA or LLD, or observed value.

H - Holding times exceeded.

D - Duplicate precision criteria not met.

S - Matrix spike recovery criteria not met.

C - Calibration criteria not met.

B - Blank contamination present.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS
SAMPLE ANALYSIS: RAD

EDMS-009
01/29/93
PAGE: 1

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
S01	GROSS ALPHA, TOTAL	PCI/G	7	4	0.5714	20.000	50.000	34.350	12.764
S02	GROSS BETA, TOTAL	PCI/G	7	7	1.0000	11.200	27.700	17.529	6.024
S03	RADIUM 226, TOTAL	PCI/G	7	7	1.0000	1.300	10.100	5.800	2.972
S04	RADIUM 228, TOTAL	PCI/G	7	5	0.7143	2.400	5.300	3.280	1.069
S05	THORIUM 230, TOTAL	PCI/G	7	7	1.0000	1.600	4.100	2.300	0.775
S06	THORIUM 232, TOTAL	PCI/G	7	7	1.0000	1.000	5.900	2.986	1.834
S07	URANIUM 234, TOTAL	PCI/G	7	5	0.7143	1.100	3.500	1.740	0.900
S08	URANIUM 235, TOTAL	PCI/G	7	5	0.7143	0.300	1.700	0.920	0.574
S09	URANIUM 238, TOTAL	PCI/G	7	3	0.4286	1.000	1.600	1.400	0.283
S12	URANIUM NATURAL,TOTAL (UNAT)	MG/G	1	1	1.0000	0.002	0.002	0.002	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS
ALL OBSERVATIONS

SAMPLE ID:	SD01-01	SD02-01	SD03-01
SUB-SAMPLE ID:	00000	00000	00000
STATION ID:	SD01	SD02	SD03
SAMPLE DATE:	07/21/1992	07/24/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SD	SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	10UY	5.5UY	43.7 +/- 14.7DY
GROSS BETA, TOTAL PCI/G	11.4 +/- 6.2DY	17.6 +/- 6.6DY	24.7 +/- 7DY
RADIUM 226, TOTAL PCI/G	4 +/- 0.8DY	1.3 +/- 1.1DY	9 +/- 1.3DY
RADIUM 228, TOTAL PCI/G	0.9UY	3.5UYJB	2.5 +/- 1.6DY
THORIUM 230, TOTAL PCI/G	2.3 +/- 0.6DY	2 +/- 0.5DYJD	4.1 +/- 0.9DY
THORIUM 232, TOTAL PCI/G	1.9 +/- 0.7DY	1.9 +/- 0.5DY	5.9 +/- 1.1DY
URANIUM 234, TOTAL PCI/G	3.5 +/- 1.7DY	0.9UY	1.1 +/- 0.8DY
URANIUM 235, TOTAL PCI/G	1.7 +/- 0.9DY	0.3UY	0.2UY
URANIUM 238, TOTAL PCI/G	1.2UY	0.3UY	1.6 +/- 0.9DY
URANIUM NATURAL,TOTAL (UNAT) MG/G		0.002 +/-DY	

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SD04-01	SD05-01	SD05D-01
SUB-SAMPLE ID:	00000	00000	DUP
STATION ID:	SD04	SD05	SD05D
SAMPLE DATE:	07/21/1992	07/20/1992	07/20/1992
SAMPLE TIME:			
SAMPLE MATRIX:	SD	SD	SD
UPPER DEPTH:			
LOWER DEPTH:			
GROSS ALPHA, TOTAL PCI/G	50 +/- 15.4DY	23.7 +/- 12.1DY	20 +/- 11.6DY
GROSS BETA, TOTAL PCI/G	27.7 +/- 7.2DY	11.2 +/- 6.2DY	12.9 +/- 6.3DY
RADIUM 226, TOTAL PCI/G	10.1 +/- 1.3DY	3.7 +/- 0.8DY	4.7 +/- 0.9DY
RADIUM 228, TOTAL PCI/G	5.3 +/- 1.7DY	2.4 +/- 0.7DY	2.8 +/- 0.8DY
THORIUM 230, TOTAL PCI/G	2.2 +/- 0.5DY	1.6 +/- 0.5DY	1.7 +/- 0.5DY
THORIUM 232, TOTAL PCI/G	5.2 +/- 0.8DY	1 +/- 0.5DY	1.2 +/- 0.5DY
URANIUM 234, TOTAL PCI/G	1.4 +/- 1DY	1.6 +/- 0.8DY	1.1 +/- 0.6DY
URANIUM 235, TOTAL PCI/G	0.7 +/- 0.5DYJS	0.4 +/- 0.3DY	0.3 +/- 0.2DY
URANIUM 238, TOTAL PCI/G	1.6 +/- 1DY	1 +/- 0.7DY	
URANIUM NATURAL,TOTAL (UNAT)			0.6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SD06-01
SUB-SAMPLE ID:	00000
STATION ID:	SD06
SAMPLE DATE:	07/20/1992
SAMPLE TIME:	
SAMPLE MATRIX:	SD
UPPER DEPTH:	
LOWER DEPTH:	

GROSS ALPHA, TOTAL PCI/G	9.1UY
GROSS BETA, TOTAL PCI/G	17.2 +/- 6.6DY
RADIUM 226, TOTAL PCI/G	7.8 +/- 1.2DY
RADIUM 228, TOTAL PCI/G	3.4 +/- 0.8DY
THORIUM 230, TOTAL PCI/G	2.2 +/- 0.6DY
THORIUM 232, TOTAL PCI/G	3.8 +/- 0.8DY
URANIUM 234, TOTAL PCI/G	2.1UYJS
URANIUM 235, TOTAL PCI/G	1.5 +/- 1.2DYJS
URANIUM 238, TOTAL PCI/G	3.6UYJS
URANIUM NATURAL,TOTAL (UNAT)	

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

Total Organic Carbon

CLIENT: CH2M HILL

REPORT DATE: August 19, 1992
SAMPLE ANALYZED: Seven samples analyzed for TOTAL ORGANIC CARBON.

PROJECT #: 9207-00030,33,& 37
TCT ST. LOUIS ID #: 92004184 - 92004187
TCT ST. LOUIS ID #: 92004317 - 92004317
TCT ST. LOUIS ID #: 92004403

DATE RECEIVED: July 21-25, 1992
CLIENT PROJECT #:

TOTAL ORGANIC CARBON

DATE ANALYZED: 08/04/92

TCT-ST LOUIS ID NUMBER	SITE CODE	SOLIDS (%)	TOC (MG/KG)
BLANK	-	-	< 25
STD RCVRY (%)	2000 MG/L STD	-	104%
92004184	FHSD06	36.0	86200
92004185	SCSD5D	61.8	11000
92004185 DUP	SCSD5D	61.8	12300
92004185 MS RCVRY (%)	SCSD5D	61.8	116%
92004186	SCSD05	54.4	7990
STD RCVRY (%)	2000 MG/L STD	-	104%
BLANK	-	-	< 25
92004187	SRSD03	41.1	50000
92004317	SRSD01	31.8	92600
92004318	SRSD04	44.0	47000
92004403	SRSD02	56.6	35700
STD RCVRY (%)	2000 MG/L STD	-	105%
BLANK	-	-	< 25

TCT-ST. LOUIS

TOC (Instrumental)

Sheet 1 of 3

Analyst MHLaw Date 8/4/92 Project No. 9207-30, 83, 99

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date / % Solids	WT	Vol	Inj.	Dil.	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	1351 } calib.									
	1348									
	1342									
ICV	2000 mg/L						2071		10480	
ICB							.002	<25		
4184			.0370				OVER			
4184	1.0212g/20mL	.360	.002042				1584	86/90		
4185	1.0147g/20mL	.618	.002029				345.5	11021		RSD = 8%
~~4185~~							23.8	Bad Injection MHLaw 8/4/92		
4185	Dup	.618	.002029				386.5	12329		
4185	+500 mg/L spike	↓					926.1		11680	
4186	1.0177g/20mL	.544	.002035				221.2	7992		
CCV	2000 mg/L						2076		10480	

For Solids: Instrument Reading x (.040 mL) / (Sample gm) x (% Solid) = mg/kg TOC

ACCEPTED

AUG 0 5 1992

KM McLeod

T-St. Louis

FORM

TCT-ST. LOUIS

TOC (Instrumental)

Sheet 2 of 2

Analyst M H Lauw Date 8/4/92 Project No. 9207-30,33,37

Checked By _____ Date _____

Range Setting 40 ml

Lab No.	Site Name	Sample Date ~~30 Solids~~	WT	Vol	Inj.	Dil.	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
CCB							0.030		<25%	
4187	1.0457g/20mL	.411	.002091				1075	50035		
4317	1.0250 g/20 mL	.316	.00205				1509	92591		
4318	1.0206 g/20mL	.440	.00204				1054	47000		
4403	1.0433 g/20mL	.566	.002087				1053	35657		
CCV	2000 mg/L						2098		105%	
CCB							0.456			
	Samples high	1 gram sample							ACCEPTED	
	slurried in 20	ml then	0.04ml						AUG 05 1992	
	was injected.									

Mark H. Lauw 8/4/92

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

SELFTEST
NO ERRORS

CAL -- 40 UL
CAL ADJ 0.000

NO CAL -- 40 UL
2 TOC 1351
3 TOC 1348 } Cal. b
4 TOC 1342

CAL -- 40 UL
CAL AVE 1347
CAL ADJ 1999

1 TOC 2071 ICV

2 TOC 0.002 ICB

3 CANCELLED
DET SATURATED 4184

4 TOC 1584 4134

5 TOC 345.5 4135

6 TOC 213.8 4135 Dil. Inj.

7 TOC 386.5 4135 Dup

8 TOC 926.1 4135MS

9 TOC 221.2 4136

10 TOC 2076 CCV

11 TOC 0.030 CCB

12 TOC 1075 4137

13 TOC 1509 4317

14 TOC 1054 4318

15 TOC 1053 4403

16 TOC 2098 CCV

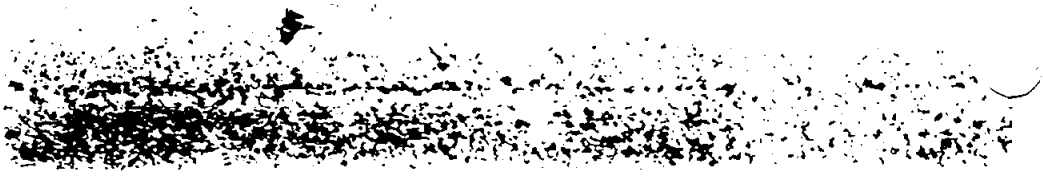
17 TOC 0.456 CCB

18 TOC 3860
OVERRANGE ERROR< 20%

4186
Ran straight

8/4/92

9207 -30, 33, 37



STANDARD Sources

	Calibration Stds	ICV • CCV Stds
Source	F: 754735	F: 570509
Prep Date	8/4/92	8/4/92
Prep By	MH Crain	MH Crain

Field Equipment Rinse Blanks and Trip Blanks - Sediments

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AL	7429-90-5	ALUMINUM
SB	7440-36-0	ANTIMONY
AS	7440-38-2	ARSENIC
BA	7440-39-3	BARIUM
BE	7440-41-7	BERYLLIUM
CD	7440-43-9	CADMIUM
CA	7440-70-2	CALCIUM
CR	7440-47-3	CHROMIUM
CO	7440-48-4	COBALT
CU	7440-50-8	COPPER
CN	75-13-8	CYANIDE
FE	7439-89-6	IRON
PB	7439-92-1	LEAD
LI		LITHIUM
MG	7439-95-4	MAGNESIUM
MN	7439-96-5	MANGANESE
HG	7439-97-6	MERCURY
NI	7440-02-0	NICKEL
K	7440-09-7	POTASSIUM
SE	7782-49-2	SELENIUM
AG	7440-22-4	SILVER
NA	7440-23-5	SODIUM
TL	7440-28-0	THALLIUM
V	7440-62-6	VANADIUM
ZN	7440-66-6	ZINC
DDD	72-54-8	4,4'-DDD
DDE	72-55-9	4,4'-DDE
DDT	50-29-3	4,4'-DDT
ADR	309-00-2	ALDRIN
CRA	5103-71-9	ALPHA-CHLORDANE
AR2	12674-11-2	AROCLOR-1016
AR1	11104-28-2	AROCLOR-1221
AR3	11141-16-5	AROCLOR-1232
AR4	53469-21-9	AROCLOR-1242
AR5	12672-29-6	AROCLOR-1248

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
AR6	11097-69-1	AROCLOR-1254
AR7	11096-82-5	AROCLOR-1260
BHA	319-84-6	BHC-ALPHA
BHB	319-85-7	BHC-BETA
BHD	319-86-8	BHC-DELTA
BHG	58-89-9	BHC-GAMMA(LINDANE)
DIE	60-57-1	DIELDRIN
ES1	959-98-8	ENDOSULFAN I
ES2	33213-65-9	ENDOSULFAN II
ENS	1031-07-8	ENDOSULFAN SULFATE
END	78-20-8	ENDRIN
EDK	53494-70-5	ENDRIN KETONE
CRG		GAMMA-CHLORDANE
HPC	76-44-8	HEPTACHLOR
HCE	1024-57-3	HEPTACHLOR EPOXIDE
MOC	72-43-5	METHOXYCHLOR
TXP	8001-35-2	TOXAPHENE
124	120-82-1	1,2,4-TRICHLOROBENZENE
12B	95-50-1	1,2-DICHLOROBENZENE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
245	95-95-4	2,4,6-TRICHLOROPHENOL
246	88-06-2	2,4,6-TRICHLOROPHENOL
24D	120-83-2	2,4-DICHLOROPHENOL
24M	105-67-9	2,4-DIMETHYLPHENOL
24P	51-28-5	2,4-DINITROPHENOL
24T	121-14-2	2,4-DINITROTOLUENE
26T	606-20-2	2,6-DINITROTOLUENE
2CN	91-58-7	2-CHLORONAPHTHALENE
2CP	95 [illegible]	2-CHLOROPHENOL
2MN	91 6	2-METHYLNAPHTHALENE
2MP	95-48-7	2-METHYLPHENOL
2NA	88-74-4	2 [illegible]ITROANILINE
2NP	88-75-5	[illegible]ITROPHENOL
33B	91-94-1	3,3'-DICHLOROBENZIDINE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
3NA	99-09-2	3-NITROANILINE
462	534-52-1	4,6-DINITRO-2-METHYLPHENOL
4BP	101-55-3	4-BROMOPHENYL PHENYL ETHER
4C3	59-50-7	4-CHLORO-3-METHYLPHENOL
4CA	106-47-8	4-CHLOROANILINE
4CP	7005-72-3	4-CHLOROPHENYL PHENYL ETHER
4MP	106-44-5	4-METHYLPHENOL
4NA	100-01-6	4-NITROANILINE
4NP	100-02-7	4-NITROPHENOL
ACN	83-32-9	ACENAPHTHENE
ACY	208-96-8	ACENAPHTHYLENE
ATR	120-12-7	ANTHRACENE
BAA	56-55-3	BENZO(A)ANTHRACENE
BAP	50-32-8	BENZO(A)PYRENE
BBF	205-99-2	BENZO(B)FLUORANTHENE
BGP	191-24-2	BENZO(GHI)PERYLENE
BKF	207-08-9	BENZO(K)FLUORANTHENE
BZA	65-85-0	BENZOIC ACID
BAL	100-51-6	BENZYL ALCOHOL
BBP	85-68-7	BENZYL BUTYL PHTHALATE
BEM	111-91-1	BIS(2-CHLOROETHOXY) METHANE
BET	111-44-4	BIS(2-CHLOROETHYL)ETHER
BIT	108-60-1	BIS(2-CHLOROISOPROPYL) ETHER
BPH	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE
CAF	58-08-2	CAFFEINE
CRY	218-01-9	CHRYSENE
DBP	84-74-2	DI-N-BUTYL PHTHALATE
DOP	117-84-0	DI-N-OCTYL PHTHALATE
DBA	53-70-3	DIBENZO(A,H)ANTHRACENE
DBF	132-64-9	DIBENZOFURAN
DEP	84-66-2	DIETHYL PHTHALATE
DMP	131-11-3	DIMETHYL PHTHALATE
FLA	206-44-0	FLUORANTHENE
FLE	86-73-7	FLUORENE
HBE	118-74-1	HEXACHLOROBENZENE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
HBU	87-68-3	HEXACHLOROBUTADIENE
HCP	77-47-4	HEXACHLOROCYCLOPENTADIENE
HET	67-72-1	HEXACHLOROETHANE
ICP	193-39-5	INDENO(1,2,3-CD)PYRENE
ISP	78-59-1	ISOPHORONE
NPR	621-64-7	N-NITROSODINPROPYLAMINE
NPH	86-30-6	N-NITROSODIPHENYLAMINE
NAP	91-20-3	NAPHTHALENE
NTB	98-95-3	NITROBENZENE
PCP	87-86-5	PENTACHLOROPHENOL
PAN	85-01-8	PHENANTHRENE
PHE	108-95-2	PHENOL
PYR	129-00-0	PYRENE
API	80-56-8	a-PINENE
DLI	5989-27-5	d-LIMONENE
111	71-55-6	1,1,1-TRICHLOROETHANE
1TE	79-34-5	1,1,2,2-TETRACHLOROETHANE
112	79-00-5	1,1,2-TRICHLOROETHANE
11A	75-34-3	1,1-DICHLOROETHANE
1DE	75-35-4	1,1-DICHLOROETHENE
D3C		1,2-DIBROMO-3-CHLOROPROPANE
12E		1,2-DIBROMOETHANE
12B	95-50-1	1,2-DICHLOROBENZENE
12A	107-06-2	1,2-DICHLOROETHANE
DCE	540-59-0	1,2-DICHLOROETHENE (TOTAL)
12P	78-87-5	1,2-DICHLOROPROPANE
13B	541-73-1	1,3-DICHLOROBENZENE
14B	106-46-7	1,4-DICHLOROBENZENE
2BU	78-93-3	2-BUTANONE
2HX	591-78-6	2-HEXANONE
4M2	108-10-1	4-METHYL-2-PENTANONE
ACT	67-64-1	ACETONE
BEN	71-43-2	BENZENE
BCM		BROMOCHLOROMETHANE
BDM	75-27-4	BROMODICHLOROMETHANE

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

MATRIX REPORT CHEMICAL LISTING

CHEMICAL CODE	CAS NUMBER	CHEMICAL NAME
BFM	75-25-2	BROMOFORM
BRM	74-83-9	BROMOMETHANE
CDS	75-15-0	CARBON DISULFIDE
CCL	56-23-5	CARBON TETRACHLORIDE
CBN	108-90-7	CHLOROBENZENE
CET	75-00-3	CHLOROETHANE
CFM	67-66-3	CHLOROFORM
CLM	74-87-3	CHLOROMETHANE
C12		CIS-1,2-DICHLOROETHYLENE
C13	10061-01-5	CIS-1,3-DICHLOROPROPENE
DBC	124-48-1	DIBROMOCHLOROMETHANE
EBN	100-41-4	ETHYLBENZENE
MCL	75-09-2	METHYLENE CHLORIDE
STY	100-42-5	STYRENE
PCE	127-18-4	TETRACHLOROETHENE
TOL	108-88-3	TOLUENE
T1E	156-60-5	TRANS-1,2-DICHLOROETHENE
T13	10061-02-6	TRANS-1,3-DICHLOROPROPENE
TCE	79-01-6	TRICHLOROETHENE
VAC	108-05-4	VINYL ACETATE
VC	75-01-4	VINYL CHLORIDE
XY	1330-20-7	XYLENE (TOTAL)

This report is a listing of all chemicals found in the database for the selected group of data in the Matrix Report.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: VORG

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
12B	1,2-DICHLOROBENZENE	UG/L	1	1	1.0000	0.400	0.400	0.400	0.000
14B	1,4-DICHLOROBENZENE	UG/L	1	1	1.0000	0.300	0.300	0.300	0.000
BDM	BROMODICHLOROMETHANE	UG/L	2	1	0.5000	0.300	0.300	0.300	0.000
CBN	CHLOROBENZENE	UG/L	2	1	0.5000	0.200	0.200	0.200	0.000
CFM	CHLOROFORM	UG/L	2	1	0.5000	0.300	0.300	0.300	0.000
MCL	METHYLENE CHLORIDE	UG/L	2	1	0.5000	2.000	2.000	2.000	0.000
TOL	TOLUENE	UG/L	2	1	0.5000	0.200	0.200	0.200	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: SVOL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
DBP	DI-N-BUTYL PHTHALATE	UG/L	1	1	1.0000	3.000	3.000	3.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

EDMS CHEMICAL SUMMARY STATISTICS
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
DETECTED OBSERVATIONS ONLY
SAMPLE ANALYSIS: METAL

Chemical Code	Chemical Name	Conc Units	Total Count	Detected Count	Detected Frequency	Detected Minimum	Detected Maximum	Detected Average	Standard Deviation
CA	CALCIUM	UG/L	1	1	1.0000	59.000	59.000	59.000	0.000
NA	SODIUM	UG/L	1	1	1.0000	265.000	265.000	265.000	0.000

REJECTED OBSERVATIONS ARE NOT INCLUDED IN ANY CALCULATIONS. DETECTED FREQUENCY = DETECTED COUNT/TOTAL COUNT.

SAMPLE ID:	SD-FB-01	SD-TB-03
SUB-SAMPLE ID:	00000	00000
STATION ID:	SD-FB-01	SD-FB-03
SAMPLE DATE:	07/20/1992	08/04/1992
SAMPLE TIME:		
SAMPLE MATRIX:	AQ	AQ
UPPER DEPTH:		
LOWER DEPTH:		
1,1,1-TRICHLOROETHANE UG/L	1UY	5UY
1,1,2,2-TETRACHLOROETHANE UG/L	1UY	5UY
1,1,2-TRICHLOROETHANE UG/L	1UY	5UY
1,1-DICHLOROETHANE UG/L	1UY	5UY
1,1-DICHLOROETHENE UG/L	1UY	5UY
1,2-DIBROMO-3-CHLOROPROPANE UG/L	UYR	
1,2-DIBROMOETHANE UG/L	1UY	
1,2-DICHLOROBENZENE UG/L	0.4DYJ	
1,2-DICHLOROETHANE UG/L	1UY	5UY
1,2-DICHLOROETHENE (TOTAL) UG/L		5UY
1,2-DICHLOROPROPANE UG/L	1UY	5UY
1,3-DICHLOROBENZENE UG/L	1UY	
1,4-DICHLOROBENZENE UG/L	0.3DYJ	
2-BUTANONE UG/L	UYR	UYR
2-HEXANONE UG/L	5UY	10UY
4-METHYL-2-PENTANONE UG/L	5UY	10UY
ACETONE UG/L	UYR	10UY
BENZENE UG/L	1UY	5UY
BROMOCHLOROMETHANE UG/L	1UY	
BROMODICHLOROMETHANE UG/L	0.3DYJ	5UY
BROMOFORM UG/L	1UY	5UY
BROMOMETHANE UG/L	1UY	10UY
CARBON DISULFIDE UG/L	1UY	5UY
CARBON TETRACHLORIDE UG/L	1UY	5UY
CHLOROBENZENE UG/L	0.2DYJ	5UY
CHLOROETHANE UG/L	1UY	10UY
CHLOROFORM UG/L	0.3DYJ	5UY
CHLOROMETHANE UG/L	1UY	10UY
CIS-1,2-DICHLOROETHYLENE UG/L	1UY	
CIS-1,3-DICHLOROPROPENE UG/L	1UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: VOLATILE ORGANICS

SAMPLE ID:	SD-FB-01	SD-TB-03
SUB-SAMPLE ID:	00000	00000
STATION ID:	SD-FB-01	SD-FB-03
SAMPLE DATE:	07/20/1992	08/04/1992
SAMPLE TIME:		
SAMPLE MATRIX:	AQ	AQ
UPPER DEPTH:		
LOWER DEPTH:		
DIBROMOCHLOROMETHANE UG/L	1UY	5UY
ETHYLBENZENE UG/L	1UY	5UY
METHYLENE CHLORIDE UG/L	2DYJ	5UY
STYRENE UG/L	1UY	5UY
TETRACHLOROETHENE UG/L	1UY	5UY
TOLUENE UG/L	0.2DYJ	5UY
TRANS-1,2-DICHLOROETHENE UG/L	1UY	
TRANS-1,3-DICHLOROPROPENE UG/L	1UY	5UY
TRICHLOROETHENE UG/L	1UY	5UY
NYL ACETATE UG/L		10UY
VINYL CHLORIDE UG/L	1UY	10UY
XYLENE (TOTAL) UG/L	1UY	5UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:	SD-FB-01
SUB-SAMPLE ID:	00000
STATION ID:	SD-FB-01
SAMPLE DATE:	07/20/1992
SAMPLE TIME:	
SAMPLE MATRIX:	AQ
UPPER DEPTH:	
LOWER DEPTH:	

1,2,4-TRICHLOROBENZENE UG/L	10UY
1,2-DICHLOROBENZENE UG/L	10UY
1,3-DICHLOROBENZENE UG/L	10UY
1,4-DICHLOROBENZENE UG/L	10UY
2,4,5-TRICHLOROPHENOL UG/L	50UY
2,4,6-TRICHLOROPHENOL UG/L	10UY
2,4-DICHLOROPHENOL UG/L	10UY
2,4-DIMETHYLPHENOL UG/L	10UY
2,4-DINITROPHENOL UG/L	50UY
2,4-DINITROTOLUENE UG/L	10UY
2,6-DINITROTOLUENE UG/L	10UY
2-CHLORONAPHTHALENE UG/L	10UY
2-CHLOROPHENOL UG/L	10UY
2-METHYLNAPHTHALENE UG/L	10UY
2-METHYLPHENOL UG/L	10UY
2-NITROANILINE UG/L	50UY
2-NITROPHENOL UG/L	10UY
3,3'-DICHLOROBENZIDINE UG/L	20UY
3-NITROANILINE UG/L	50UY
4,6-DINITRO-2-METHYLPHENOL UG/L	50UY
4-BROMOPHENYL PHENYL ETHER UG/L	10UY
4-CHLORO-3-METHYLPHENOL UG/L	10UY
4-CHLOROANILINE UG/L	10UY
4-CHLOROPHENYL PHENYL ETHER UG/L	10UY
4-METHYLPHENOL UG/L	10UY
4-NITROANILINE UG/L	50UY
4-NITROPHENOL UG/L	50UY
ACENAPHTHENE UG/L	10UY
ACENAPHTHYLENE UG/L	10UY
ANTHRACENE UG/L	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

SAMPLE ID:		SD-FB-01
SUB-SAMPLE ID:		00000
STATION ID:		SD-FB-01
SAMPLE DATE:		07/20/1992
SAMPLE TIME:		
SAMPLE MATRIX:		AQ
UPPER DEPTH:		
LOWER DEPTH:		
BENZO(A)ANTHRACENE	UG/L	10UY
BENZO(A)PYRENE	UG/L	10UY
BENZO(B)FLUORANTHENE	UG/L	10UY
BENZO(GHI)PERYLENE	UG/L	10UY
BENZO(K)FLUORANTHENE	UG/L	10UY
BENZOIC ACID	UG/L	50UY
BENZYL ALCOHOL	UG/L	10UY
BENZYL BUTYL PHTHALATE	UG/L	10UY
BIS(2-CHLOROETHOXY) METHANE	UG/L	10UY
BIS(2-CHLOROETHYL)ETHER	UG/L	10UY
BIS(2-CHLOROISOPROPYL) ETHER	UG/L	10UY
BIS(2-ETHYLHEXYL)PHTHALATE	UG/L	10UY
CAFFEINE	UG/L	10UY
CHRYSENE	UG/L	10UY
DI-N-BUTYL PHTHALATE	UG/L	3DYJ
DI-N-OCTYL PHTHALATE	UG/L	10UY
DIBENZO(A,H)ANTHRACENE	UG/L	10UY
DIBENZOFURAN	UG/L	10UY
DIETHYL PHTHALATE	UG/L	10UY
DIMETHYL PHTHALATE	UG/L	10UY
FLUORANTHENE	UG/L	10UY
FLUORENE	UG/L	10UY
HEXACHLOROBENZENE	UG/L	10UY
HEXACHLOROBUTADIENE	UG/L	10UY
HEXACHLOROCYCLOPENTADIENE	UG/L	10UY
HEXACHLOROETHANE	UG/L	10UY
INDENO(1,2,3-CD)PYRENE	UG/L	10UY
ISOPHORONE	UG/L	10UY
N-NITROSODINPROPYLAMINE	UG/L	10UY
N-NITROSODIPHENYLAMINE	UG/L	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: SEMI-VOLATILE ORGANICS

SAMPLE ID:	SD-FB-01
SUB-SAMPLE ID:	00000
STATION ID:	SD-FB-01
SAMPLE DATE:	07/20/1992
SAMPLE TIME:	
SAMPLE MATRIX:	AQ
UPPER DEPTH:	
LOWER DEPTH:	
NAPHTHALENE UG/L	10UY
NITROBENZENE UG/L	10UY
PENTACHLOROPHENOL UG/L	50UY
PHENANTHRENE UG/L	10UY
PHENOL UG/L	10UY
PYRENE UG/L	10UY
a-PINENE UG/L	10UY
d-LIMONENE UG/L	10UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: PESTICIDES AND PCB'S

SAMPLE ID:	SD-FB-01
SUB-SAMPLE ID:	00000
STATION ID:	SD-FB-01
SAMPLE DATE:	07/20/1992
SAMPLE TIME:	
SAMPLE MATRIX:	AQ
UPPER DEPTH:	
LOWER DEPTH:	
4,4'-DDD UG/L	0.1UY
4,4'-DDE UG/L	0.1UY
4,4'-DDT UG/L	0.1UY
ALDRIN UG/L	0.05UY
ALPHA-CHLORDANE UG/L	0.5UY
AROCLOR-1016 UG/L	0.5UY
AROCLOR-1221 UG/L	0.5UY
AROCLOR-1232 UG/L	0.5UY
AROCLOR 1242 UG/L	0.5UY
AROCLOR-1248 UG/L	0.5UY
AROCLOR-1254 UG/L	1UY
AROCLOR-12[illegible] UG/L	1UY
BHC-ALPHA UG/L	0.05UY
BHC-BETA UG/L	0.05UY
BHC-DELTA UG/L	0.05UY
BHC-GAMMA(LINDANE) UG/L	0.05UY
DIELDRIN UG/L	0.1UY
ENDOSULFAN I UG/L	0.05UY
ENDOSULFAN II UG/L	0.1UY
ENDOSULFAN SULFATE UG/L	0.1UY
ENDRIN UG/L	0.1UY
ENDRIN KETONE UG/L	0.1UY
GAMMA-CHLORDANE UG/L	0.5UY
HEPTACHLOR UG/L	0.05UY
HEPTACHLOR EPOXIDE UG/L	0.05UY
METHOXYCHLOR UG/L	0.5UY
TOXAPHENE UG/L	1UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

EDMS CHEMICAL OBSERVATIONS MATRIX
STEPAN MAYWOOD - SEDIMENTS (BLANKS)
ALL OBSERVATIONS (NO TICS)
SAMPLE ANALYSIS: INORGANICS

SAMPLE ID:		SD-FB-01
SUB-SAMPLE ID:		00000
STATION ID:		SD-FB-01
SAMPLE DATE:		07/20/1992
SAMPLE TIME:		
SAMPLE MATRIX:		AQ
UPPER DEPTH:		
LOWER DEPTH:		
ALUMINUM	UG/L	39UY
ANTIMONY	UG/L	7UY
ARSENIC	UG/L	2UYJ
BARIUM	UG/L	3UY
BERYLLIUM	UG/L	2UY
CADMIUM	UG/L	DYR
CALCIUM	UG/L	59DYJ
CHROMIUM	UG/L	UYR
COBALT	UG/L	UYR
COPPER	UG/L	7UY
CYANIDE	UG/L	5UYJ
IRON	UG/L	21UY
LEAD	UG/L	2UY
LITHIUM	UG/L	9UYJ
MAGNESIUM	UG/L	46UY
MANGANESE	UG/L	UYR
MERCURY	UG/L	0.1UY
NICKEL	UG/L	UYR
POTASSIUM	UG/L	61UY
SELENIUM	UG/L	DYR
SILVER	UG/L	1UYJ
SODIUM	UG/L	265DYJ
THALLIUM	UG/L	2UY
VANADIUM	UG/L	UYR
ZINC	UG/L	6UY

NNN+/-XXABCCCDD POSITIONALLY N=VALUE, (+/-XX=ERROR FACTOR FOR RADS ONLY), A=DETECTED, B=VALIDATED, C=FLAGS,
U = less than detection limit, D=detected, J=estimated, R=unusable, N= evidence of presence of material
JN = tentatively identified and estimated, UJ = not detected and detection limit is estimated.

CLIENT: CH2M HILL

REPORT DATE: August 19, 1992
SAMPLE ANALYZED: One sample analyzed for TOTAL ORGANIC CARBON.

PROJECT #: 9207-00030
TCT ST. LOUIS ID #: 92004180

DATE RECEIVED: July 21, 1992
CLIENT PROJECT #:

TOTAL ORGANIC CARBON

DATE ANALYZED: 08/05/92

TCT-ST LOUIS ID NUMBER	SITE CODE	TOC (MG/L)
BLANK	-	< 1.0
92004180	SDFB01	< 1.0
STD RCVRY (%)	10 MG/L STD	99%

TCT-ST. LOUIS

Sheet 1 of 2

TOC (Instrumental)

ACCEPTED

AUG 7 1992

Analyst MH Cain Date 8/5/92 Project No. 9207, 9003

Checked By _____ Date _____ Mark J. Schuler

Range Setting 1.0 mL

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	Dil.	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
	10 mg/L						8.220	Calib		
	↓						8.154			
	↓						8.183			
ICV	10 mg/L						9.916		99.2	
ICB							0.567		<1.0	
LCS	10 mg/L						9.869		98.7	
Blank							.228		<1.0	
9207-38 4410	SWFB3						.316	<1		
~~4180~~	SDFB01						.417	↓		
3978							5.082	5.1		
4163							8.810	8.8		
4351							ERROR			
↓						5X	2.884	14.4		

For Solids: Instrument Reading x (.040 mL) / (Sample gm) x (% Solid) = mg/kg TOC

TCT-ST. LOUIS

Sheet 2 of 2

TOC (Instrumental)

ACCEPTED
AUG 7 1992

Analyst MHCraw Date 8/5/92 Project No. 9207/9003

Checked By _____ Date _____ Mark J. Schuder

Range Setting 1.0 mL

Lab No.	Site Name	Sample Date	WT	Vol	Inj.	Dil	Instr. Reading TOC mg/L		QC % REC.	QC % RPD
CCV	10 mg/L						9.797		98.0	
CCB							0.202	<1.0		
4352							2.995	3.0		
4353							3.584	3.6		
4354							2.754	2.8		
4355							ERROR			
4352	Dup						3.511	3.5		±1 D.L.
4355						10X	6.308	63.1		
4356							8.445	8.4		
4521							2.839	2.8		
CCV	10 mg/L						9.892	9.9	98.9	
CCB							0.254	<1.0		
					Mark W Craw 8/5/92					

For Solids: Instrument Reading x (.040 mL) = mg/kg TOC
(Sample gm) x (% Solid)

FORM
St. Louis

mHuan 8/5/92
SELFTEST 9207/9003
NO ERRORS

1 TOC 8.228
2 TOC 8.154 } Calib
3 TOC 8.183

CAL -- 1 ML
CAL AVE 8.185
CAL ADJ 9.997

1 TOC 9.916 ICV
2 TOC 0.567 ICB
3 TOC 9.869 LCS
4 TOC 0.228 P.B
5 TOC 0.316 4410
6 TOC 0.417 4180
7 TOC 5.082 3978
8 TOC 8.810 4163
9 TOC 15.79 4351
9 CANCELLED

TIMEOUT ERROR< 10%

10 TOC 2.884 4357
~~11 TOC 3.837~~ mHuan 4292
12 TOC 9.797 CCV
13 TOC 0.282 CCB
14 TOC 2.995 4352
15 TOC 3.584 4353
16 TOC 2.754 4354
17 TOC 34.06 4355
17 CANCELLED

TIMEOUT ERROR< 10% —

18 TOC 3.511 4352D
19 TOC 6.308 4355D
20 TOC 8.445 4356
21 TOC 2.839 4521
22 TOC 9.892 CCV
23 TOC 0.254 CCB

STANDARD Sources

	Calibration Stds	ICV + CCV Stds
Source	F. 754735	F 870800
Prep Date	8/5/92	8/5/92
Prep By	M H Crain	M H Crain

Appendix Z
Tracer Report and Soil Gas Technical Memorandum

MEMORANDUM CH2MHILL

TO: Mr. Jeffrey Gratz/EPA Region II
Ms. Jane Connet/TRC/Alliance

COPIES: Mr. Jeffrey Bartlett/Stepan Co.
Mr. Roger Julin/Stepan Co.

FROM: Mary Manto/CH2M HILL
Scott Vozza/CH2M HILL

DATE: August 26, 1993

SUBJECT: Preliminary Soil Gas Investigation Results And Proposed Soil Boring Locations For Stepan Co. Property

PROJECT: NJO 22948.ST.SG

RESPOND BY: August 27, 1993

INTRODUCTION

Tracer Research Corporation (Tracer) and CH2M HILL performed a soil gas investigation at the Stepan Co. Property located at 100 West Hunter Avenue in Maywood, New Jersey. The investigation was conducted within areas designated by CH2M HILL as the Central Tank Farm Area and the Aromatic and Essential Oils Manufacturing Area (Figure 1, Appendix A). The investigation took place July 26 through August 6, 1993.

The objectives of the investigation are as follows:

- Evaluate the presence and lateral extent of volatile organic compound (VOC) contamination in soils around potential source areas.
- Aid in evaluating the lateral extent of shallow groundwater contamination with VOCs.
- Sample shallow soils in areas with high VOC contamination in soil gas relative to other areas at the site to obtain information on hot spot soil contamination that may be a source of groundwater contamination.
- Supply data to aid in the effective placement of soil boring and potential groundwater monitoring wells in areas of high VOC concentrations in soil gas.

The purpose of this memorandum is to present the preliminary findings of the soil gas investigation and recommend soil boring locations. Efforts were made to locate the borings so as to verify the results of the soil gas investigation, delineate potential hot spot areas and to collect additional data needed to complete the soils feasibility study. The figures and tables presented with this memorandum have been taken from Tracer's Draft Soil Gas Investigation Report. These data have not yet been subject to a complete QA/QC review, and should be considered preliminary.

SOIL GAS INVESTIGATION

During the investigation, seventy soil gas samples were analyzed from seventy-one sampling locations (Figure 1, Sampling Locations, Appendix A). Twenty-two samples were analyzed from twenty-three locations within the Central Tank Farm Area and forty-eight samples were analyzed from forty-eight locations within the Aromatics and Essential Oils Manufacturing Area. The grid spacing in the Central Tank Farm and Aromatics and Essential Oils Manufacturing Area was generally 30 and 40 feet, respectively. The spacing of soil gas locations varied slightly due to varying field conditions.

Two soil gas samples were collected from each location. A deep sample was collected just above the estimated depth of the water table, approximately six feet below ground surface (bgs). A shallow sample was collected at half of this depth, approximately three feet bgs. Each sample was tested for total VOCs using a photoionization detector (PID). The results of the total VOC scan were used as the criteria for selecting the sample to be analyzed from each location. If no PID response was observed, the deeper sample was generally analyzed. The PID results are summarized in Appendix B. Samples were not collected from location CT-20 due to the presence of a water line that was damaged during drilling.

All soil gas samples were analyzed (except where noted in the data as "NA") for the following target compounds: benzene, toluene, ethylbenzene, xylene (BTEX); total volatile hydrocarbons (TVHC); vinyl chloride, total 1,2 dichloroethene (total 1,2 DCE); carbon dioxide; oxygen; and methane. In addition, five samples (CT-7-6', CT-8-6', CT-12-3', CT-13-6', and CT-14-6'.) collected in the Central Tank Farm Area were also analyzed for naphthalene. Boring CT-14 was located near the former 2,000 gallon No.2 fuel oil underground storage tank (UST). Because naphthalene is a component of fuel oil and is very difficult to detect in soil gas, samples collected in the Central Tank Farm Area were also analyzed for carbon dioxide, oxygen and methane. These gases may be biodegradation products of fuel oil. Samples collected in the Aromatics and Essential

Oils Manufacturing Area were also analyzed for these gases. These gases may also be products of decaying organic matter that is not necessarily related to petroleum products.

TVHC is a parameter that is commonly targeted during soil gas surveys conducted by Tracer. TVHC includes all aliphatic, alicyclic, and aromatic hydrocarbons with four to nine carbons. This parameter was added to the list of target compounds in order to collect more information regarding potential significant hot spots in soil. It should be noted that the TVHC results can be significantly impacted by decaying organic matter in the subsurface or compounds that may or may not be related to past operations at the site. Therefore, care should be exercised when evaluating these results.

A condensed summary of the results of the investigation are presented in Table 1 (Appendix C). This table presents the number of samples in which each target compound was detected, the lowest concentration detected above the minimum detection limit, the highest concentration detected, and the respective sample designation. The analytical results from all samples are summarized in tabular form in Appendix C. The data are presented by location and by analyte concentration. When the compound was not detected, the detection limit is presented as a "less than" value, e.g., <0.01 ppb. Soil gas samples are identified by sample location and sampling depth. For example, CT-1-6' represents a soil gas sample collected at location CT-1 at a depth of 6 feet bgs. The concentration maps (Figures 2 to 11) for the target compounds are included in Appendix D. Isoconcentration contours were not drawn for vinyl chloride (Figure 2), carbon dioxide (Figure 8) or oxygen (Figure 9) because concentrations above ambient air concentrations were not detected.

DISCUSSION OF RESULTS

The highest concentrations of the target compounds in the Central Tank Farm Area were detected at sampling locations CT-18 and CT-21. The isoconcentration contours indicate that elevated concentrations of VOCs in the subsurface between the Hot Oil Shed and the northern corner of Building No. 10. Isolated concentrations of methane and TVHC were also detected at location CT-6.

Elevated concentrations of the target VOCs were also detected in the Aromatic and Essential Oils Manufacturing Area. The highest detected concentrations center around sampling locations AR-1 and AR-25. Detected concentrations extend from the Electric Building (see Figure 1) to the existing building foundation (former Aromatics Building) and over to the west of the former toluene USTs.

The presence of an unknown VOC was indicated in some borings, but not positively identified or quantified. The VOC was tentatively identified as trichloroethene (TCE) and was detected at sampling locations AR-23, AR-24, AR-44, AR-45, AR-46, AR-47, CT-21, and CT-23.

SOIL BORING PROGRAM

The objectives of the soil boring program are as follows:

- Confirm the results of the soil gas investigation in areas where "significant concentrations" of target compounds were identified. These areas will be considered "potential hot spot areas".

- Delineate the boundaries of the "potential hot spot areas". For purposes of this investigation "hot spot" is defined as the location of a soil with VOC concentrations that may result in contamination of groundwater at a level exceeding potential cleanup criteria.

- Assist in estimating soil volumes for the feasibility study.

Based on these objectives Stepan proposes to install a total of fourteen soil borings at the site. The locations of the borings have been placed onto Figure 3 (Benzene Map, Appendix E). Nine soil borings, designated SG-1 through SG-9, are proposed for the Aromatic and Essential Oils Manufacturing Area and five soil borings, designated SG-10 through SG-14, are proposed for the Central Tank Farm Area. The borings will be located in areas that should enable Stepan to delineate the boundaries of "significant concentrations" of soil contamination as suggested by the configuration by the soil gas plume and confirm the results of the soil gas investigation.

At each of the fourteen soil boring locations, continuous split spoon samples will be collected (every 2 feet) from the ground surface to water table (approximately 6 feet). Borings will be advanced behind the 2-inch diameter split spoon sampler with 4.25-inch I.D. hollow stem augers. Stepan proposes to collect a maximum of one sample from each boring based on visual observations, field screening using a PID, and soil gas results. The selected sample from each boring will be submitted for chemical analysis. The samples, including the QA/QC samples, will be analyzed for TCL VOCs. The same QA/QC procedures that were used during the initial Remedial Investigation will be followed. Because fourteen samples will be collected for chemical analysis, one matrix spike/matrix spike duplicate (MS/MSD) and one field duplicate will be collected. Because split spoons and other sampling equipment will be decontaminated in the field,

a field equipment rinse blank will be collected daily. Stepan proposes to use TCT St. Louis/Huntington Laboratory (St. Louis, Missouri) for the chemical analysis.

Sample collection, preparation, and equipment decontamination will be conducted in accordance with the standard operating procedures (SOPs) and task instructions used during the previous RI soil boring program.

During the soil boring program three surface soil samples will be collected in vicinity of soil boring C-41. The purpose of the three samples is to delineate the horizontal extent of polynuclear aromatic hydrocarbon (PAH) contamination that was identified during the initial soil boring program at C-41. The samples will be collected from the 0-to-2-foot interval. The samples will be collected approximately five feet north, ten feet east, and fifteen feet west of C-41. One MS/MSD and one field duplicate will be collected in this area. The samples will be collected using dedicated stainless steel trowels.

Tracer Research Corporation

Tracer Research Corporation

Shallow Soil Gas Investigation

STEPAN COMPANY PROPERTY
Maywood, New Jersey

July 26 through August 6, 1993

Shallow Soil Gas Investigation

STEPAN COMPANY PROPERTY
Maywood, New Jersey

July 26 through August 6, 1993

Prepared for:

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Submitted by:

Karen L. McWhinnie

Marjorie D. Stivers

2-93-246-S

TABLE OF CONTENTS

TABLES

1.0 STEPAN COMPANY PROPERTY INVESTIGATION

Tracer Research Corporation (Tracer Research) performed a shallow soil gas investigation at the Stepan Company Property located at 100 West Hunter Avenue in Maywood, New Jersey. The investigation was conducted within areas designated by CH2M Hill as the Central Tank Farm Area and the Aromatic and Essential Oils Manufacturing Area (see Figure 1). The investigation took place July 26 through August 6, 1993 for CH2M Hill of Parsippany, New Jersey.

1.1 Objectives

Purposes of the investigation were to 1) evaluate the presence and lateral extent of volatile organic compound (VOC) contamination in soils around potential source areas; 2) aid in evaluating the lateral extent of shallow groundwater contamination with VOCs; and 3) supply data to aid in the effective placement of soil borings and potential groundwater monitoring wells in areas of high VOC levels in the soil gas.

These objectives were accomplished by screening the shallow soil gas for the presence of VOCs. The soil gas samples were collected and analyzed for the following analyte classes and target compounds:

Analyte Class: Hydrocarbon
benzene, toluene, ethylbenzene, xylene (BTEX)
total volatile hydrocarbons (TVHC)
naphthalene

Analyte Class: Halocarbon
vinyl chloride
total 1,2 dichloroethene (total 1,2 DCE)

Analyte Class: Fixed Gases
carbon dioxide
oxygen
methane

All of the soil gas samples were analyzed for the above listed compounds, except when noted in the data as "NA". In addition, five samples (CT-7-6', CT-8-6', CT-12-3', CT-13-6', and CT-14-6') collected in the Central Tank Farm Area were also analyzed for naphthalene. CT-14-6' was located near the former 2,000 gallon

No. 2 Fuel Oil underground storage tank. Because naphthalene is a component of fuel oil and is very difficult to detect in the soil gas, samples collected in the Central Tank Farm Area were also analyzed for carbon dioxide, oxygen and methane. These gases are degradation products of fuel oil. Samples collected in the Aromatic and Essential Oils Manufacturing Area were analyzed for these fixed gases to determine if any additional information about the subsurface could be obtained. These gases are indications of degradation activities of organic materials that may not necessarily be related to petroleum products. Detection of methane can indicate that biodegradation of organic material, such as peat, fill, low lying swamp and/or reclaimed meadows is occurring.

TVHC includes all aliphatic, alicyclic, and aromatic hydrocarbons that have four to nine carbons. BTEX compounds, for example, are alicyclic. The analytical equipment used by Tracer Research can detected any VOC that burns using a Flame Ionization Detector.

1.2 Overview of Results

For this investigation, seventy samples were analyzed from seventy-one sampling locations. Two samples were collected from each sampling location. A deep sample was collected just above the estimated depth of the groundwater table, approximately 6 feet below ground surface (bgs). A shallow sample was collected at half of the deep depth, approximately 3 feet bgs. The CH2M Hill field representative tested each sample for total VOCs using a photoionization detector (PID). The results of the total VOC scan were used as the criteria for selecting which of the samples from each location was analyzed. Generally, the sample exhibiting the highest PID response was selected for analysis. If no PID response was observed, the deeper sample was generally analyzed. Samples were not collected from location CT-20 due to the presence of a water line that was damaged during drilling. A summary of the results of the investigation is presented in Table 1.

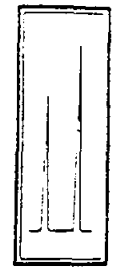
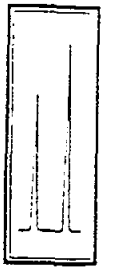


Table 1. Soil Gas Sample Summary

Compound	# of samples in which compound was detected	Low conc. µg/L[a]	High conc. µg/L	Sample(s) with high conc.
vinyl chloride	1	NA	0.6	AR-23-3'
benzene	32	0.05	17,000	AR-1-6'
toluene	19	0.03	11,000	CT-21-5.5'
ethylbenzene	2	100	770	AR-25-3'
xylene	6	0.6	3,000	AR-25-3'
TVHC	43	0.06	60,000	CT-21-5.5'
carbon dioxide	69	7,700	540,000	AR-24-3'
oxygen	70	13,000	250,000	CT-3-6'
methane	27	3,800	290,000	CT-21-5.5'
total 1,2 DCE	22	0.07	35	CT-21-5.5'
naphthalene	0	NA	NA	NA

NA = Not Applicable

[a] lowest concentration detected above the minimum detection limit



2.0 SITE DESCRIPTION

The soil gas samples were collected in two specific areas of the site. Twenty-three locations were in the Central Tank Farm Area (CT) and forty-eight locations were in the Aromatic and Essential Oils Manufacturing Area (AR). Generally the samples collected in the CT area were on 30-foot spacings while the samples collected in the AR area were generally on 40-foot spacings. The spacing of soil gas locations varied slightly due to varying field conditions. Samples were collected through asphalt, gravel and concrete.

3.0 SOIL GAS SAMPLING PARAMETERS

Soil gas sampling probes consisted of 7-foot lengths of 3/4-inch diameter hollow steel pipe. The probes were fitted with detachable drive tips and hydraulically pushed and/or pounded to depths of 3 to 6 feet bgs. An electric rotary hammer drill and an air compressor with a rock drill were used to drill holes through the asphalt and concrete.

The aboveground end of each probe was fitted with an aluminum reducer (manifold) and a length of polyethylene tubing leading to a vacuum pump. Soil gas was pulled by the vacuum pump into the probe. Samples were collected in a syringe by inserting a syringe needle through a silicone rubber segment in the evacuation line and down into the steel probe. The vacuum was monitored by a vacuum gauge to ensure an adequate gas flow from the vadose zone was maintained.

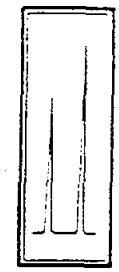
The volume of air within the probe was purged by evacuating 2 to 5 probe volumes of gas. The evacuation time in minutes versus the vacuum in inches of mercury (Hg) was used to calculate the necessary evacuation time. The vacuum in inches Hg was recorded at each sampling location.

Sample probe vacuums ranged from 2 to 11 inches Hg. The vacuum capacity of the pump was approximately 22 inches Hg.

Once sampling was completed and the probe was removed, the bore hole was filled with bentonite and the area was restored with gravel, asphalt or concrete mix.

4.0 ANALYTICAL PARAMETERS

During this investigation, up to 10 milliliters (mL) of soil gas were collected



for each sample and immediately analyzed in the Tracer Research analytical van. Subsamples (replicates) from these samples were injected into the gas chromatograph (GC) in volumes of 1 to 1000 microliters (µL).

Analytical instruments were calibrated daily using fresh working standards made from National Institute of Sciences and Technology (NIST) traceable standards and reagent blanked solvents and a gas standard from Scott Specialty Gases.

4.1 Chromatographic System

A Hewlett Packard 5890 Series II gas chromatograph, equipped with a flame ionization detector (FID), an electron capture detector (ECD), and two computing integrators, was used for the soil gas analyses. Naphthalene, halocarbon, and hydrocarbon compounds were separated in the GC on either a 3-or 6-foot by 1/8 inch outer diameter (OD) packed analytical column (1% SP1000 stationary phase bonded to 60/80 mesh Carbopack B support) in a temperature controlled oven. The vinyl chloride, naphthalene and the hydrocarbons were detected on the FID and total 1,2 DCE was detected on the ECD. Nitrogen was used as the carrier gas.

A Tracor gas chromatograph , equipped with a thermal conductivity detector (TCD) and one computing integrator, was used for the analyses of the fixed gases. The compounds were separated on a dual packed 6-foot by 1/4 inch OD packed analytical column over a 1/8 inch OD packed analytical column (mole sieve support in the outer column and porous polymer support in the inner column). The column for the TCD was kept at ambient air temperature. Hydrogen was used as the carrier gas for the TCD.

The instrument calibrations were checked periodically throughout the day to monitor the response factor and retention time. The following paragraphs explain the GC, FID, ECD, and TCD processes.

GC Process

The soil gas is injected into the GC where it is swept through the analytical column by the carrier gas. The detector senses the presence of a component different from the carrier gas and converts that information to an electrical signal. The components of the sample pass through the column at different rates, according to

their individual properties, and are detected by the detector. Compounds are identified by the time it takes them to pass through the column (retention time).

FID Process

The FID utilizes a flame produced by the combustion of hydrogen and air. When a component, which has been separated on the GC analytical column, is introduced into the flame, a large increase in ions occurs. A collector with a polarizing voltage is applied near the flame and the ions are attracted and produce a current, which is proportional to the amount of the sample compound in the flame. The electrical current causes the computing integrator to record a peak on a chromatogram. By measuring the area of the peak and comparing that area to the integrator response of a known aqueous standard, the concentration of the analyte in the sample is determined.

ECD Process

The ECD captures low energy thermal electrons that have been ionized by beta particles. The flow of these captured electrons into an electrode produces a small current, which is collected and measured. When the halogen atoms (halocarbons) are introduced into the detector, electrons that would otherwise be collected at the electrode are captured by the sample, resulting in decreased current. The current causes the computing integrator to record a peak on a chromatogram. The area of the peak is compared to the peak generated by a known standard to determine the concentration of the analyte.

TCD Process

The TCD responds to any compounds whose thermal conductivity differs from that of the carrier gas in the GC. Under constant applied voltage, a filament in the cell of the TCD heats up and its resistance increases. As the carrier gas passes over the filament, it maintains constant temperature and therefore constant resistance in the filament. The addition of the sample to the cell results in increased temperature and increased filament resistance. This change is measured by the detector and the integrator produces a peak on a chromatogram.

4.2 Analyses

The detection limits for target compounds depend on the sensitivity of the detector to the individual compound as well as the volume of the sample injection. The detection limits of the target compounds were calculated from the response factor, the sample injection size, and the calculated minimum peak size (area) observed under the conditions of the analyses. If any compound was not detected in an analysis, the detection limit is given as a "less than" value, e.g., <0.01 µg/L. The approximate detection limits for the target compounds are presented in Table 2.

Table 2. Detection Limits for Target Compounds

Compound	Detection Limits (µg/L)
vinyl chloride	0.1
benzene	0.02
toluene	0.01
ethylbenzene	0.02
xylene	0.04
TVHC	0.06
carbon dioxide	1100
oxygen	700
methane	750
total 1,2 DCE	0.03
naphthalene	0.05

5.0 QUALITY ASSURANCE AND QUALITY CONTROL

Tracer Research's Quality Assurance (QA) and Quality Control (QC) program was followed to maintain data that was reproducible through the investigation. All of the QA and QC data indicate that there were no problems or deviations from the program. An overview presenting the significant aspects of this program is presented below.

Soil Gas Sampling Quality Assurance

To ensure consistent collection of samples, the following procedures are performed:

- Sampling Manifolds

Tracer Research's custom designed sampling manifold connects the sample probe to the vacuum line and pump. The manifold is designed to eliminate sample exposure to the polymeric (plastic) materials that connect the probe to the vacuum pump.

The sampling manifold is attached to the end of the probe, forming an air tight union between the probe and the silicone tubing septum. The septum connects the manifold to the pump vacuum line and permits syringe sampling.

This sampling system allows the sample to be taken upstream of the sampling pump, manifold, and septum. Since cross contamination of sampling equipment can effect usability of the data, Tracer Research replaces the materials (probe and syringe), between sampling points, that contact the soil gas before or during sampling.

-Sampling Probes

Steel probes are used only once each day. To eliminate the possibility of cross contamination, they are washed with high pressure soap and hot water spray, or steam-cleaned. Enough sampling probes are carried on each van to avoid the need to re-use any during the day.

-Glass Syringes

Glass syringes are used for only one sample a day and are washed and baked out at night. If they must be used twice, they are purged with carrier gas (nitrogen) and baked out between probe samplings.

-Sampling Efficiency

Soil gas pumping is monitored by a vacuum gauge to ensure that an adequate flow of gas from the soil is maintained. A reliable gas sample can be obtained if the sample vacuum gauge reading is at least 2 inches Hg less than the maximum measured vacuum of the vacuum pump.

Analytical Quality Assurance Samples

Quality assurance samples are performed at the minimum frequencies listed in Table 3. The actual frequency depends on the number of samples analyzed each day and the length of time of the survey.

Table 3. Quality Assurance Samples

Sample type	Frequency
Ambient Air Samples	3 per day or 1 per site
Analytical Method Blanks	5% (1 per 20 samples or 1 a day)
Continuing Calibration Check	20% (1 every 5 samples)
Field System Blank	1 per day
Reagent Blank	1 per set of working standards
Replicate Samples	10 to 100% of all samples

The ambient air samples are obtained on site by sampling the air immediately outside the mobile analytical van and directly injecting it into the GC. Analytical method blanks are taken to demonstrate that the analytical instrumentation is not contaminated. These are performed by injecting carrier gas (nitrogen) into the GC with the sampling syringe. Subsampling syringes are also checked in this fashion.

The injector port septa through which soil gas samples are injected into the GC are replaced daily to prevent possible gas leaks from the chromatographic column. All sampling and subsampling syringes are decontaminated after use and are not used again until they have been decontaminated by washing in anionic detergent and baking at 90°C.

Field system blanks are analyzed to check for contamination of the sampling apparatus, e.g., probe and sampling syringe. A sample is collected using standard soil gas sampling procedures, but without putting the probe into the ground. The results are compared to those obtained from a concurrently sampled ambient air analysis.

If the blanks detect compounds of interest at concentrations that indicate equipment contamination or concentrations that exceed normal background levels (ambient air analysis), corrective actions are performed. If the problem cannot be corrected, an out-of-control event is documented and reported. Field system blanks are not performed every day if clean probes are still available. Field system blanks are performed after any probe decontamination process.

A reagent blank is performed to ensure the solvent used to dilute the stock standards is not contaminated. Analytical instruments are calibrated daily using fresh working standards made from National Institute of Sciences and Technology traceable standards and reagent blanked solvents.

Quantitative precision is assured by replicating analysis of 10 to 100 percent of the samples. The percentage is based on the sample analysis time. Replicate analyses are performed by subsampling vapors from the same sampling syringe.

6.0 RESULTS

The analytical results from this soil gas investigation are summarized in tabular form in Appendix A. The data are presented by location and by analyte concentration. When the compound was not detected, the detection limit is presented as a "less than" value, e.g., <0.01 µg/L. Soil gas samples are identified by sample location and sampling depth. For example, CT-1-6' represents a soil gas sample collected at location CT-1 at a depth of 6 feet bgs.

A sampling location map (Figure 1) and concentration maps (Figures 2 to 11) for the target compounds are included in Appendix B. Isoconcentration contours were not drawn for vinyl chloride (Figure 2), carbon dioxide (Figure 8) or oxygen (Figure 9) because elevated concentrations above ambient air concentrations were not detected.

The highest concentrations of the target compounds in the Central Tank Farm Area were detected at sampling locations CT-18 and CT-21. The isoconcentration contours indicate that there are elevated concentrations of VOCs in the subsurface between the Hot Oil Shed and the northern corner of Building No. 10. Isolated concentrations of methane and TVHC were also detected at location CT-6.

Elevated concentrations of the target VOCs were also detected in the Aromatic and Essential Oils Manufacturing Area. The highest detected concentrations center around sampling locations AR-1 and AR-25. Detected concentrations extend from the Electric Building to the existing building foundation and over to the west of the former toluene underground storage tanks.

An unknown VOC was identified, but not quantified, in the field as trichloroethene (TCE). This VOC was detected at sampling locations AR-23, AR-24, AR-44, AR-45, AR-46, AR-47, CT-21, and CT-23 because the analysis time was inadvertently extended at those locations.

APPENDIX A Condensed Data

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
07/26/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
CT 1 6'	<0.2	1	<0.05	<0.08	<0.2	51	<9500	240000	<6100	ND
CT 2 6'	INT	2	<0.01	<0.02	<0.04	7	120000	190000	<6100	ND
CT 3 6'	<0.2	0.05	<0.01	<0.02	<0.04	0.05	14000	250000	<3100	ND

INT interference with adjacent peaks
ND non-detect

Analyzed by: D. Bonner
Proofed by: K McWhirter

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
07/27/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L	NAPTHALENE µg/L
AIR	<0.2	<0.05	<0.04	<0.1	<0.1	<0.1	<1100	240000	<750	<0.04	<0.02
CT 7 6'	<0.2	<0.05	0.03	<0.2	<0.2	6	150000	130000	<1500	<0.08	<0.7
CT 8 6'	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	130000	100000	<1500	<0.08	<0.05
CT 14 6'	<0.2	<0.05	<0.08	<0.2	<0.2	<0.2	200000	88000	<1500	<0.08	<0.05
AIR	<0.2	<0.05	<0.04	<0.1	<0.1	<0.1	680000	970000	<750	<0.04	<0.02
CT 13 6'	<0.2	<18	100	<0.5	<0.6	1200	55000	170000	30000	<0.08	<0.1
CT 12 3'	<0.2	<0.05	0.3	<0.2	<0.2	8	160000	140000	86000	<0.08	<0.05
CT 4 6'	<0.2	<0.05	<0.08	<0.2	<0.2	<0.2	30000	230000	<1500	<0.08	NA
CT 5 6'	<0.2	<0.02	<0.04	<0.1	<0.1	<0.1	40000	200000	<1500	<0.08	NA
CT 9 6'	<0.2	<0.02	<0.04	<0.1	<0.2	<0.1	130000	140000	<750	<0.04	NA
AIR	<0.2	<0.05	<0.04	<0.1	<0.1	<0.4	4500	260000	<750	<0.04	<0.4

NA not analyzed

Analyzed by: D. Bonner
Proofed by: K. McWhinney

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
07/28/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
AIR	<0.1	<0.08	<0.1	<0.2	<0.3	<0.3	<1200	240000	<1400	<0.01
CT 6-6'	<1	<0.8	<1	<2	<35	460	160000	90000	22000	<0.03
CT 11-6'	<0.1	<0.07	<0.1	<0.2	NA	13	51000	210000	<1400	<0.03
CT 16-5'	<0.4	<0.3	<0.4	<0.8	NA	<1	12000	240000	<1400	<0.03
CT 17-3'	<0.4	70	10	<0.4	<0.6	1100	190000	50000	8700	<0.03
CT 18-3'	<2	1200	420	<19	<52	12000	140000	43000	81000	<0.03
CT 19-3'	<0.4	<0.3	<0.4	<0.8	<1	<1	72000	170000	<1400	<0.2
AIR	<0.2	<0.1	<0.2	<0.4	<0.6	<0.7	<2300	250000	<1400	<0.06

NA: not analyzed

Analyzed by: D. Bonner
Proofed by: K. Bechtold

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
07/29/93

SAMPLE	VINYL CHLORIDE µg/L.	BENZENE µg/L.	TOLUENE µg/L.	ETHYL BENZENE µg/L.	XYLENE µg/L.	TVHC µg/L.	CARBON DIOXIDE µg/L.	OXYGEN µg/L.	METHANE µg/L.	TOTAL 1,2 DCE µg/L.
AIR	<0.1	<0.07	<0.2	<0.3	<0.6	<0.6	<1200	230000	<1600	<0.03
CT 10 6'	<0.1	<0.03	<0.2	<0.3	<0.6	<0.6	11000	240000	<1600	<0.03
CT 15 6'	<0.1	<0.07	<0.2	<0.3	<0.6	<0.6	7700	230000	<1600	<0.1
AR 1 6'	<11	17000	980	<25	<64	18000	470000	59000	97000	4
AR 2 3'	<4	<0.1	<0.3	<0.5	<1	2	55000	160000	<1600	<0.03
AR 3 6'	<0.2	<0.1	<0.3	<0.5	<1	<1	180000	75000	<1600	<0.03
AR 4 6'	<0.1	<0.07	<0.2	<0.3	<0.6	<0.6	200000	52000	<1600	<0.06
AR 5 5'	<0.1	<0.07	<0.2	<0.3	<0.6	<0.6	230000	46000	<1600	<0.06
AR 6 5'	<0.1	<0.07	<0.2	<0.3	<0.6	<0.6	54000	200000	<1600	<0.06
AIR	<0.1	<0.07	<0.2	NA	NA	NA	<1200	256000	<1600	<0.01

NA not analyzed

Analyzed by: D. Bonner
Proofed by: K. McVeigh

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
07/30/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
AIR	<0.2	<0.1	<0.2	<0.3	<0.5	<0.6	<2400	260000	<1500	<0.02
AR-7 6'	<0.4	<0.3	<0.3	<0.6	<1	<1	130000	170000	<1500	<0.03
AR 8 6'	<0.4	<0.3	<0.3	<0.6	<1	24	150000	36000	<1500	0.1
AR-9 5'	<4	<3	<3	<6	<11	310	160000	50000	<1500	<0.06
AR 10 6'	<4	<3	<3	<6	<11	500	220000	40000	<1500	<0.03
AR 11 6'	<0.4	<0.3	<0.3	<0.6	<1	530	150000	130000	28000	<0.02
AR-12 6'	<1	<1	<2	<4	<8	750	170000	130000	30000	<0.03
AR 13 6'	<0.7	<0.5	<1	<2	<4	<4	210000	63000	<1500	<0.03
AR 14 6'	<0.2	<0.1	<0.3	<0.6	<1	20	490000	110000	<3000	3
AR-15 6'	<0.09	<0.06	<0.2	<0.3	<0.5	<0.6	25000	200000	<3000	<0.03
AR-16 6'	<0.2	0.3	<0.3	<0.6	<1	<1	100000	200000	<1500	0.4
AR-17 6'	<0.2	<0.1	<0.3	<0.6	<1	<1	140000	96000	<1500	0.4
AR-18 6'	<0.2	8	<0.3	<0.6	<1	16	260000	46000	<3000	5
AR 19 3'	<0.2	1	0.9	<0.6	<1	2	430000	210000	<3000	<0.03
AIR	<0.2	<0.1	<0.3	<0.5	<1	<1	<2400	280000	<1500	<0.02

Analyzed by: D. Bonner
Proofed by: K. McWhirter

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
08/02/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
AIR	NA	NA	NA	NA	NA	NA	2400	250000	<1500	<0.03
AR-20-6'	<0.2	1	<4	<0.7	<1	8	260000	76000	<760	<0.06
AR-21-3'	<0.2	360	<12	<33	9	890	420000	56000	200000	0.2
AR-22-3'	INT	46	<5	<12	<28	200	210000	40000	74000	0.1
AR-23-3'	0.6	3	<0.3	<0.3	0.6	41	270000	92000	3800	28
AR-24-3'	INT	19	3	<0.3	<0.6	68	540000	38000	99000	14
AR-25-3'	<7	3200	3500	770	3000	11000	270000	41000	160000	7
AR-26-3'	<19	2800	490	<70	<130	3100	220000	100000	76000	2
AR-27-5'	<19	5600	41	100	51	6900	190000	99000	190000	0.4
AR-28-3'	<2	45	<5	<7	<12	200	310000	48000	18000	<0.06
AIR	<0.09	<0.1	<0.3	<0.3	<0.6	<0.6	4700	250000	<760	<0.03

NA not analyzed
INT interference with adjacent peaks

Analyzed by: D. Bonner
Proofed by: K. McNeil

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
08/03/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
AIR	<0.1	<0.1	<0.3	<0.4	<0.7	<0.7	<2000	240000	<670	<0.03
AR-29 6'	<0.4	<0.4	<1	<2	<3	<3	260000	42000	<1300	<0.4
AR-30 6'	<0.2	<0.2	<0.5	<0.8	<1	<1	110000	160000	<1300	<0.03
AR-31-6'	<0.1	<0.1	<0.3	<0.4	<0.7	<0.7	140000	110000	<1300	<0.03
AR-32 5'	<0.1	0.3	<0.3	<0.4	<0.7	<0.7	26000	230000	<670	<0.03
AR-33 6'	<0.1	0.1	<0.3	<0.4	<0.7	<0.7	150000	160000	<670	<0.03
AR-34 6'	<0.1	<0.1	<0.3	<0.4	<0.7	<0.7	200000	100000	<670	<0.03
AR-35 6'	<0.1	<0.1	<0.3	<0.4	<0.7	<0.7	190000	120000	<670	<0.03
AR-36 6'	<0.1	0.1	<0.3	<0.4	<0.7	<0.7	150000	100000	<670	<0.03
AR-37 6'	<0.8	1	7	<0.4	<0.7	52	150000	90000	15000	0.07
AR-38 6'	<0.4	<0.1	<0.3	<0.4	<0.7	31	160000	50000	35000	0.1
AIR	<0.1	<0.1	<0.3	<0.4	<0.7	<0.7	<1000	220000	<670	<0.06

Analyzed by: D. Bonner
Proofed by: K. McNeil

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
08/04/93

SAMPLE	VINYL CHLORIDE µg/L.	BENZENE µg/L.	TOLUENE µg/L.	ETHYL BENZENE µg/L.	XYLENE µg/L.	TVHC µg/L.	CARBON DIOXIDE µg/L	OXYGEN µg/L.	METHANE µg/L.	TOTAL 1,2 DCE µg/L.
AIR	<0.09	<0.1	<0.1	<0.2	<0.3	<0.4	NA	NA	NA	<0.02
AR 39 6'	<3	12	<0.7	<0.8	22	240	64000	170000	30000	0.2
AR 40 5'	<3	66	<1	<2	16	390	170000	34000	100000	NA

NA not analyzed

Analyzed by: D. Bonner
Proofed by: K. McAlvain

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
08/05/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
AIR	<0.08	<0.08	<0.2	<0.3	<0.5	<0.5	14000	240000	<1500	<0.04
AR-41 6'	<0.2	0.2	0.4	<0.2	<0.3	0.6	110000	170000	<750	<0.09
AR-42 3'	<0.4	9	5	<0.8	<1	21	240000	29000	6800	<0.04
AR-43 3'	<0.2	0.5	<0.2	<0.3	<0.5	5	110000	40000	<750	0.3
AR-44 6'	<0.08	2	0.7	<0.2	<0.3	3	72000	180000	<750	<0.2
AR-45 3'	<3	320	210	<2	<3	530	320000	50000	68000	8
AR-46 5.5'	<2	2	INT	<0.8	<51	22	320000	26000	9200	0.2
AR-47 3'	<3	130	2	<0.8	<1	390	270000	39000	74000	0.3
CT-20 no sample										
CT-21 5.5'	<13	7700	11000	<3	<5	60000	360000	13000	290000	35
CT-22 3'	<0.8	<0.8	<1	<2	<3	<3	150000	120000	<750	<0.09
AR-48 3'	<3	<0.4	<0.6	<0.8	<1	41	220000	46000	49000	3

INT interference with adjacent peaks

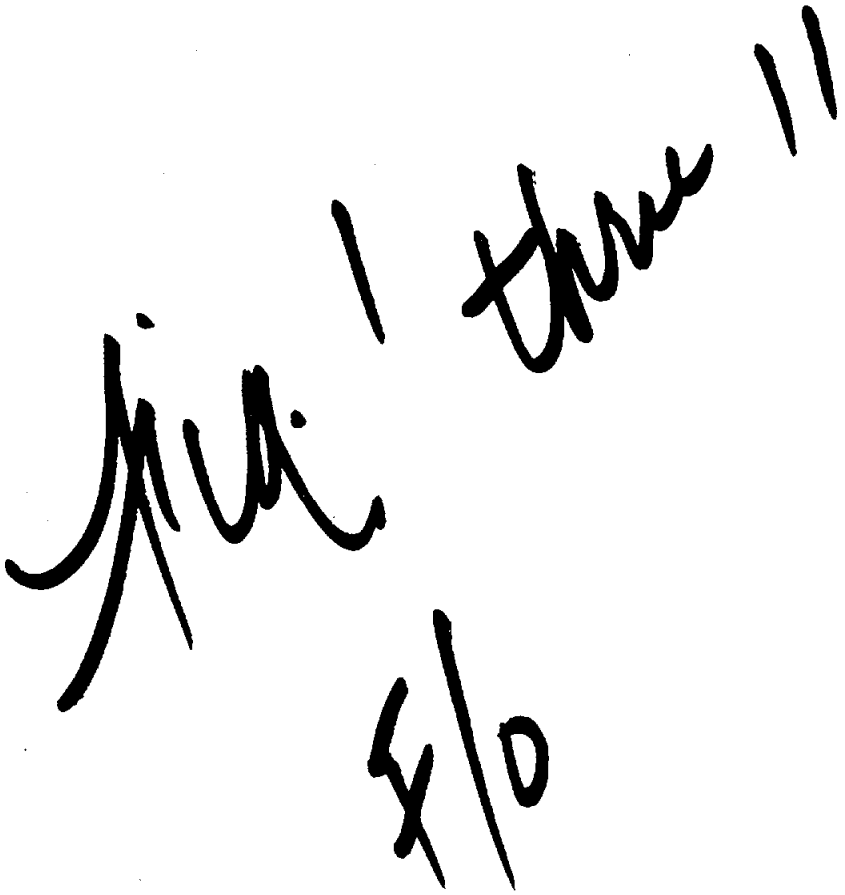
Analyzed by: D. Bonner
Proofed by: K. Reichelt

TRACER RESEARCH CORPORATION-ANALYTICAL RESULTS
CH2MHill/Stepan Company Property/Maywood, New Jersey/Job No. 2-93-246-S
08/06/93

SAMPLE	VINYL CHLORIDE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL BENZENE µg/L	XYLENE µg/L	TVHC µg/L	CARBON DIOXIDE µg/L	OXYGEN µg/L	METHANE µg/L	TOTAL 1,2 DCE µg/L
AIR	<0.04	<0.04	<0.09	<0.1	<0.3	<0.3	<1100	260000	<680	<0.02
CT 2 3-4.5'	<0.9	<0.4	<0.9	<1	<3	5	260000	76000	37000	<0.04
AIR	<0.04	<0.04	<0.09	<0.1	<0.3	<0.3	8100	230000	<680	<0.02

Analyzed by: D. Bonner
Proofed by:

APPENDIX B Figures



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Tracer Research Corporation

EXPLANATION

- ·AR−1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT−1 — Central Tank Farm Sampling Loc.
- B38W04B — Monitoring Well Location
- ——— Approximate Railroad Location
- ——— Approximate Fence Location
- (17000) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)
- SG-1 — Proposed Soil Boring Locations

Building No. 67

Building No. 52 (Storage)

Building No. 4 (Boiler House)

Truck Scale

Railroad Tracks

Building No. 13 (Warehouse/ Production/ Sample Dept.)

CT−1 (1) · CT−2 (2) · CT−3 (0.05) · CT−4 (<0.02) · CT−5 (<0.02) · CT−6 (<0.8) · CT−7 (<0.05) · CT−8 (<0.2) · CT−9 (<0.02) · CT−10 (<0.03) · CT−11 (<0.07) · CT−12 (<0.05) · CT−13 (<18) · CT−14 · CT−15 (<0.07) · CT−16 (<0.3) · CT−17 (70) · CT−18 (1200) · CT−19 (<0.3) · CT−20 (NS) · CT−21 (7700) · CT−22 (<0.8) · CT−23 (<0.4)

B38W04B

Cooling Tower

Hot Oil Shed

Tank Farm

Building No. 10 (Production)

Building No. 10H (Storage)

Building No. 2

Building Foundation

AR−1 (170000) · AR−2 (<0.1) · AR−3 (<0.01) · AR−4 (<0.7) · AR−5 (<0.07) · AR−6 (<0.07) · AR−7 (<0.3) · AR−8 (<0.3) · AR−9 (<3) · AR−10 (<3) · AR−11 (<0.3) · AR−12 (<1) · AR−13 (<0.5) · AR−14 (<0.1) · AR−15 (<0.06) · AR−16 (0.3) · AR−17 (<0.1) · AR−18 (8) · AR−19 (1) · AR−20 (1) · AR−21 (360) · AR−22 (46) · AR−23 (3) · AR−24 (19) · AR−25 (3200) · AR−26 (2800) · AR−27 (5600) · AR−28 (45) · AR−29 (<0.4) · AR−30 (<0.2) · AR−31 (<0.1) · AR−32 (<0.3) · AR−33 (0.1) · AR−34 (<0.1) · AR−35 (<0.1) · AR−36 (0.1) · AR−37 (1) · AR−38 (<0.1) · AR−39 (12) · AR−40 (66) · AR−41 (0.2) · AR−42 (9) · AR−43 (0.5) · AR−44 (2) · AR−45 (320) · AR−46 (2) · AR−47 (130) · AR−48 (<0.4)

Foundation

Electric Building

Fence

Railroad Tracks

Sears Property

300 N · 200 N · 100 N · 0 N · 0 E · 100 E · 200 E · 300 E · 400 E · 500 E

N

0 25 50 feet

Tank Chart

1. Existing 7,500 gal Alcohol UST (Abandoned 1983)
2. Existing 250 gal Gasoline UST (Location Approx.)
3. Existing 2,500 gal Alcohol UST (Location Approx.)
4. Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
5. Existing 60,000 gal No.4 Fuel Oil UST (Active)
6. Former (2): 10,000 gal Toluene USTS (Removed 1983)

2-93-246-3

STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

BENZENE

Figure 3

Proposed Boring Locations

Tracer Research Corporation

EXPLANATION

- ·AR-1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT-1 — Central Tank Farm Sampling Loc.
- ⌖ B38W04B — Monitoring Well Location
- ——+——+—— — Approximate Railroad Location
- —·——·—— — Approximate Fence Location
- (0.000) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)

Building No. 67

Building No. 4 (Boiler House)

Building No. 52 (Storage)

Truck Scale

⑤

·CT-1 ·CT-2 ·CT-3 ·CT-4 ·CT-5

(Warehouse/ Production/ Sample Dept.) Building No. 13

B38W04B

CT-6 CT-7 ·CT-8 ·CT-9 ·CT-10

Cooling Tower

Hot Oil Shed

·CT-11 ·CT-12 ·CT-13 ·CT-14 ·CT-15

Railroad Tracks

·CT-16 ·CT-17 ·CT-18 ·CT-19 ·CT-20

·AR-2 ·AR-3 ·AR-4 ·AR-5

300 N

Building Foundation

·AR-6 ·AR-29 ·AR-30 ·AR-31 ·AR-32 ·AR-33 ·AR-34

B38W03B

Tank Farm

·CT-23

CT-21 ·CT-22

Building No. 10 (Production)

·AR-7 ·AR-8 ·AR-9 ·AR-10 ·AR-11 ·AR-12 ·AR-13 ·AR-35

Transformer

Fence

200 N

·AR-15 ·AR-16 ·AR-17 ·AR-19 ·AR-20 ·AR-21 ·AR-22 ·AR-23 ·AR-46

Fence

Building No. 2

·AR-14 ·AR-18 ·AR-24 ·AR-25 ·AR-26 ·AR-27 ·AR-28 ·AR-45 ·AR-47 ·AR-48

B38W08B

BRMW2

AR-1 OBMW2

Foundation

Building No. 10H (Storage)

·AR-44

·AR-36 ·AR-37 ·AR-38 ·AR-39 ·AR-40 ·AR-41

100 N

·AR-42

AR-43 Electric Building

Tank Chart

① Existing 7,500 gal Alcohol UST (Abandoned 1983)
② Existing 250 gal Gasoline UST (Location Approx.)
③ Existing 2,500 gal Alcohol UST (Location Approx.)
④ Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
⑤ Existing 50,000 gal No.4 Fuel Oil UST (Active)
⑥ Former (2): 10,000 gal Toluene USTS (Removed 1983)

N

0 25 50
feet

Fence

Railroad Tracks

0 N

Sears Property

0 E 100 E 200 E 300 E 400 E 500 E

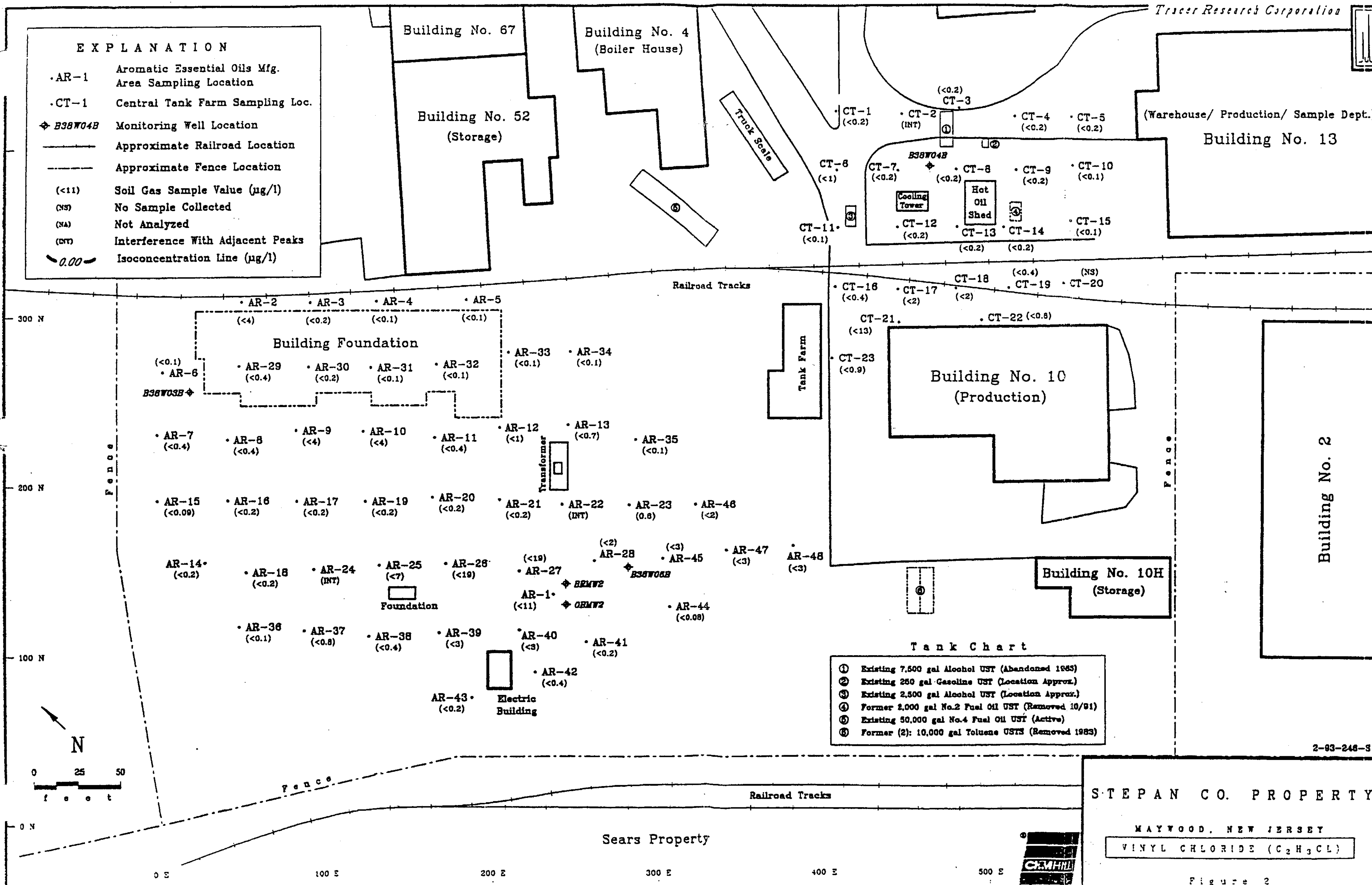
2-93-246-S

STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

SAMPLING LOCATIONS

Figure 1



Tracer Research Corporation
EXPLANATION
·AR-1 Aromatic Essential Oils Mfg. Area Sampling Location
·CT-1 Central Tank Farm Sampling Loc.
B38W04B Monitoring Well Location
Approximate Railroad Location
Approximate Fence Location
(<11) Soil Gas Sample Value (µg/l)
(NS) No Sample Collected
(NA) Not Analyzed
(INT) Interference With Adjacent Peaks
0.00 Isoconcentration Line (µg/l)
Building No. 67
Building No. 4 (Boiler House)
Building No. 52 (Storage)
Truck Scale
(Warehouse/ Production/ Sample Dept.)
Building No. 13
CT-1 (<0.2)
CT-2 (INT)
(<0.2) CT-3
CT-4 (<0.2)
CT-5 (<0.2)
B38W04B
CT-6 (<1)
CT-7 (<0.2)
CT-8 (<0.2)
CT-9 (<0.2)
CT-10 (<0.1)
Cooling Tower
Hot Oil Shed
CT-11 (<0.1)
CT-12 (<0.2)
CT-13 (<0.2)
CT-14 (<0.2)
CT-15 (<0.1)
Railroad Tracks
CT-16 (<0.4)
CT-17 (<2)
CT-18 (<2)
(<0.4) CT-19
(NS) CT-20
CT-21 (<13)
CT-22 (<0.8)
CT-23 (<0.9)
Tank Farm
Building No. 10 (Production)
Building No. 2
Building No. 10H (Storage)
Fence
300 N
200 N
100 N
0 N
0 E
100 E
200 E
300 E
400 E
500 E
Building Foundation
AR-2 (<4)
AR-3 (<0.2)
AR-4 (<0.1)
AR-5 (<0.1)
(<0.1) AR-6
B38W03B
AR-29 (<0.4)
AR-30 (<0.2)
AR-31 (<0.1)
AR-32 (<0.1)
AR-33 (<0.1)
AR-34 (<0.1)
AR-7 (<0.4)
AR-8 (<0.4)
AR-9 (<4)
AR-10 (<4)
AR-11 (<0.4)
AR-12 (<1)
AR-13 (<0.7)
AR-35 (<0.1)
Transformer
AR-15 (<0.09)
AR-16 (<0.2)
AR-17 (<0.2)
AR-19 (<0.2)
AR-20 (<0.2)
AR-21 (<0.2)
AR-22 (INT)
AR-23 (0.8)
AR-46 (<2)
AR-14 (<0.2)
AR-18 (<0.2)
AR-24 (INT)
AR-25 (<7)
Foundation
AR-26 (<19)
(<19) AR-27
(<2) AR-28
B38W06B
(<3) AR-45
AR-47 (<3)
AR-48 (<3)
BRMW2
AR-1 (<11)
OBMW2
AR-44 (<0.08)
AR-36 (<0.1)
AR-37 (<0.8)
AR-38 (<0.4)
AR-39 (<3)
AR-40 (<3)
AR-41 (<0.2)
AR-42 (<0.4)
AR-43 (<0.2)
Electric Building
Tank Chart
① Existing 7,500 gal Alcohol UST (Abandoned 1985)
② Existing 250 gal Gasoline UST (Location Approx.)
③ Existing 2,500 gal Alcohol UST (Location Approx.)
④ Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
⑤ Existing 50,000 gal No.4 Fuel Oil UST (Active)
⑥ Former (2): 10,000 gal Toluene USTS (Removed 1983)
N
0 25 50
feet
Fence
Railroad Tracks
Sears Property
2-93-246-3
CH2M HILL
STEPAN CO. PROPERTY
MAYWOOD, NEW JERSEY
VINYL CHLORIDE (C_2H_3CL)
Figure 2

Tracer Research Corporation

EXPLANATION

- ·AR-1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT-1 — Central Tank Farm Sampling Loc.
- ⌖ B38W04B — Monitoring Well Location
- Approximate Railroad Location
- Approximate Fence Location
- (17000) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)

Building No. 67

Building No. 4 (Boiler House)

Building No. 52 (Storage)

Truck Scale

(Warehouse/ Production/ Sample Dept.) Building No. 13

Railroad Tracks

Tank Farm

Building No. 10 (Production)

Building No. 2

Building No. 10H (Storage)

Building Foundation

Foundation

Electric Building

Transformer

Cooling Tower

Hot Oil Shed

Fence

Sears Property

·AR-2 (<0.1)	·AR-3 (<0.01)	·AR-4 (<0.7)	·AR-5 (<0.07)	
·AR-6 (<0.07)	·AR-29 (<0.4)	·AR-30 (<0.2)	·AR-31 (<0.1)	·AR-32 (<0.3)
·AR-7 (<0.3)	·AR-8 (<0.3)	·AR-9 (<3)	·AR-10 (<3)	·AR-11 (<0.3)
·AR-12 (<1)	·AR-13 (<0.5)	·AR-33 (0.1)	·AR-34 (<0.1)	·AR-35 (<0.1)
·AR-15 (<0.08)	·AR-16 (0.3)	·AR-17 (<0.1)	·AR-19 (1)	·AR-20 (1)
·AR-21 (360)	·AR-22 (46)	·AR-23 (3)	·AR-46 (2)	·AR-14 (<0.1)
·AR-18 (8)	·AR-24 (19)	·AR-25 (3200)	·AR-26 (2800)	·AR-27 (5600)
·AR-28 (45)	·AR-45 (320)	·AR-47 (130)	·AR-48 (<0.4)	·AR-1 (17000)
·AR-36 (0.1)	·AR-37 (1)	·AR-38 (<0.1)	·AR-39 (12)	·AR-40 (66)
·AR-41 (0.2)	·AR-42 (9)	·AR-43 (0.5)	·AR-44 (2)	

·CT-1 (1)	·CT-2 (2)	·CT-3 (0.05)	·CT-4 (<0.02)	·CT-5 (<0.02)
·CT-6 (<0.8)	·CT-7 (<0.05)	·CT-8 (<0.2)	·CT-9 (<0.02)	·CT-10 (<0.03)
·CT-11 (<0.07)	·CT-12 (<0.05)	·CT-13 (<18)	·CT-14 (<0.05)	·CT-15 (<0.07)
·CT-16 (<0.3)	·CT-17 (70)	·CT-18 (1200)	·CT-19 (<0.3)	·CT-20 (NS)
·CT-21 (7700)	·CT-22 (<0.8)	·CT-23 (<0.4)		

Isoconcentration lines: 1, 10, 100, 1,000

Tank Chart

1. Existing 7,500 gal Alcohol UST (Abandoned 1983)
2. Existing 250 gal Gasoline UST (Location Approx.)
3. Existing 2,500 gal Alcohol UST (Location Approx.)
4. Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
5. Existing 50,000 gal No.4 Fuel Oil UST (Active)
6. Former (2): 10,000 gal Toluene USTS (Removed 1983)

N

0 25 50 feet

300 N · 200 N · 100 N · 0 N

0 E · 100 E · 200 E · 300 E · 400 E · 500 E

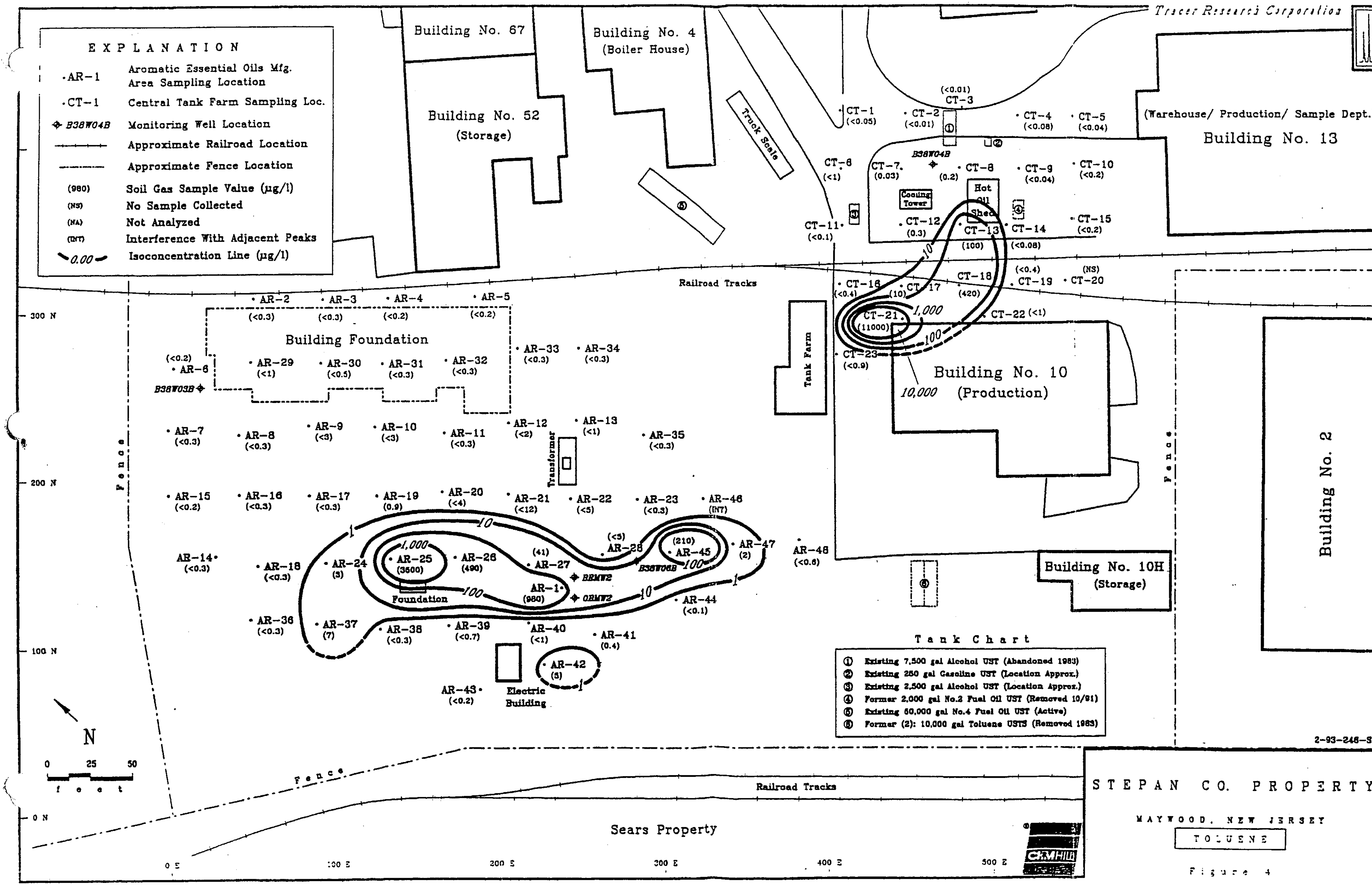
2-93-248-3

STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

BENZENE

Figure 3

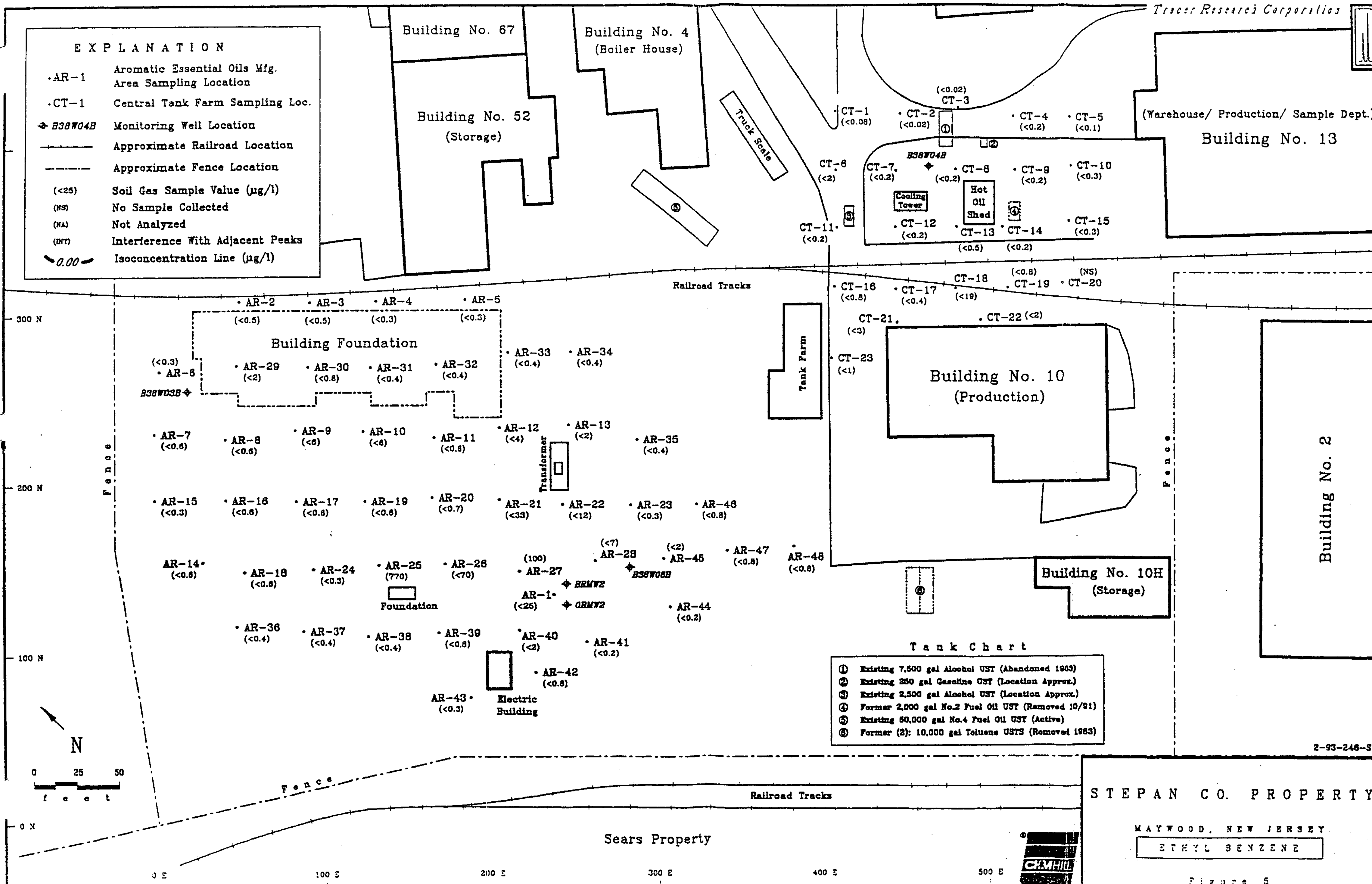


STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

TOLUENE

Figure 4

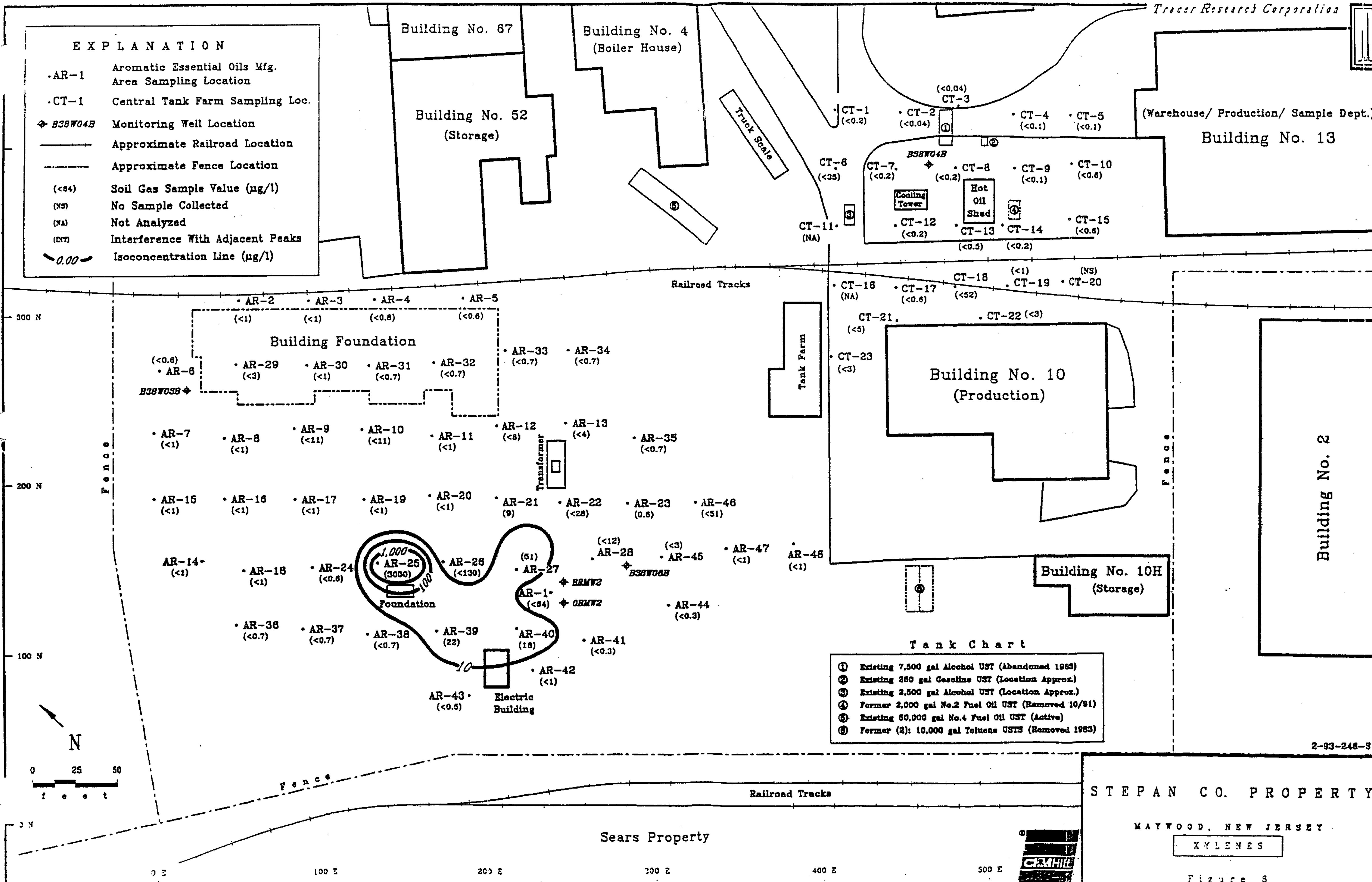


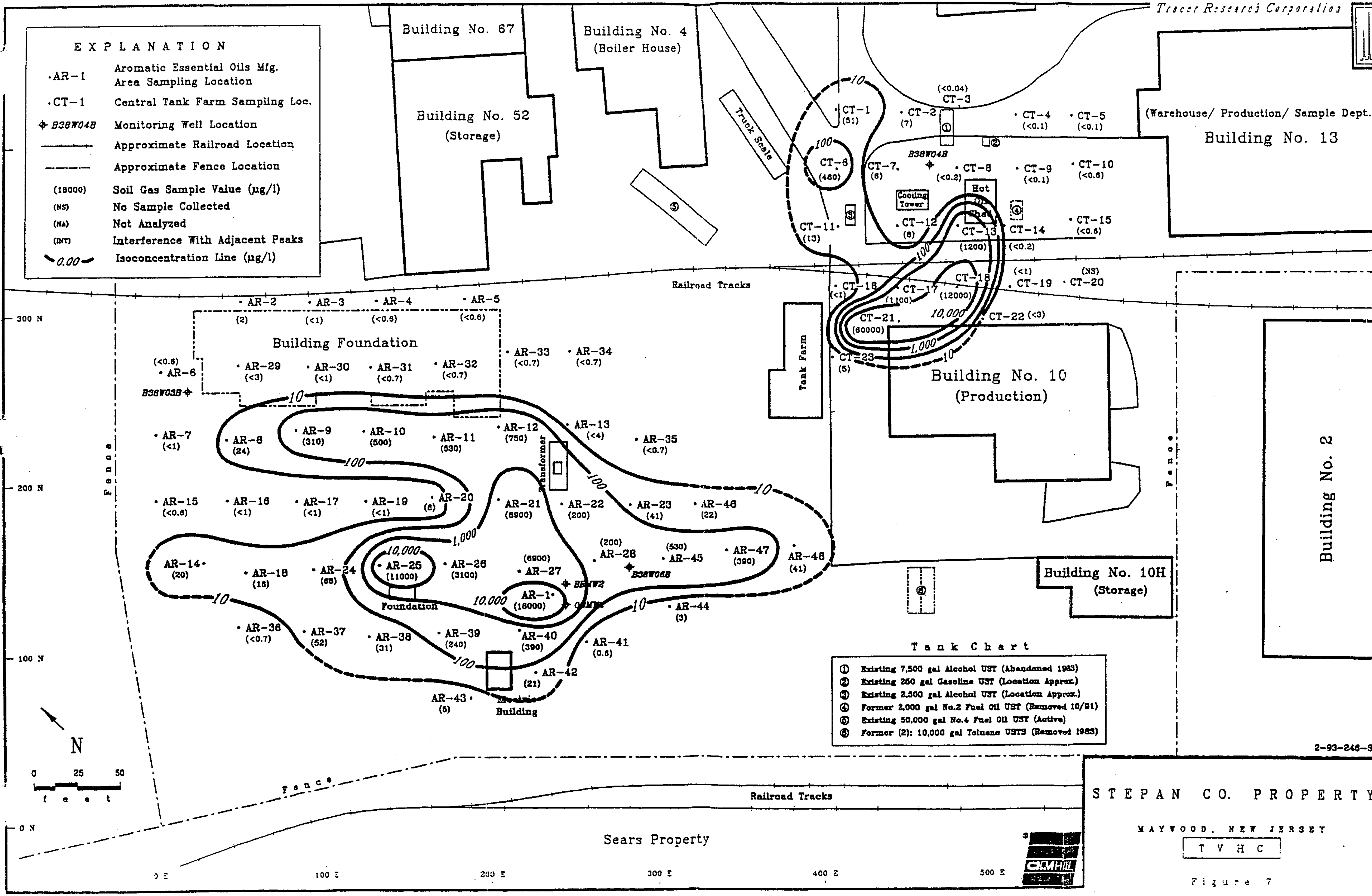
STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

ETHYL BENZENE

Figure 5


EXPLANATION
AR-1 Aromatic Essential Oils Mfg. Area Sampling Location
CT-1 Central Tank Farm Sampling Loc.
B38W04B Monitoring Well Location
Approximate Railroad Location
Approximate Fence Location
(<64) Soil Gas Sample Value (µg/l)
(NS) No Sample Collected
(NA) Not Analyzed
(INT) Interference With Adjacent Peaks
0.00 Isoconcentration Line (µg/l)
Building No. 67
Building No. 52 (Storage)
Building No. 4 (Boiler House)
Truck Scale
Tracer Research Corporation
(Warehouse/ Production/ Sample Dept.) Building No. 13
CT-1 (<0.2)
CT-2 (<0.04)
CT-3 (<0.04)
CT-4 (<0.1)
CT-5 (<0.1)
CT-6 (<35)
CT-7 (<0.2)
B38W04B
CT-8 (<0.2)
CT-9 (<0.1)
CT-10 (<0.6)
Cooling Tower
Hot Oil Shed
CT-11 (NA)
CT-12 (<0.2)
CT-13 (<0.5)
CT-14 (<0.2)
CT-15 (<0.6)
Railroad Tracks
CT-16 (NA)
CT-17 (<0.6)
CT-18 (<52)
CT-19 (<1)
CT-20 (NS)
CT-21 (<5)
CT-22 (<3)
CT-23 (<3)
Tank Farm
Building No. 10 (Production)
Building No. 2
Fence
300 N
200 N
100 N
0 N
AR-2 (<1)
AR-3 (<1)
AR-4 (<0.8)
AR-5 (<0.6)
Building Foundation
AR-6 (<0.6)
B38W03B
AR-29 (<3)
AR-30 (<1)
AR-31 (<0.7)
AR-32 (<0.7)
AR-33 (<0.7)
AR-34 (<0.7)
AR-7 (<1)
AR-8 (<1)
AR-9 (<11)
AR-10 (<11)
AR-11 (<1)
AR-12 (<8)
AR-13 (<4)
AR-35 (<0.7)
Transformer
AR-15 (<1)
AR-16 (<1)
AR-17 (<1)
AR-19 (<1)
AR-20 (<1)
AR-21 (9)
AR-22 (<28)
AR-23 (0.6)
AR-46 (<51)
AR-14 (<1)
AR-18 (<1)
AR-24 (<0.6)
1,000
AR-25 (3000)
100
Foundation
AR-26 (<130)
AR-27 (51)
AR-28 (<12)
B38W06B
AR-45 (<3)
AR-47 (<1)
AR-48 (<1)
BRMW2
AR-1 (<64)
OBMW2
AR-44 (<0.3)
Building No. 10H (Storage)
AR-36 (<0.7)
AR-37 (<0.7)
AR-38 (<0.7)
AR-39 (22)
AR-40 (16)
AR-41 (<0.3)
10
AR-42 (<1)
AR-43 (<0.5)
Electric Building
N
0 25 50 feet
Fence
Railroad Tracks
Sears Property
0 E
100 E
200 E
300 E
400 E
500 E
Tank Chart
① Existing 7,500 gal Alcohol UST (Abandoned 1983)
② Existing 250 gal Gasoline UST (Location Approx.)
③ Existing 2,500 gal Alcohol UST (Location Approx.)
④ Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
⑤ Existing 50,000 gal No.4 Fuel Oil UST (Active)
⑥ Former (2): 10,000 gal Toluene USTS (Removed 1983)
2-93-246-S
CH2MHILL
STEPAN CO. PROPERTY
MAYWOOD, NEW JERSEY
XYLENES
Figure 5



STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

TVHC

Figure 7

Tracer Research Corporation

EXPLANATION

- ·AR−1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT−1 — Central Tank Farm Sampling Loc.
- ✦ B38W04B — Monitoring Well Location
- Approximate Railroad Location
- Approximate Fence Location
- (470000) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)

Building No. 67

Building No. 52 (Storage)

Building No. 4 (Boiler House)

Truck Scale

Railroad Tracks

(Warehouse/ Production/ Sample Dept.) Building No. 13

CT-1 (<9500) · CT-2 (120000) · (14000) CT-3 · CT-4 (30000) · CT-5 (40000)

B38W04B

CT-6 (160000) · CT-7 (150000) · CT-8 (130000) · CT-9 (130000) · CT-10 (11000)

Cooling Tower · Hot Oil Shed

CT-11 (51000) · CT-12 (160000) · CT-13 (55000) · CT-14 (200000) · CT-15 (7700)

CT-16 (12000) · CT-17 (190000) · CT-18 (140000) · (72000) CT-19 · (NS) CT-20

CT-21 (360000) · CT-22 (150000) · CT-23 (260000)

Tank Farm

Building No. 10 (Production)

Building No. 2

Building No. 10H (Storage)

Fence

300 N · 200 N · 100 N · 0 N

0 E · 100 E · 200 E · 300 E · 400 E · 500 E

· AR-2 (55000) · AR-3 (180000) · AR-4 (200000) · AR-5 (230000)

Building Foundation

(54000) · AR-6 · AR-29 (280000) · AR-30 (110000) · AR-31 (140000) · AR-32 (26000) · AR-33 (150000) · AR-34 (200000)

B38W03B

· AR-7 (130000) · AR-8 (150000) · AR-9 (160000) · AR-10 (220000) · AR-11 (150000) · AR-12 (170000) · AR-13 (210000) · AR-35 (190000)

Transformer

· AR-15 (25000) · AR-16 (100000) · AR-17 (140000) · AR-19 (430000) · AR-20 (260000) · AR-21 (420000) · AR-22 (210000) · AR-23 (270000) · AR-46 (320000)

(310000) AR-28 · (320000) AR-45 · AR-47 (270000) · AR-48 (220000)

AR-14 (490000) · AR-18 (260000) · AR-24 (540000) · AR-25 (270000) · AR-26 (220000) · (190000) AR-27

B38W06B

BRMW2

AR-1 (470000)

OBMW2

Foundation

· AR-44 (72000)

· AR-36 (150000) · AR-37 (150000) · AR-38 (160000) · AR-39 (64000) · AR-40 (170000) · AR-41 (110000)

· AR-42 (240000)

AR-43 (110000)

Electric Building

Tank Chart

1. Existing 7,500 gal Alcohol UST (Abandoned 1985)
2. Existing 250 gal Gasoline UST (Location Approx.)
3. Existing 2,500 gal Alcohol UST (Location Approx.)
4. Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
5. Existing 50,000 gal No.4 Fuel Oil UST (Active)
6. Former (2): 10,000 gal Toluene USTS (Removed 1983)

2-93-246-S

N

0 25 50

feet

Fence

Railroad Tracks

Sears Property

STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

CARBON DIOXIDE (CO_2)

CH2MHILL

Figure 8

EXPLANATION

- ·AR–1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT–1 — Central Tank Farm Sampling Loc.
- B38W04B — Monitoring Well Location
- Approximate Railroad Location
- Approximate Fence Location
- (59000) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)

Tracer Research Corporation

Building No. 67

Building No. 4 (Boiler House)

Building No. 52 (Storage)

Truck Scale

(Warehouse/ Production/ Sample Dept.) Building No. 13

CT–1 (240000) · CT–2 (190000) · (250000) CT–3 · CT–4 (230000) · CT–5 (200000)

CT–6 (91000) · CT–7 (180000) · B38W04B · CT–8 (100000) · CT–9 (140000) · CT–10 (240000)

Cooling Tower · Hot Oil Shed

CT–11 (210000) · CT–12 (140000) · CT–13 (170000) · CT–14 (88000) · CT–15 (230000)

Railroad Tracks

CT–16 (240000) · CT–17 (50000) · CT–18 (43000) · (170000) CT–19 · (NS) CT–20

CT–21 (19000) · CT–22 (120000) · CT–23 (76000)

Tank Farm

Building No. 10 (Production)

Building No. 10H (Storage)

Building No. 2

Building Foundation

AR–2 (160000) · AR–3 (75000) · AR–4 (52000) · AR–5 (46000)

AR–6 (200000) · AR–29 (42000) · AR–30 (160000) · AR–31 (110000) · AR–32 (230000) · AR–33 (150000) · AR–34 (100000)

B38W03B

AR–7 (170000) · AR–8 (36000) · AR–9 (50000) · AR–10 (40000) · AR–11 (130000) · AR–12 (130000) · AR–13 (63000) · AR–35 (120000)

Transformer

AR–15 (200000) · AR–16 (200000) · AR–17 (96000) · AR–19 (210000) · AR–20 (76000) · AR–21 (75000) · AR–22 (40000) · AR–23 (92000) · AR–46 (26000)

AR–14 (110000) · AR–18 (46000) · AR–24 (36000) · AR–25 (41000) · AR–26 (100000) · (99000) AR–27 · (48000) AR–28 · (50000) AR–45 · AR–47 (39000) · AR–48 (46000)

Foundation

B38W02B · BRMW2 · OBMW2 · AR–1 (69000)

AR–36 (100000) · AR–37 (90000) · AR–38 (50000) · AR–39 (170000) · AR–40 (34000) · AR–41 (170000) · AR–44 (180000)

AR–42 (29000)

AR–43 (40000)

Electric Building

300 N · 200 N · 100 N · 0 N

0 E · 100 E · 200 E · 300 E · 400 E · 500 E

Fence

N

0 25 50

feet

Sears Property

Tank Chart

1. Existing 7,500 gal Alcohol UST (Abandoned 1983)
2. Existing 250 gal Gasoline UST (Location Approx.)
3. Existing 2,500 gal Alcohol UST (Location Approx.)
4. Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
5. Existing 50,000 gal No.4 Fuel Oil UST (Active)
6. Former (2): 10,000 gal Toluene USTS (Removed 1983)

2-93-248-S

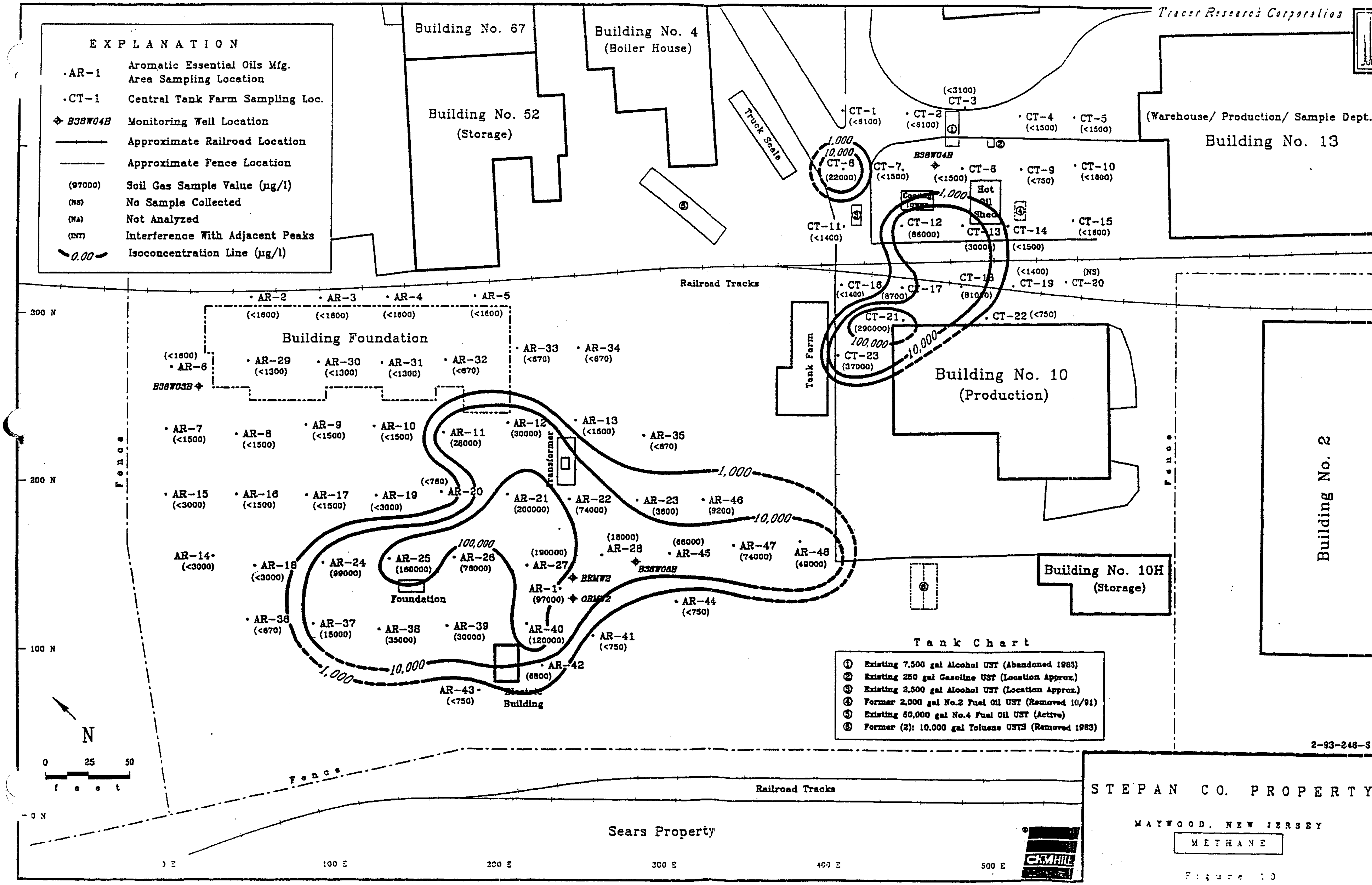
STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

OXYGEN (O_2)

Figure 9

CH2MHILL



EXPLANATION
•AR-1 Aromatic Essential Oils Mfg. Area Sampling Location
•CT-1 Central Tank Farm Sampling Loc.
B38W04B Monitoring Well Location
Approximate Railroad Location
Approximate Fence Location
(97000) Soil Gas Sample Value (µg/l)
(NS) No Sample Collected
(NA) Not Analyzed
(INT) Interference With Adjacent Peaks
0.00 Isoconcentration Line (µg/l)
Building No. 67
Building No. 4
(Boiler House)
Building No. 52
(Storage)
Truck Scale
Tracer Research Corporation
(Warehouse/ Production/ Sample Dept.)
Building No. 13
Building No. 10
(Production)
Building No. 10H
(Storage)
Building No. 2
Building Foundation
Tank Farm
Transformer
Foundation
Building
Hot Oil Shed
Cooling Tower
Railroad Tracks
Fence
Sears Property
CT-1 (<6100)
CT-2 (<6100)
CT-3 (<3100)
CT-4 (<1500)
CT-5 (<1500)
CT-6 (22000)
CT-7 (<1500)
CT-8 (<1500)
CT-9 (<750)
CT-10 (<1600)
CT-11 (<1400)
CT-12 (66000)
CT-13 (30000)
CT-14 (<1500)
CT-15 (<1600)
CT-16 (<1400)
CT-17 (8700)
CT-18 (81000)
CT-19 (<1400)
CT-20 (NS)
CT-21 (290000)
CT-22 (<750)
CT-23 (37000)
B38W04B
B38W03B
B38W06B
BRMW2
OB1W2
AR-1 (97000)
AR-2 (<1600)
AR-3 (<1600)
AR-4 (<1600)
AR-5 (<1600)
AR-6 (<1600)
AR-7 (<1500)
AR-8 (<1500)
AR-9 (<1500)
AR-10 (<1500)
AR-11 (28000)
AR-12 (30000)
AR-13 (<1600)
AR-14 (<3000)
AR-15 (<3000)
AR-16 (<1500)
AR-17 (<1500)
AR-18 (<3000)
AR-19 (<3000)
AR-20 (<760)
AR-21 (200000)
AR-22 (74000)
AR-23 (3800)
AR-24 (99000)
AR-25 (160000)
AR-26 (76000)
AR-27 (190000)
AR-28 (18000)
AR-29 (<1300)
AR-30 (<1300)
AR-31 (<1300)
AR-32 (<670)
AR-33 (<670)
AR-34 (<670)
AR-35 (<670)
AR-36 (<670)
AR-37 (15000)
AR-38 (35000)
AR-39 (30000)
AR-40 (120000)
AR-41 (<750)
AR-42 (6800)
AR-43 (<750)
AR-44 (<750)
AR-45 (68000)
AR-46 (9200)
AR-47 (74000)
AR-48 (49000)
1,000
10,000
100,000
300 N
200 N
100 N
0 N
0 E
100 E
200 E
300 E
400 E
500 E
N
0 25 50
feet
Tank Chart
① Existing 7,500 gal Alcohol UST (Abandoned 1983)
② Existing 250 gal Gasoline UST (Location Approx.)
③ Existing 2,500 gal Alcohol UST (Location Approx.)
④ Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
⑤ Existing 50,000 gal No.4 Fuel Oil UST (Active)
⑥ Former (2): 10,000 gal Toluene USTS (Removed 1983)
2-93-246-S
STEPAN CO. PROPERTY
MAYWOOD, NEW JERSEY
METHANE
CH2M HILL
Figure 10

Tracer Research Corporation

EXPLANATION

- ·AR−1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT−1 — Central Tank Farm Sampling Loc.
- ⌖ B38W04B — Monitoring Well Location
- Approximate Railroad Location
- Approximate Fence Location
- (4) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)

Building No. 67

Building No. 52 (Storage)

Building No. 4 (Boiler House)

Truck Scale

(Warehouse/ Production/ Sample Dept.) Building No. 13

(Non-Detect) ·CT−1

(Non-Detect) ·CT−2

(Non-Detect) CT−3

·CT−4 (<0.08)

·CT−5 (<0.08)

B38W04B

CT−6 (<0.03)

CT−7 (<0.08)

(<0.08)

·CT−8

·CT−9 (<0.04)

·CT−10 (<0.03)

Cooling Tower

Hot Oil Shed

·CT−12 (<0.08)

CT−13 (<0.08)

·CT−14 (<0.08)

·CT−15 (<0.1)

CT−11 (<0.03)

Railroad Tracks

·CT−16 (<0.03)

·CT−17 (<0.03)

CT−18 (<0.03)

(<0.2) ·CT−19

(NS) ·CT−20

·CT−22 (<0.09)

10 CT−21 (35)

·CT−23 (<0.04)

Tank Farm

Building No. 10 (Production)

Building No. 2

Building No. 10H (Storage)

·AR−2 (<0.03)

·AR−3 (<0.03)

·AR−4 (<0.06)

·AR−5 (<0.06)

Building Foundation

(<0.06) ·AR−6

B38W03B

·AR−29 (<0.4)

·AR−30 (<0.03)

·AR−31 (<0.03)

·AR−32 (<0.03)

·AR−33 (<0.03)

·AR−34 (<0.03)

·AR−7 (<0.03)

·AR−8 (0.1)

·AR−9 (<0.06)

·AR−10 (<0.03)

·AR−11 (<0.02)

·AR−12 (<0.03)

·AR−13 (<0.03)

Transformer

·AR−35 (<0.03)

·AR−15 (<0.03)

·AR−16 (0.4)

·AR−17 (0.4)

·AR−19 (<0.03)

·AR−20 (<0.06)

·AR−21 (0.2)

·AR−22 (0.1)

·AR−23 (25)

(0.2) ·AR−46

·AR−14 (3)

·AR−18 (5)

·AR−24 (14)

·AR−25 (7)

·AR−26 (2)

(0.4) ·AR−27

AR−1 (4)

Foundation

·AR−28 (<0.06)

B38W02B

(8) ·AR−45

·AR−47 (0.3)

(3) AR−48

·AR−44 (<0.2)

·AR−36 (<0.03)

·AR−37 (0.07)

·AR−38 (0.1)

·AR−39 (0.2)

AR−40 (NA)

·AR−41 (<0.09)

·AR−42 (<0.04)

AR−43 (0.3)

Electric Building

0.1 1 10

Fence

300 N

200 N

100 N

0 N

N

0 25 50 feet

Railroad Tracks

Sears Property

0 E 100 E 200 E 300 E 400 E 500 E

Tank Chart

①	Existing 7,500 gal Alcohol UST (Abandoned 1983)
②	Existing 250 gal Gasoline UST (Location Approx.)
③	Existing 2,500 gal Alcohol UST (Location Approx.)
④	Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
⑤	Existing 60,000 gal No.4 Fuel Oil UST (Active)
⑥	Former (2): 10,000 gal Toluene USTS (Removed 1983)

2-93-246-S

STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

1,2-DICHLOROETHENE (DCE)

Figure 11

Tracer Research Corporation

EXPLANATION

- ·AR-1 — Aromatic Essential Oils Mfg. Area Sampling Location
- ·CT-1 — Central Tank Farm Sampling Loc.
- ⌖ B38W04B — Monitoring Well Location
- Approximate Railroad Location
- Approximate Fence Location
- (1) — Soil Gas Sample Value (µg/l)
- (NS) — No Sample Collected
- (NA) — Not Analyzed
- (INT) — Interference With Adjacent Peaks
- 0.00 — Isoconcentration Line (µg/l)
- (BMDL) — Below minimum detection limit

Building No. 67

Building No. 4 (Boiler House)

Building No. 52 (Storage)

Truck Scale

Railroad Tracks

(Warehouse/ Production/ Sample Dept.) Building No. 13

Building No. 10 (Production)

Tank Farm

Building No. 10H (Storage)

Building No. 2

Building Foundation

Foundation

Transformer

Electric Building

Cooling Tower

Fence

Sears Property

Railroad Tracks

·CT-1 (1)	·CT-2 (2)	(0.05) ·CT-3	·CT-4 (BMDL)	·CT-5 (BMDL)
·CT-6 (BMDL)	·CT-7 (0.03)	·CT-8 (0.2)	·CT-9 (BMDL)	·CT-10 (BMDL)
·CT-11 (BMDL)	·CT-12 (0.3)	·CT-13 (100)	·CT-14 (BMDL)	·CT-15 (BMDL)
·CT-16 (BMDL)	(80) ·CT-17	·CT-18 (1,820)	(BMDL) ·CT-19	(NS) ·CT-20
·CT-21 (18,735)	·CT-22 (BMDL)			
·CT-23 (BMDL)				

·AR-2 (BMDL)	·AR-3 (BMDL)	·AR-4 (BMDL)	·AR-5 (BMDL)	
(BMDL) ·AR-6	·AR-29 (BMDL)	·AR-30 (BMDL)	·AR-31 (BMDL)	·AR-32 (0.3)
·AR-7 (BMDL)	·AR-8 (0.1)	·AR-9 (BMDL)	·AR-10 (BMDL)	·AR-11 (BMDL)
·AR-12 (BMDL)	·AR-13 (BMDL)	·AR-33 (0.1)	·AR-34 (BMDL)	·AR-35 (BMDL)
·AR-15 (BMDL)	·AR-16 (0.7)	·AR-17 (0.4)	·AR-19 (1.9)	·AR-20 (1)
·AR-21 (369.2)	·AR-22 (46.1)	·AR-23 (32.2)	·AR-46 (2.2)	
AR-14· (3)	·AR-18 (13)	·AR-24 (36)	·AR-25 (10,477)	(3,292) ·AR-26
(5792.4) ·AR-27	(45) ·AR-28	(538) ·AR-45	·AR-47 (132.3)	·AR-48 (3)
·AR-1 (17,984)	·AR-44 (2.7)			
·AR-36 (0.1)	·AR-37 (8.07)	·AR-38 (0.1)	·AR-39 (34.2)	·AR-40 (82)
·AR-41 (0.6)	·AR-42 (14)	AR-43· (0.8)		

10 · 100 · 1,000 · 10,000

B38W03B · B38W06B · BRMW2 · OBMW2

300 N · 200 N · 100 N · 0 N

0 E · 100 E · 200 E · 300 E · 400 E · 500 E

N

0 25 50 feet

Tank Chart

1. Existing 7,500 gal Alcohol UST (Abandoned 1983)
2. Existing 250 gal Gasoline UST (Location Approx.)
3. Existing 2,500 gal Alcohol UST (Location Approx.)
4. Former 2,000 gal No.2 Fuel Oil UST (Removed 10/91)
5. Existing 50,000 gal No.4 Fuel Oil UST (Active)
6. Former (2): 10,000 gal Toluene USTS (Removed 1983)

Note: Total Targeted VOCs include Total BTEX, Vinyl Chloride and DCE

2-93-246-S

STEPAN CO. PROPERTY

MAYWOOD, NEW JERSEY

Total Targeted Volatile Organic Compounds

CH2MHILL

Figure 12

Appendix AA
Boring Logs
(Focused Investigation)

PROJECT NUMBER	BORING NUMBER
[illegible]22948.ST.B2	SG-1 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75" ID, HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9-14-93 **FINISH** 9-15-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 1.3' SILTY SAND WITH GRAVEL (SM), gray brown, light brown, reddish brown, light gray-black, dry, coal ash, siltstone rock fragments	300-pound hammer PID=Photoionization Detector 2 and 3" ID Split Spoons 0.0 ppm spoon (PID)
			1.3	3-5-4-3		
2.0	2.0					
					0 to 0.6' same as above, reddish brown-black, dry, crushed brick	0.0 ppm spoon (PID)
					0.6' to 0.8' SILTY SAND (SM), black, moist, medium-fine sand	18.1 ppm spoon (PID) odor
			0.8	1-3-3-3		
4.0	4.0'					End drilling 9-14-93 rig breakdown
					0 to 0.7' Alternating SILTY SAND (SM) and SILTY SAND WITH GRAVEL (SM), brown to light gray, dry-moist, light gray: consolidated sandstone fragments	Begin drilling 9-15-93 2" ID Split Spoon odor
					0.7' to 1.2' SANDSTONE, brownish, gray, dry, fine-medium sand, 5-10% silt, trace 1-3 mm laminations (colored) black staining on sample in shoe, emits odor	
			1.2	2-4-8-14		odor
6.0	6.0					
					0 to 0.9' SANDSTONE (SP), buff-light tan, dry-moist, friable, trace hard brown sandstone at 6.7	2" ID Split Spoon
					0.9' to 1.7' SILTSTONE, buff, moist to dry, massive, friable, fractured, trace laminations, trace black angular stones (organic fragments?)	
			1.7	15-14-17-26		
8.0	8.0					
					END OF BORING @ 8.0'	

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.82	SG-2 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/15/93 **FINISH** 9/15/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 0.2' Road Gravel, medium coarse	
	1.0					
2.0			1.4	7-8-6-2	0 to 0.7' SILTY GRAVEL WITH SAND (GM), reddish brown, dry, siltstone fragments, 0.7 to 0.8' SILTY GRAVEL (GM), black, coal fragments, sweet odor 0.8 to 1.4' SILTY GRAVEL (GM), reddish brown, red, brown, moist, crushed brick, siltstone grading to light brown SILT (ML)	2"ID split spoon, 300-pound hammer Sweet odor
	3.0					
4.0			1.3	3-8-22-39	0 to 0.3' SILTY SAND WITH GRAVEL (SM), brown-black 0.3 to 0.8' SILTY SAND WITH GRAVEL (SM), same as above except olive brown, moist-wet 0.8 to 1.3' Transition from above to SANDY SILT WITH GRAVEL (ML), reddish brown mottled with light grey, moist, residual soils above bedrock	3.5" ID split spoon odor Ludlum Model 3 Reading 0 to 0.3 : 1500 counts per minute (cpm) 0.8 to 1.7 : 600 cpm
	5.0					
6.0			1.7	28-17-14-14	Alternating semi-consolidated siltstone and SANDY SILT WITH GRAVEL (ML), reddish brown, dry	
	7.0					
					END OF BORING AT 7.0 FEET	
8.0						

PROJECT NUMBER	BORING NUMBER
NJC22948.ST.82	SG-3 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N.E. **START** 9/14/93 **FINISH** 9/14/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0					
	1.5					
2.0			1.8	4-6-3-9	SILTY GRAVEL WITH SAND (GM), highly variable, intervals of SILTY SAND WITH GRAVEL (SM), moist, moist-wet zone in SM layer at 1.6', siltstone fragments to 3.5" diameter in shoe, coal frags, glass	3.5" ID split spoon, 300-lb hammer FILL MATERIAL
	3.5					
4.0			0.6	3-3-3-3	SILTY SAND WITH GRAVEL (SM), dark brown, moist, trace coal frags, brown, spongy peat-like material in shoe, black petroleum-like material on tip, moist-wet at tip	3.5" ID split spoon
	5.5					
6.0			1.9	4-4-7-7	0 to 1.6' SILTY SAND WITH GRAVEL (SM), same as above, except saturated, approx 20% gravel, trace 3-4" crushed brick, siltstone fragments 1.6 to 1.9' SILTY GRAVEL WITH SAND (GM), black, fine matrix, white subrounded gravel to 2"	3" split spoon FILL MATERIAL
	7.5					
8.0					END OF BORING AT 7.5 FEET	

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-4 SHEET : OF :

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/15/93 **FINISH** 9/15/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				SILTY SAND (SM) to SANDY SILT WITH GRAVEL (ML), brown-black, moist, variable gravel, trace crushed brick, coal fragments, cinder	2.0"ID split spoon, 300-lb hammer
			1.4	3-14-10-6		
2.0	2.0					
					SILTY SAND WITH GRAVEL (SM), gradational from moderate brown to brownish black coal fragments, crushed brick, cinder 0.5 to 3", moist	3" ID split spoon Sweet odor at tip of spoon
			1.4	7-6-7-5		
4.0	4.0					
					0 to 0.2' Crushed brick fragments, red, 3" and above 0.2 to 0.8' SILTY SAND (SM), dark grey with blackish grey zones, moist-wet, wet 0.8 to 0.9' gradational contact with semi-consolidated grey sandy siltstone 0.9 to 1.2' grading into grey-brown/tannish brown SILTY SAND (SM) and SILTY SANDSTONE, moist-wet	3" ID split spoon 0.2 to 0.8' - Sweet odor
			1.5	4-5-16-15		
6.0	6.0					
					1.2 to 1.4' SILTY SAND (SM), alternating dark brown and dark grey layers, moist-wet	
8.0					END OF BORING AT 6.0 FEET	

PROJECT NUMBER	BORING NUMBER
NJ022984.ST.B2	SG-5 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" ID, HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9-14-93 **FINISH** 9-14-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE: INTERVAL	SAMPLE: NUMBER AND TYPE	SAMPLE: RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				No sample	300-pound hammer PID=Photoionization Detector
	1.0					
2.0			1.5	3-2-1-1	Alternating SILTY SAND WITH GRAVEL and SILTY GRAVEL (SM-GM) SM: Mottled orange-yellow brown to reddish brown, moist, coal ash, cinder fill sediments GM: black-brownish black, moist, tar like-viscous, wet (with solvent?), coal fragments, fine gravel, 1/4 to 1/2"	2" ID splitspoon Level C drilling
	3.0					
4.0			1.8	1-2-1-2	0 to 0.3' SILTY SAND WITH GRAVEL (SM), brownish black-brown 0.3 to 0.6' POORLY GRADED GRAVEL WITH SILT (GM), black, moist, coal, fragments, 1/8 to 1/4" 0.6 to 1.6' transition from above, SILTY SAND WITH GRAVEL (SM), black, fibrous material, trace petroleum hydrocarbon material black viscous (within fiber matrix), some sandy silt, coal fragments 1.6 to 1.8' transition into SANDY SILT (ML), pinkish brown, reddish brown, wet, micaceous, black zones	3" ID splitspoon Level C drilling
	5.0					
6.0			1.6	3-4-4-5	0 to 0.5' same as above, (ML) mottled black and reddish brown, wet cohesive 0.5 to 1.6 transitional residual soil (SILTY SAND TO SANDY SILT WITH GRAVEL) gravel consists of reddish brown, siltstone rock fragments, black to blackish brown, dark brown residual hydrocarbon material around gravel fragments (1/8 to >3")	3" ID splitspoon 1 to 7', 482-951 ppm headspace (PID)
	7.0					
					END OF BORING @ 7.0'	
8.0						

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-6 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/13/93 **FINISH** 9/13/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0					PID=Photoionization Detector
	1.0					
2.0			1.5	3-2-1-1	0 to 1.1' SILTY SAND WITH GRAVEL (SM), dark brown-black, mottled, moist, coal fragments, cinder 1.1 to 1.5' SILTY SAND (SM), brownish black, moist-wet	3" ID split spoon, 300-pound hammer Strong odor, 49.1 ppm in spoon (PID) Sweet odor, oil sheen, possible petroleum hydrocarbon product
	3.0					
4.0			1.7	1-1-1-4	0 to 0.4' SILTY SAND (SM) same as above 0.4 to 1.7' SILTY SAND WITH GRAVEL (SM), grey brown/brown, moist, 15% gravel	3" split spoon
	5.0					
6.0			1.7	1-2-7-10	0 to 0.3' Transition from SANDY SILT WITH GRAVEL (ML) as above to POORLY GRADED SAND WITH SILT (SP-SM), grey/steel grey, wet 0.3 to 1.7' Sharp contact into residual bedrock SANDY SILT WITH GRAVEL (ML), reddish brown-brownish red, moist-dry becoming more competent with depth, subrounded gravel to 0.4 Transition into weathered SILTSTONE at 1.2', very micaceous, fractured, dry, trace of mottling, buff-white	3" split spoon
	7.0				END OF BORING AT 7.0 FEET	
8.0						

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-7 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" I.D. HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS Approximately 4' BGS **START** 9-14-93 **FINISH** 9-14-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION	COMMENTS
	0.0					300-pound hammer
			1.4	3-3-9-9	0 to 0.7' SILTY SAND WITH GRAVEL (SM), brown-brownish gray, moist, trace rootlets 0.7 to 0.9' Asphalt consolidated WELL GRADED SAND WITH GRAVEL (SW) 0.9 to 1.4' same as 0 to 0.7' (SW) crushed brick, coal cinder, coal ash, mottled yellowish brown-browns, black red, dry	PID=Photoionozation Detector 0-2' 3" splitspoon
2.0	2.0					
			0.4	2-1-1-1	0 to 0.3' same as above, crushed brick 0.3 to 0.4' SILTY GRAVEL (GM), black, moist-wet, coal fragments	2-4' 2" splitspoon 57 ppm (PID) @ tip of spoon, odor
4.0	4.0				END OF BORING @ 4.0'	
8.0						
8.0						

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-8 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/13/93 **FINISH** 9/13/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0					PID=Photoionization Detector
	1.0					
2.0			0.8	15-24-12-8	SILTY SAND WITH GRAVEL (SM), dark brown, moist-dry, 25-30% gravel to 1.5" max, trace asphalt fragments	3"ID split spoon, 300-lb hammer FILL Odor while augering to 3.0'
	3.0					
4.0			1.3	2-2-2-3	SANDY SILT WITH GRAVEL (ML), dark brown to blackish brown, moist, moist/wet zones, 35-45% coarse fraction	Strong odor, 11.4 ppm on spoon (PID) Blackish brown color correlates with wet zones
	5.0					Water probably at approx. 5.0 ft
6.0			1.4	1-1-4-6	0 to 0.8' Transition from SANDY SILT WITH GRAVEL (ML) as above to SILTY SAND WITH GRAVEL (SM), reddish brown, moist-wet, dark brown to black around fine gravel, some mottling 0.8 to 1.4' SILTY SAND WITH GRAVEL (SM), becoming reddish brown, moist, trace black mottles, subrounded gravel	
	7.0				END OF BORING AT 7.0 FEET	
8.0						

CHM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-9 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/13/93 **FINISH** 9/13/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE: INTERVAL	SAMPLE: NUMBER AND TYPE	SAMPLE: RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0		1.3	9-7-7	SILTY GRAVEL WITH SAND (GM), dark greyish brown, moist, trace asphalt debris, coal frags	PID=Photoionization Detector Start Drilling @ 1100 2"ID split spoon, 300-lb hammer
	1.5					
2.0			1.6	4-3-3-3	SILTY SAND WITH GRAVEL (SM), brownsh orange (oxidized zones), moist, coal, ash, white frags, reddish brown silty sand at tip of spoon (very moist), approx. 20% fine gravel	
	3.5					
4.0			1.7	2-1-1-4	0 to 0.4' SILTY SAND (SM), reddish brown, moist, 15% fine gravel 0.4 to 0.8' SILTY SAND WITH GRAVEL (SM), loose, mottled, dry, coal fill 0.8 to 1.7' SILTY SAND (SM), reddish to pinkish brown, moist, 5-10% gravel	0.0 ppm background (PID) 0.5 ppm in spoon (PID)
	5.5					
6.0			1.9	11-12-20-50	0 to 0.3' SILTY SAND WITH GRAVEL (SM), black, moist 0.3 to 0.8' WELL GRADED SAND WITH SILT AND GRAVEL (SW), reddish brown to greyish red brown, dry, loose, >2" gravel 0.8 to 1.9' SILTSTONE, reddish brown, friable, weathered Rock	odor, 30 ppm (PID) headspace odor Spoon refusal at 7.5 ft (50 blows/6"
	7.5					
8.0					END OF BORING AT 7.5 FEET	

CRM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-10 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Central Tank Farm

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" ID, HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9-16-93 **FINISH** 9-16-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE: INTERVAL	SAMPLE: NUMBER AND TYPE	SAMPLE: RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 0.6' concrete 0.6 to 1.0' SILTY GRAVEL (GM). No sample	300-pound hammer (description based on auger returns)
	1.0					
2.0			1.2	4-2-1-2	0 to 0.6' SILTY SAND (SM), dark brown, pinkish brown, moist, trace gravel, gradational contact with black, (SW) zones which appear contaminated 0.6 to 1.2' WELL GRADED SAND to WELL GRADED SAND WITH SILT AND GRAVEL (SW, SW-SM), black, moist to wet, fine gravel, coal fragments, elutes oil sheen in water	2" splitspoon sweet odor strong odor zone
	3.0					
4.0			1.5	2-7-8-7	0 to 0.9' Same as above moist-wet @ 0.4 gradational contact from silty gravel to 0.9 to 1.5 SILTY SAND WITH GRAVEL (SM), reddish brown-black, mottled, >3" gravel	3" ID Split Spoon odor
	5.0					
6.0			1.1	3-7-8-10	Alternating SILTY SAND WITH GRAVEL (SM) and WELL GRADED SAND (SP), reddish brown-black, moist-wet, gravel consists of siltstone fragments, (SP) consists of coarse sand, trace coal	2" ID Split Spoon strong odor
	7.0					
					END BORING @ 7.0'	
8.0						

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-11 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/17/93 **FINISH** 9/17/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION	COMMENTS
					SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	DEPTH OF CASING, DRILLING RATE DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
	0.0				0 to 0.8' Concrete	2"ID split spoon, 300-lb hammer
	1.0					
2.0			1.8	9-9-8-3	0 to 0.2' SILTY SAND WITH GRAVEL (SM), fine gravel 0.2 to 0.5' SILTY GRAVEL (GM), reddish brown (siltstone gravel fragments) 0.5 to 1.2' SILTY SAND WITH GARVEL (SM) to WELL GRADED SAND (SW), grey brown to brownish black, moist, coal frags, coal fill, ash cinders 1.2 to 1.8' SILTY SAND (SM), brown, moist, trace of reddish brown, siltstone fragments to 1" max.	
	3.0					
4.0			1.5	1-1-2-2	0 to 0.2' SILTY SAND WITH GRAVEL (SM), light grey, (weathered concrete or carry over from above) 0.2 to 1.2' SILTY SAND WITH GRAVEL (SM), moderate brown, moist-wet , 15% gravel to 3" max, siltstone (reddish brown) 1.2 to 1.5' WELL GRADED SAND WITH SILT (SW-SM), black, moist-wet, <15% fine gravel	sweet odor in 4.2 to 4.5 ft interval
	5.0					
6.0			0.3	3-4-5-5	WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), reddish brown, moist-wet	
	7.0					
					END OF BORING AT 7.0 FEET	
8.0						

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022984.ST.92	SG-12 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Central Tank Farm

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" ID. HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9-16-93 **FINISH** 9-16-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 0.3' Asphalt 0.3' to 1.0' POORLY GRADED GRAVEL WITH SILT (GP-GM), blue gray, 2 to 3.5" gravel	300-pound hammer
	1.0				POORLY GRADED GRAVEL WITH SILT (GP-GM) same as above except gray-brown, sandy silt matrix, moist	
2.0			1.0	7-7-2-2		Railroad Fill
	3.0				3.0' to 4.0' POORLY GRADED GRAVEL WITH SILT (GP-GM), same as above 4.0' to 4.5' Gradational from weathered friable concrete to hard, competent concrete, end of boring	hit obstruction at 3.3' 3 blows, possible utility, moving boring 1.0' south towards original SG-12 (see logbook for discussion, page 18-19) spoon refusal
4.0	4.5		0.8	4-6-5		
					END OF BORING @ 4.5'	
6.0						
8.0						

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-13 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Tripod Mounted Cathead, 140-lb hammer

WATER LEVELS N/A **START** 9/17/93 **FINISH** 9/17/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0		1.3	7-7-7-24	0 to 0.7' SILTY GRAVEL WITH SAND (GM), reddish brown, moist-wet 0.7 to 1.1' WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), grey-black, moist/wet, coal fill, fine gravel 1.1 to 1.3' SILTY SAND WITH GRAVEL (SM), reddish brown	3.5"ID split spoon, 140-lb hammer Water at surface leaking into hole from water tower overflow
2.0	2.0		1.5	54-39-36-27	SILTY GRAVEL WITH SAND (GM), reddish brown, moist-wet, 0.25-3" siltstone fragments	Hydrocarbon odor 3" ID split spoon
4.0	4.0		0.5	18-16-15-14 (31)	0 to 0.2' SILTY GRAVEL WITH SAND (GM) same as above 0.2 to 0.4' SILTY SAND (SM), dark brown, moist, odor 0.4 to 0.5' SILTSTONE FRAGMENTS dry, horizontal breaks, likely parallel to bedding	0.2 to 0.4' - Fill material 2" ID split spoon
6.0	6.0				END OF BORING AT 6.0 FEET	
8.0						

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-14 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/16/93 **FINISH** 9/16/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE: INTERVAL	SAMPLE: NUMBER AND TYPE	SAMPLE: RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 0.6' Concrete 0.6 to 1.0' Coal Fill	
	1.0					
					0 to 0.2' SILTY GRAVEL (GM), red-black, dry, 2-3" crushed brick and siltstone fragments 0.2 to 0.6' POORLY GRADED SAND WITH SILT AND GRAVEL (SW-SM), dark grey/brown, med-coarse sand, fine gravel 0.6 to 1.25' POORLY GRADED SAND WITH SILT AND GRAVEL (SW-SM), same as above except dark-medium brown, trace coal/ash	3.5"ID split spoon, 300-lb hammer
2.0			1.4	14-15-13-10		
	3.0				1.25' to 1.4' SANDY SILT (ML), oxidized yellowish white/whitish buff, moist	
					0 to 0.2' SANDY SILT (ML), same as above 0.2 to 0.55' SILTY GRAVEL (GM), reddish brown, moist, 3" siltstone fragments 0.55 to 1.4' SILT WITH SAND (ML), black grading to blackish olive grey at 0.9', moist-wet	3" ID split spoon Hydrocarbon odor (0.55 to 1.4' interval)
4.0			1.4	4-3-1-1		
	5.0					
					0 to 1.1' SILT WITH SAND (ML), as above except black, wet 1.1 to 2.0' SILTY SAND (SM), brown-tannish brown, trace black laminations (having odor), moist-wet	2" ID split spoon Hydrocarbon odor (0.0 to 1.1' interval)
6.0			2.0	1-WOR-3-4		
	7.0					
					END OF BORING AT 7.0 FEET	
8.0						

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-15 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75" ID HSA, Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/15/93 **FINISH** 9/15/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0		1.3	11-11-15-24	SILTY SAND WITH GRAVEL (SM), lt-dk brown to black, dry/moist, 20-25% gravel >3", reddish brown siltstone fragments in shoe, trace of coal fragments, oxidized zones, metal frags.	PID=Photoionization Detector 3.5"ID split spoon, 300-lb hammer Level C PPE
2.0	2.0		0.0	15-5-1-1	NO RECOVERY, moist-wet SILTY SAND (SM) and WELL GRADED SAND WITH SILT (SW) on sides of spoon	approx 39.0 ppm (PID) 3.5" ID split spoon Sludgy material Wet and black sandy silt on auger return
4.0	4.0		1.4	1-1-2-3	0 to 0.6' SILT WITH SAND (ML), black, wet, trace fibrous material, woody 0.6 to 1.1' POORLY GRADED SAND WITH SILT (SP-SM), medium-dark grey, blackish zones, dry/moist, grading to below. 1.1 to 1.4' SILTY SAND (SM), dark grey, (1.1-1.2), greyish brown, moist, becoming moist-wet, wet at tip of shoe, micaceous	3" ID split spoon End level C sweet odor at tip of spoon
6.0	6.0				END OF BORING AT 6.0 FEET	
8.0						

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-16 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75" ID HSA, Moon B-61 Rotary Drill Rig

WATER LEVELS N. A **START** 9/15/93 **FINISH** 9/15/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				SILTY GRAVEL WITH SAND (GM), brown-grey brown, crushed brick, SM zone with gravel at tip of spoon, dk brown, moist, trace coal frags, crushed brick	2.0"ID split spoon, 300-lb hammer
			0.8	4-5-5-3		
2.0	2.0					
					0 to 0.3' SILTY SAND (SM), med brown with lt grey and black mottles, moist, trace coal debris	3.0"ID split spoon
			1.4	3-4-2-1	0.3 to 1.4' SILTY SAND WITH GRAVEL (SM), lt grey-black, crushed brick, siltstone fragments	
4.0	4.0					
					SILTY SAND WITH GRAVEL (SM), black, coal fill, 20-25% gravel, white ash flakes, moist-wet at tip of spoon, loose	2.0" ID split spoon
			0.9	1-1-1-1		sweet odor (faint)
6.0	6.0					
					0 to 0.2' grading from above to SANDY SILT (ML), tannish brown, wet	2.0" ID split spoon
					0.2 to 1.1' SANDY SILT (ML), med brown-tannish brown, moist-wet, trace fragments of reddish brown siltstone	
			1.1	1-2-3-3		No apparent odor
8.0	8.0					
					END OF BORING AT 8.0 FEET	

CHM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-17 SHEET ' OF '

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/16/93 **FINISH** 9/16/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 0.8' Concrete	2"ID split spoon, 300-lb hammer
	1.0					
2.0			1.5	9-10-6-6	SILTY SAND WITH GRAVEL (SM), black/lt brown/white (overall: lt greyish black), mottled, moist, coal ash, cinder, coal, brick frags, trace weathered concrete	
	3.0					
4.0			0.6	4-4-2-2	SILTY SAND WITH GRAVEL (SM), as above, black coal fill	3"ID split spoon
	5.0					
6.0			1.4	2-3-5-4	0 to 0.4' SANDY SILT (ML), black, wet-moist, grading to below 0.4 to 1.3' SILTY SAND (SM), dark brown grading to med brown with dark brown and black zones .spl 1.3 to 1.5' SANDY SILT (ML), black-brown, moist, odor, sheen	2" ID split spoon Viscous petroleum fluid within soil matrix, Petroleum Hydrocarbon odor
	7.0				END OF BORING AT 7.0 FEET	
8.0						

CRM HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-18 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Central Tank Farm

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" ID. HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9-16-93 **FINISH** 9-16-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0-10" Concrete	300-pound hammer
	1.0					
2.0			1.4	5-7-11-6	Alternating SILTY SAND, SILTY SAND WITH GRAVEL, WELL GRADED SAND WITH GRAVEL (SM, SW), grayish black, dark brown, trace buff-white (coal ash), moist, coal ash, coal fragments, cinder	2" splitspoon
	3.0					3" splitspoon
4.0			1.8	3-1-2-1	0 to 0.4' SILTY SAND WITH GRAVEL (SM), light reddish brown, brown, moist, gradation into 0.4' TO 1.8' Alternating SILTY SAND (SM) and SILT WITH GRAVEL (ML) blackish brown-dark brown, hydrocarbon stains, WET, trace poorly graded sand at 0.6'-0.7', stained	hydrocarbon odor
	5.0					2" splitspoon
6.0			1.5	3-4-6-9	0 to 0.3' SILT WITH GRAVEL (ML) same as above, black, oil sheen 0.3' to 1.5' Alternating SILTSTONE, (semi-consolidated) friable & SILT WITH SAND (ML), reddish brown, moist-dry no hydrocarbon staining	hydrocarbon odor
	7.0					
					END OF BORING @ 7.0'	
8.0						

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	SG-18A SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Central Tank Farm

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" ID, HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9-17-93 **FINISH** 9-17-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0-10" Concrete	300-pound hammer
	1.0				No sample collected	* See boring log SG-18 for 1-7' description. SG-18A located 18" east of SG-18
2.0	3.0				SILTY SAND (SM), light gray, gray-black to brownish gray mottled, moist, loose, 10-15% gravel 1.8" recovery on second spoon	2" ID splitspoon
4.0			0.4	2-1-0-1		hydrocarbon odor
	5.5					went back down same hole with 3.5" ID spoon (3-5.5') to improve recovery for analytical sampling
8.0					END OF BORING @ 5.5'	
8.0						

PROJECT NUMBER	BORING NUMBER
NJ032948.ST.B2	SG-19 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Aromatics Area

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/17/93 **FINISH** 9/17/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0 to 0.8' Concrete.	
	1.0					
2.0			1.3	7-7-9-6	0 to 1.1' SILTY SAND (SM), dark brown, grading to coal fill (ash, cinder, coal), light blackish grey 1.1 to 1.3' Semi-consolidated silty sandstone, buff-yellowish white, friable, weathered, chalky, reddish brown siltstone fragments at 1.2 to 1.3'	2" ID split spoon, 300-lb hammer
	3.0					
4.0			1.7	2-2-2-1	0 to 0.6' Alternating layers of SILTSTONE and COAL FILL, 2-3" fragments of black coal and yellowish-white-buff weathered concrete (semi-consolidated) 0.6 to 0.9' SILTY SAND WITH GRAVEL (SM), brown, moist-wet, cubic fragments of white porceline tile 0.9 to 1.7' SANDY SILT (ML), black, moist, product stained soils, hydrocarbon odor	3" ID split spoon Strong hydrocarbon odor
	5.0					
6.0			1.6	1-0-3	SANDY SILT (ML), black grading to brown/black, moist-wet, mottled, reddish brown siltstone fragment in shoe at 1.6'	Spoon bounce at 6.5'. Didn't drive split spoon due to concern for underground utilities
	6.6					
					END OF BORING AT 6.6 FEET	
8.0						

PROJECT NUMBER	BORING NUMBER
NJD22948.ST.BC	OBMW-18 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Maywood, NJ

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25" ID, HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS 3.03' BGS 9-22-93 **START** 9-22-93 **FINISH** 9-22-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0					300-pound hammer, 2-3.5" ID splitspoon
						PID=Photoionization Detector
			1.4	4-8-15-23	0 to 0.2' Poorly graded gravel (Trap rock, road fill) 0.2' to 0.8' SILTY SAND WITH GRAVEL (SM), moderate brown, reddish brown, moist, 1/2-2.5" silstone rock fragments, trace coal fragments 0.8' to 1.4' SILTY GRAVEL WITH SAND (GM), dark brown, moist, highly variable, metal, brick, glass fragments, wood silt with sand zones	
2.0	2.0					acrid, weathered hydrocarbon odor, 0.0 ppm spoon (PID)
					0 to 0.2' SILTY GRAVEL WITH SAND (GM), same as above grading to crushed red-orange brick	
			1.3	17-19-18-20	0.2' to 0.7' siltstone and sandstone rock fragments, reddish brown, dry, friable horizontal partings 0.7' to 1.3' WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), moderate to reddish brown, dry, fine to coarse sand, fine gravel, trace semi-consolidated	29.9 ppm spoon (PID) 2" splitspoon
4.0	4.0					
					WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), same as above except alternating sandy silt, siltstone, salty sandstone rock fragments (semi-consolidated) dry, reddish brown-moderate brown, silty sand at 1.2'	maximum 1019 ppm spoon (PID), weathered hydrocarbon odor
			1.5	8-14-12-10		2" splitspoon
6.0	6.0					
					SILTY SAND WITH GRAVEL (SM), reddish brown, moist, 3/4-2" gravel (siltstone, granite fragments) siltstone in shoe, oil sheen on spoon, soils appeared saturated with product	>2300 ppm spoon (PID)
			1.6	8-10-7-7		3" splitspoon
8.0	8.0					moisture within soils evaporates quickly
					SILTY SAND (SM), reddish brown, to SANDY SILT, semi-consolidated, moist, trace moist-wet horizon petroleum hydrocarbon or moisture ? sheen on spoon evaporates quickly	860 ppm spoon (PID)
			0.7	8-4-3-2		2" splitspoon
10.0	10.0					1600 ppm spoon (PID)
					0 to 0.5' LEAN SILT (ML), reddish brown, moist, wet spoon 0.5' to 0.7' SILTY SANDSTONE, reddish brown, with dark gray-brown mottles at partings, friable, weathered, horizontal partings, wet	3" splitspoon
			0.7	25-50/1"		oil sheen in spoon
	11.5					Auger Refusal @ 11.5'
					END OF BORING @ 11.5'	Monitoring Well OBMW-18 installed

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.B2	OBMW-19	SHEET 1 OF 2

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Maywood, NJ

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/20/93 **FINISH** 9/20/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0		1.3	8-22-15-16	0 to 0.4' SILTY SAND WITH GRAVEL (SM), dark brown, moist, trace reddish brown silt 0.4 to 0.65' WEATHERED CONCRETE 0.65 TO 1.3' SILTY GRAVEL (GM), brownish, dry, 0.75 to 3" gravel	PID=Photoionization Detector 3.5"ID split spoon, 300-lb hammer 0.0 ppm (PID) in spoon
2.0	2.0		1.2	5-3-4-3	0 to 1.15' WELL GRADED GRAVEL WITH SAND (GW), brown, dry, 0.75-3" gravel 1.15 to 1.2' SILT (ML), grey, laminations of rusted metal	2" ID split spoon 0.0 ppm (PID) in spoon
4.0	4.0		1.1	3-4-4-4	0 to 0.3' SILT WITH SAND (ML), light grey, dry, rootlets, organic matter 0.3 to 1.1' SILT (ML), grey-white, laminated, friable, semi- consolidated, trace of rootlets, ash	3" ID split spoon 0.2 Mr/Hr, upto 320 cpm at tip
6.0	6.0		1.7	4-4-4-5	0 to 0.2' SILT (ML), as above 0.2 to 0.55' SILT (ML), light grey/brown, dry, trace rootlets 0.55 to 1.3' SILT WITH GRAVEL (ML), light orange to reddish brown, dry, grading to moist, oxidized SILT WITH SAND (ML) at 1.3', firm, mottled black/orange brown, trace rootlets	2" ID split spoon 0.1 Mr/Hr, approx 200 cpm in 0 to 0.2' interval 20-60 cpm in 0.2 to 1.3' interval
8.0	8.0		1.4	9-10-18-19	0 to 1.4' SILT WITH SAND (ML) to SANDY SILT (ML), moist-dry, becoming more moist with depth, brown grading to reddish brown SILT (ML) at 0.85 to 0.9', light grey, trace black laminations, organics SANDY SILT (ML) at 1.2 to 1.4', dark grey, moist, mottled black/ dark grey areas (organics debris), trace oxidized brown, planar orientations to black zones	3.5" split spoon 40-60 cpm, 0.0 ppm (PID) in spoon, faint odor
	10.0					

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	OBMW-19 SHEET 2 OF 2

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Maywood, NJ

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 4.25-inch H.S.A. Mobil B-61 Rotary Drill Rig

WATER LEVELS N/A **START** 9/20/93 **FINISH** 9/20/93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION	COMMENTS
					SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	DEPTH OF CASING, DRILLING RATE DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
	10.0		1.5	6-9-7-10	0 to 0.9' SILTY SAND (SM), grey-light brown, moist-wet, trace of laminations, fine-very fine sand, black coarse sand (SP) pocket at 0.8 to 0.9' 0.9 to 1.2' SILTY SAND (SM), mottled buff-orange brown, trace of black laminations (<1mm) 1.2 to 1.5' SILTY SAND WITH GRAVEL (SM), moist-wet, mottled, dark grey-black around gravel (0.5 to 0.75")	3" split spoon potential capillary fringe at 10.0 ft Wet mark on spoon
12.0	12.0		1.6	16-12-23-16	0 to 0.3' SILTY SAND (SM), mottled dark grey-brown, wet 0.3 to 1.6' alternating SILT WITH SAND (ML) and SILTSTONE, dry, reddish brown, trace light grey mottles, fine sand, micaceous, transitional BEDROCK?	2" split spoon
14.0	14.0		0.6	11-70/1"	0 to 0.6' SILTY GRAVEL WITH SAND (GM) to SILT (ML), dark reddish brown to dark blackish brown, wet 0.6 to 0.65' SILTSTONE WITH SAND, dark reddish brown along bedding planes, oxidized zones, micaceous, moderate hardness END OF BORING AT 15.0 FEET	Installed Monitoring Well OBMW-19 See Monitoring Well Construction Diagram for Details
16.0	15.0					
18.0						

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.R2	PT-1S SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company **LOCATION** Maywood, NJ

ELEVATION N/A **DRILLING CONTRACTOR** Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75" ID. HSA Mobile B-61 Rotary Drill Rig

WATER LEVELS **START** 9-21-93 **FINISH** 9-21-93 **LOGGER** P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE NUMBER AND TYPE	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	0.0				0-.2 SILTY GRAVEL (GM), (Trap rock, road fill)	300-pound hammer, 2-3.5" ID splitspoon
					.2-.8 SILTY GRAVEL (GM), reddish brown siltstone rock fragments	PID=Photoionization Detector
			1.7	14-8-9-6	.8-1.2 WELL GRADED SAND WITH SILT (SW-SM), dark brown,	0.0 ppm spoon (PID)
					1.2-1.4 siltstone	
					1.4-1.7 LEAN CLAY WITH SAND (CL), buff-yellowish white, moist, mottled, weathered ash, grades at 1.7 to dark	
2.0	2.0				brown-white silt gravel with sand, (coal cinder)	0.0 ppm, faint sweet odor
					0-.2 same as above	2" splitspoon
					.2-.55 SILTY SAND WITH GRAVEL (SM), moist, orange brown, fine-coarse sand, fine gravel	
			1.1	3-2-1-1	.55-1.1 SANDY SILT (ML), brownish gray, grading to black gray, reddish brown in shoe	
4.0	4.0					
					0-.3 WELL GRADED SAND WILT SILT AND GRAVEL (SW-SM), reddish brown, moist, loose, 1/2-3/4" gravel	3" splitspoon
			0.4	2-3-3-6	.3- 4 SILTY SAND (SM), gray, moist-wet, fine-medium sand	
6.0	6.0					
					0-.2 POORLY GRADED SAND WITH SILT (SP-SM), light gray, wet, fine sand grading to:	
			1.7	10-4-3-5	.2-.6 SILTY SAND (SM), dark gray, wet-moist, grading to: siltstone fragments	111.7 ppm spoon (PID)
					.9-1.7 SILT WITH SAND AND GRAVEL (ML), reddish brown, wet, siltstone fragments	2" splitspoon
8.0	8.0					
					0-1.8 SANDY SILT TO SILTY SAND WITH GRAVEL (ML-SM), reddish brown, black along partings in rock (oxidized), coarse gravel @ .6-.8 (siltstone) @ 1.3-1.7	
			1.8	3-1-5-15	SANDSTONE, oxidized, fractured, 2-5mm silt laminations	
10.0	10.0					
					0-.03 SHALE SILTSTONE :aminations, micaceous, mud-cracks	spoon refusal @ 10.5'
					.03-.4 SILTY SAND WITH GRAVEL (SM), reddish brown, moist fine-coarse sand, subrounded 1.5" gravel (gray-black)	3" splitspoon
			0.5	70/6"	.4-.5 SILTY SANDSTONE, reddish brown, moist, friable, weathered	Augered to 12' very slow
12.0	12.0					
					END OF BORING @ 12.0'	

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022848.ST.B2	PT-2S	SHEET 1 OF 2

SOIL BORING LOG

PROJECT Stepan Company LOCATION Aromatics Area

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75" ID, HSA Mobile Drill B-61

WATER LEVELS START 9-21-93 FINISH 9-21-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6" -6" -6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
0.0	2		1.8	12-14-11-11 (25)	SILTY GRAVEL WITH SAND (GM), grading to SILTY SAND WITH GRAVEL (SM), brown to reddish brown grading to blackish gray, moist-dry, GM at tip. Coal fragments, asphalt fragments, glass shards	0 to 2' 3.5 ID splitspoon 300# hammer PID=Photoionization Detector 7.8 ppm spoon PID
	4		1.0	4-8-9-8 (15)	Alternating SILT (ML), SILTY SAND (SM), siltstone, gray, reddish brown, moist to dry @ .6' to .8' SILTY SAND (SM), black, @ .8'-1.0' wood	2" ID splitspoon 8.8 ppm spoon PID strong, sweet odor
5.0	8		1.4	4-2-2-1 (4)	0'-3.5' wood timber 3.5'-.8' SILTY SAND WITH GRAVEL (SM), dark brown, moist-wet, gradation to: .8'-1.4' SILTY GRAVEL WITH SAND (GM), black, moist, coal fragments, cinder, black viscous, tar-like material within soil matrix, trace fibrous material	3" ID splitspoon 92.8 ppm spoon PID strong odor, .8'-1.4'
	8		1.5	1-4-4-4 (8)	0'-.45' As above, gradation to SILT (ML), WITH SAND, black, moist-wet, unconformable contact @ .45', possible hydrocarbon material coating soil grains .45'-1.5' POORLY GRADED SAND WITH SILT (SP-SM), dark gray, to blackish gray, mottled zones, wet, fine sand, trace 1 mm laminations (colored) light gray at tip	2" ID splitspoon 182 ppm spoon PID strong odor
	10		1.55	5-6-7-7 (13)	0'-.3' gradation from above, SANDY SILT (ML), light to moderate gray, moist .3'-1.55' SILT WITH SAND (ML), reddish brown, moist to dry, trace sandy silt, micaceous, 30-40% semi-consolidated SILTSTONE rock fragments, mottled around fractures	2" ID splitspoon 15 to 39 ppm spoon PID stronger, high PID response within silt, siltstone layers
10.0	12		1.5	9-10-11-11 (21)	0'-1.5' Same as above, alternating semi-consolidated SILTSTONE, reddish brown to dark grayish red brown (mottled) to: SILT WITH SAND AND GRAVEL (ML), dark gray, brown-reddish brown, moist-wet, micaceous	3" ID splitspoon Darker colors typically correspond to weathered zones or horizons 38 to 84 ppm spoon PID, sweet odor

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.B2	PT-2S SHEET 2 OF 2

SOIL BORING LOG

PROJECT Stepan Company LOCATION Aromatics Area

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT 3.75" ID, HSA Mobile Drill B-61

WATER LEVELS START 9-21-93 FINISH 9-21-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE: INTERVAL	SAMPLE: TYPE AND NUMBER	SAMPLE: RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	12		1.8	18-43-20-39 (63)	0' to.1' POORLY GRADED SAND WITH SILT (SP-SM), black reddish brown, wet .1' to .2' SILT (ML), reddish brown, moist .2' to .5' POORLY GRADED SAND WITH SILT (SP-SM), dark brown-black, semi-consolidated, black material coating grains, elutes oil sheen in water .5' to .7' WELL GRADED SAND (SW), pink-red brown, semi-consolidated, fine to coarse sand, dry .7' to 1.1' SANDY SILT grading to SILTY SAND (SM), reddish brown, grading to: 1.1 to 1.5' POORLY GRADED SAND (SP), black, moist, semi-consolidated, (same as .2' to .5') oxidized? 1.5 to 1.8' SILT WITH SAND (ML), reddish brown, moist, semi-consolidated, fractured, mottled, gray-red brown	2" ID splitspoon 17.8 ppm spoon
	14					
15.0			.5	17-70/2"	0'-.5' SILTSTONE, reddish brown, moist-dry, highly weathered soft flssile, horizontal partings, trace vertical partings, soil-like horizons (ML)	spoon refusal at 14.5' Augered to 15'
	18				END OF BORING @ 15'	Monitoring well installed
20.0						

Appendix AB
Well Construction Diagrams
(Focused Investigation)

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name Stepan Company | Project Number NJ022948.ST.PT

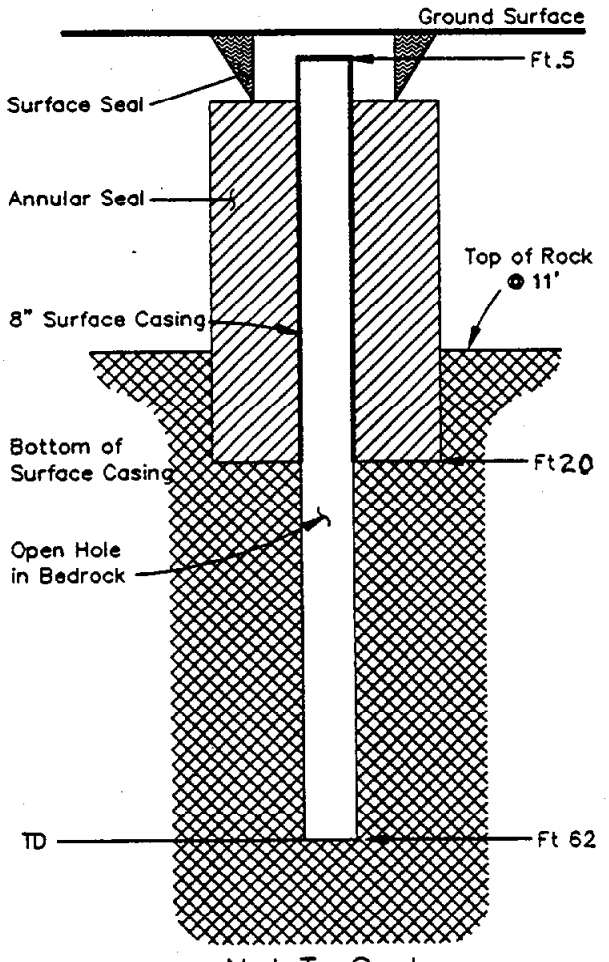
Well Number BRTW-1 | Field Observers P. van Noort

Elev. (top of well casing) 54.44 | Surface Elev. 54.91

Water Level Elev. / Date 45.07 1/3/94 | Start Date 9-30-93

Drilling Contractor Kendrick Drilling, Inc. | Finish Date 10-01-93

Drilling Method Air Rotary



Not To Scale

* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s) 12 Inches to 10 Ft Bgs
Inches to x Ft Bgs
Inches to x Ft Bgs

Casing (Surface) Type Steel Dia. 8"
Coupling Type N/A
Screen Type N/A Diameter N/A
Slot Size N/A Screen Length N/A
Top Cap Type N/A
End Cap/Plug Type N/A
Centralizer Type N/A
Centralizer Location(s) N/A
Filter Pack Type N/A
Gradation N/A

Seal(s)

Bentonite N/A
Annular Cement Grout
Surface N/A
Backfill N/A

Flush Mount Design •

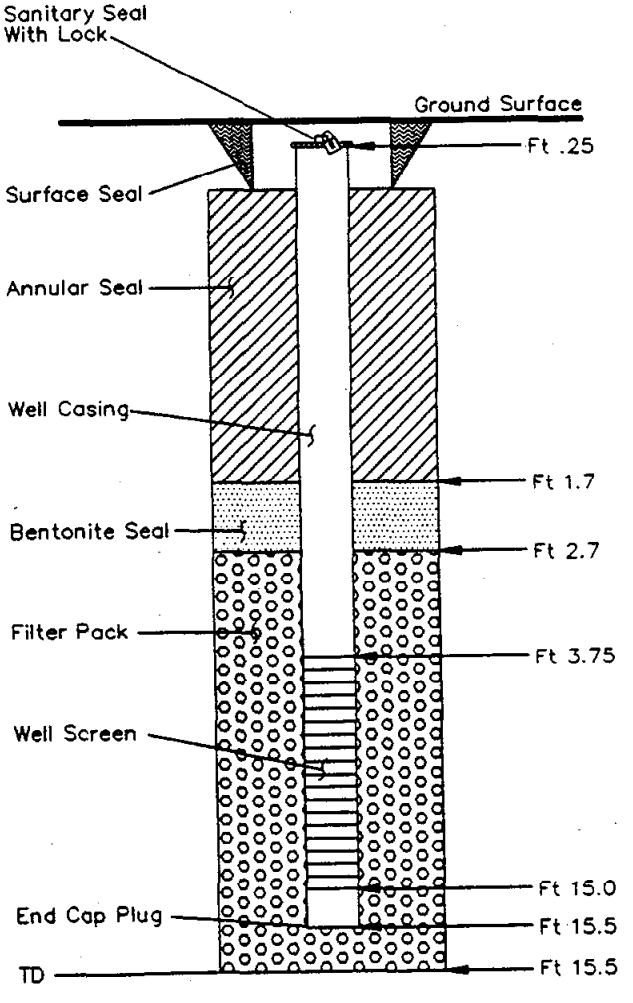
Type Steel Diameter 12"
Length Below (G.S.) 1.0'

Well Development

Date 10-01-93
Method Airlift
Comments 30 gpm, clear

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJC22948.ST.PT
Well Number: OBTW-1
Field Observers: P. van Noort
Elev. (top of well casing): 54.54
Surface Elev.: 54.93
Water Level Elev. / Date: 47.82 1/3/94
Start Date: 10-4-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 10-4-93
Drilling Method: Air Rotary - within 10" casing



Not To Scale
* Depths Below Ground Surface
* (wire wrapped)

Well Construction Materials

Borehole Dia.(s): 10 Inches to 15.5 Ft Bgs
Inches to x Ft Bgs
Inches to x Ft Bgs
Casing Type: PVC Diameter: 6"
Coupling Type: Threaded
Screen Type: PVC CONTINUOUS WIRE ROUND Diameter: 6"
Slot Size: .010 ** Screen Length: 12'
Top Cap Type: Expandable
End Cap/Plug Type: Slip-on
Centralizer Type: N/A
Centralizer Location(s): N/A
Filter Pack Type: #1 Morie
Gradation: N/A

Seal(s)

Bentonite: Pellets - Benseal
Annular: Cement Grout
Surface: Sacrete
Backfill: N/A

Flush Mount Design •

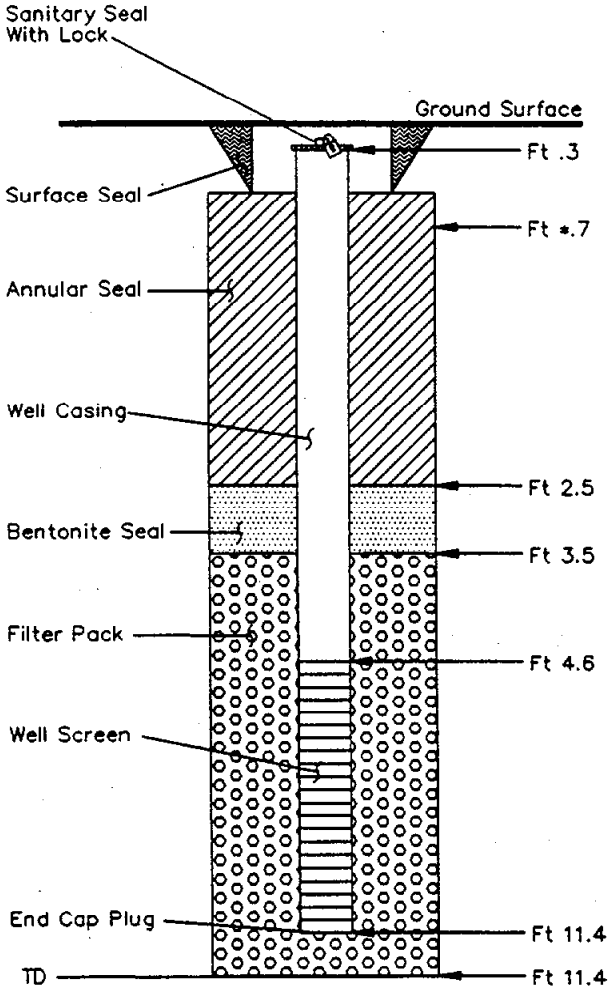
Type: Steel Diameter: 12"
Length Below (G.S.): 1.0'

Well Development

Date: 10-04-93
Method: Airlift
Comments: Turbid, low recovery

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.PT
Well Number: PT-1S
Field Observers: P. van Noort
Elev. (top of well casing): 55.02
Surface Elev.: 55.31
Water Level Elev. / Date: 48.72 1/3/94
Start Date: 9-21-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 9-21-93
Drilling Method: Air Rotary - Rollerbit



Not To Scale

* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s) 10 Inches to 11.4 Ft Bgs
Inches to x Ft Bgs
Inches to x Ft Bgs
Casing Type PVC Diameter 2"
Coupling Type Threaded
Screen Type PVC Diameter 2"
Slot Size .010 Screen Length 10
Top Cap Type Locking Expandable
End Cap/Plug Type Slip-on
Centralizer Type N/A
Centralizer Location(s) N/A
Filter Pack Type #1 Morie
Gradation N/A

Seal(s)

Bentonite Pellets
Annular Cement Grout
Surface Sacrete
Backfill N/A

Flush Mount Design •

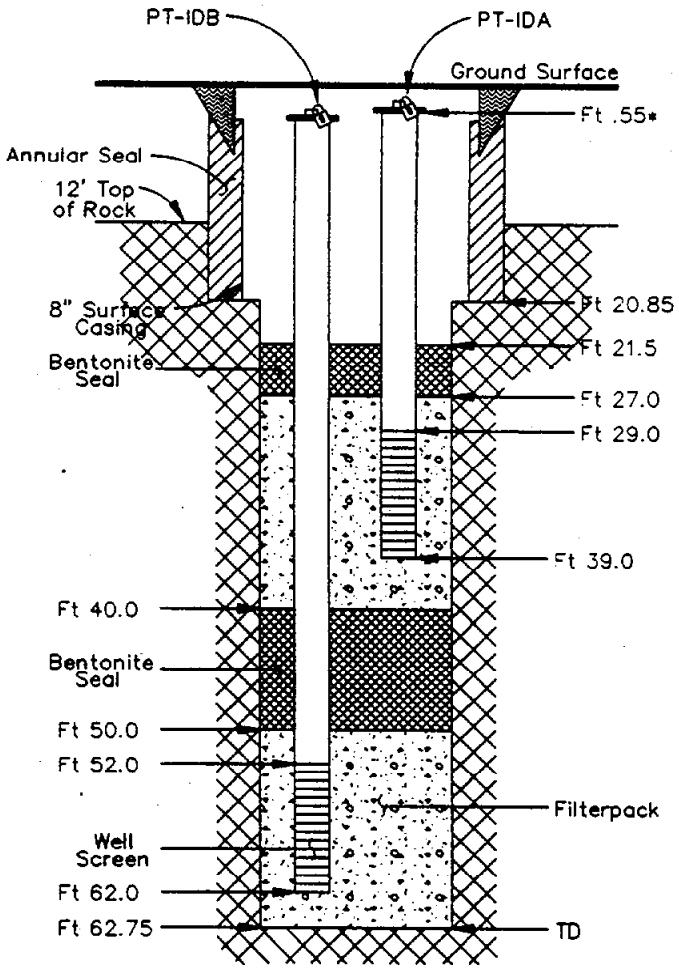
Type Steel Diameter 10"
Length Below (G.S.) 1.0'

Well Development

Date 9-22-93
Method Bail & Surge
Comments 10.5 gallons removed (Total) dry after 3 gallons, very turbid

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.PT
Well Number: PT-IDA, PT-ID
Field Observers: L. Vogel
Elev. (top of well casing): PT-IDA - 54.82; PT-IDB - 54.74
Surface Elev.: 55.33
Water Level Elev. / Date: PT-IDA - 46.10 1/3/94; PT-IDB - 45.81 1/3/94
Start Date: 9-28-93
Drilling Contractor: Kenarick Drilling Inc.
Finish Date: 10-14-93
Drilling Method: Air Rotary



Not To Scale
* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s): 12 Inches to 20.85 Ft Bgs
8 Inches to 62.75 Ft Bgs
Inches to x Ft Bgs
Casing (Surface) Type: PVC Dia.: 2"
Coupling Type: Threaded
Screen Type: PVC Diameter: 2"
Slot Size: .010 Screen Length: 10'
Top Cap Type: Locking Expandable
End Cap/Plug Type: Threaded
Centralizer Type: N/A
Centralizer Location(s): N/A
Filter Pack Type: #1 Morie
Gradation: N/A

Seal(s)

Bentonite: Hole Plug
Annular: Cement Grout
Surface: Sacrete
Backfill: N/A

Flush Mount Design •

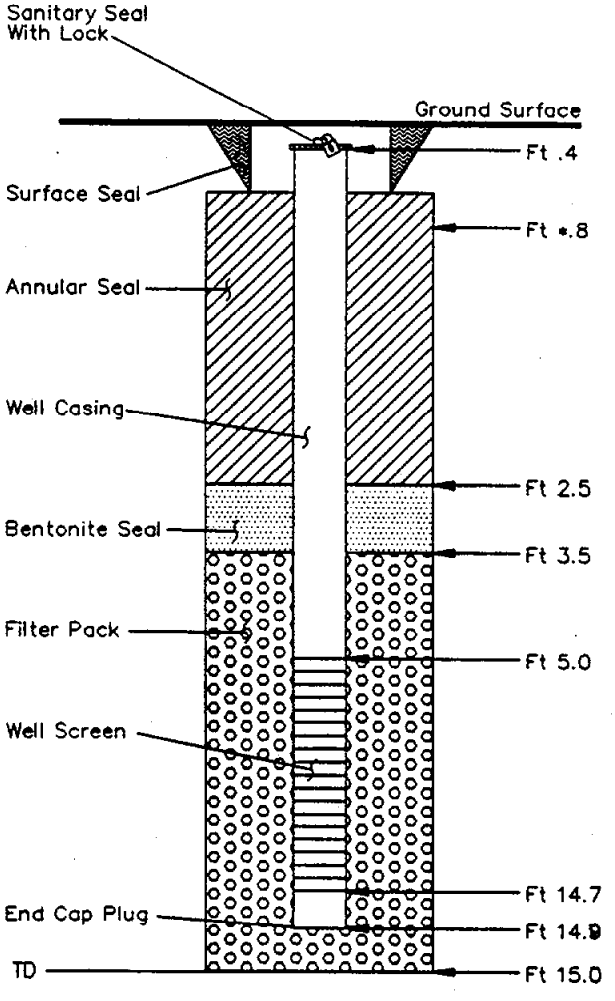
Type: Steel Diameter: 12"
Length Below (G.S.): 1.0'

Well Development

Date: 10-19-93
Method: Pump & Surge
Comments: Clear

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.PT
Well Number: PT-2S
Field Observers: P. van Noort
Elev. (top of well casing): 54.37
Surface Elev.: 54.70
Water Level Elev. / Date: 50.10 1/3/94
Start Date: 9-21-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 9-21-93
Drilling Method: Air Rotary - Rollerbit



Not To Scale
* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s) 6 Inches to 15 Ft Bgs
Inches to x Ft Bgs
Inches to x Ft Bgs
Casing Type PVC Diameter 2"
Coupling Type Threaded
Screen Type PVC Diameter 2"
Slot Size .010 Screen Length 10
Top Cap Type Locking Expandable
End Cap/Plug Type Threaded
Centralizer Type N/A
Centralizer Location(s) N/A
Filter Pack Type #1 Morie
Gradation N/A

Seal(s)

Bentonite Pellets
Annular Cement Grout
Surface Sacrete
Backfill N/A

Flush Mount Design •

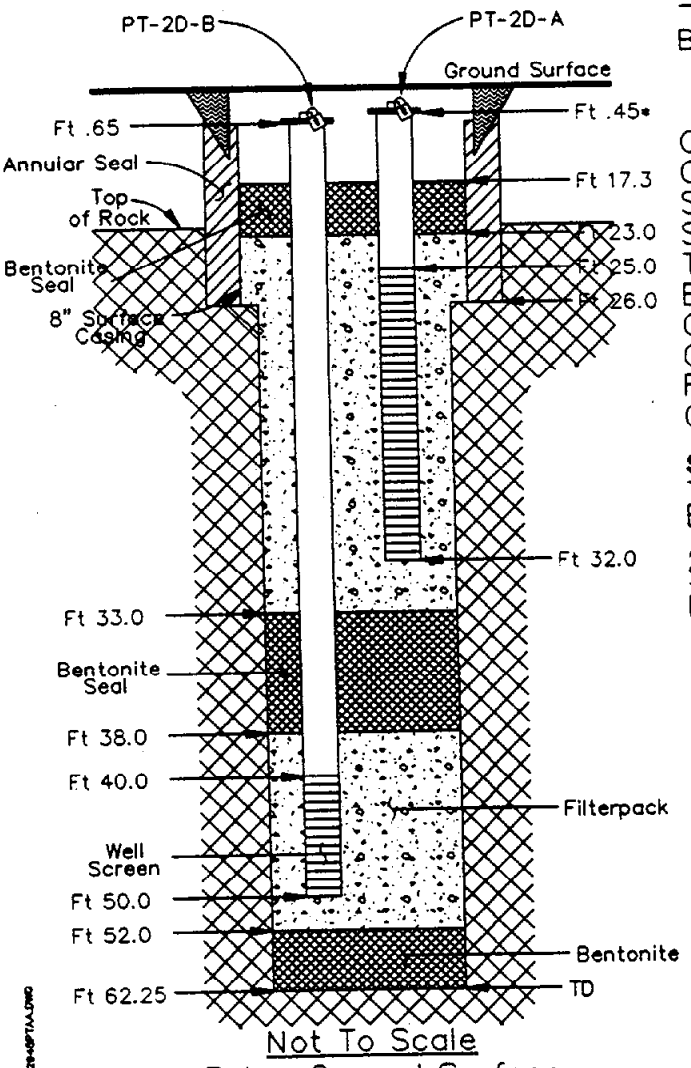
Type Steel Diameter 10"
Length Below (G.S.) 1.0'

Well Development

Date 9-22-93
Method Bail & Surge
Comments 18 gallons total removed, dry after 8 gallons, turbid, frothy

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.PT
Well Number: PT-2DA, PT-2DB
Field Observers: P. van Noort/L. Vogel
Elev. (top of well casing): PT-2DA - 54.30; PT-2DB - 54.11
Surface Elev.: 54.76
Water Level Elev. / Date: PT-2DA - 43.17 1/3/94; PT-2DB - 45.03 1/3/94
Start Date: 9-30-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 10-13-93
Drilling Method: Air Rotary



Not To Scale

* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s): 12 Inches to 26.0 Ft Bgs; 8 Inches to 62.5 Ft Bgs; Inches to x Ft Bgs
Casing (Surface) Type: PVC Dia.: 2"
Coupling Type: Threaded
Screen Type: PVC Diameter: 2"
Slot Size: .010 Screen Length: 7'
Top Cap Type: Locking Expandable
End Cap/Plug Type: Threaded
Centralizer Type: N/A
Centralizer Location(s): N/A
Filter Pack Type: #1 Morie
Gradation: N/A

Seal(s)

Bentonite: Bentonite Hole Plug
Annular: Cement Grout
Surface: Sacrete
Backfill: N/A

Flush Mount Design •

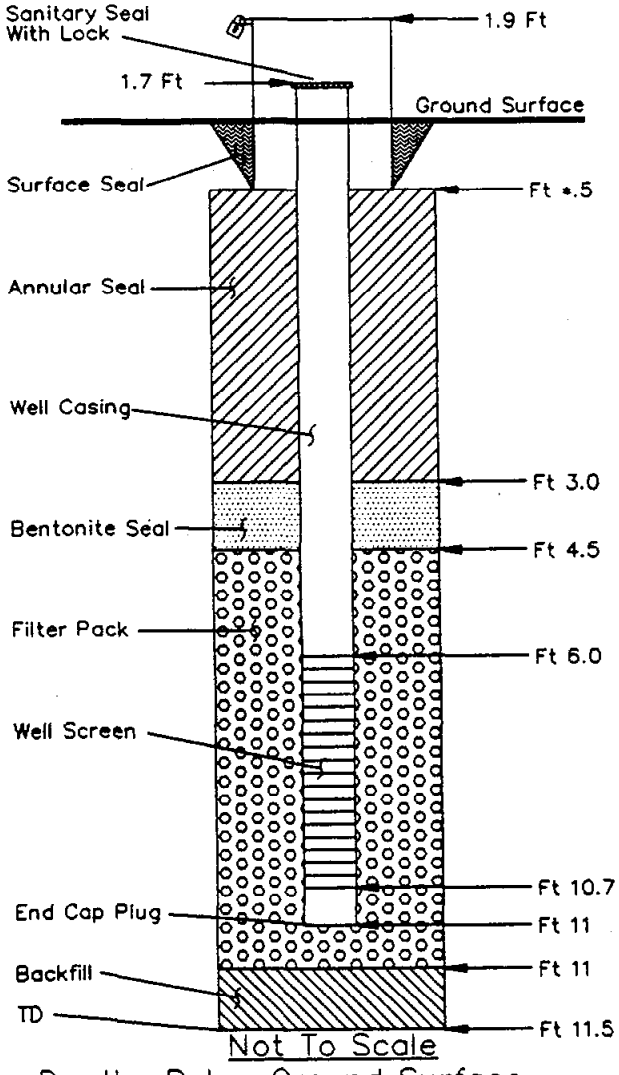
Type: Steel Diameter: 12"
Length Below (G.S.): 1.0'

Well Development

Date: 10-19-93
Method: Pump & Surge
Comments: Clear

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.B2
Well Number: OBMW-18
Field Observers: P. van Noort
Elev. (top of well casing): 64.67
Surface Elev.: 62.95
Water Level Elev. / Date: Not Available
Start Date: 9-22-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 9-22-93
Drilling Method: HSA



* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s) 8 Inches to 11 Ft Bgs
3 Inches to 11.5 Ft Bgs
Inches to x Ft Bgs
Casing Type SS-316 Diameter 2" ID
Coupling Type Threaded
Screen Type ss-304 Diameter 2" ID
Slot Size .010 Screen Length 5'
Top Cap Type N/A
End Cap/Plug Type Threaded SS
Centralizer Type N/A
Centralizer Location(s) N/A
Filter Pack Type #1 Morie
Gradation N/A

Seal(s)

Bentonite Pellets
Annular Cement Grout
Surface Sacrete
Backfill N/A

Protective Casing •

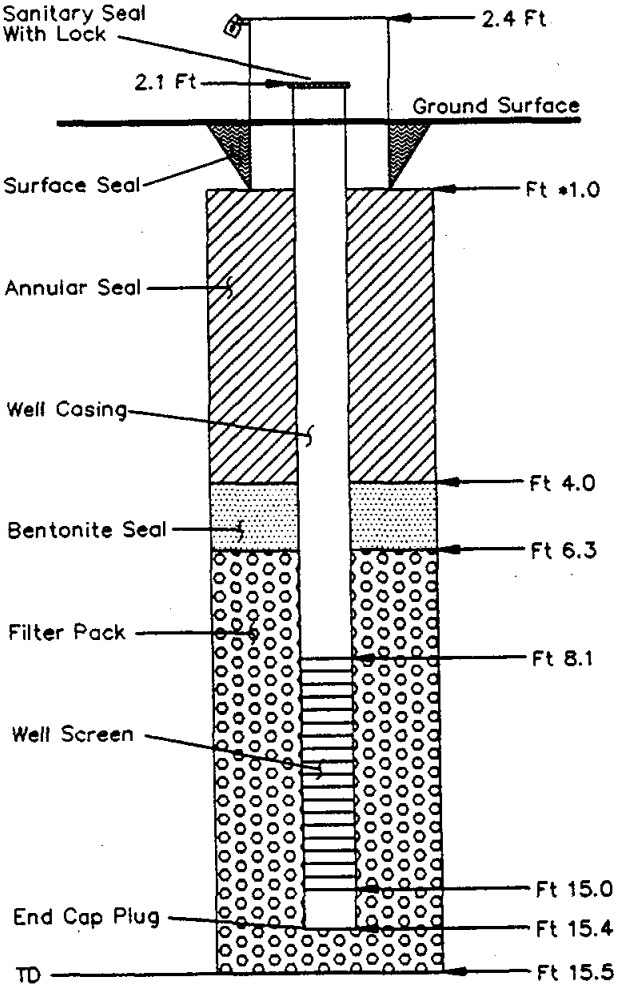
Type Steel Diameter 4"
Length Above(G.S.) 1.91
Below(G.S.) 3.09

Well Development

Date 9-22-93
Method Surge and Bail
Comments Dry after 5 gallons, 15 gallons removed total, v. turbid.

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.B2
Well Number: OBMW-19
Field Observers: P. van Noort
Elev. (top of well casing): 58.93
Surface Elev.: 56.83
Water Level Elev. / Date: 48.05 1/3/94
Start Date: 9-20-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 9-20-93
Drilling Method: HSA



Not To Scale
* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s): 6 Inches to 15.5 Ft Bgs
Inches to x Ft Bgs
Inches to x Ft Bgs
Casing Type: SS-316 Diameter: 2"
Coupling Type: Threaded
Screen Type: SS-306 Diameter: 2"
Slot Size: .010 Screen Length: 7.5'
Top Cap Type: N/A
End Cap/Plug Type: Threaded
Centralizer Type: N/A
Centralizer Location(s): N/A
Filter Pack Type: #1 Morie
Gradation: N/A

Seal(s)

Bentonite: Pellets
Annular: Cement Grout
Surface: Sacrete
Backfill: N/A

Protective Casing •

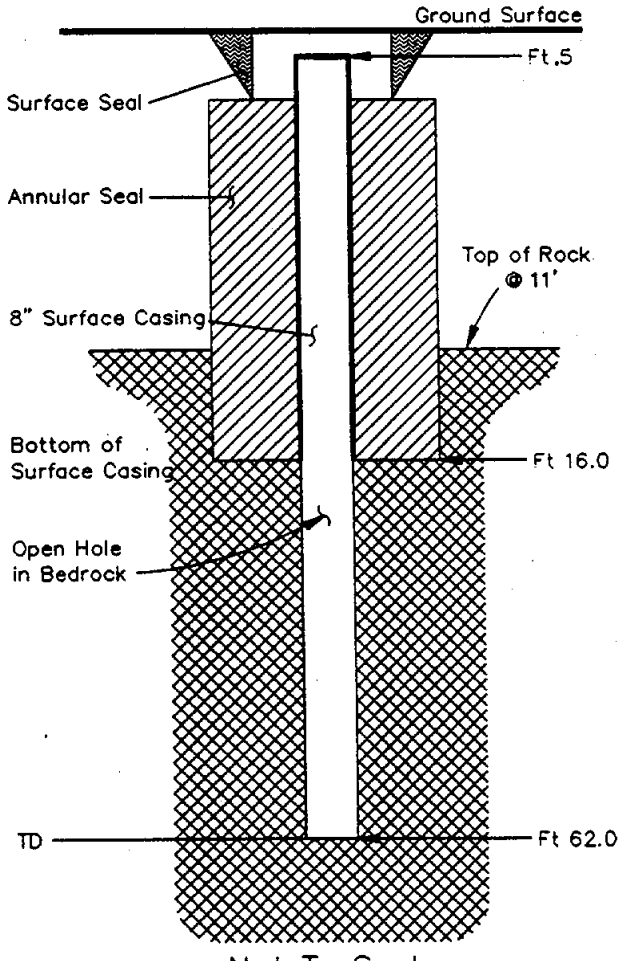
Type: Steel Diameter: 4"
Length Above(G.S.): 2.41
Below(G.S.): 2.59

Well Development

Date: 9-22-93
Method: Surge and Bail
Comments: 15 gallons pumped, dry after 5 gallons, turbid, odor

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.PT
Well Number: BRTW-2
Field Observers: P. van Noort
Elev. (top of well casing): 47.94
Surface Elev.: 48.46
Water Level Elev. / Date: Not Available
Start Date: 10-7-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 10-13-93
Drilling Method: Air Rotary



Not To Scale
* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s): 12 Inches to 16 Ft Bgs
8 Inches to 62 Ft Bgs
Inches to x Ft Bgs
Casing (Surface) Type: PVC Dia.: 6"
Coupling Type: N/A
Screen Type: N/A Diameter: N/A
Slot Size: N/A Screen Length: N/A
Top Cap Type: N/A
End Cap/Plug Type: N/A
Centralizer Type: N/A
Centralizer Location(s): N/A
Filter Pack Type: N/A
Gradation: N/A

Seal(s)

Bentonite: N/A
Annular: Cement Grout
Surface:
Backfill:

Flush Mount Design •

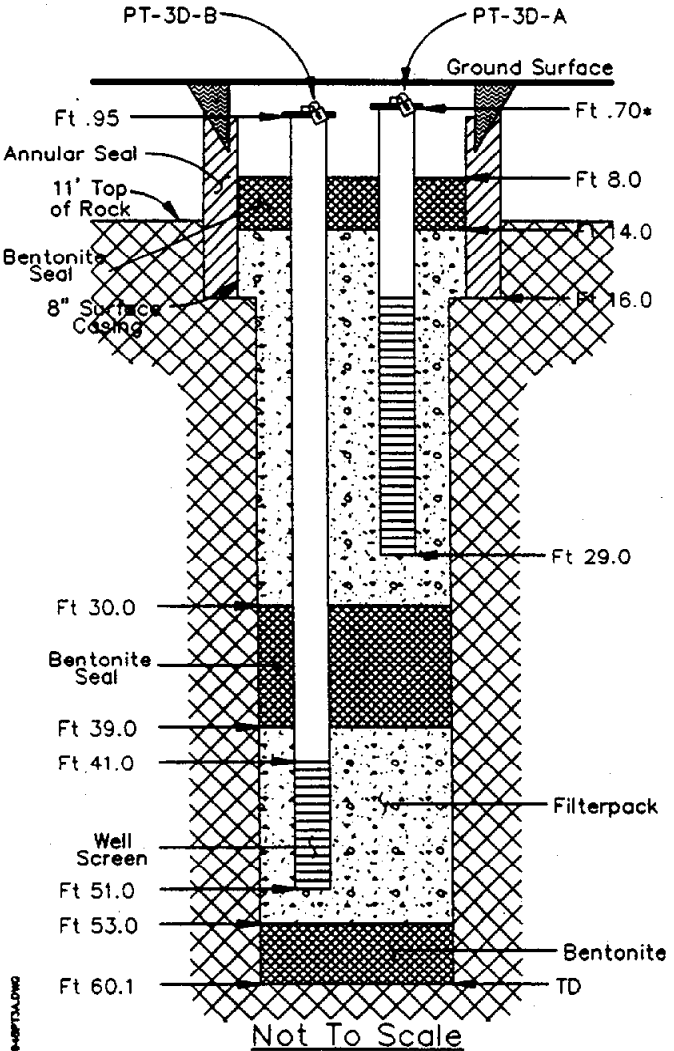
Type: Steel Diameter: 12"
Length Below (G.S.): 1.0'

Well Development

Date: 10-13-93
Method: Airlift
Comments: Clear, 20 gpm

MONITORING WELL RECORD DRAWING & CONSTRUCTION LOG

Project Name: Stepan Company
Project Number: NJ022948.ST.PT
Well Number: PT-3DA, PT-3DB
Field Observers: P. van Noort/L. Vogel
Elev. (top of well casing): PT-3DA - 48.37, PT-3DB - 49.07
Surface Elev.: 49.06
Water Level Elev. / Date: Not Available
Start Date: 10-06-93
Drilling Contractor: Kendrick Drilling, Inc.
Finish Date: 10-14-93
Drilling Method: Air Rotary



Not To Scale

* Depths Below Ground Surface

Well Construction Materials

Borehole Dia.(s): 12 Inches to 16 Ft Bgs; 8 Inches to 60 Ft Bgs; Inches to x Ft Bgs
Casing (Surface) Type: PVC Dia.: 2"
Coupling Type: Threaded
Screen Type: PVC Diameter: 2"
Slot Size: .010 Screen Length: 13'
Top Cap Type: Locking Expandable
End Cap/Plug Type: Threaded PVC
Centralizer Type: PVC (3)
Centralizer Location(s): N/A
Filter Pack Type: #1 Morie
Gradation: N/A

Seal(s)

Bentonite: Bentonite Hole Plug
Annular: Cement Grout
Surface: Sacrete
Backfill: N/A

Flush Mount Design •

Type: Steel Diameter: 12"
Length Below (G.S.): 1.0'

Well Development

Date: 11/30/93
Method: Surge & Pump
Comments: Pumped Clear

Appendix AC
Rock Boring Logs
(Focused Investigation)

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SI.PT	BRTW-1 SHEET 1 OF 3

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60 Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 9-29-93 FINISH 9-30-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
21.0	*N/A			N/A		0'-22' See OBMW-2 Boring Log	9-29-93 8" surface casing to 22' installed within 12" temporary surface casing to 10', used 11.75" tricone roller bit * no coring performed
22.0							
23.0						SILTSTONE, reddish brown	9-30-93 8" Airhammer at 25.5' - drill break, soft
24.0							
25.0							
6.0						SANDSTONE, reddish brown-moderate brown, fine sand, very silty, soft, friable at 28'-29' siltstone lamination, teal green, mottles	
27.0							
28.0							< 1 gpm foamy water, sweet odor
29.0							
30.0							
31.0							
32.0							
33.0							
34.0							
35.0							
36.0							
7.0						Alternating SILTSTONE and SANDSTONE, trace orange-reddish brown clay balls (soft mudstone)	at 37' increase in flow rate, likely fracture 5-8 gpm, frothy, odor
38.0							

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.PT	BRTW-1 SHEET 2 OF 3

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60 Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 9-29-93 FINISH 9-30-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
40.0						SANDSTONE, maroon-reddish brown, fine-medium sand, trace silt and coarse sand, soft-hard, friable trace mudstone laminations	at 40'-41', drill break, increase in flow rate to 25-30 gpm, likely fracture
41.0							
42.0							
43.0						SANDSTONE, same as above, fine-medium sand, feldspathic, light and dark minerals, trace silty sandstone zones soft-moderately hard, friable	
44.0							
3.0							
46.0							
47.0						SANDSTONE, interbedded with shale-mudstone, moderate brown	
48.0							
49.0							
50.0						SANDSTONE, reddish brown, moderate brown, trace orange reddish brown to light reddish brown, trace medium sand, trace soft-very friable zones	slower drilling
51.0							
52.0							
53.0						SANDSTONE, very silty, purplish moderate brown, interbedded with sandy siltstone, moderately hard, micaceous	
54.0							54'-56' 1 minute/per foot
55.0						SANDSTONE, same as above, fine-medium sand, trace SILTSTONE and shale zones at 56'-57' increased SILTSTONE	
.0							56'-57' 1 minute/per foot
57.0							

PROJECT NUMBER	BORING NUMBER
NJ022848.ST.PT	BRTW-1 SHEET 3 OF 3

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60 Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 9-29-93 FINISH 9-30-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
59.0						SILTSTONE, sandy, interbedded with sandstone, soft mudstone, shale (clay balls), reddish brown-brownish red	flushed hole to remove fines, 25-30 gpm
60.0							
61.0							
62.0						END OF BORING @ 62'	
63.0							
4.0							
65.0							
66.0							
67.0							
68.0							
69.0							
70.0							
71.0							
72.0							
73.0							
74.0							
5.0							
76.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022848.ST.PT	PT-1D SHEET 1 OF 2

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 9-2-93 FINISH 10-1-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH, AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
11.0						see PT-1S Boring Log 0'-12'	9-28-93 Installed 8" casing to 21' set casing within 12" pipe set to 10'. Open hole 10'-21'. Grouted between 8" and 12", pulled 12" samples obtained by straining drilling fluids Bit: 12" tri-cone roller bit
12.0						Bedrock at approximately 12'	
13.0							
14.0						SILTY SANDSTONE, moderate brown, moderately hard, trace soft laminations very fine sand, very micaceous	
15.0							
16.0							
17.0							
18.0						same as above, interbedded with SILTSTONE, SHALE	
19.0							
20.0							
21.0							10-1-93 Bit: 8" downhole button-bit hammer
22.0							
23.0						23'-35' SANDSTONE, moderate brown, trace interbedded shale-mudstone, very fine-fine, silty, micaceous, soft-moderately hard, friable	steady, smooth drilling rate, low flow, <1 gpm
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							
31.0							
32.0							
33.0							
34.0							
35.0						35'-48' SANDSTONE, as above, traces of siltstone, fine sand, trace medium sand, feldspathic, trace white calcite (infillings of micro-fracture) trace light reddish brown, fine sandstone at 45'-47'	at 34'-35', increase in flow rate to 5-8 gpm
36.0							
37.0							cleaned out hole to 43', frothy, white, odor
38.0							
39.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.PT	PT-10 SHEET 2 OF 2

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 9-2-93 FINISH 10-1-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
41.0							
42.0							
43.0							
44.0							
45.0							at 45', drill skip, soft zone
46.0							
47.0							
48.0						48'-52' SANDSTONE, moderate to reddish brown, fine sand, trace calcified fractures (micro, 1mm), soft to moderately hard, friable soft zones at 51', SILTSTONE, MUDSTONE fragments	at 48'-50' noticeable sweet odor
49.0							
50.0							
51.0							at 51', drill break, soft zone
52.0						52'-57' SANDSTONE, as above, very fine-fine sand, very silty SANDY SILTSTONE sones, thin zones of shale-mudstone	slower drill rate
53.0							
54.0							
55.0							
56.0							
57.0						57'-59' Same as above, SILTY SANDSTONE, reddish brown, sandy siltstone zones	at 57', soft zone
58.0							at 57.5'-59', alternating, hard-slow drilling 6-8 gpm flow rate
59.0						59'-82' SANDSTONE, moderate-reddish brown, fine-medium sand chips, very fine sand, silty zones	
60.0							
61.0						At 61'-62' SILTY SANDSTONE, 1½" fragments, coated with calcite, micro laminations of reddish brown clay, 1/8" x 1" white clacite, bounded by clay laminations	at 61', drill break, fracture, flow rate increases to 15-20 gpm
62.0						END OF BORING @ 62'	Monitoring well couplet installed
63.0							
64.0							
65.0							
66.0							
67.0							
68.0							
69.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.PT	PT-2D	SHEET 1 OF 2

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE _____ START 9-28-93 FINISH 10-1-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
11.0						0'-18' see PT-2S Boring Log	9-29-93
12.0				N/A		hole caves 0-12'	Installed 8" steel casing to 25' BGS, with 12" ID casing set to 10' BGS. Grouted around 8", pulled 12" Bit: 12" Tricone samples obtained by straining drilling fluids
13.0						18'-25', no log	
14.0							
15.0							
16.0							
17.0							
18.0							
19.0							
20.0							
21.0							
22.0							
23.0							
24.0							
25.0						25'-32.5' SILTY SANDSTONE, reddish brown very fine-fine sand, hard, micaceous, feldspathic	9-30-93
26.0							Hit bottom of surface casing, metal fragments at casing
27.0							
28.0							
29.0							
30.0				N/A			
31.0							
32.0							
33.0						32.5'-35' Same as above, with angular fragments of mudstone/soft shale, 3/4" thick (perpendicular to sandstone laminations), very soft, greasy feel	Bit: 8" down hole button-bit hammer
34.0							Smooth drilling, 25'-30'
35.0						35'-40' SILTY SANDSTONE, with layers of SILTSTONE, alternating, reddish to moderate brown, feldspathic	Soft zones at 31', at 32.5'
36.0							Hard drilling at 32.5'-35', 37'
37.0							
38.0							
39.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.PT	PT-2D

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE _____ START 9-28-93 FINISH 10-1-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: ROD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
41.0						40'-43' Same as above, SILTY SANDSTONE	2-4 gallons per minute
42.0							End drilling for 9-30-93
43.0							
44.0						43'-45' SANDSTONE, reddish brown, with silt, fine with some medium sand, hard	10-1-93 Significant water change 15-20 gpm at 45.5'-46'
45.0							Uniform, slow drilling 45.5', 46' to 55'
46.0							
47.0						At 47'-53' same as above, medium sand, trace coarse-sand, trace silt	
48.0							
49.0							
51.0							
51.0							
52.0							
53.0							
54.0							
55.0							
56.0						55'-57' Same as above, with SILTSTONE layers, SANDSTONE becoming silty, fine sand, hard	Steady, smooth, drilling rate
57.0						57'-60' SANDY SILTSTONE, reddish-moderate brown, very fine-fine sand	
58.0							
59.0							
60.0						60'-62' SILTY SANDSTONE, with alternating SILTSTONE, having green mottles, hard	
61.0							
62.0						END OF BORING @ 62'	Monitoring well couplet installed
63.0							
64.0							
65.0							
66.0							
0							
68.0							
69.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.PT	BRIW-2	SHEET 1 OF 2

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 10-7-93 FINISH 10-13-93 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
16.0	*N/A			N/A		18' SANDSTONE, moderate brown, medium-hard, fine sand, small planar chips	10-13-93 begin with air rotary beyond casing at 0840 at 16' HNU=0ppm background * no coring performed samples obtained by straining drilling fluids
17.0							
18.0							
19.0						19' same as 18' except finer chips, soft-medium	at 0858 at 18'
20.0							18.8'-19' easier drilling
21.0						21' same as 18'	
22.0							at 0904 at 21.5' 21'-22' easier drilling 22.5'-22.8' easier drilling
23.0							at 1910 at 23'
24.0						24' same as 19' with coarse sand size quartz grains, angular to subangular, sandstone chips, coarse, sand size to pebble size	23.5' sweet odor in return water
25.0							24.5'-25.4' easy drilling
26.0							at 0914 at 25'
27.0							
28.0							28'-28.5' fractures, easy drilling 29'-29.8' fractures, easy drilling 31'-31.5' fractures, easy drilling
29.0							
30.0						SANDY SILTSTONE, interbedded with sandstone, moderate brown, medium-hard, very fine-fine sand, trace bedding in siltstone	
31.0							at 0930 HNU 1ppm wellhead 0ppm breathing
32.0							
33.0							31.5'-37' hard drilling
34.0						34' SANDSTONE, moderate brown, medium sand, slightly friable/crumbly, quartz, plagioclase, subangular-subrounded	at 0927 at 33'
35.0							
36.0							
37.0							37'-41' faster drilling
38.0							
39.0							
40.0						40' same as 34' friable	at 0937 at 40'
41.0							41'-45.4' hard drilling
42.0							
43.0							
44.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.PT	BRTW-2 SHEET 2 OF 2

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air Rotary ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 10-7-93 FINISH 10-13-93 LOGGER L. Vogel

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
46.0						45' SANDY SILTSTONE, moderate brown, very fine sand, medium-hard, quartz	at 0845 at 45'
47.0							45.4'-45.5' fractures
48.0							48'-51.2' easier drilling
49.0							
50.0						50' SANDSTONE, moderate brown, very fine-fine sand, very hard, massive, quartz, plagioclase	at 0956 at 50'
51.0							51.2'-51.4' fractures
52.0							51.4'-55.6' hard drilling
53.0							
54.0							
55.0						55' same as 34'	at 1003 at 55'
56.0							55.5'-58' easier drilling
57.0							58'-61' fractures
58.0							
59.0							
60.0						60' same as 45'	at 1009 at 60'
61.0							61'-62' hard drilling
62.0						END OF BORING @ 62'	
63.0							
64.0							
65.0							
66.0							
67.0							
68.0							
69.0							
70.0							
71.0							
.0							
73.0							
74.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.SI.PT	PT-30 SHEET 1 OF 1

SOIL BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Ingersoll TH-60, Air rotary, hammer & tricone bits

WATER LEVELS approximately 8', 10-8-93 START 10-8-93 FINISH 10-11-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL	SAMPLE TYPE AND NUMBER	SAMPLE RECOVERY	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
0.0					0'-8' SILTY SAND WITH GRAVEL (SM), brown, brick chips, moist	12" tricone roller bit samples obtained by straining drilling fluids
						Fill
5.0	8					
					8'-8' POORLY GRADED SAND WITH SILT, gray, brownish gray, approximately 10% silt, medium-coarse sand, trace SM zones, moist	
	8					
					8'-9'11" SILTY SAND (SM), gray, brownish gray, moist-wet, trace reddish brown	water at approximately 8'
	9.11					
10.0					9'11"-11'8" same as above grading to SILTY SAND WITH GRAVEL (SM), reddish brown, wet, trace wood fragments, likely transitional residual soils/bedrock	pushed 12" ID steel casing to 11'2"
	11.8					
					11'8"-12'8" loose incompetent SILTY SANDSTONE, reddish brown, fine-very fine sand, silty	bedrock begins at 11'8" cleaning out 12" pipe
	12.8					hole collapsing around 12", significant increase in cuttings at surface viscous, silty sand
					12'8"-18' SANDSTONE, reddish brown to tannish brown, fine-medium sand, trace coarse sand, silt, very hard, trace subrounded fragments	
15.0						added approximately 55 gallons of cement to 12", set 8" within 12", pulled 12". 8" casing set to 18' from 0.5' below ground surface.
	18					End drilling for 10-8-93
					See Rock Boring Log	

CH2M HILL

PROJECT NUMBER	BORING NUMBER	
NJ022948.ST.PT	PT-30	SHEET 2 OF 3

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

DRILLING METHOD AND EQUIPMENT Air, Water Rotary Ingersoll TH-60 ORIENTATION Vertical

WATER LEVEL AND DATE ____ START 10-9-93 FINISH 10-11-93 LOGGER P. van Noort

DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
17.0	*N/A			N/A		18'-18' SANDSTONE, brown-reddish brown, fine to medium sand, trace silt, trace mudstone and shale fragments	Begin Air Rotary with 8" pipe, 8" OD hammer within mud tub *N/A no coring performed
18.0						18'-22' Sweet, odor, frothy, water, same as above	
19.0							easy drilling, likely fractures, increases in flow approximately 10 gpm
20.0							
21.0							
22.0							
23.0							
24.0						24'-25' Same as above, fine chips = hard, trace friable zones	
25.0							
26.0							
27.0						27'-29' SANDY SILTSTONE, reddish brown, fine sand, hard, micaceous	Drilling Rates:
28.0							27'-28' = 2' 12" (minutes, seconds)
29.0							28'-29' = 2' 8"
30.0							29'-30' = 2' 4"
31.0						31'-32.5' SANDSTONE, pinkish reddish brown, fine-medium sand, trace buff-whitish gray zones, having medium-coarse sand	30'-31' = 1' 22"
32.0							31'-32' = 1' 10"
33.0						32.5'-37' SANDSTONE, same as above, fine-medium sand, trace silt, hard	30.5' Drill skip
34.0							
35.0							
36.0							
37.0						37'-39' SANDY SILTSTONE, reddish brown, fine sand, micaceous, trace shale	
38.0							Drilling Rates:
39.0						39'-45.5' SANDSTONE, pinkish gray, fine-medium, hard to slightly friable	38'-40' = 2' 35"
40.0							
41.0							Flow Rate:
42.0							10-15 gpm, no change since 20'
43.0							
44.0							

CH2M HILL

PROJECT NUMBER	BORING NUMBER
NJ022948.ST.PT	PT-3D SHEET 3 OF 3

ROCK BORING LOG

PROJECT Stepan Company LOCATION Maywood, NJ

ELEVATION N/A DRILLING CONTRACTOR Kendrick Drilling, Inc.

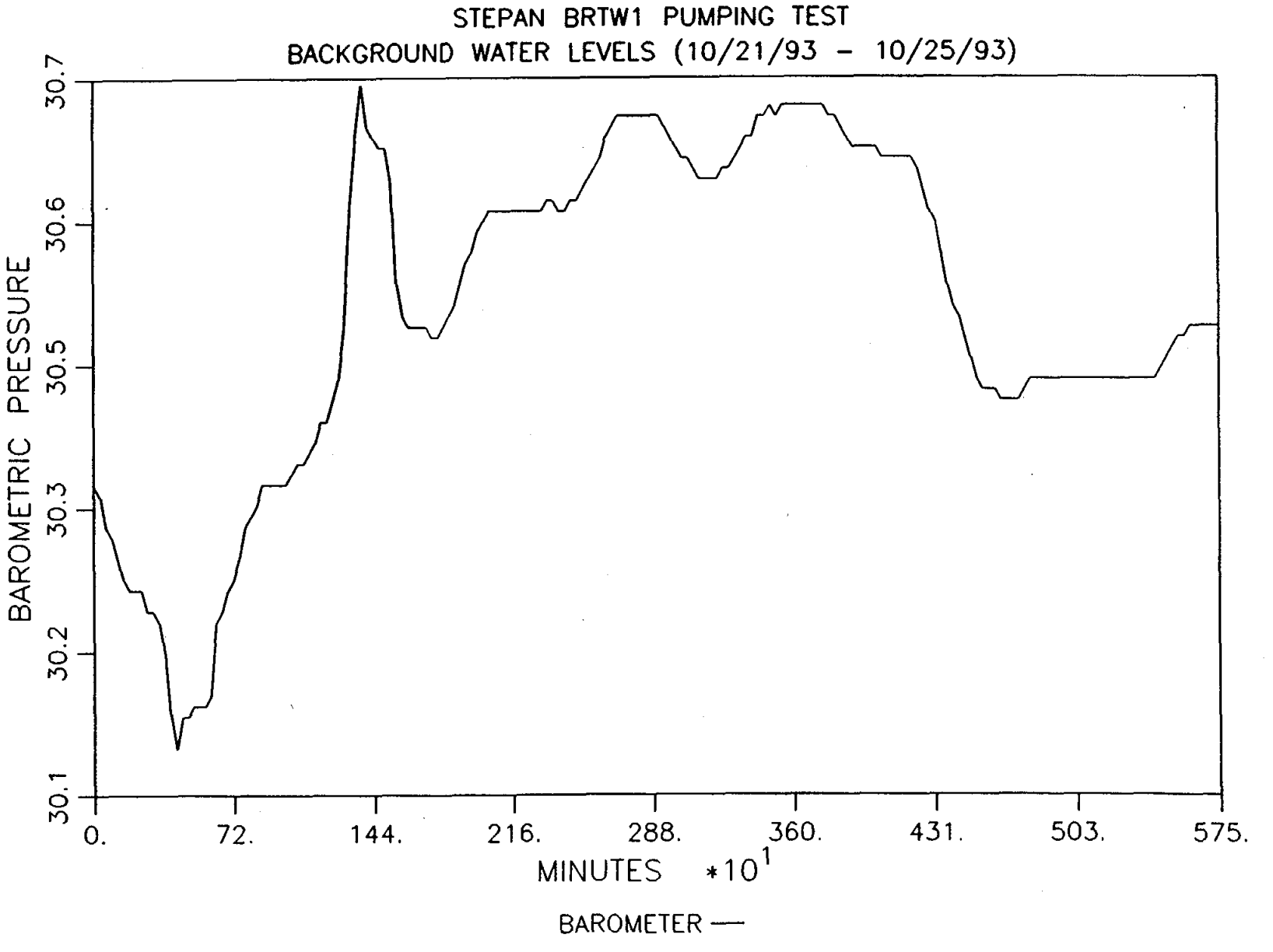
DRILLING METHOD AND EQUIPMENT Air, Water Rotary Ingersoll TH-60 ORIENTATION Vertical

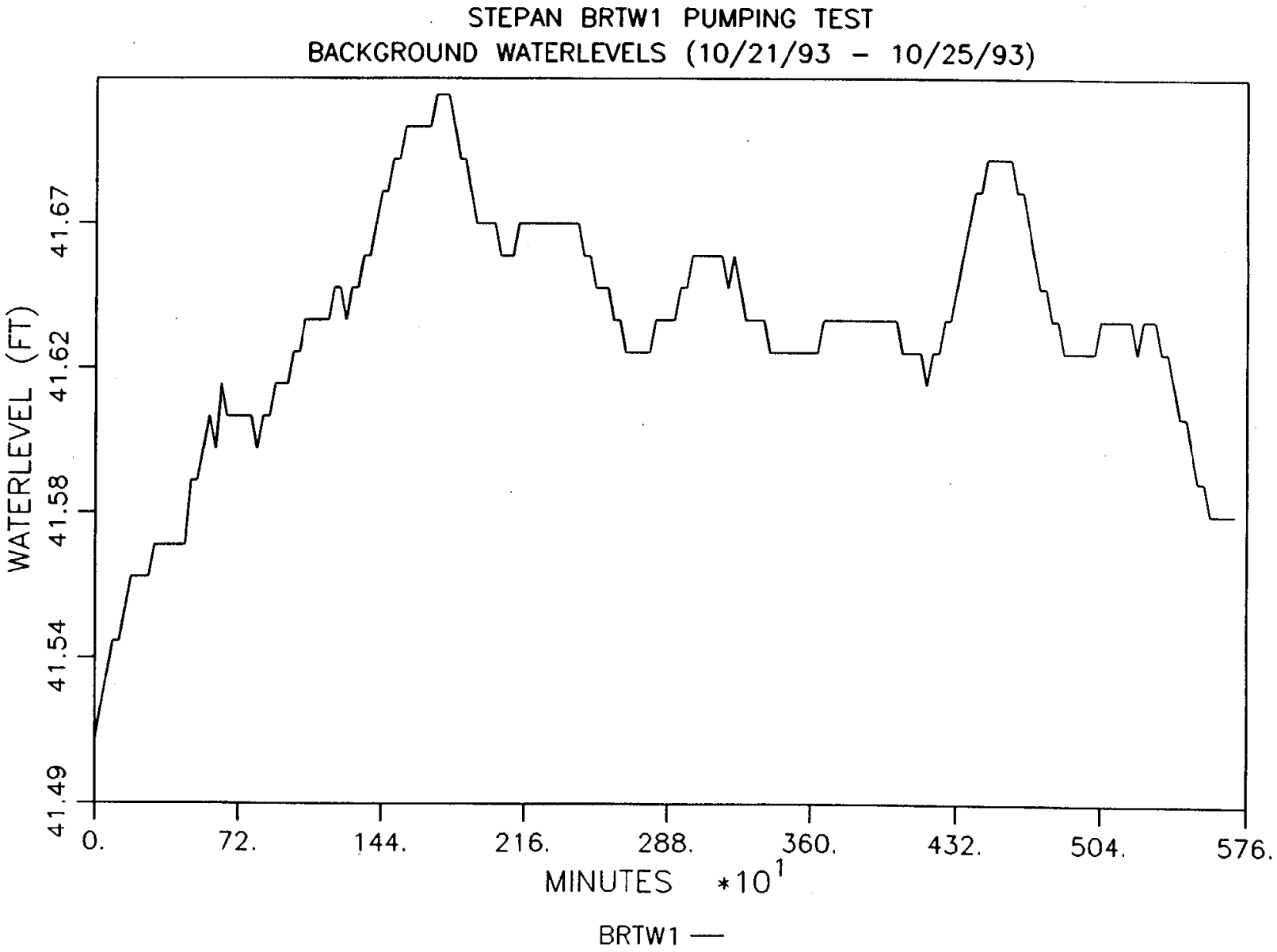
WATER LEVEL AND DATE ____ START 10-9-93 FINISH 10-11-93 LOGGER P. van Noort

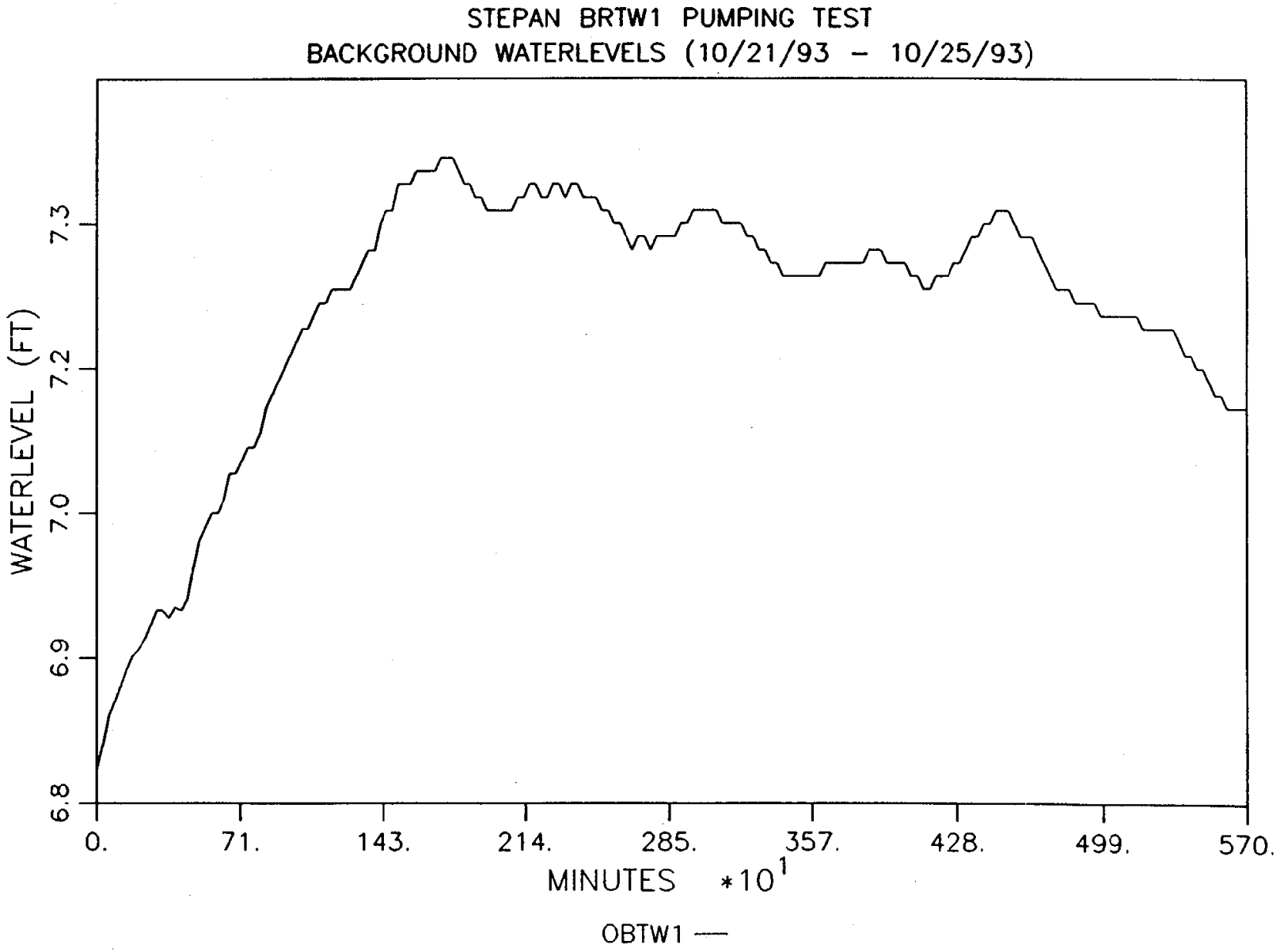
DEPTH BELOW SURFACE (FT)	CORE RUN LENGTH AND RECOVERY	DISCONTINUITIES: RQD (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION (DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS)	GRAPHIC LOG	LITHOLOGY (ROCK TYPE, COLOR, MINERALOGY, TEXTURE WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS)	COMMENTS (SIZE AND DEPTH OF CASING, FLUID LOSS CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC)
46.0						45.5'-48' SANDSTONE, reddish brown-grayish pink, trace mud drapes (thin mud laminae within sandstone matrix) likely secondary porosity, trace sandy siltstone	
47.0							
48.0						48'-49' Same as above with silty sandstone, zones	End at 49'
49.0							
50.0						50'-52' Same as above, SANDSTONE	switching to water rotary - to reduce quantity of waste water
51.0							
52.0						52'-58' SILTY SANDSTONE, SANDY SILTSTONE, micaceous, trace mudstone chips	
53.0							8" tricone roller bit
54.0							
55.0							
56.0						55.8'-57' Same as above, alternating beds of reddish brown-gray sandstone, reddish brown-moderate siltstone	soft drilling at 51'8" - 51'10"
57.0							Drilling Rate: 52'-53' = 7'40"
58.0						57'-60' SANDSTONE, reddish gray, trace medium sand, likely interbedded with silty sandstone, sandy siltstone	soft drilling at 53'11" - 54'2"
59.0							Drilling Rate: 53'5"-55' = 8'20"
60.0						60'-62' SILTY SANDSTONE, same as above, trace bandstone and siltstone, mudstone, shale fragments, laminated	58'-57', 5" minutes per foot
61.0							
62.0						END OF BORING @ 62' Hole flushed with approximately 200 gallons clean water, formation clears	58'-60', 4.5" per foot Monitoring well couplet installed
63.0							
64.0							
65.0							
66.0							
67.0							
68.0							
69.0							
70.0							
1.0							
72.0							
73.0							

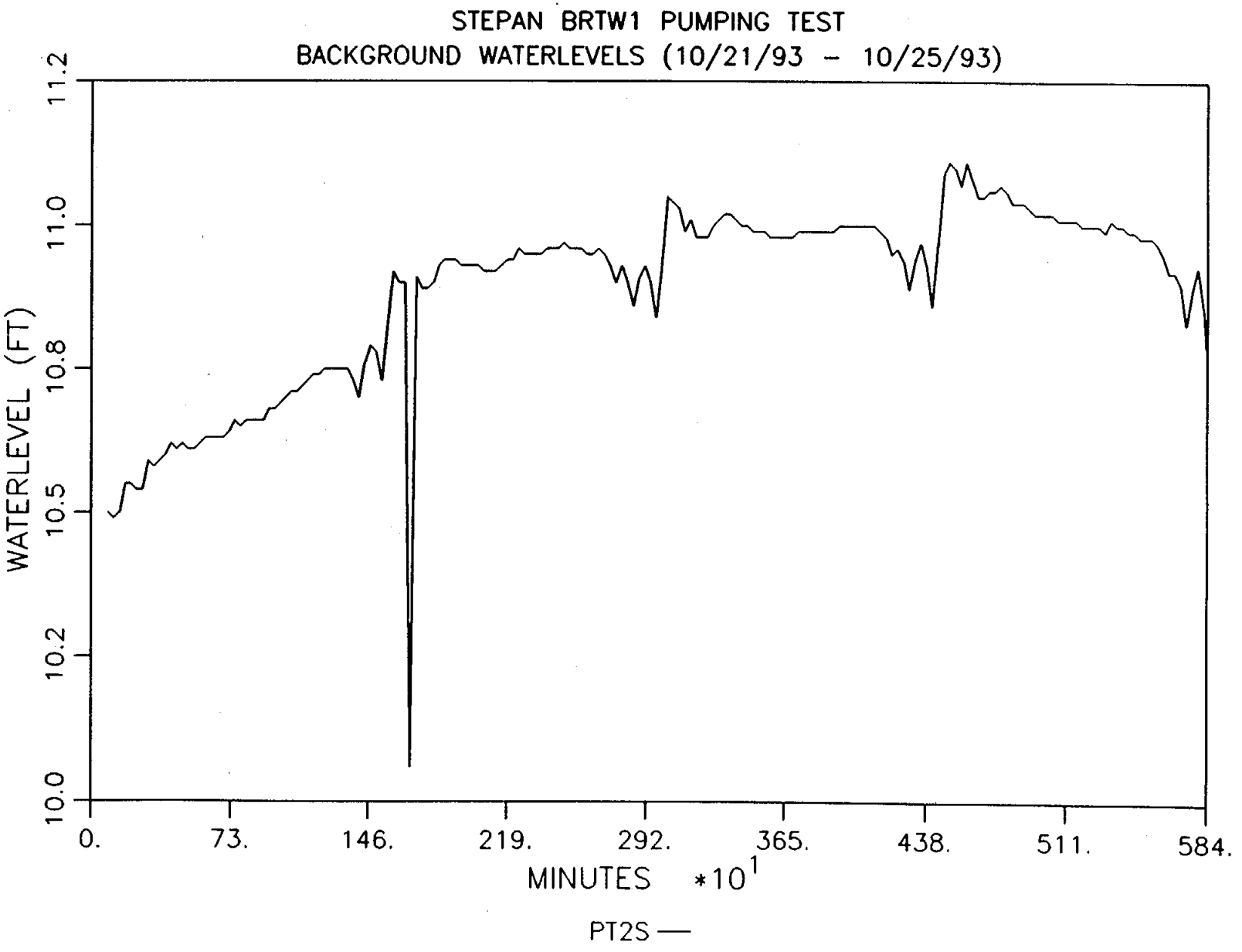
Appendix AD
Background Monitoring Data Curves

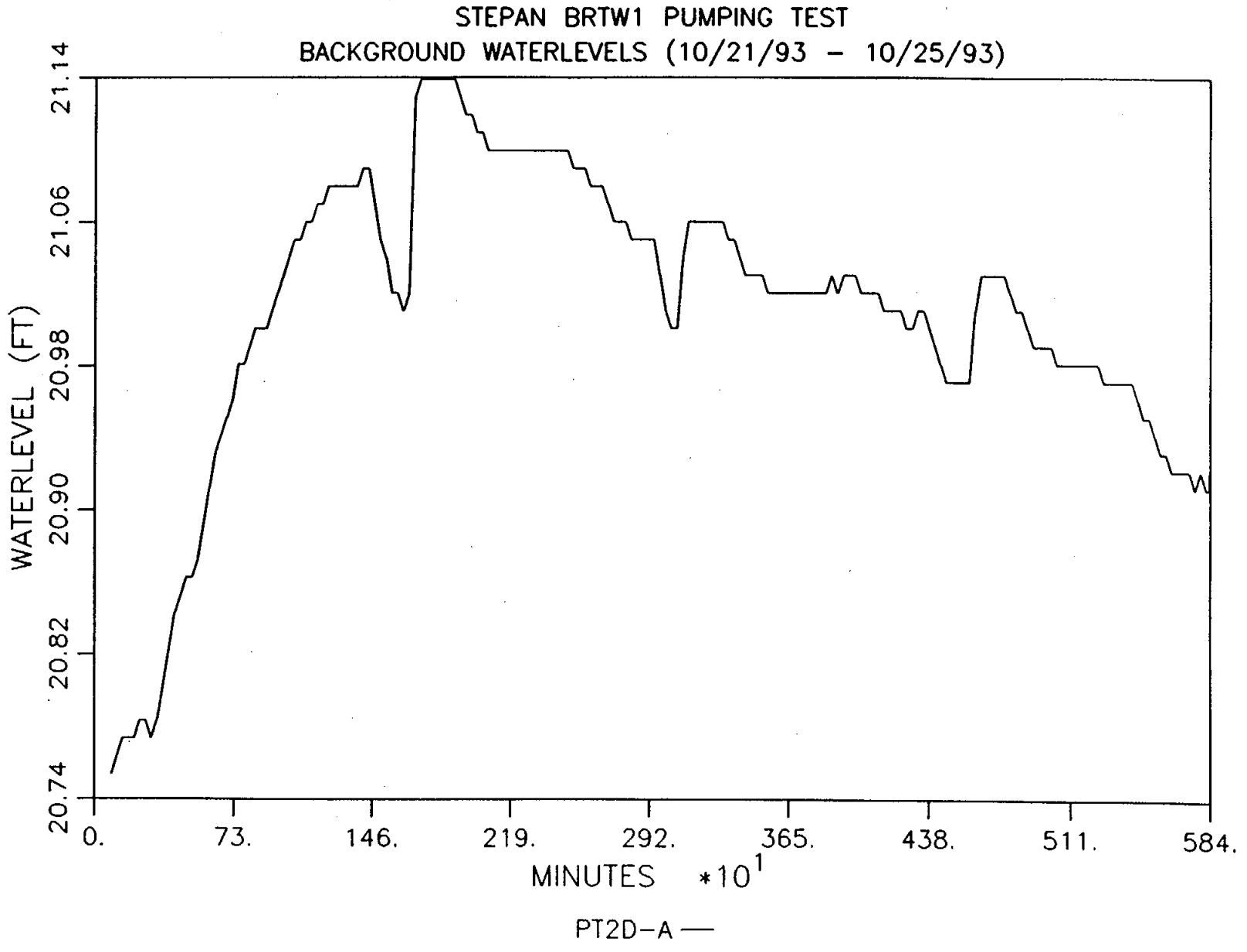
Stepan Test Background Data

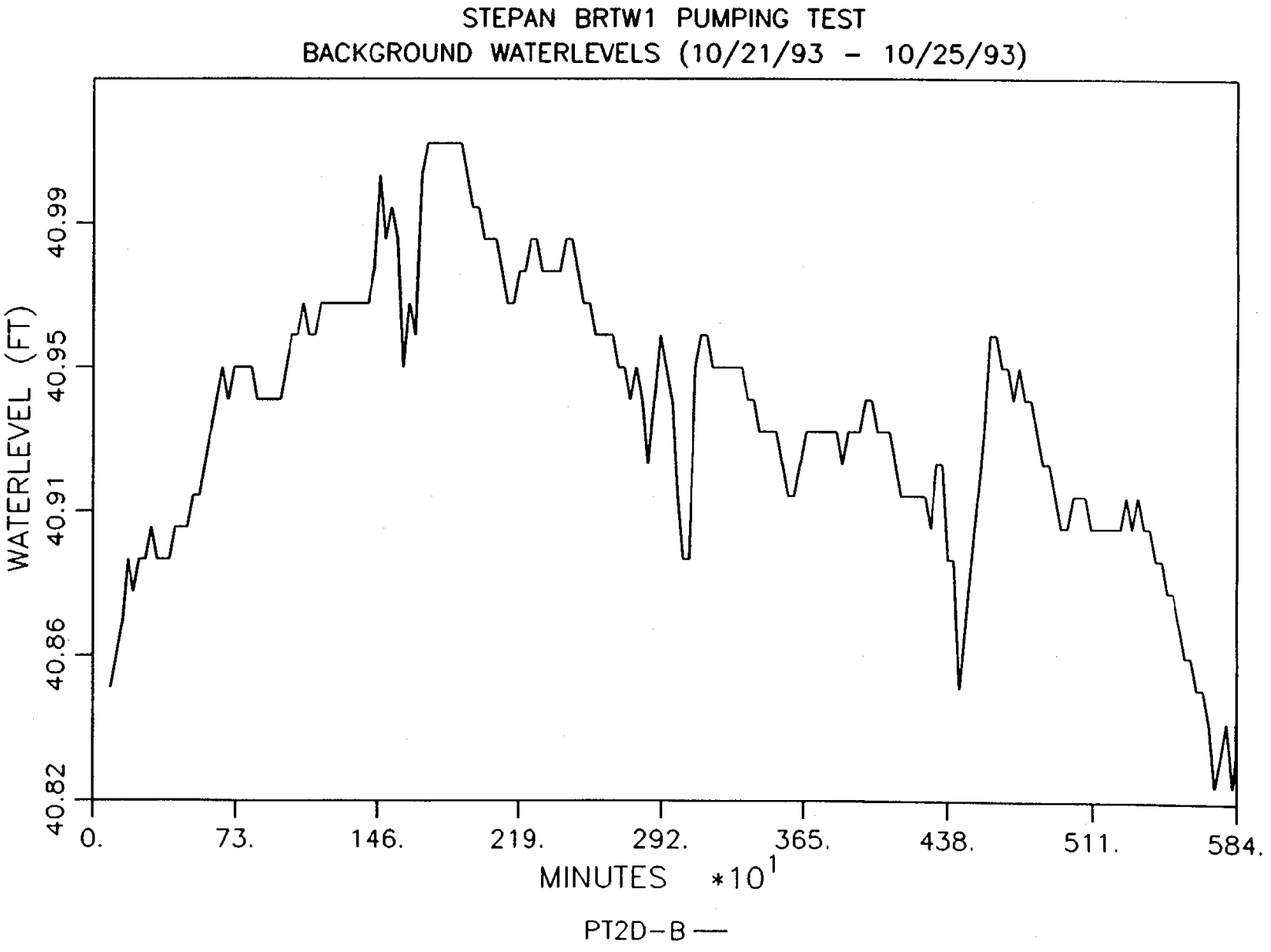

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATER LEVELS (10/21/93 - 10/25/93)
BAROMETRIC PRESSURE
30.7
30.6
30.5
30.3
30.2
30.1
0.
72.
144.
216.
288.
360.
431.
503.
575.
MINUTES *10^1
BAROMETER —

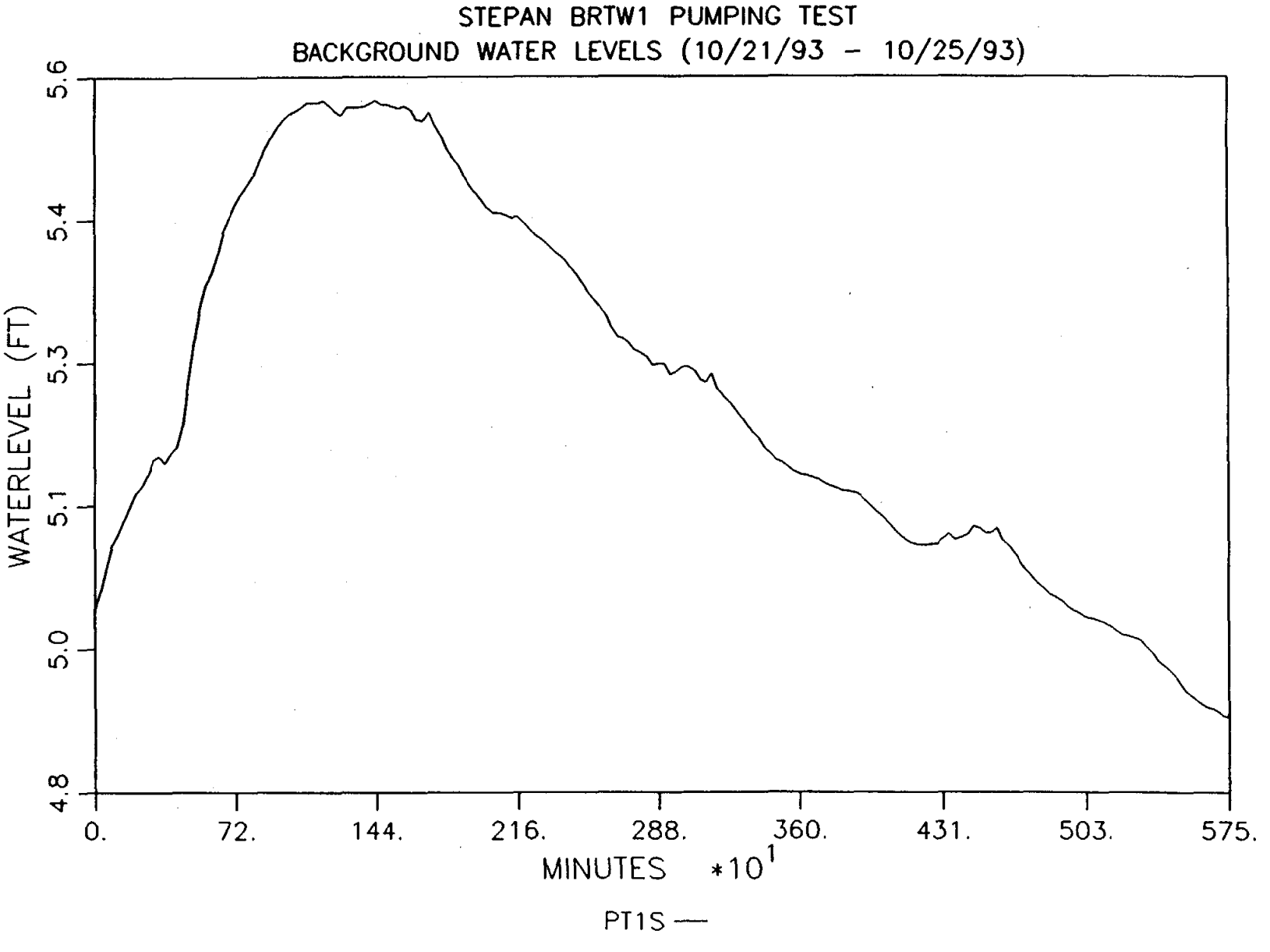

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
41.67
41.62
41.58
41.54
41.49
0.
72.
144.
216.
288.
360.
432.
504.
576.
MINUTES *10^1
BRTW1 —

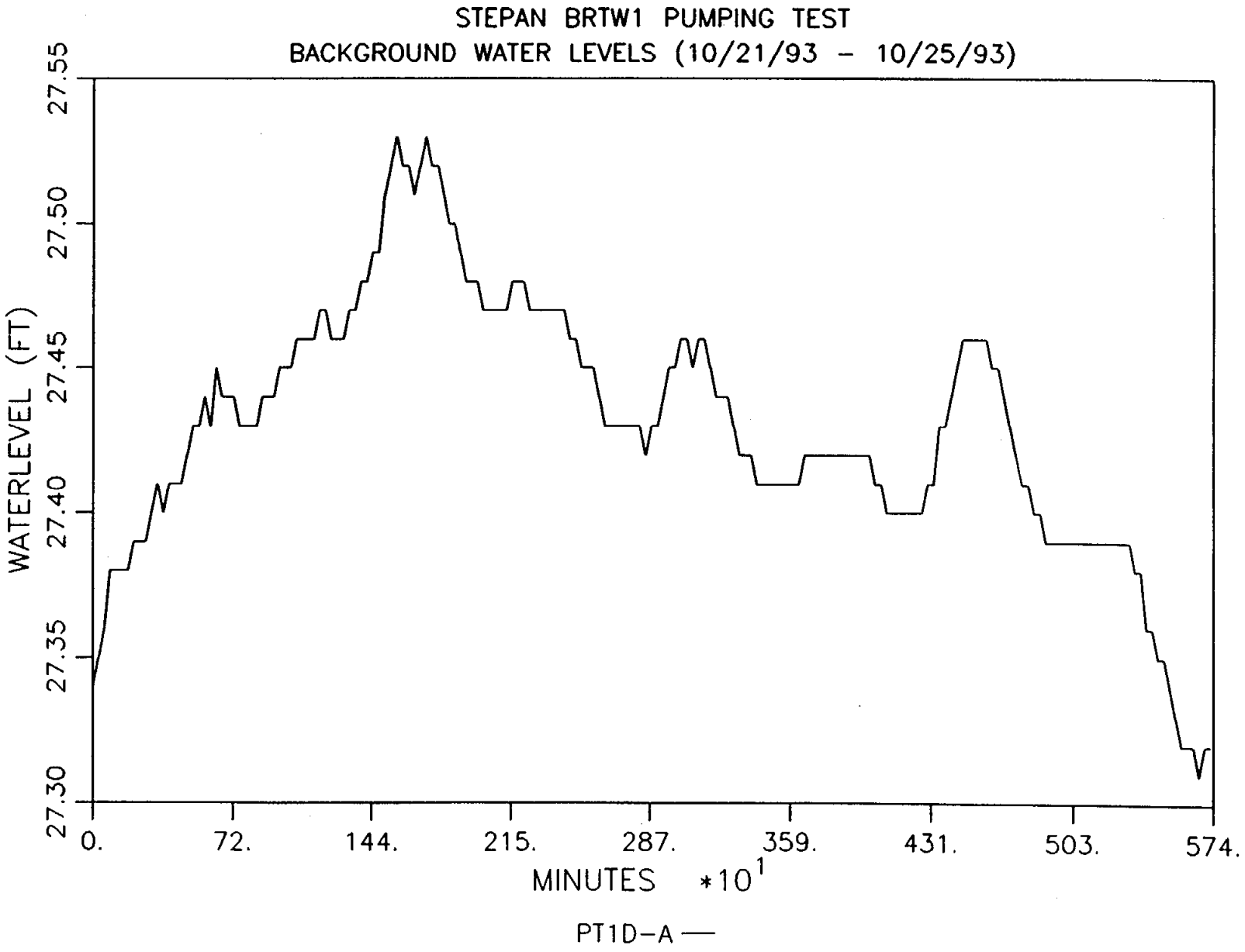

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
6.8
6.9
7.0
7.2
7.3
0.
71.
143.
214.
285.
357.
428.
499.
570.
MINUTES *10^1
OBTW1

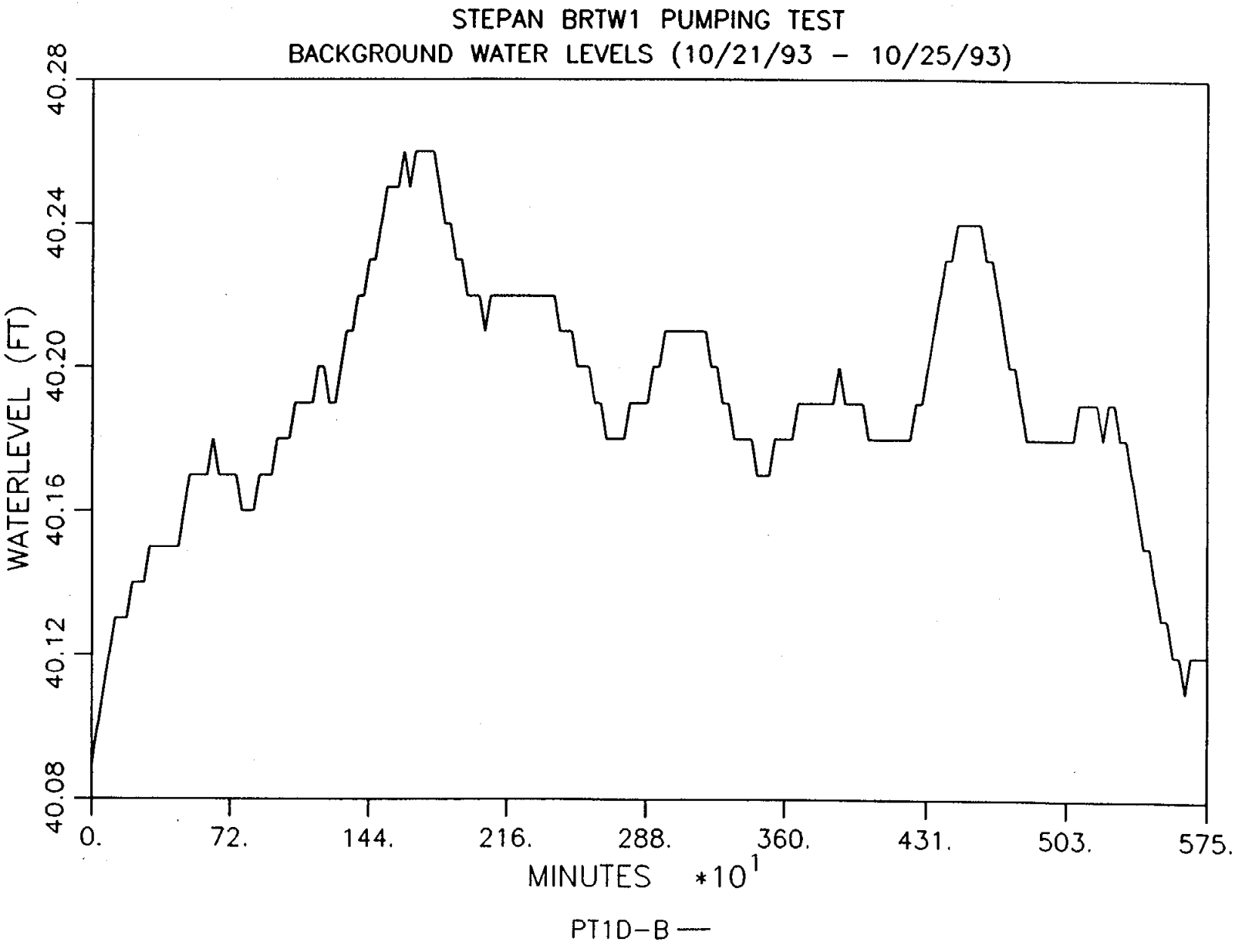

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
11.2
11.0
10.8
10.5
10.2
10.0
0.
73.
146.
219.
292.
365.
438.
511.
584.
MINUTES *10^1
PT2S

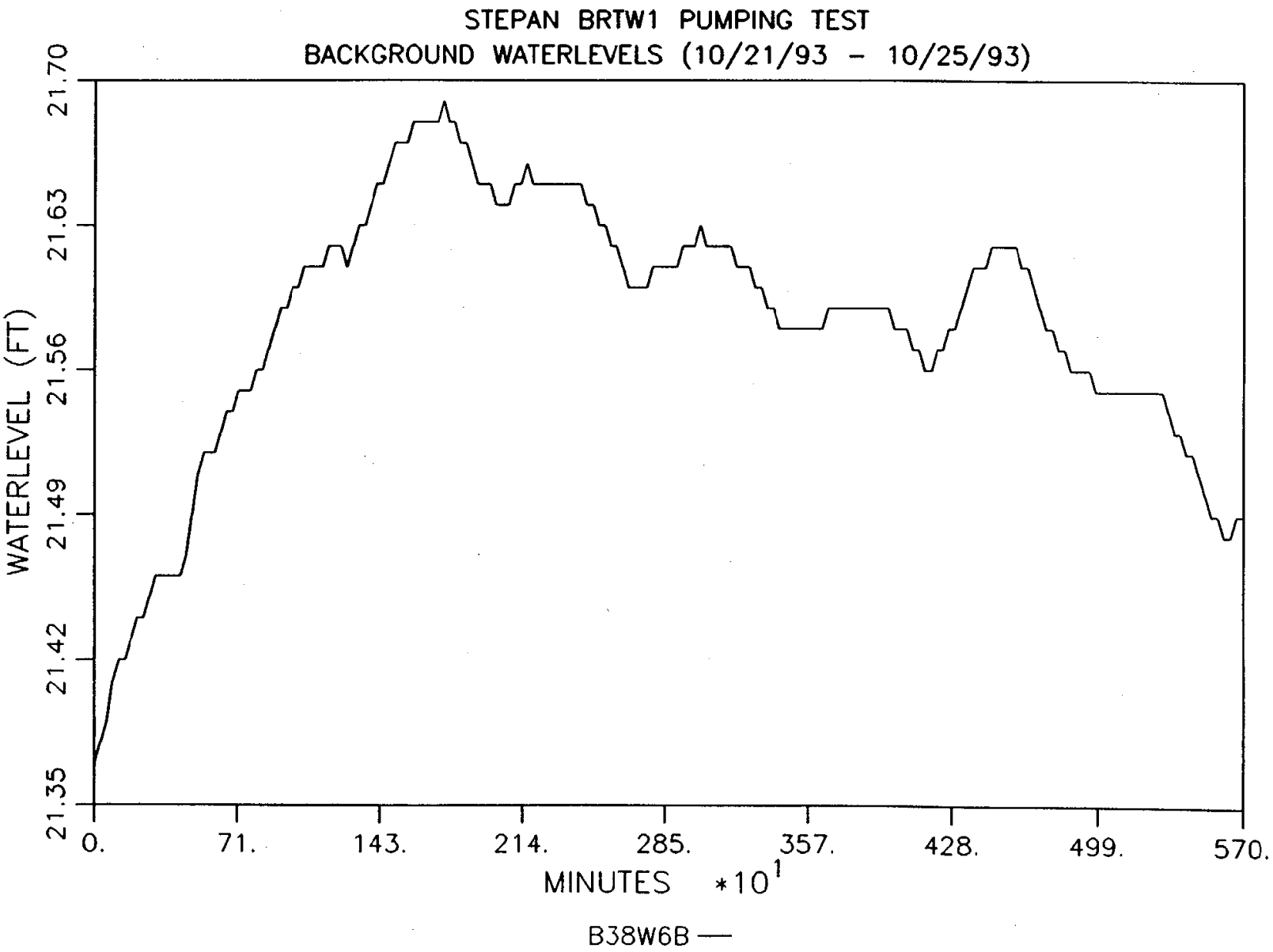

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
21.14
21.06
20.98
20.90
20.82
20.74
0.
73.
146.
219.
292.
365.
438.
511.
584.
MINUTES *10^1
PT2D-A

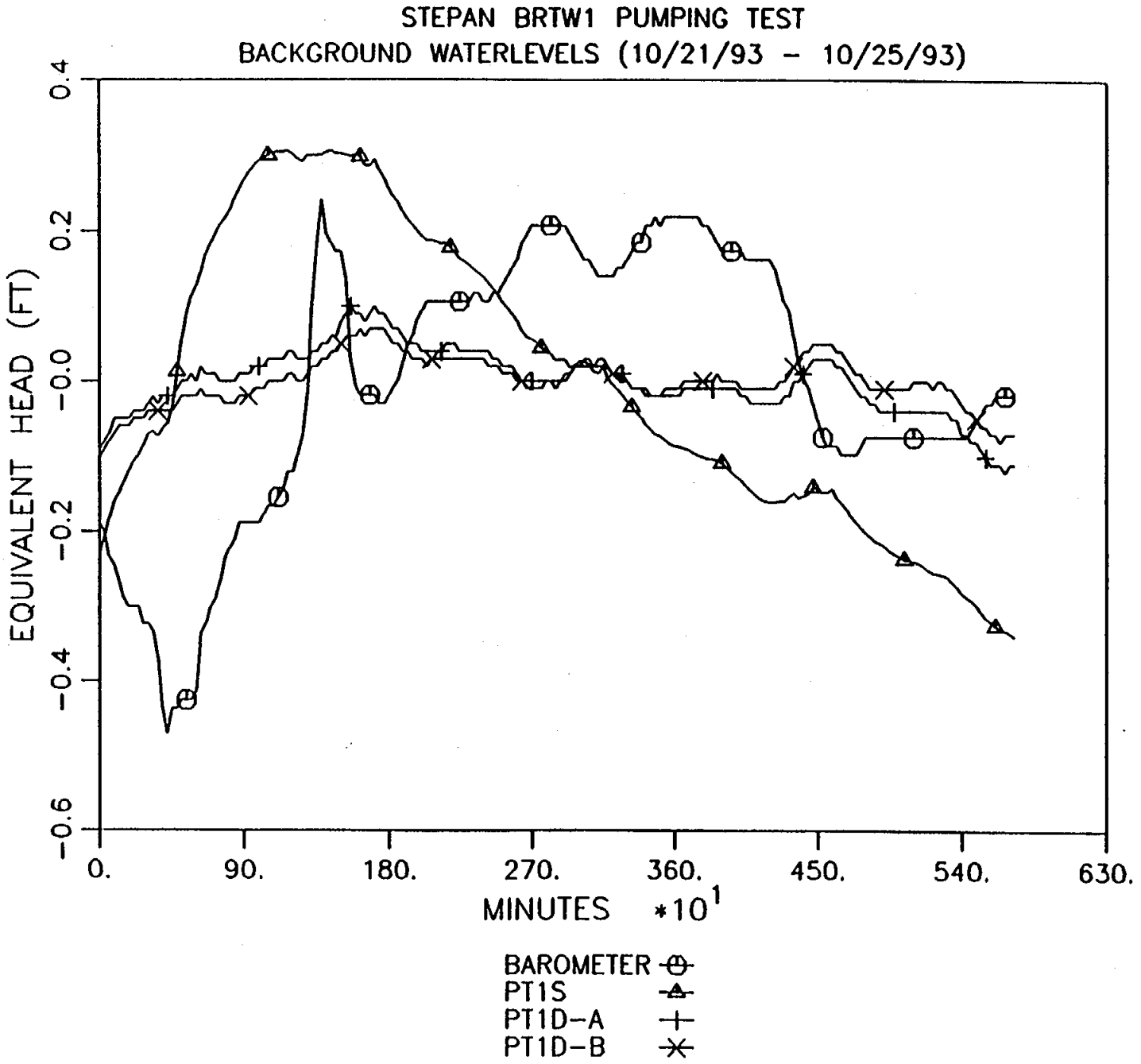

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
40.99
40.95
40.91
40.86
40.82
0.
73.
146.
219.
292.
365.
438.
511.
584.
MINUTES *10^1
PT2D-B

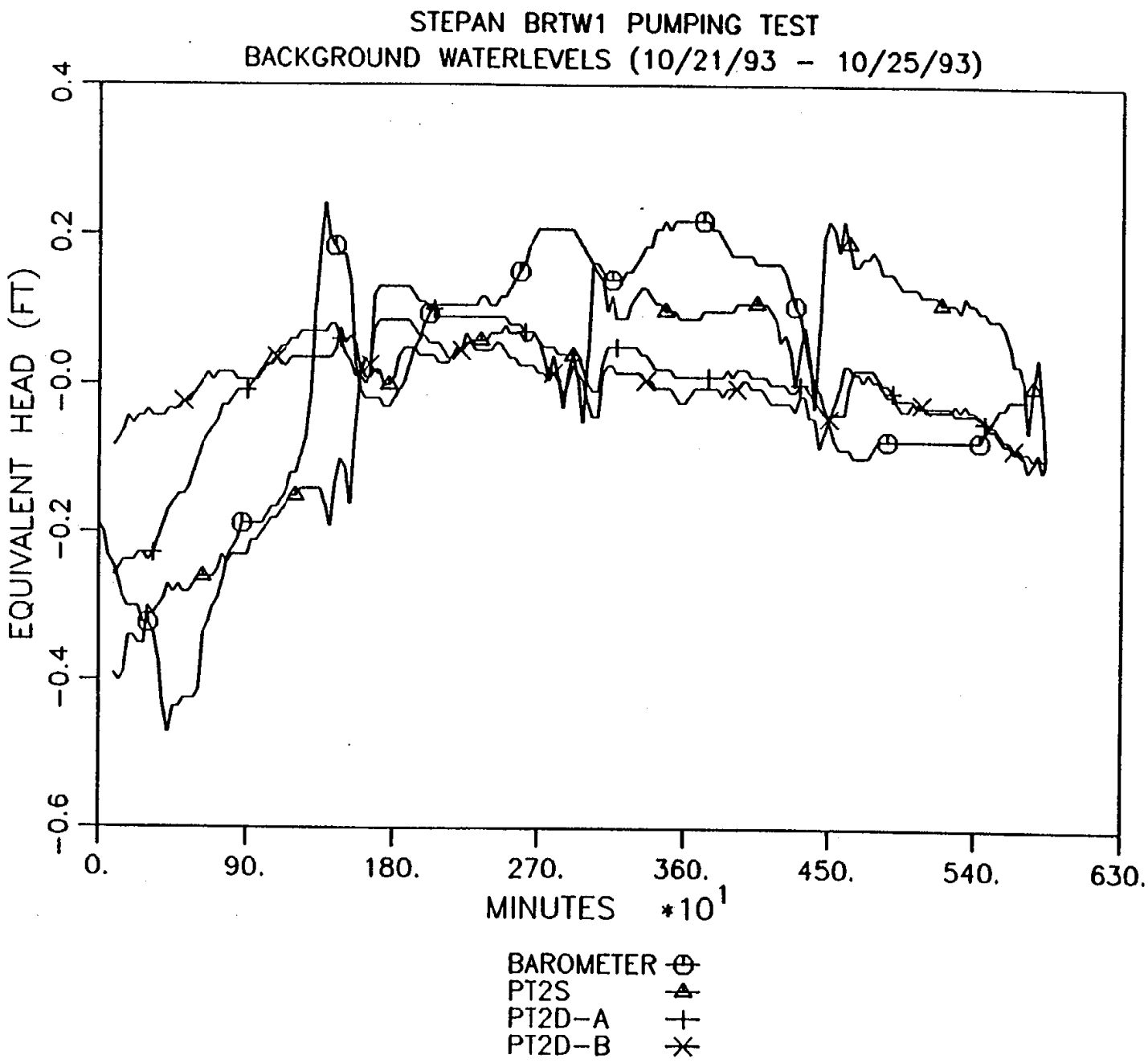

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATER LEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
5.6
5.4
5.3
5.1
5.0
4.8
0.
72.
144.
216.
288.
360.
431.
503.
575.
MINUTES *10^1
PT1S

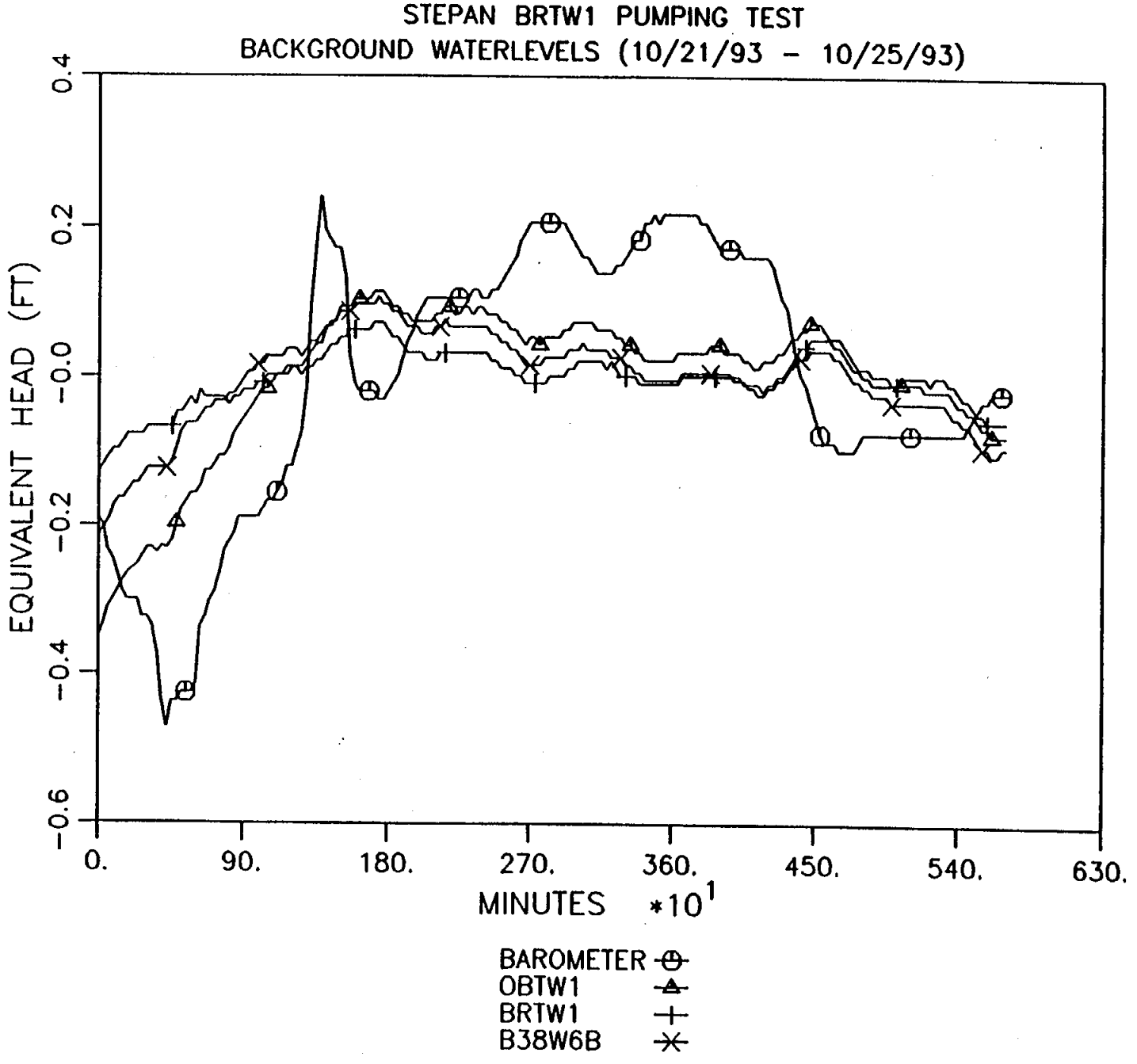

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATER LEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
27.55
27.50
27.45
27.40
27.35
27.30
0.
72.
144.
215.
287.
359.
431.
503.
574.
MINUTES *10^1
PT1D-A


STEPAN BRTW1 PUMPING TEST
BACKGROUND WATER LEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
40.28
40.24
40.20
40.16
40.12
40.08
0.
72.
144.
216.
288.
360.
431.
503.
575.
MINUTES *10^1
PT1D-B

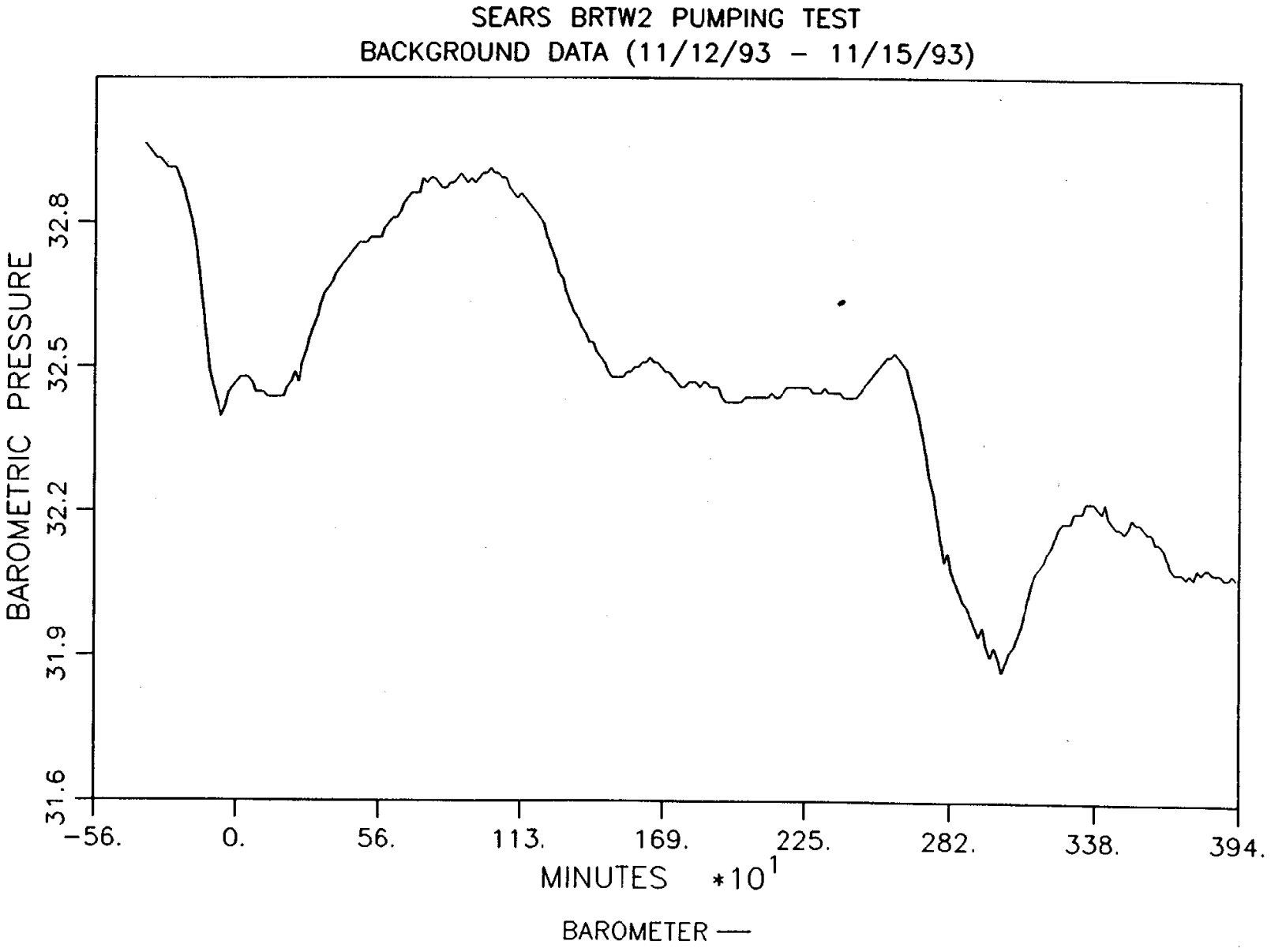

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
WATERLEVEL (FT)
21.35
21.42
21.49
21.56
21.63
21.70
0.
71.
143.
214.
285.
357.
428.
499.
570.
MINUTES *10[1]
B38W6B

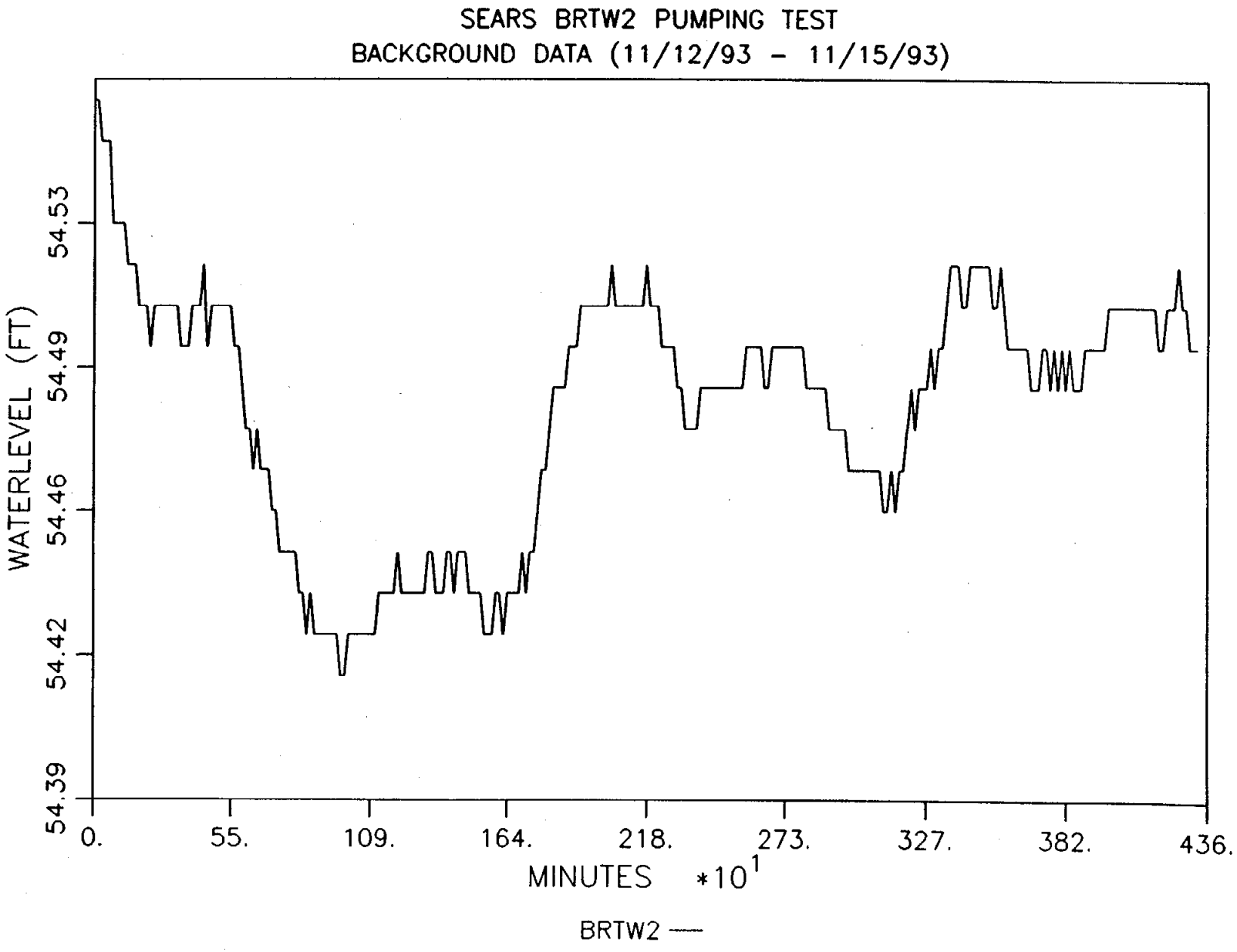

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
EQUIVALENT HEAD (FT)
0.4
0.2
-0.0
-0.2
-0.4
-0.6
0.
90.
180.
270.
360.
450.
540.
630.
MINUTES *10^1
BAROMETER
PT1S
PT1D-A
PT1D-B


STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
EQUIVALENT HEAD (FT)
0.4
0.2
-0.0
-0.2
-0.4
-0.6
0.
90.
180.
270.
360.
450.
540.
630.
MINUTES *10^1
BAROMETER
PT2S
PT2D-A
PT2D-B

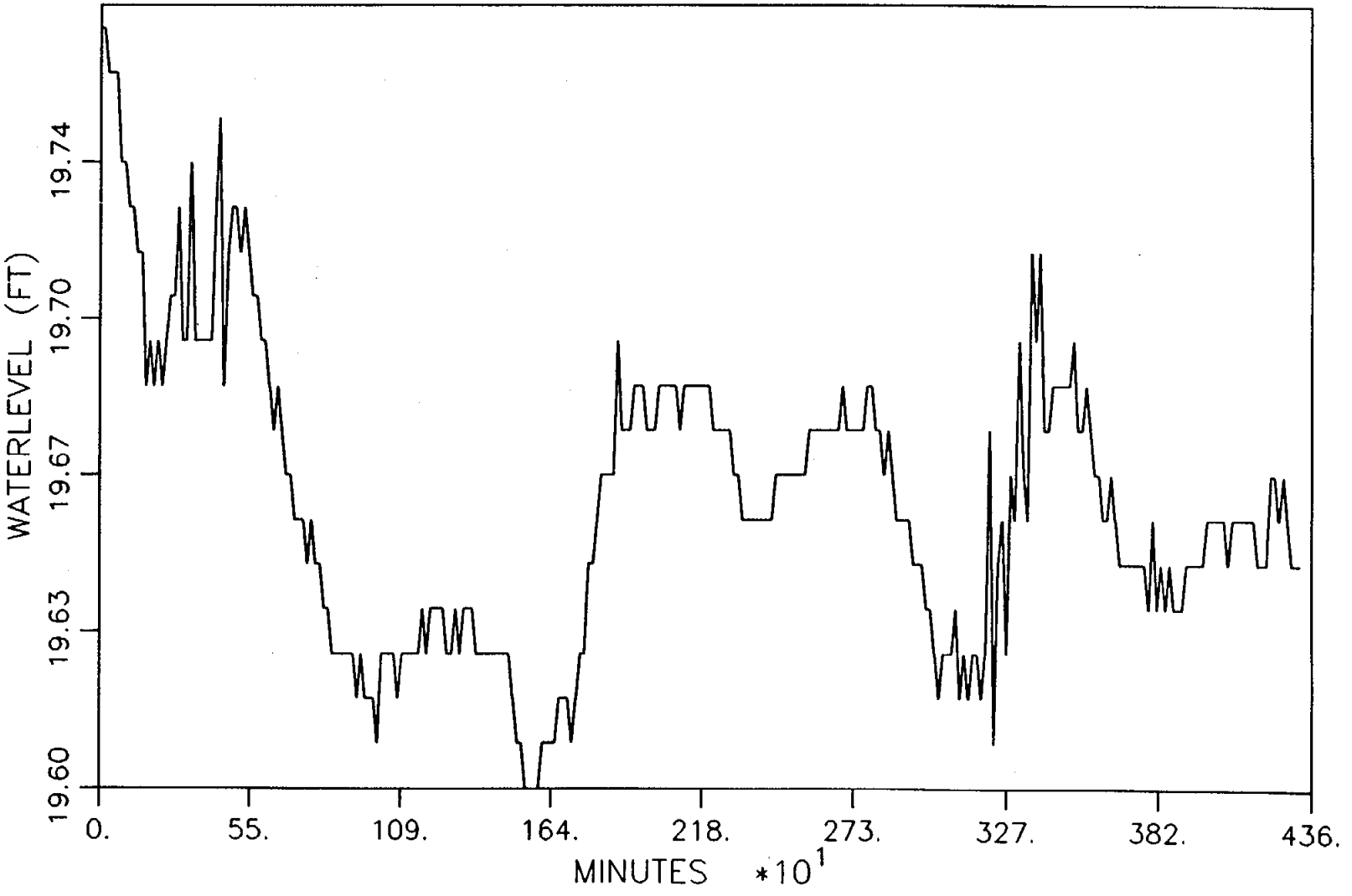

STEPAN BRTW1 PUMPING TEST
BACKGROUND WATERLEVELS (10/21/93 - 10/25/93)
EQUIVALENT HEAD (FT)
0.4
0.2
-0.0
-0.2
-0.4
-0.6
0.
90.
180.
270.
360.
450.
540.
630.
MINUTES *10^1
BAROMETER
OBTW1
BRTW1
B38W6B

Sears Test Background Data

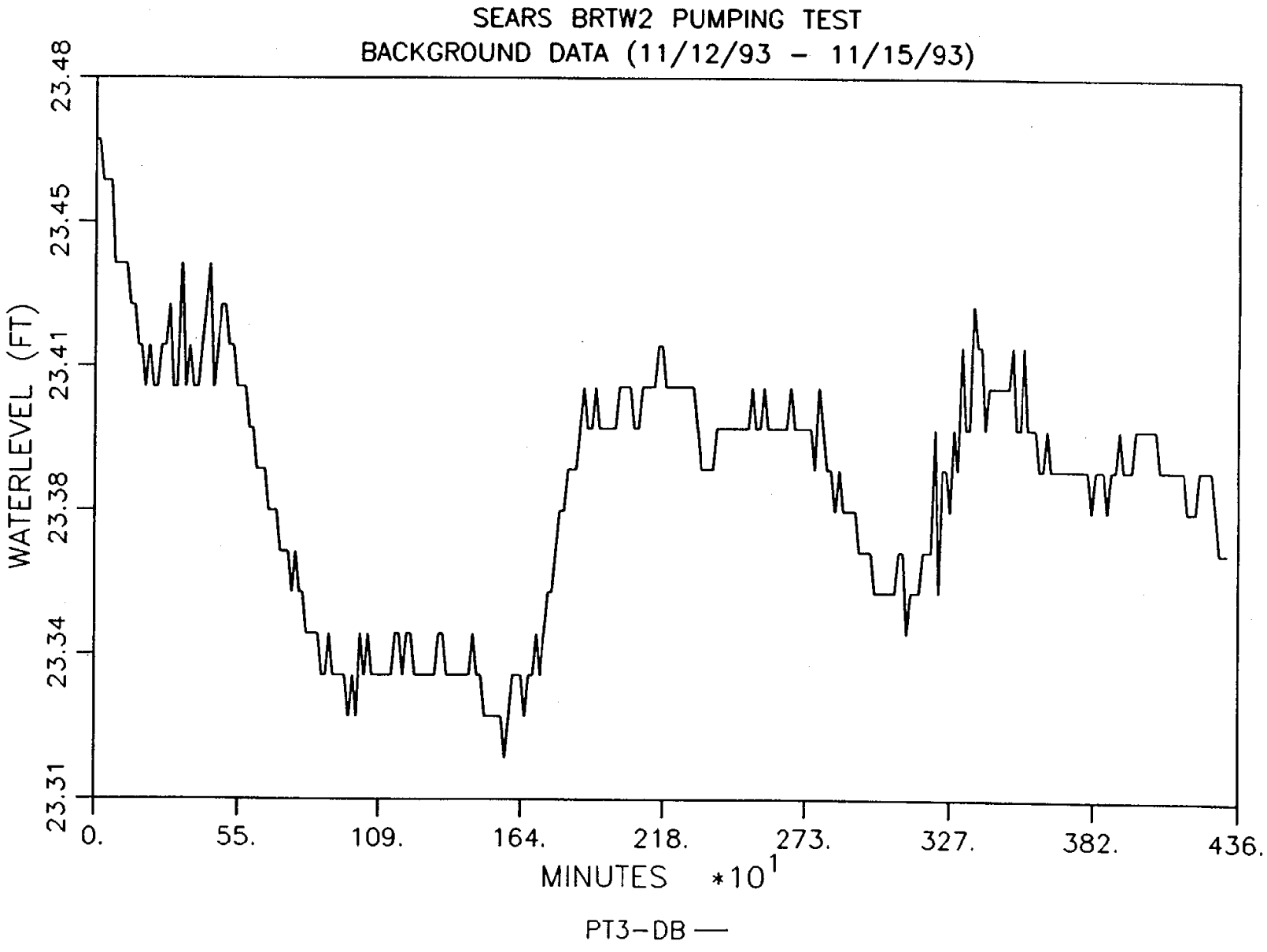

SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
BAROMETRIC PRESSURE
32.8
32.5
32.2
31.9
31.6
-56.
0.
56.
113.
169.
225.
282.
338.
394.
MINUTES *10^1
BAROMETER —

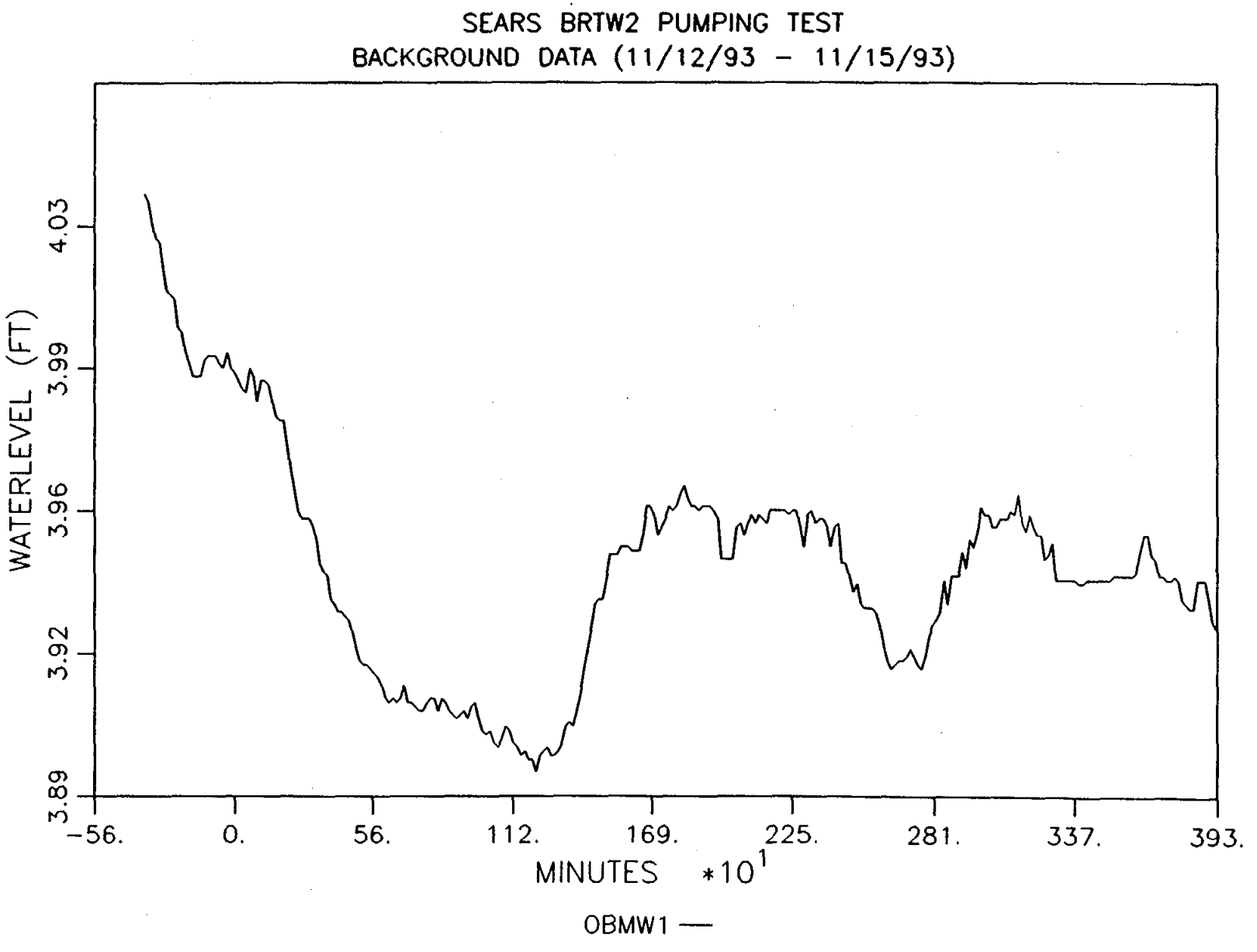

SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
WATERLEVEL (FT)
54.53
54.49
54.46
54.42
54.39
0.
55.
109.
164.
218.
273.
327.
382.
436.
MINUTES *10^1
BRTW2

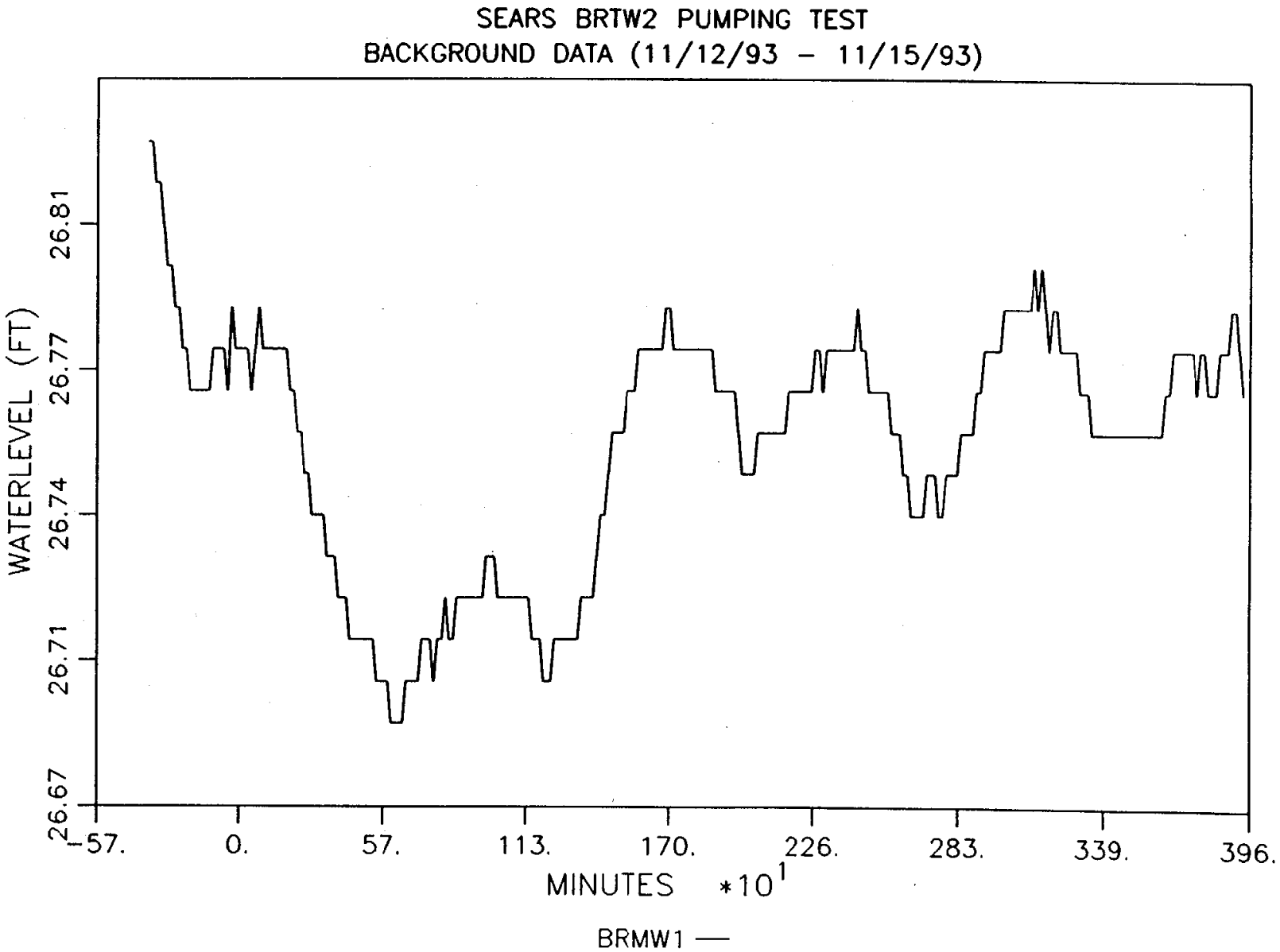
SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)

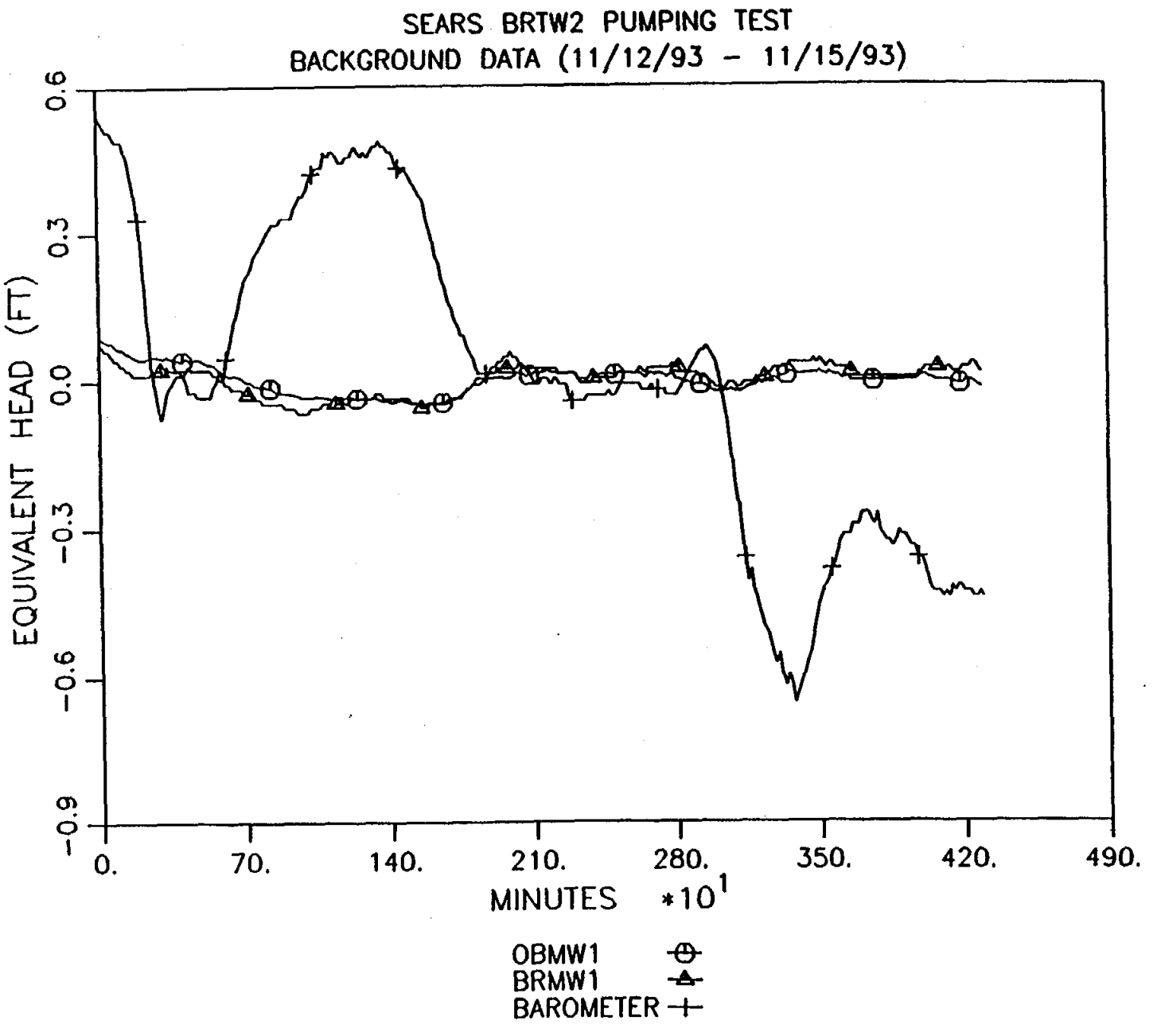


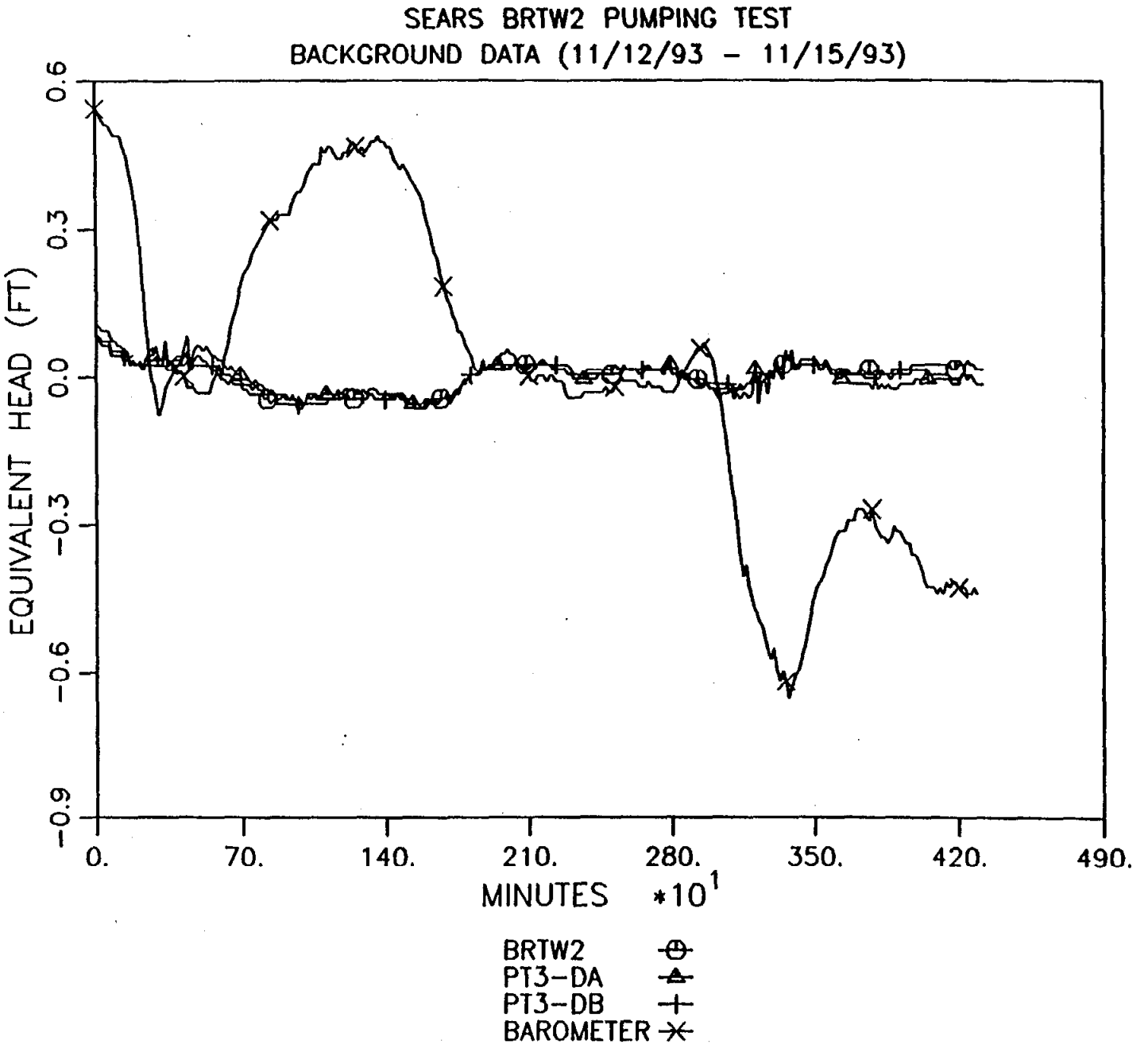
PT3-DA —


SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
WATERLEVEL (FT)
23.48
23.45
23.41
23.38
23.34
23.31
0.
55.
109.
164.
218.
273.
327.
382.
436.
MINUTES *10[1]
PT3-DB


SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
WATERLEVEL (FT)
4.03
3.99
3.96
3.92
3.89
-56.
0.
56.
112.
169.
225.
281.
337.
393.
MINUTES *10^1
OBMW1


SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
WATERLEVEL (FT)
26.81
26.77
26.74
26.71
26.67
-57.
0.
57.
113.
170.
226.
283.
339.
396.
MINUTES *10^1
BRMW1 —


SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
EQUIVALENT HEAD (FT)
0.6
0.3
0.0
-0.3
-0.6
-0.9
0.
70.
140.
210.
280.
350.
420.
490.
MINUTES *10^1
OBMW1
BRMW1
BAROMETER

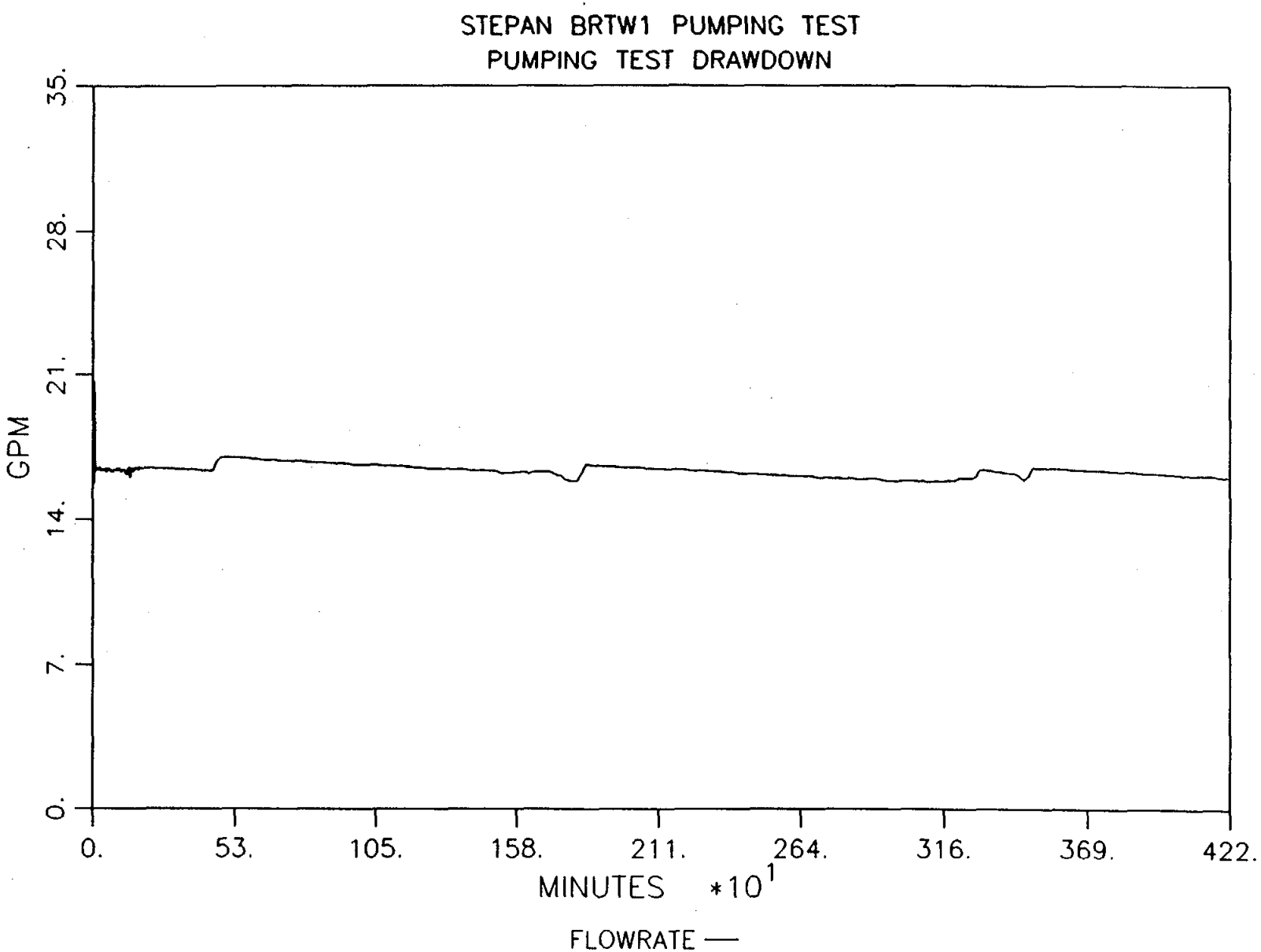

SEARS BRTW2 PUMPING TEST
BACKGROUND DATA (11/12/93 - 11/15/93)
EQUIVALENT HEAD (FT)
0.6
0.3
0.0
-0.3
-0.6
-0.9
0.
70.
140.
210.
280.
350.
420.
490.
MINUTES *10^1
BRTW2
PT3-DA
PT3-DB
BAROMETER

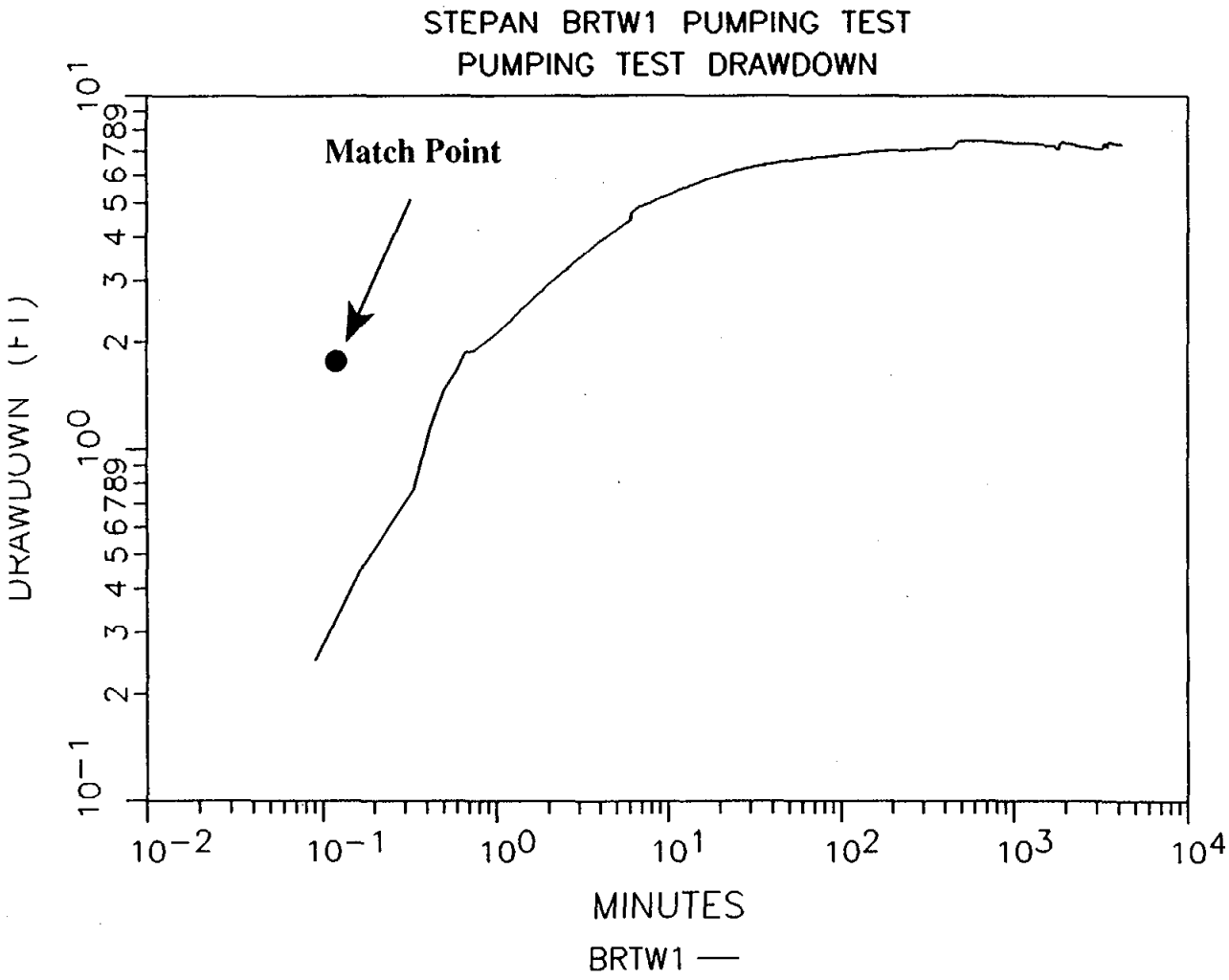
Appendix AE
Pumping Test Data Curves

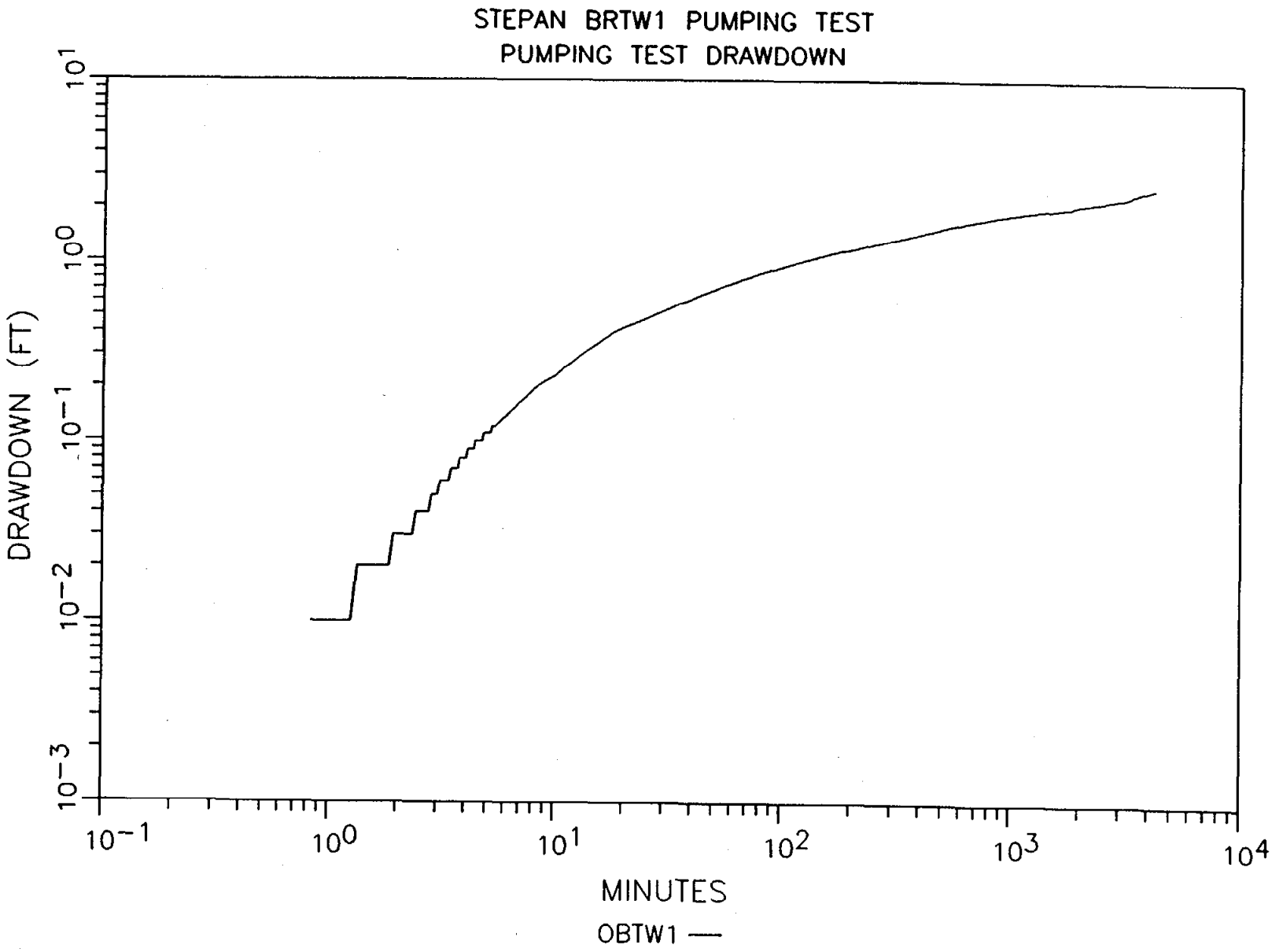
Table AE-1
Summary of Analytical Techniques Used and Wells Analyzed

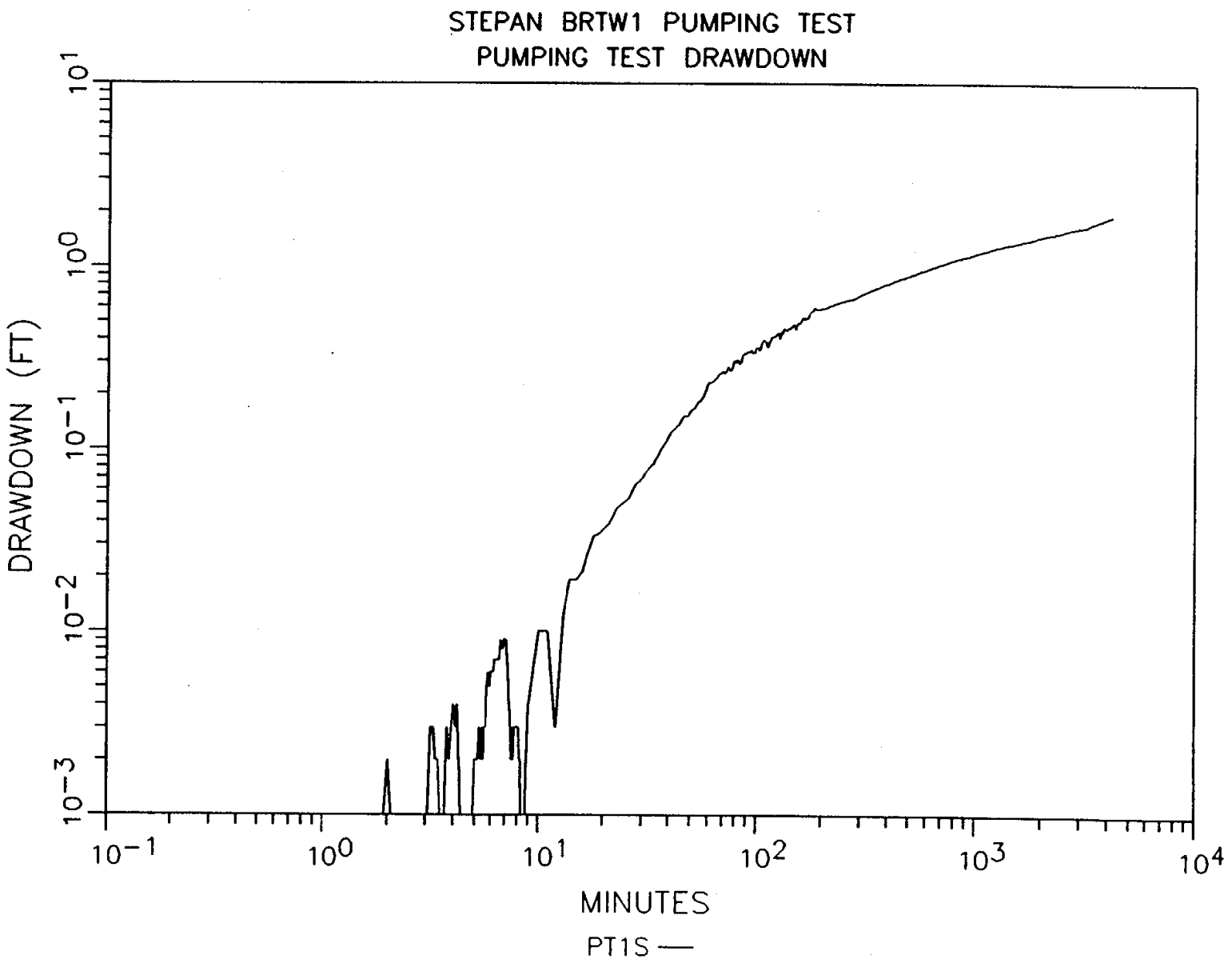
Pumping Test	Method	Wells Analyzed	Wells Not Analyzed
Stepan Bedrock	Cooper	BRTW1, PTID-A, PT2D-B	Bedrock Wells: PT1D-B, PT2D-A, B38W6B
Stepan Overburden	Boulton	OBTW1, OBMW2	Overburden Wells: PT1S, PT2S
Sears Bedrock	Cooper	BRTW2, PT3D-A, BRMW1	Bedrock Well: PT3D-B

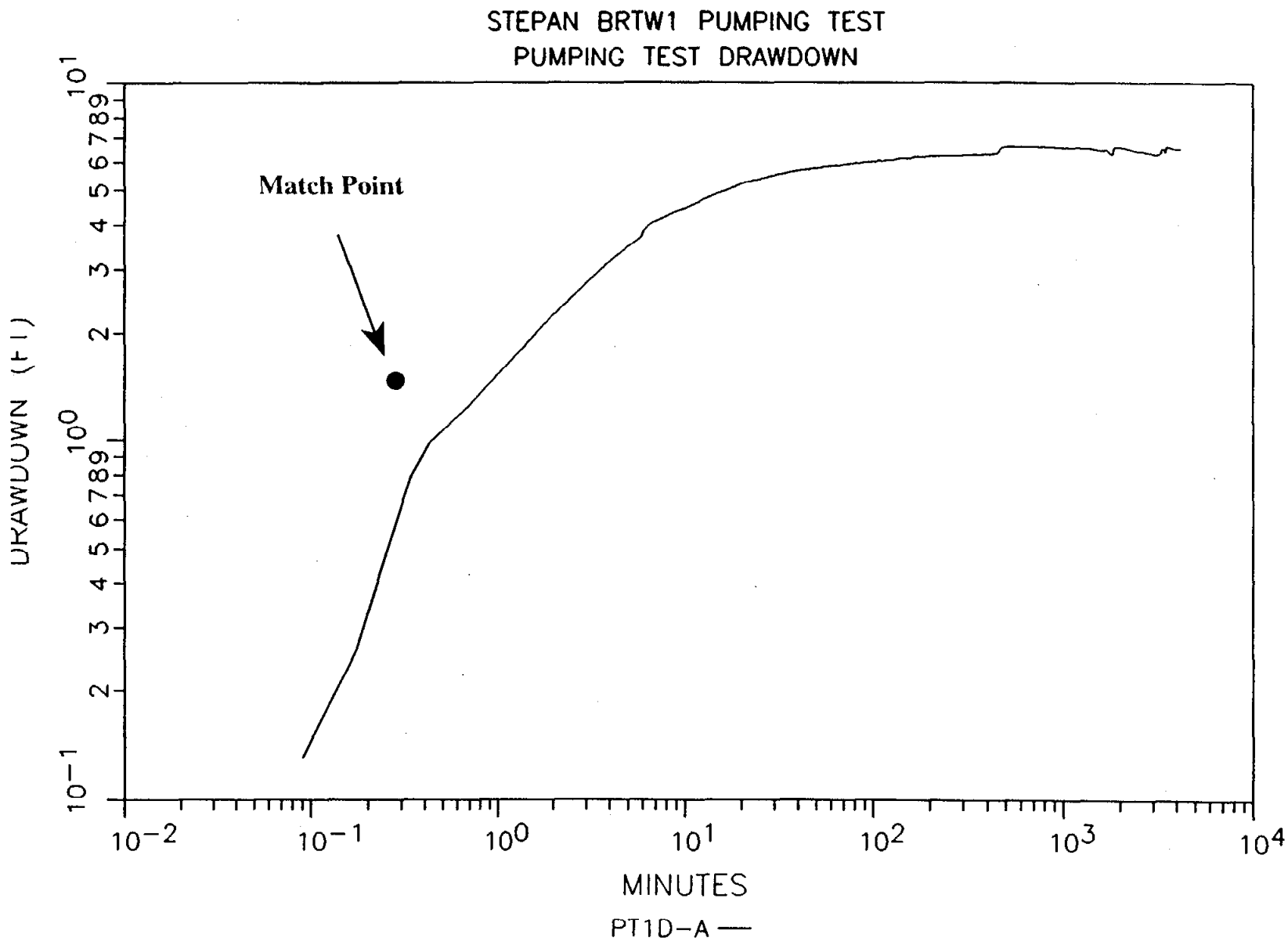
Stepan Bedrock Drawdown Test

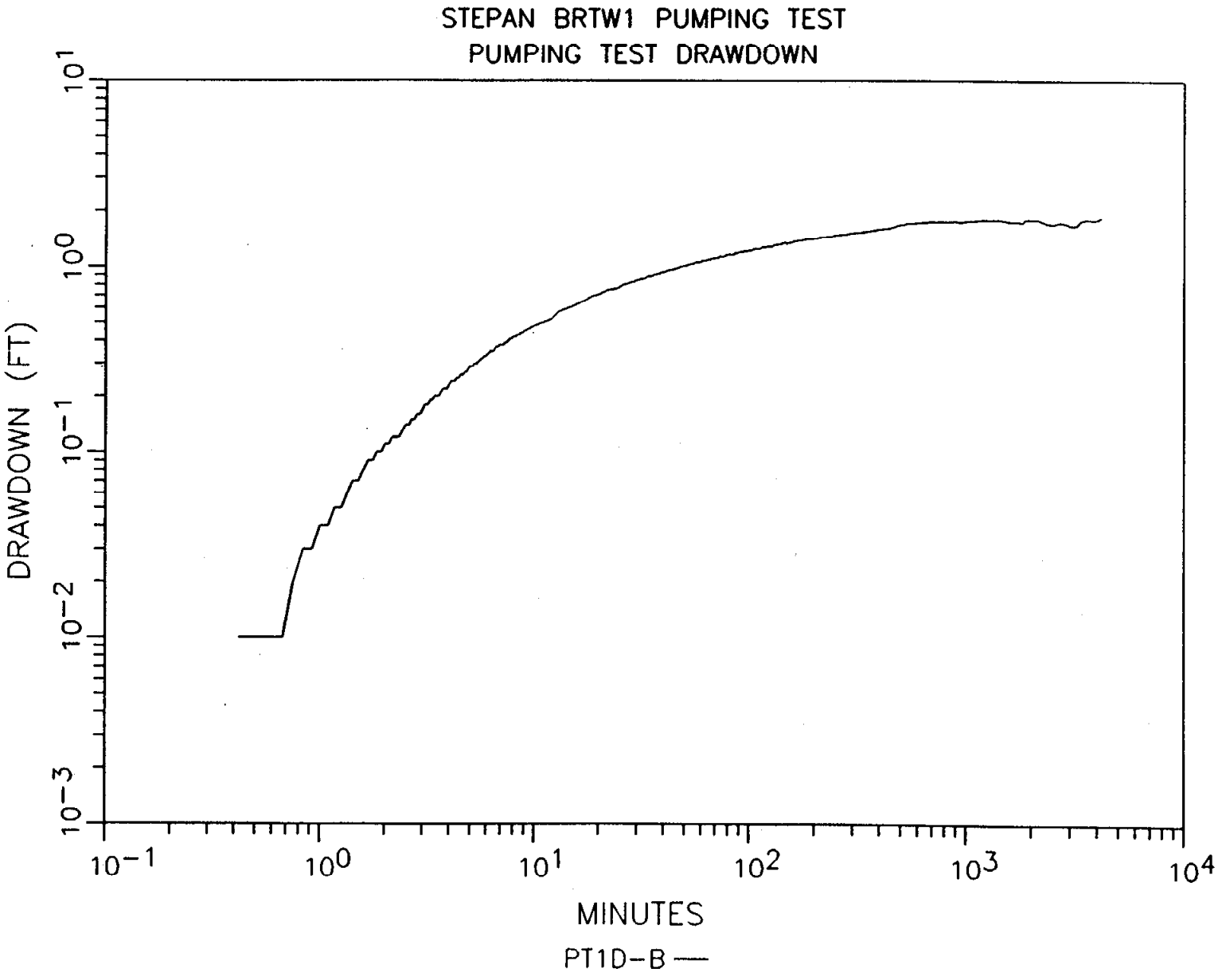

STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
GPM
35.
28.
21.
14.
7.
0.
0.
53.
105.
158.
211.
264.
316.
369.
422.
MINUTES *10^1
FLOWRATE —

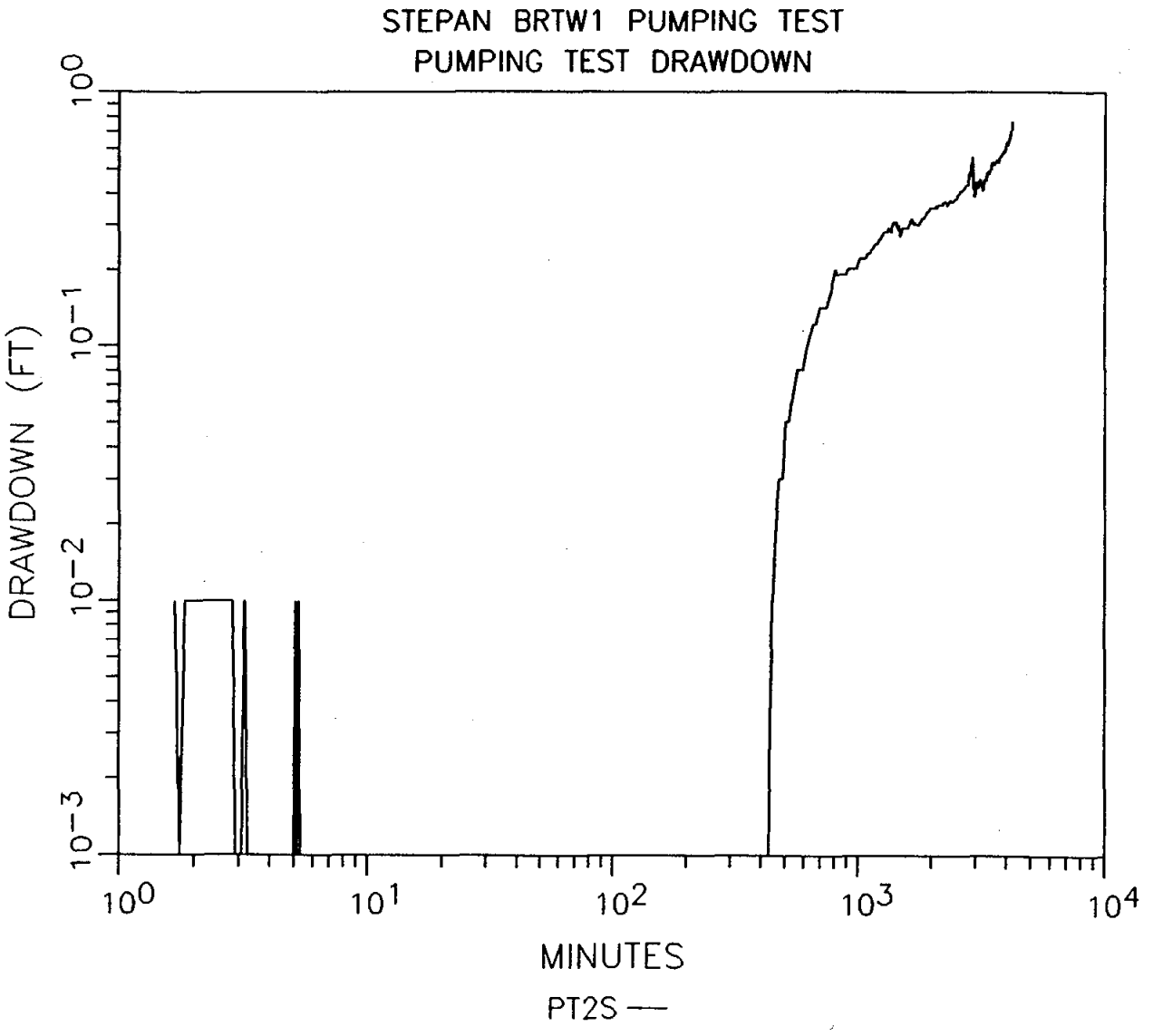

STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
Match Point
DRAWDOWN (FT)
MINUTES
BRTW1 —


STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
OBTW1 —

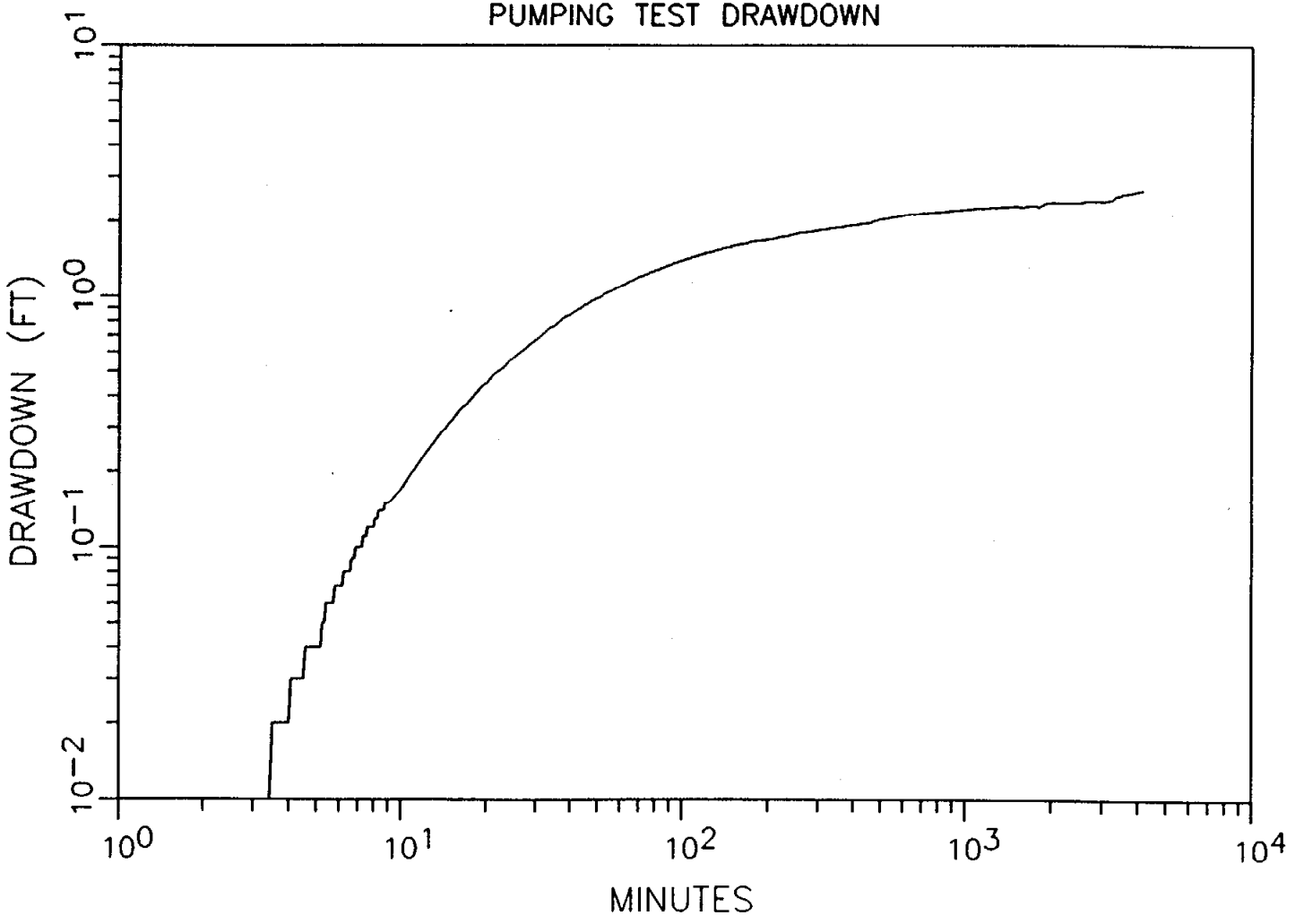

STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT1S —


STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
Match Point
DRAWDOWN (FT)
MINUTES
PT1D-A


STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT1D-B

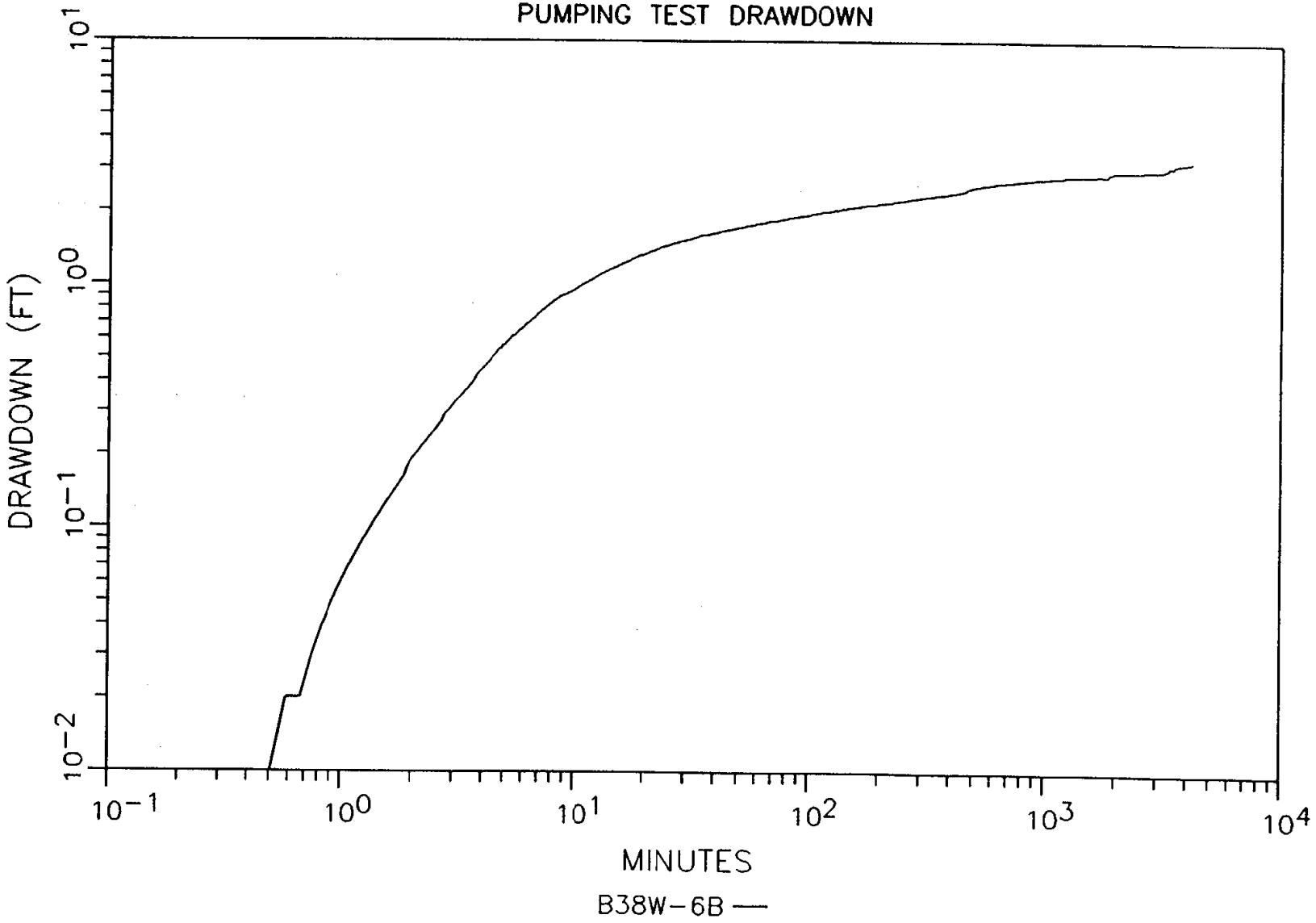

STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
DRAWDOWN (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
MINUTES
PT2S —

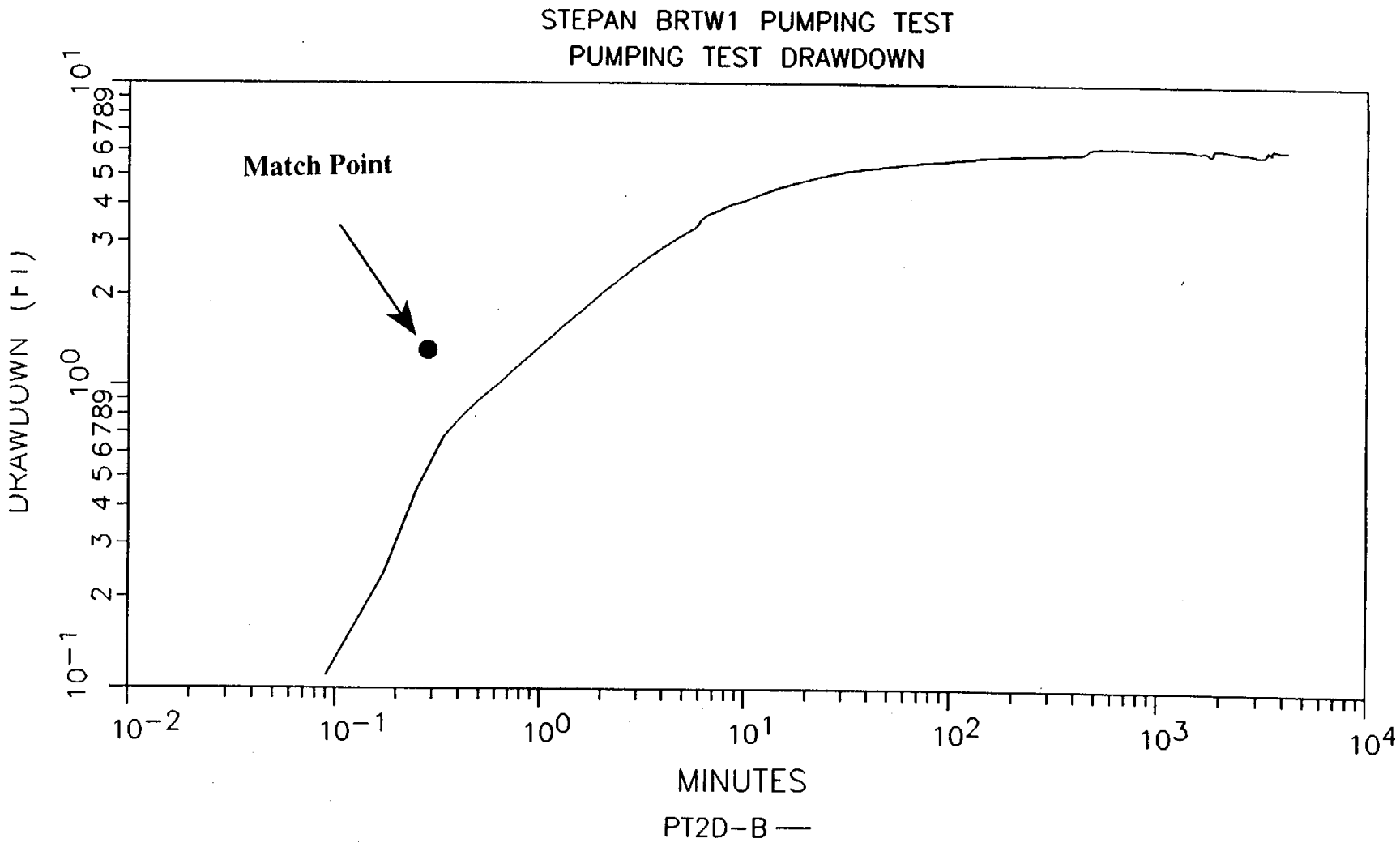
STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN



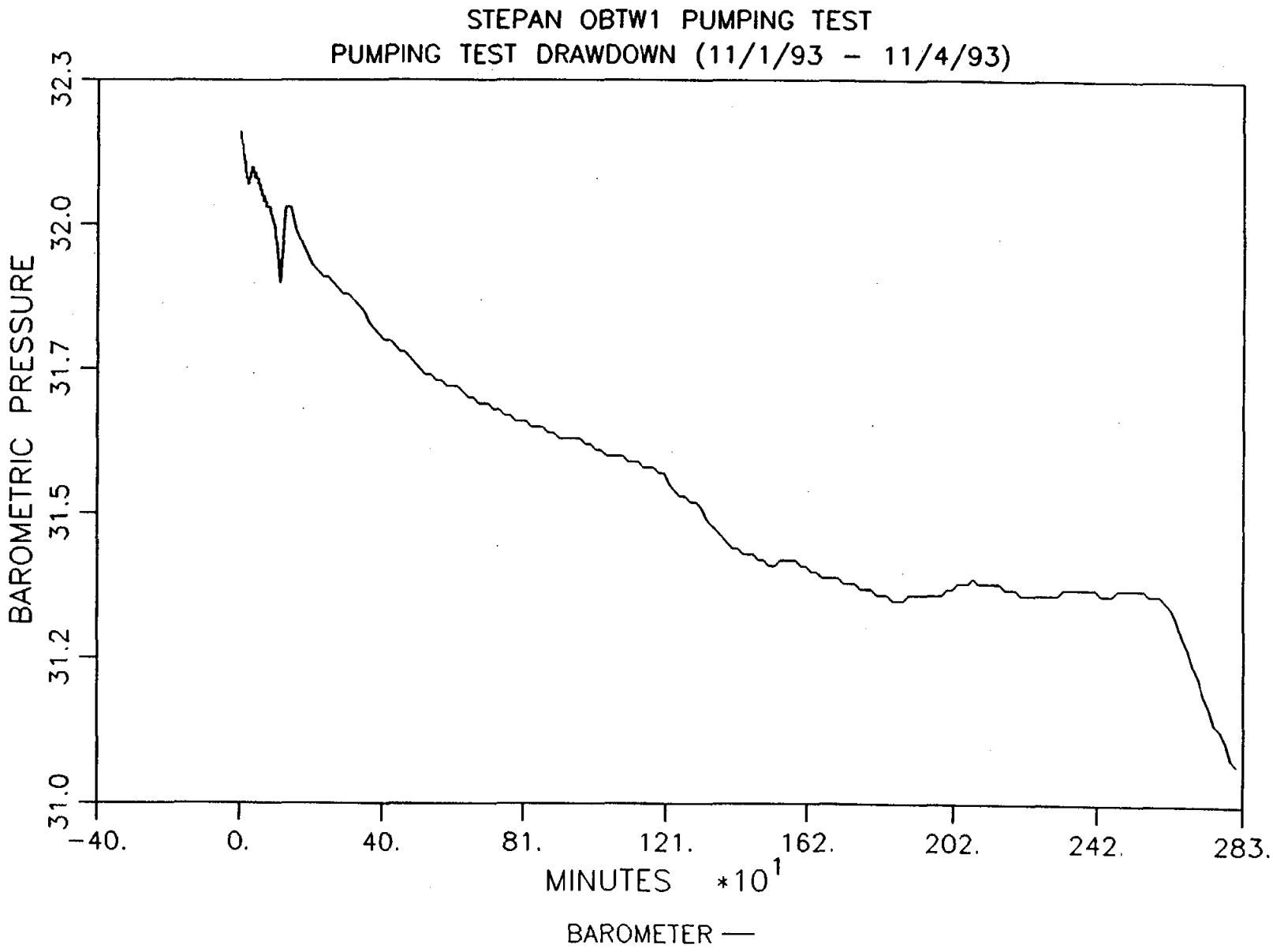
PT2D-A —

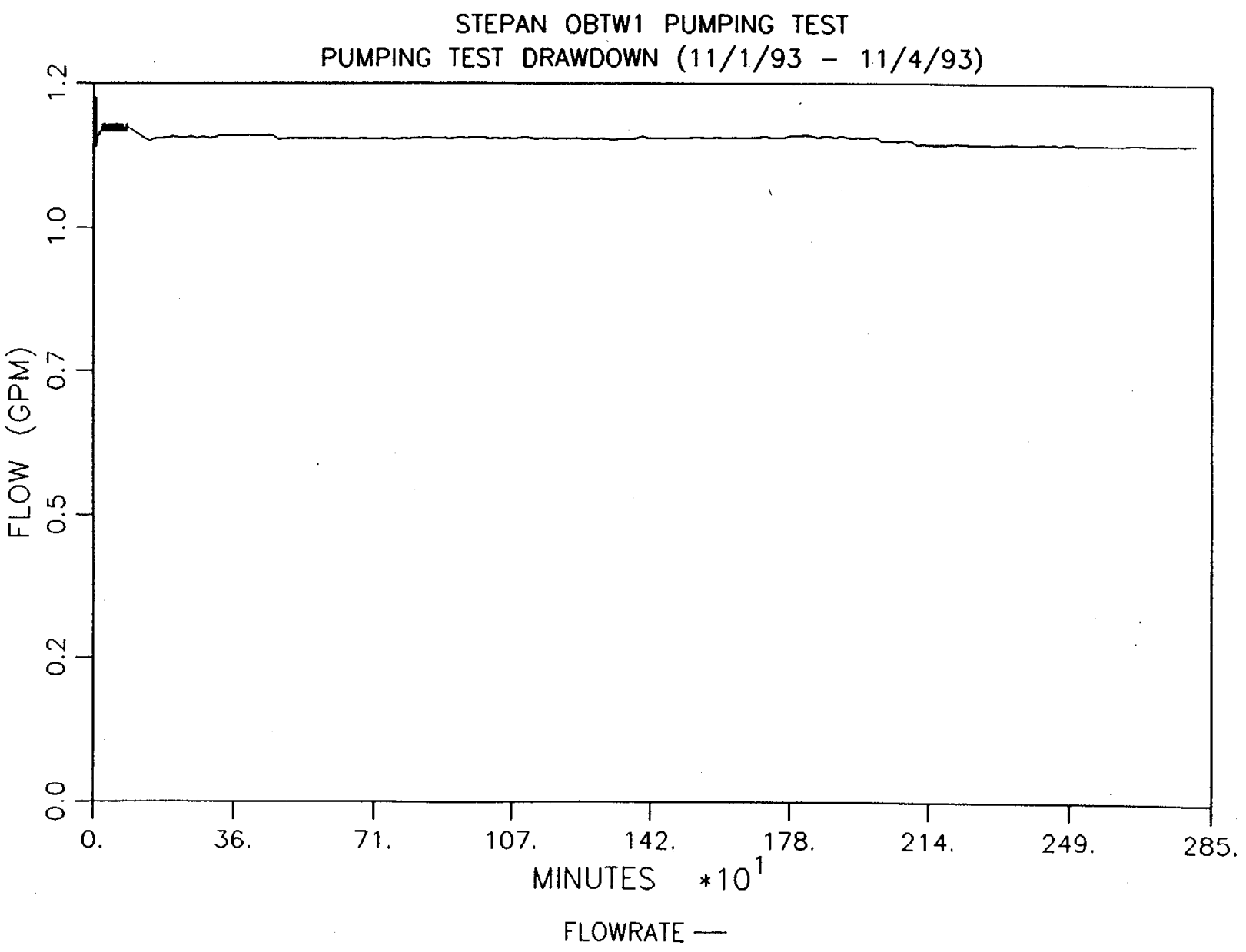
STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN

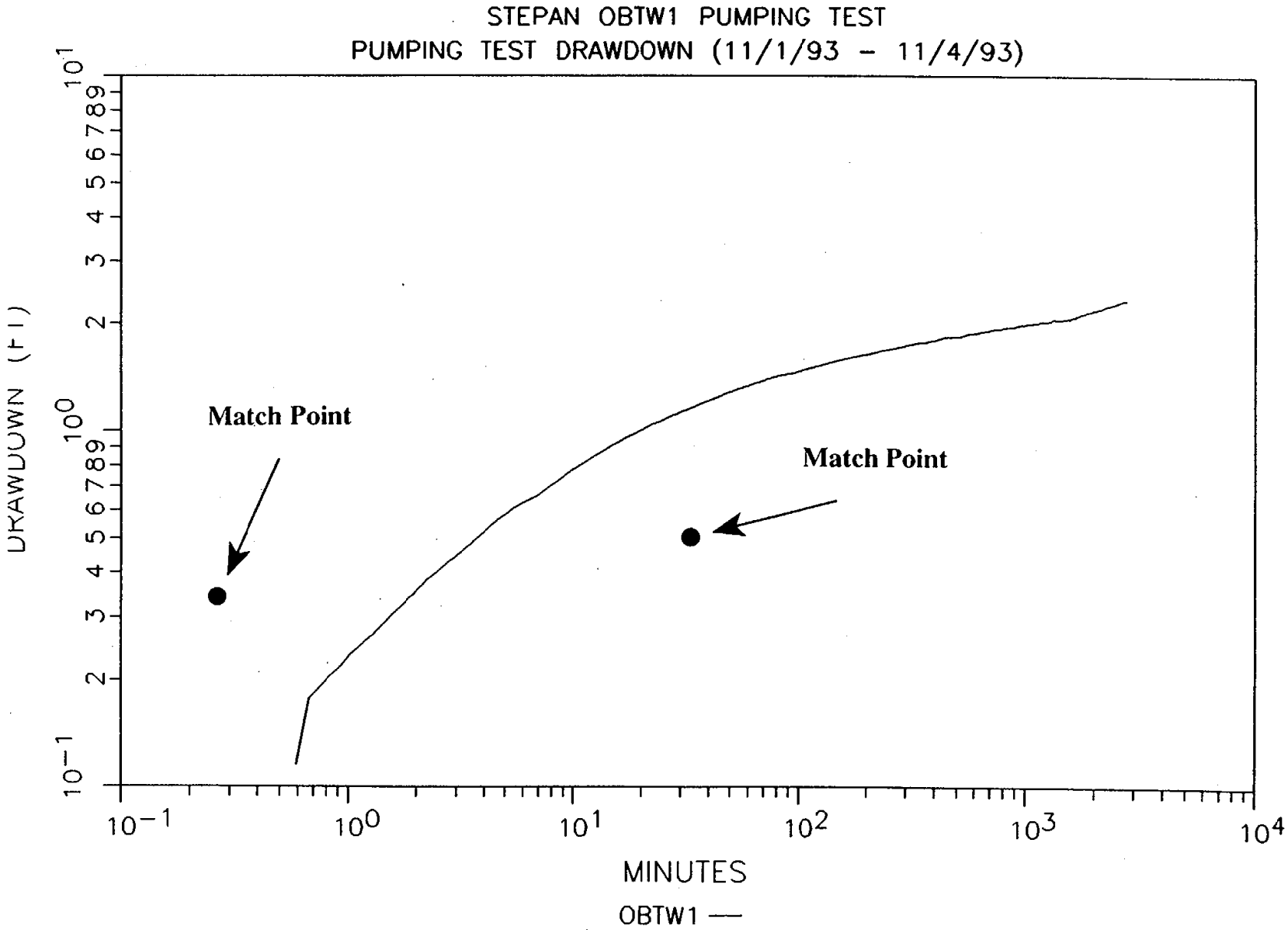


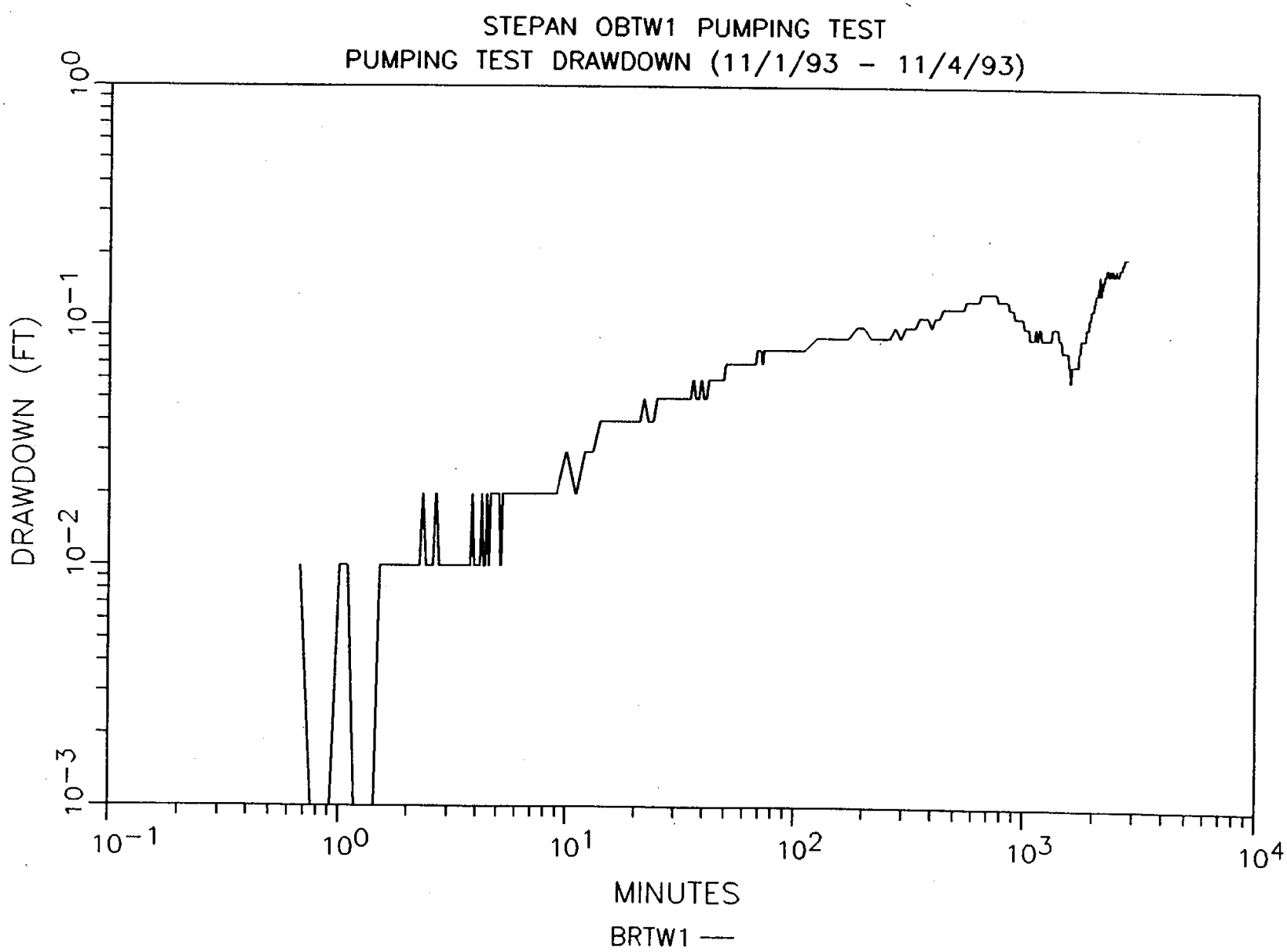

STEPAN BRTW1 PUMPING TEST
PUMPING TEST DRAWDOWN
Match Point
DRAWDOWN (FT)
MINUTES
PT2D-B

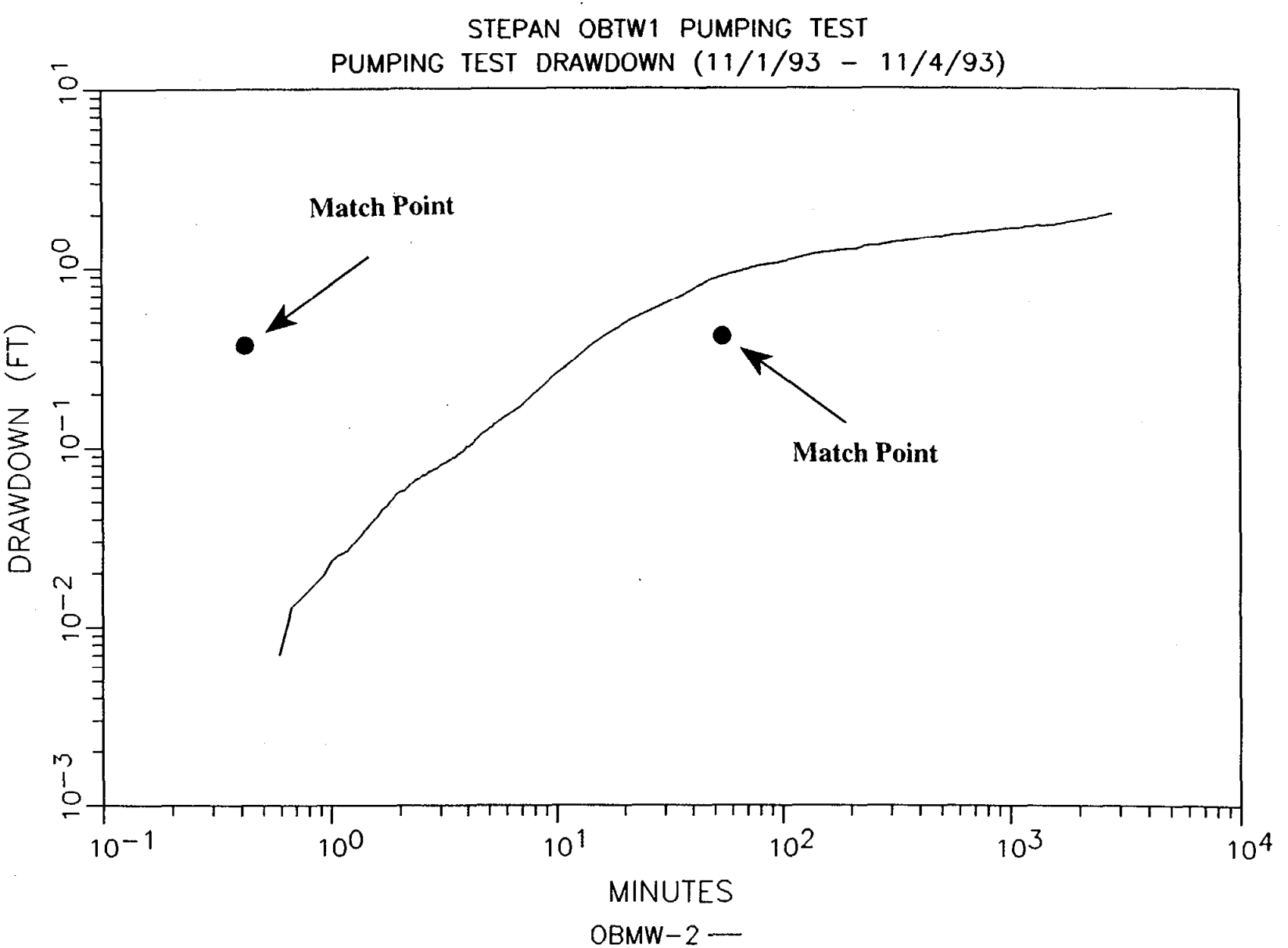
Stepan Overburden Drawdown Test

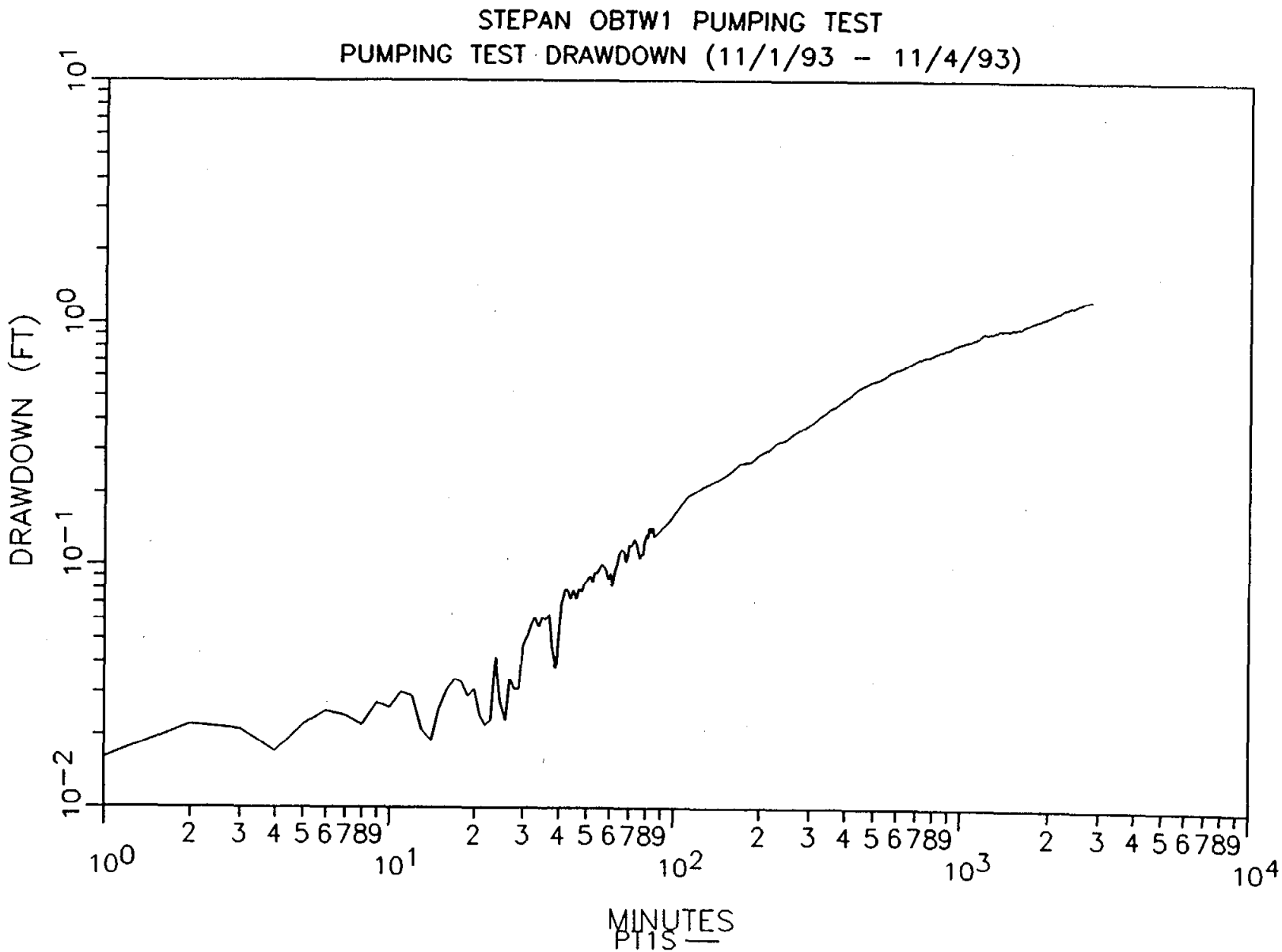

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
BAROMETRIC PRESSURE
32.3
32.0
31.7
31.5
31.2
31.0
-40.
0.
40.
81.
121.
162.
202.
242.
283.
MINUTES *10^1
BAROMETER —

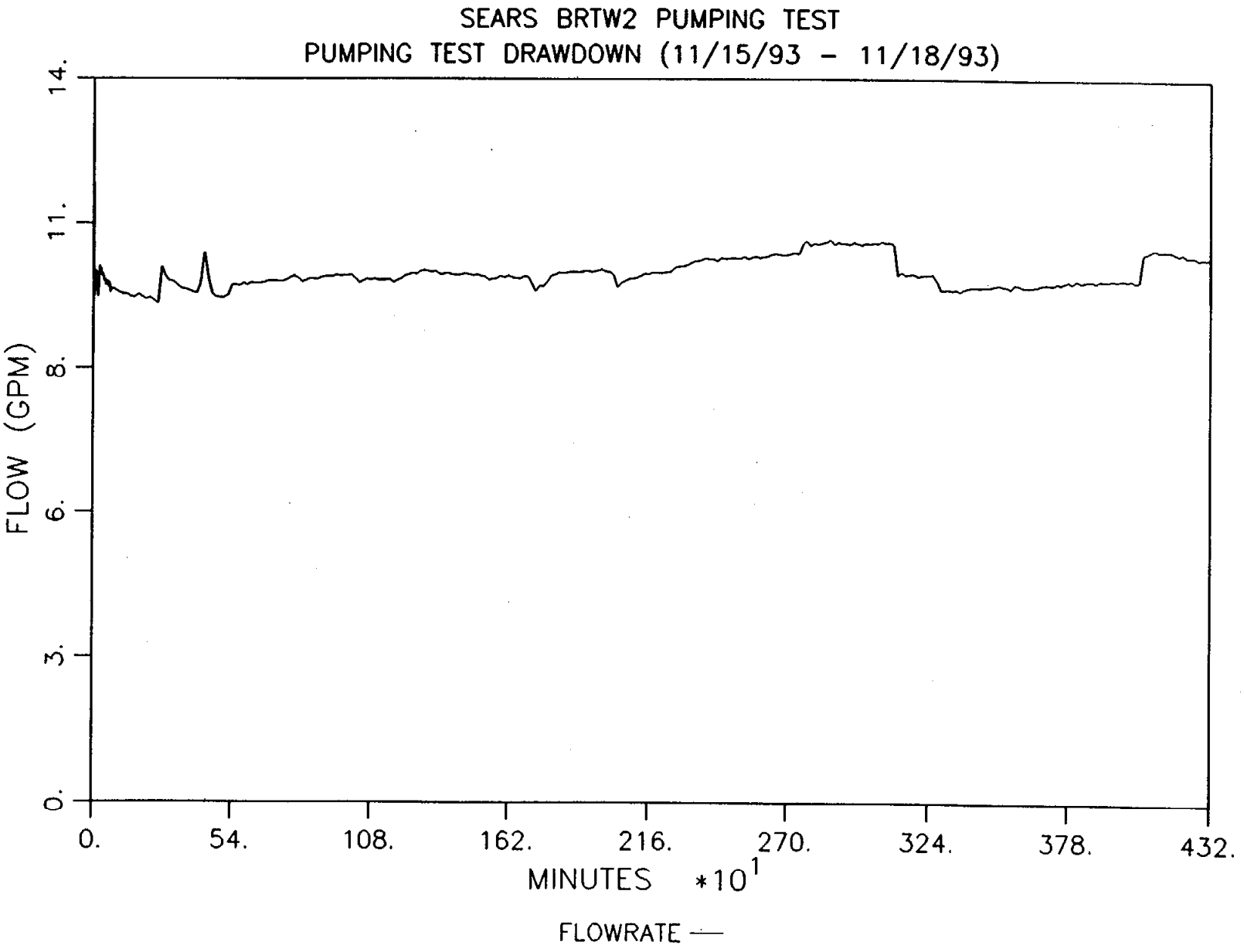

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
FLOW (GPM)
0.0
0.2
0.5
0.7
1.0
1.2
0.
36.
71.
107.
142.
178.
214.
249.
285.
MINUTES *10^1
FLOWRATE —

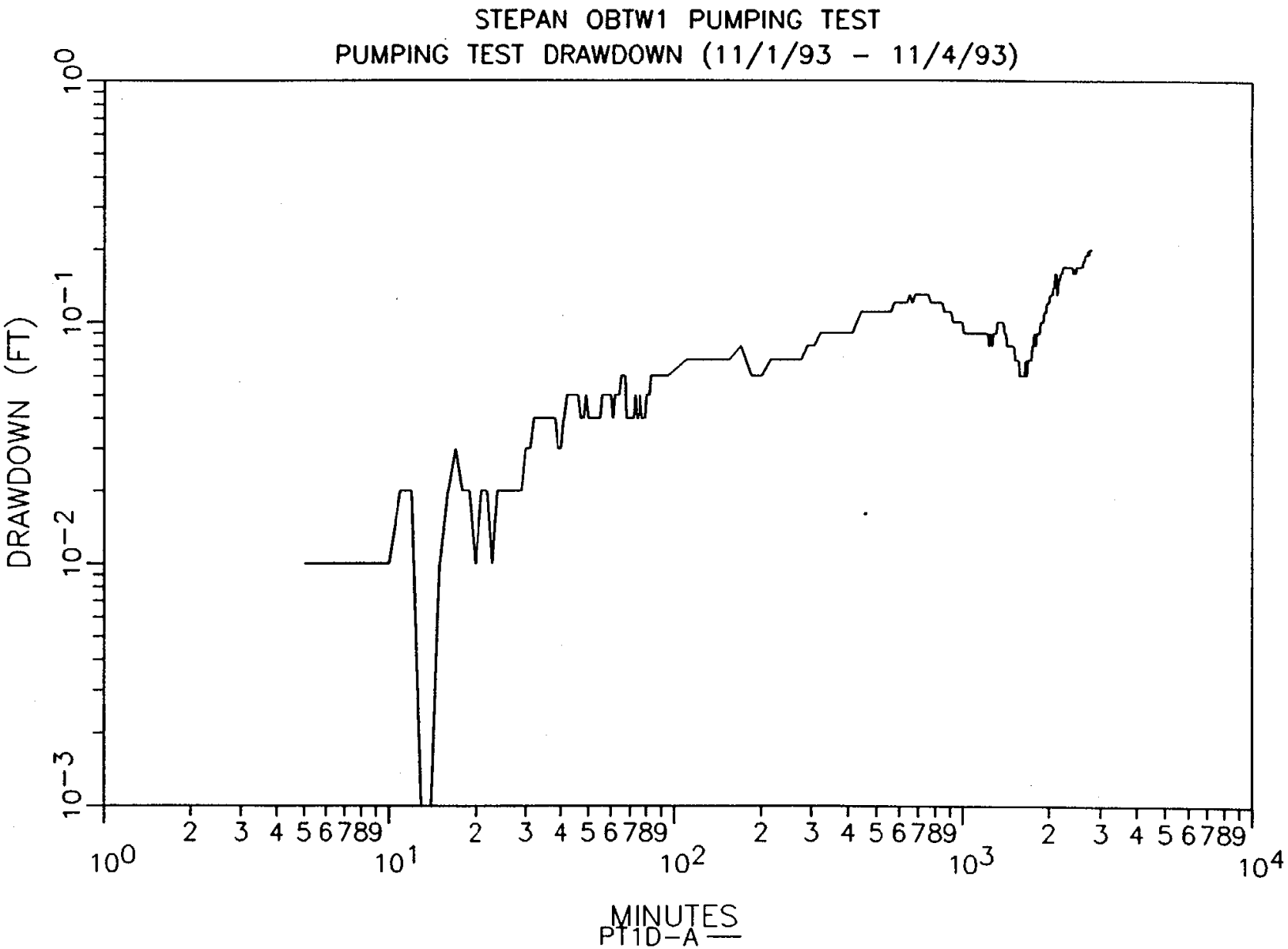

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
Match Point
Match Point
MINUTES
OBTW1 —

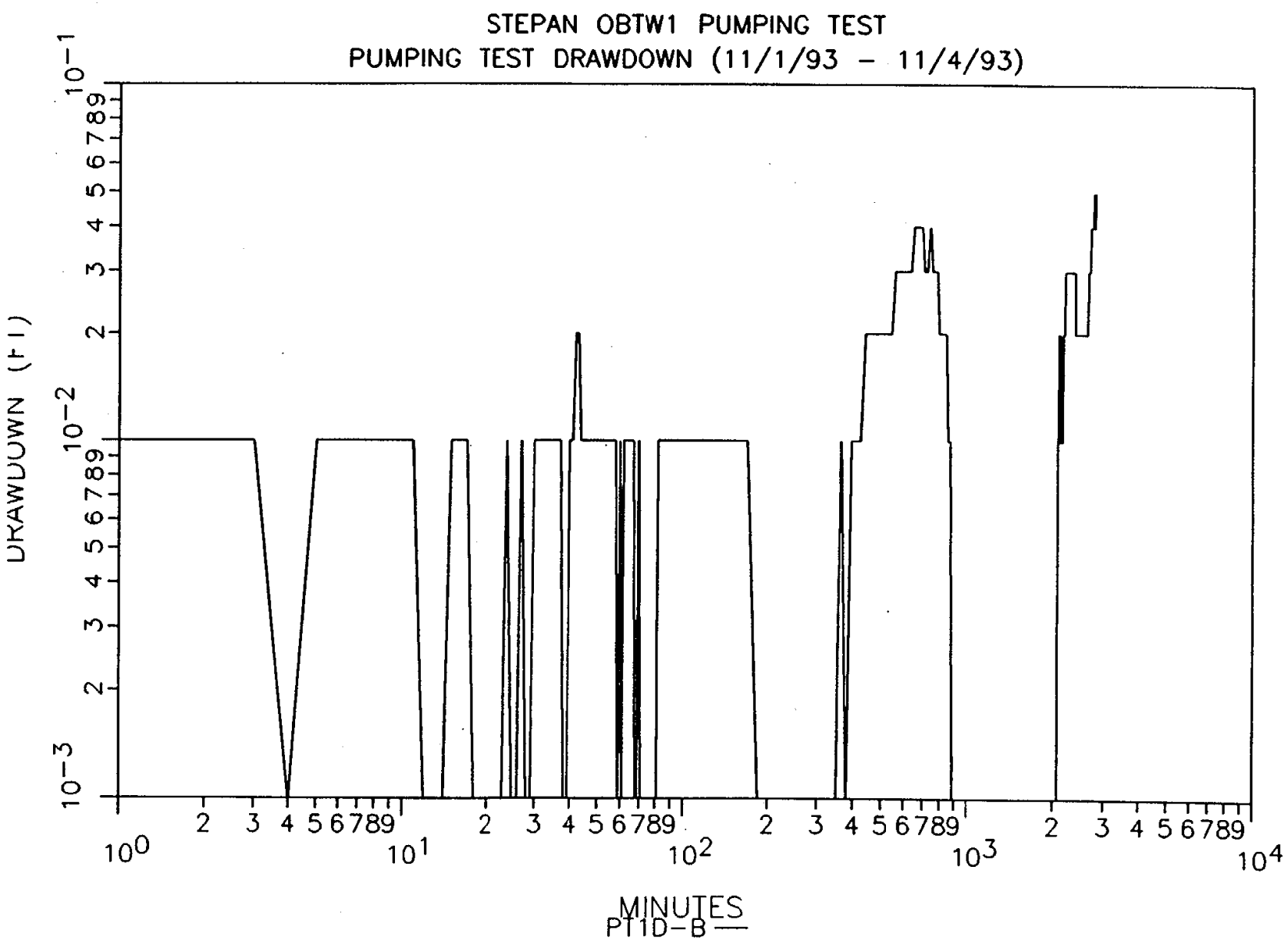

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
BRTW1 —

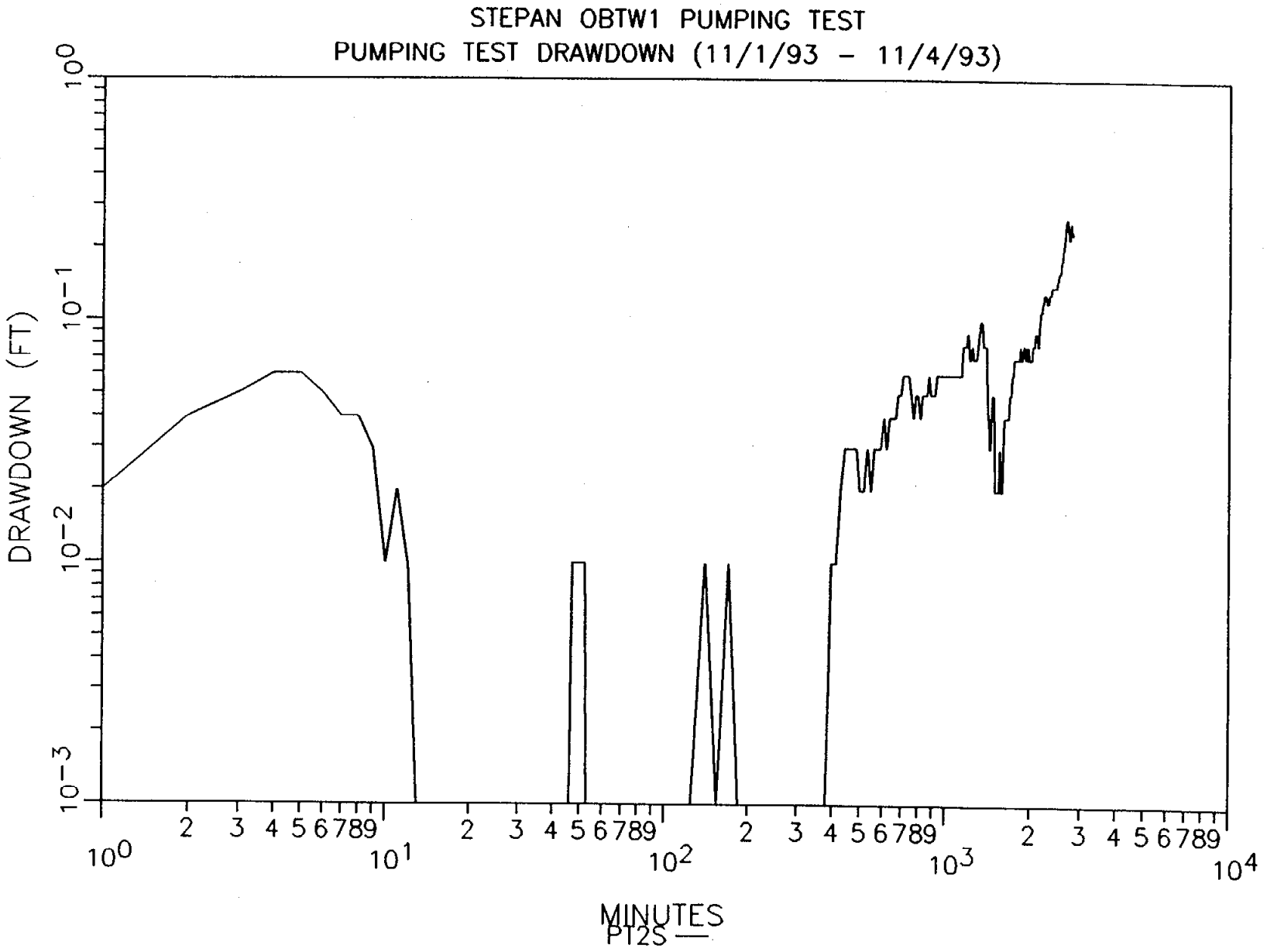

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
Match Point
Match Point
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
OBMW-2 —

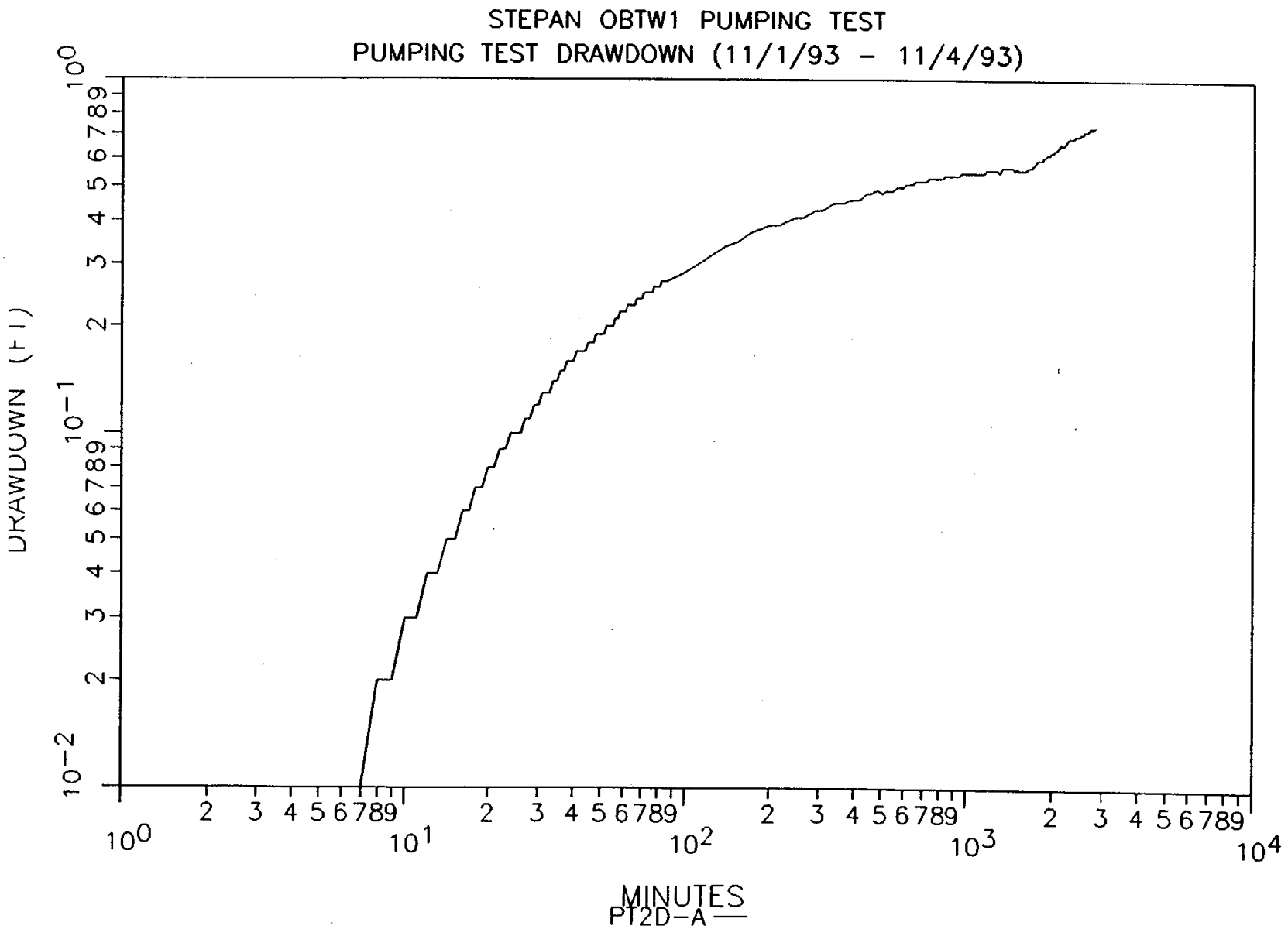

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{0} 2 3 4 5 6 7 8 9 10^{1} 2 3 4 5 6 7 8 9 10^{2} 2 3 4 5 6 7 8 9 10^{3} 2 3 4 5 6 7 8 9 10^{4}
MINUTES
PT1S

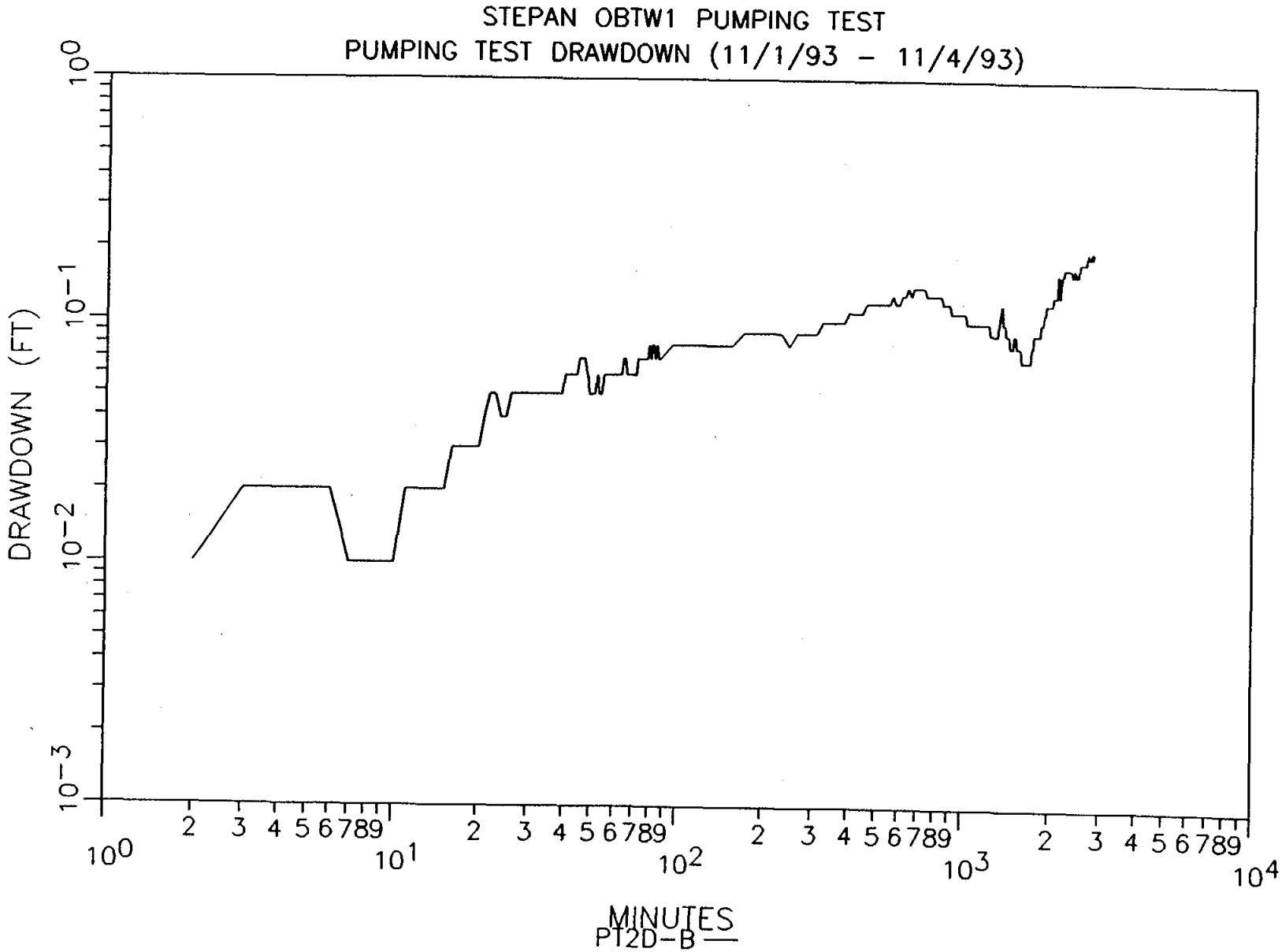

SEARS BRTW2 PUMPING TEST
PUMPING TEST DRAWDOWN (11/15/93 - 11/18/93)
FLOW (GPM)
0.
3.
6.
8.
11.
14.
0.
54.
108.
162.
216.
270.
324.
378.
432.
MINUTES *10^1
FLOWRATE —


STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
2 3 4 5 6 7 8 9
MINUTES
PT1D-A

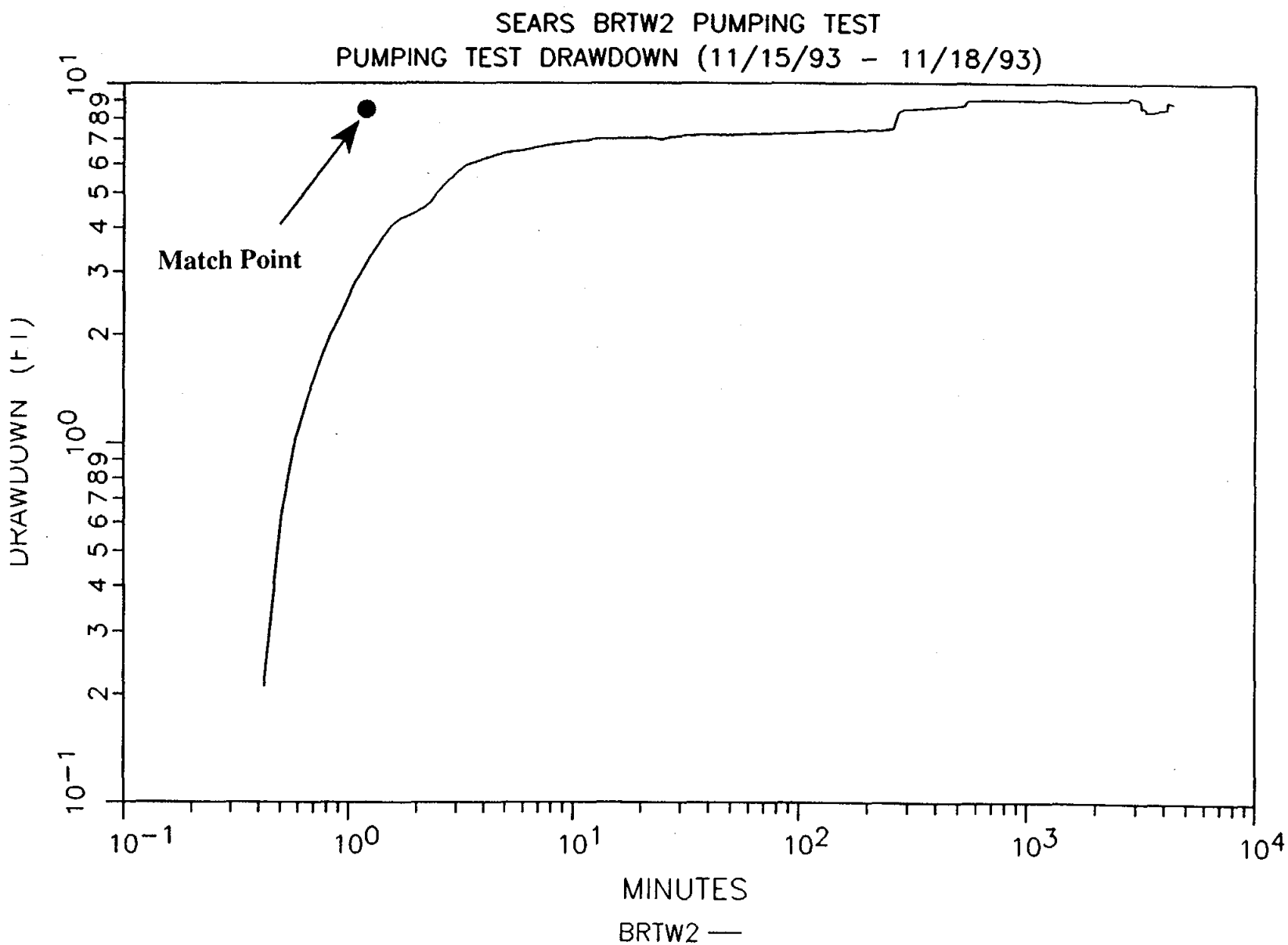

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
MINUTES
PT1D-B

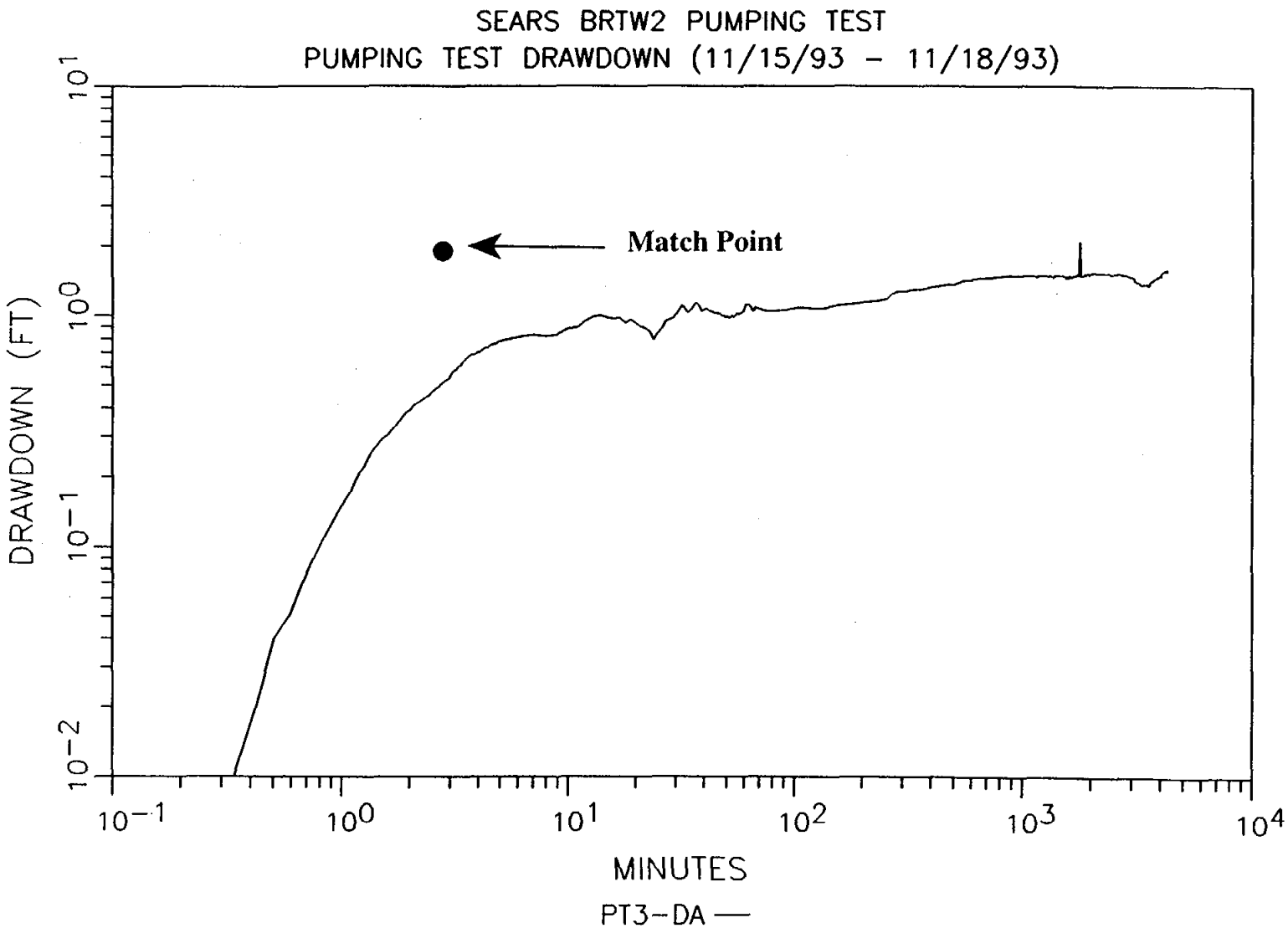

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
10^0
10^-1
10^-2
10^-3
10^0
10^1
10^2
10^3
10^4
2 3 4 5 6 7 8 9
MINUTES
PT2S

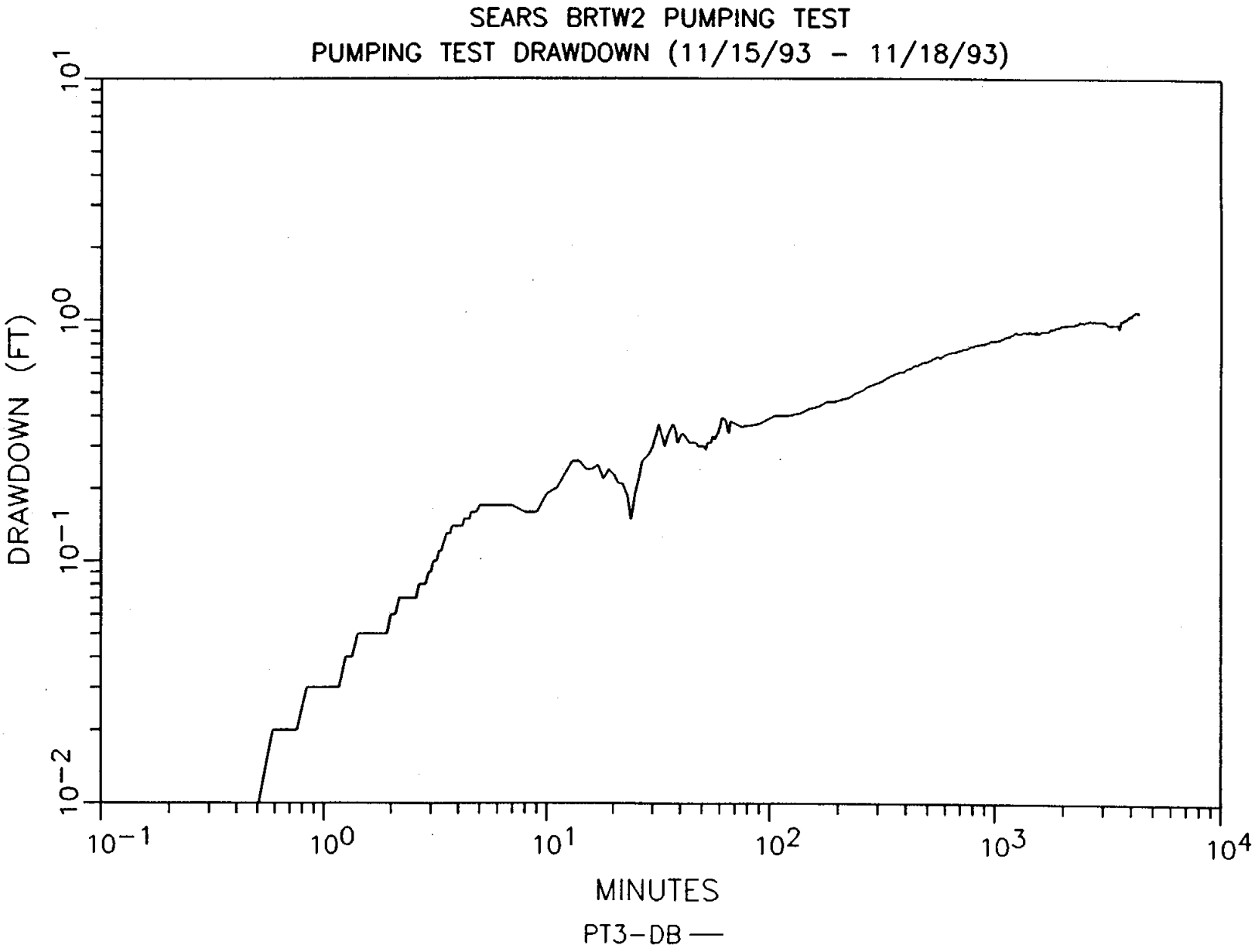

STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
MINUTES
PT2D-A


STEPAN OBTW1 PUMPING TEST
PUMPING TEST DRAWDOWN (11/1/93 - 11/4/93)
DRAWDOWN (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
2 3 4 5 6 7 8 9
MINUTES
PT2D-B

Sears Bedrock Drawdown Test

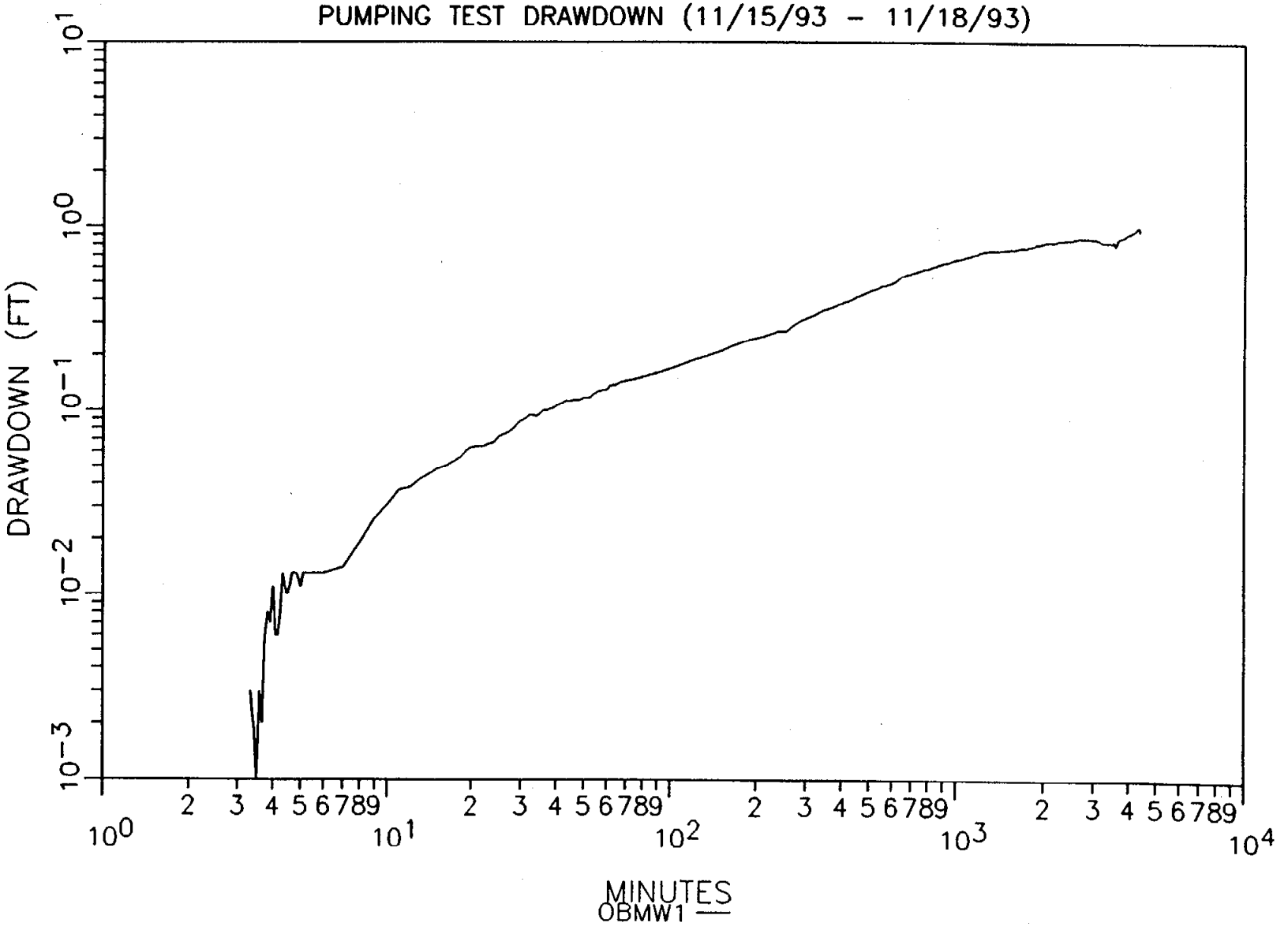

SEARS BRTW2 PUMPING TEST
PUMPING TEST DRAWDOWN (11/15/93 - 11/18/93)
Match Point
DRAWDOWN (FT)
MINUTES
BRTW2 —

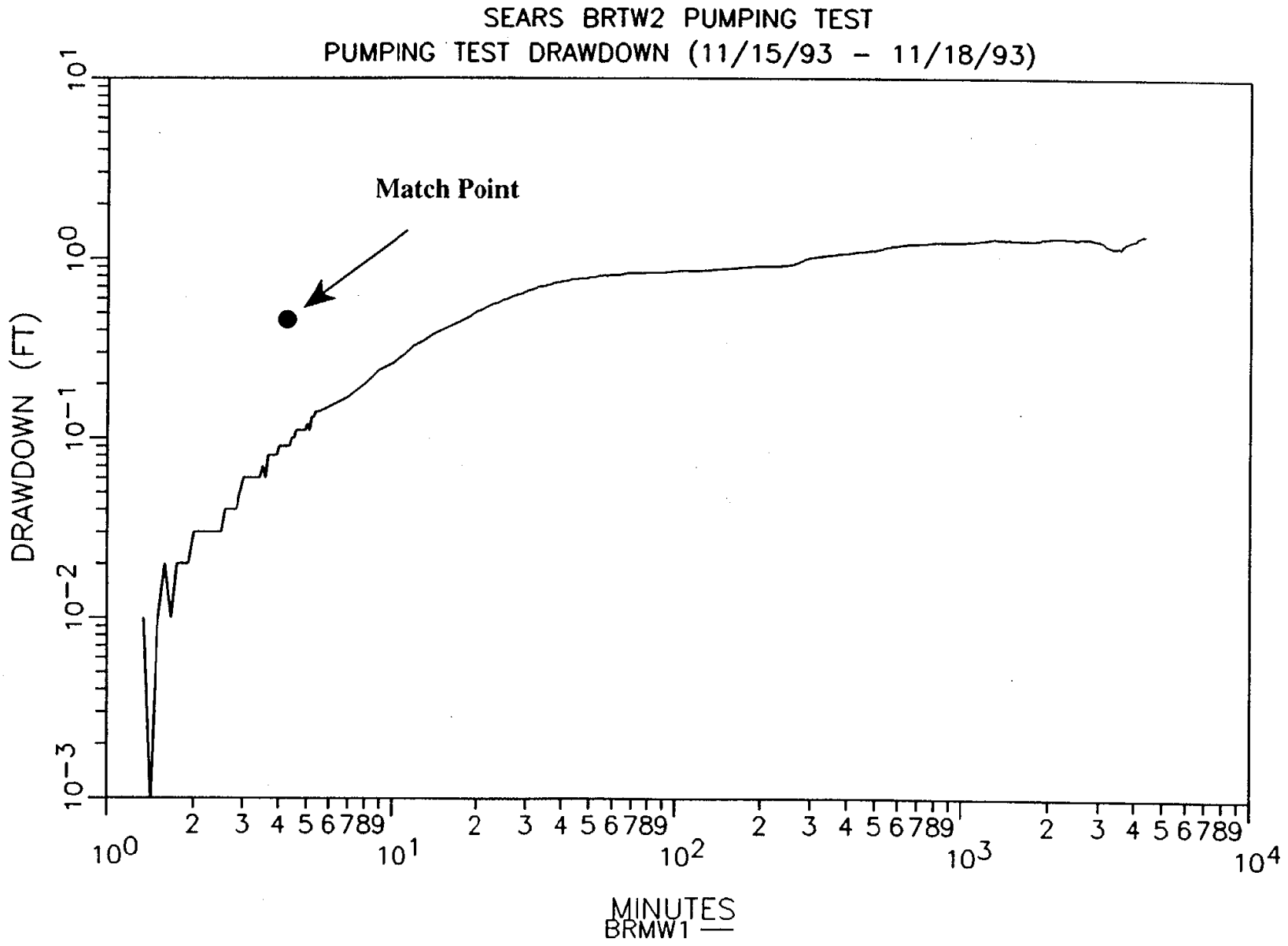

SEARS BRTW2 PUMPING TEST
PUMPING TEST DRAWDOWN (11/15/93 - 11/18/93)
Match Point
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT3-DA


SEARS BRTW2 PUMPING TEST
PUMPING TEST DRAWDOWN (11/15/93 - 11/18/93)
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT3-DB

SEARS BRTW2 PUMPING TEST

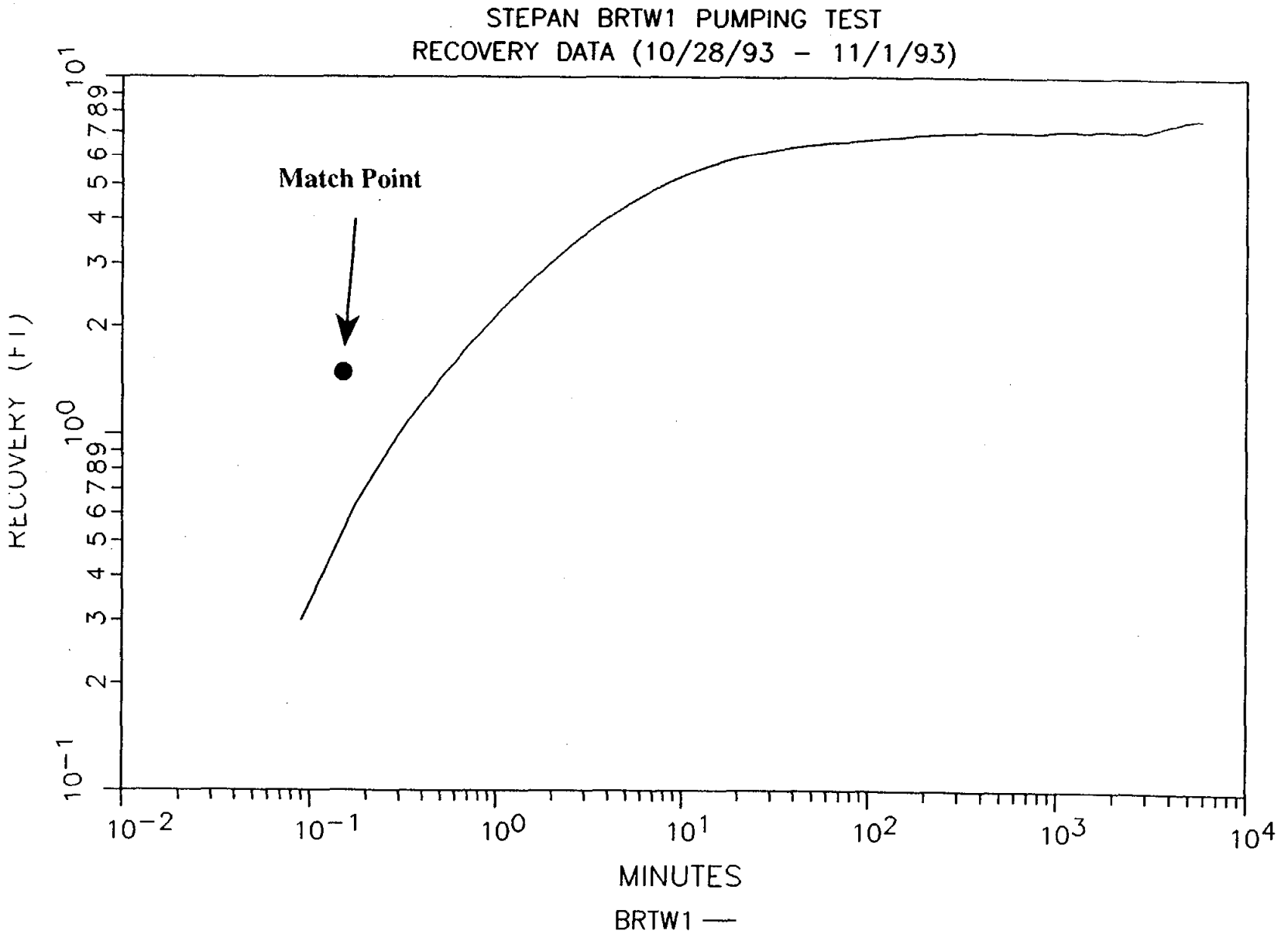
PUMPING TEST DRAWDOWN (11/15/93 - 11/18/93)



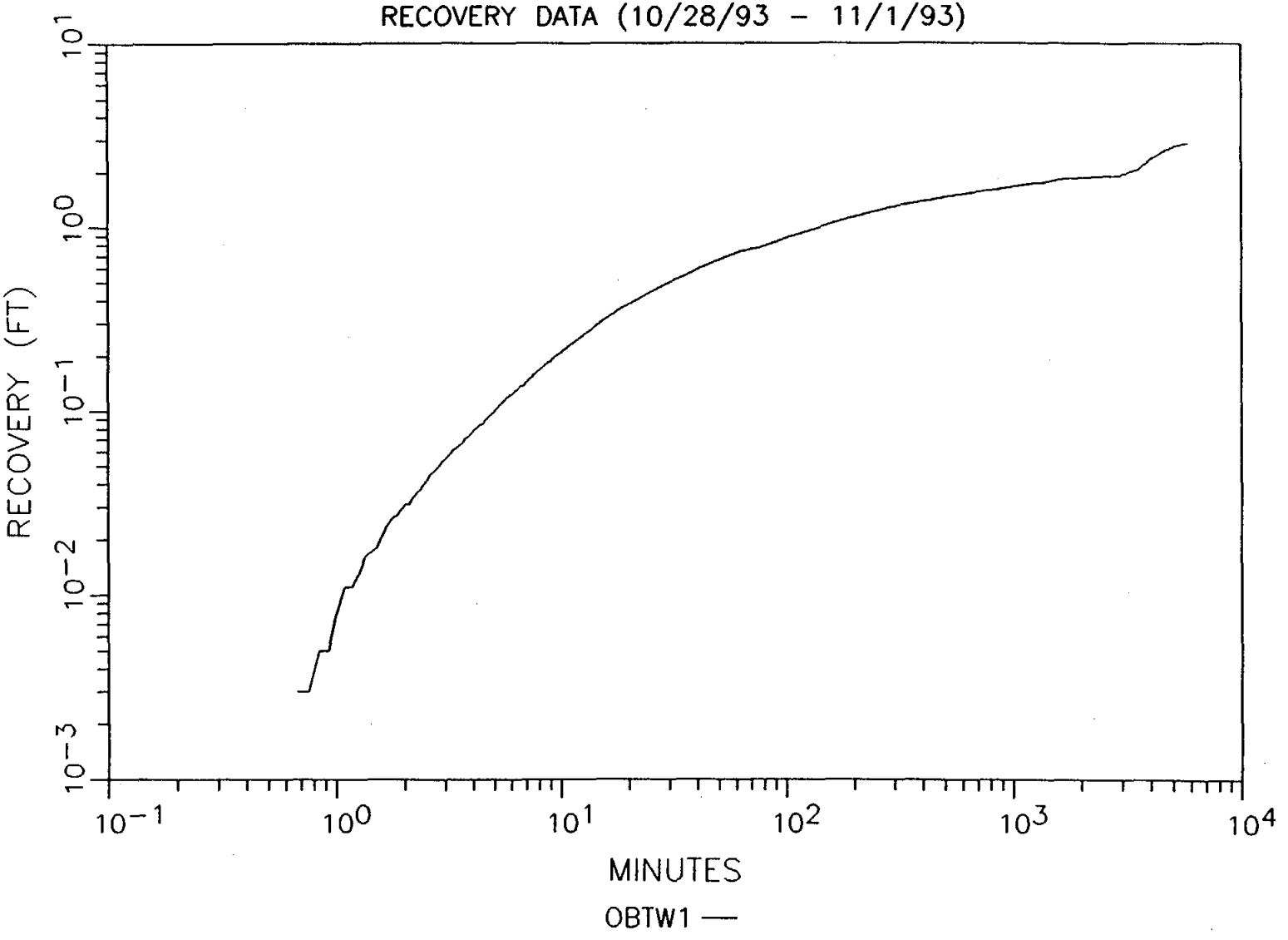

SEARS BRTW2 PUMPING TEST
PUMPING TEST DRAWDOWN (11/15/93 - 11/18/93)
Match Point
DRAWDOWN (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
2 3 4 5 6 7 8 9
MINUTES
BRMW1

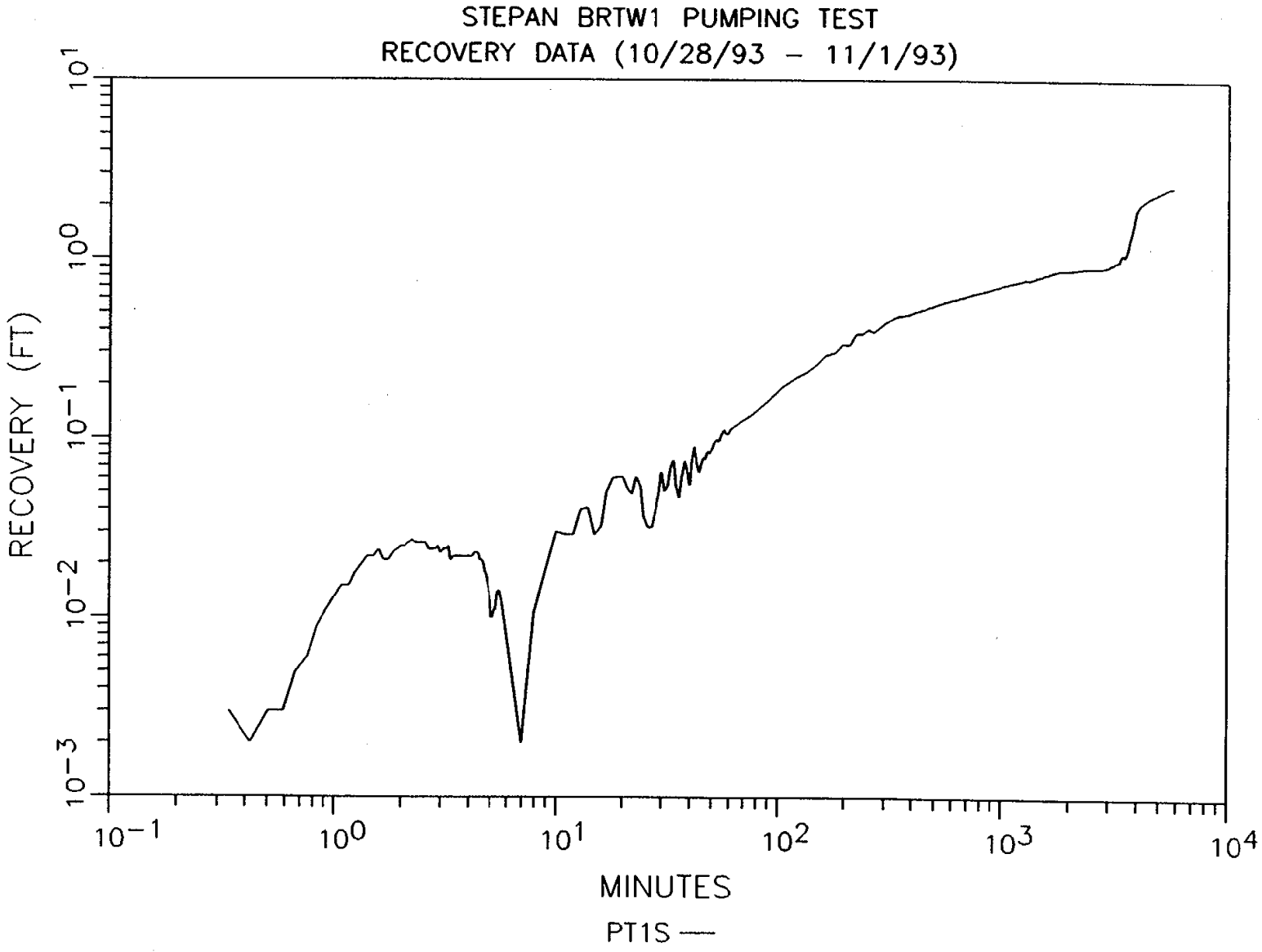
Appendix AF
Recovery Data Curves

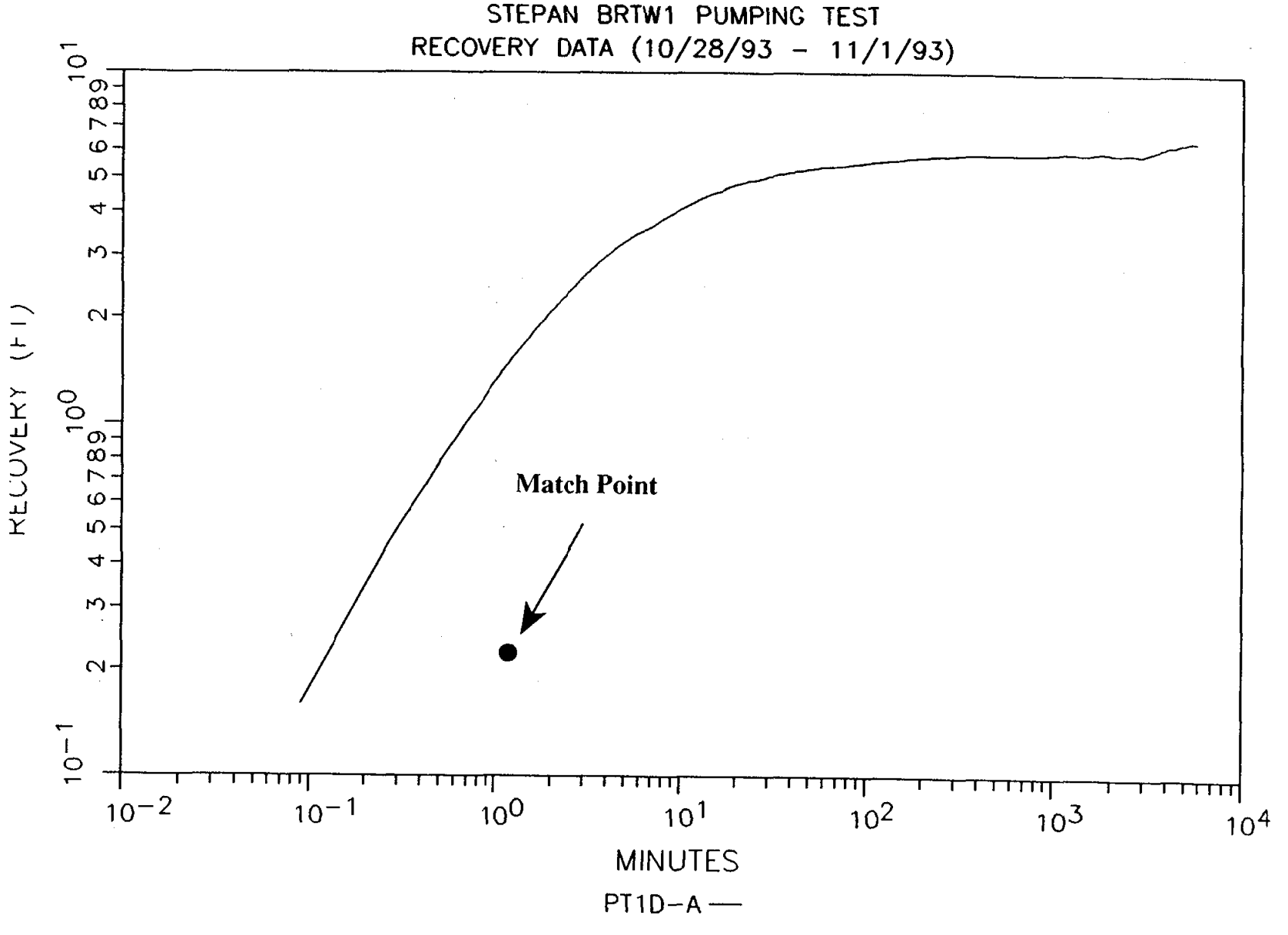
Stepan Bedrock Recovery Test

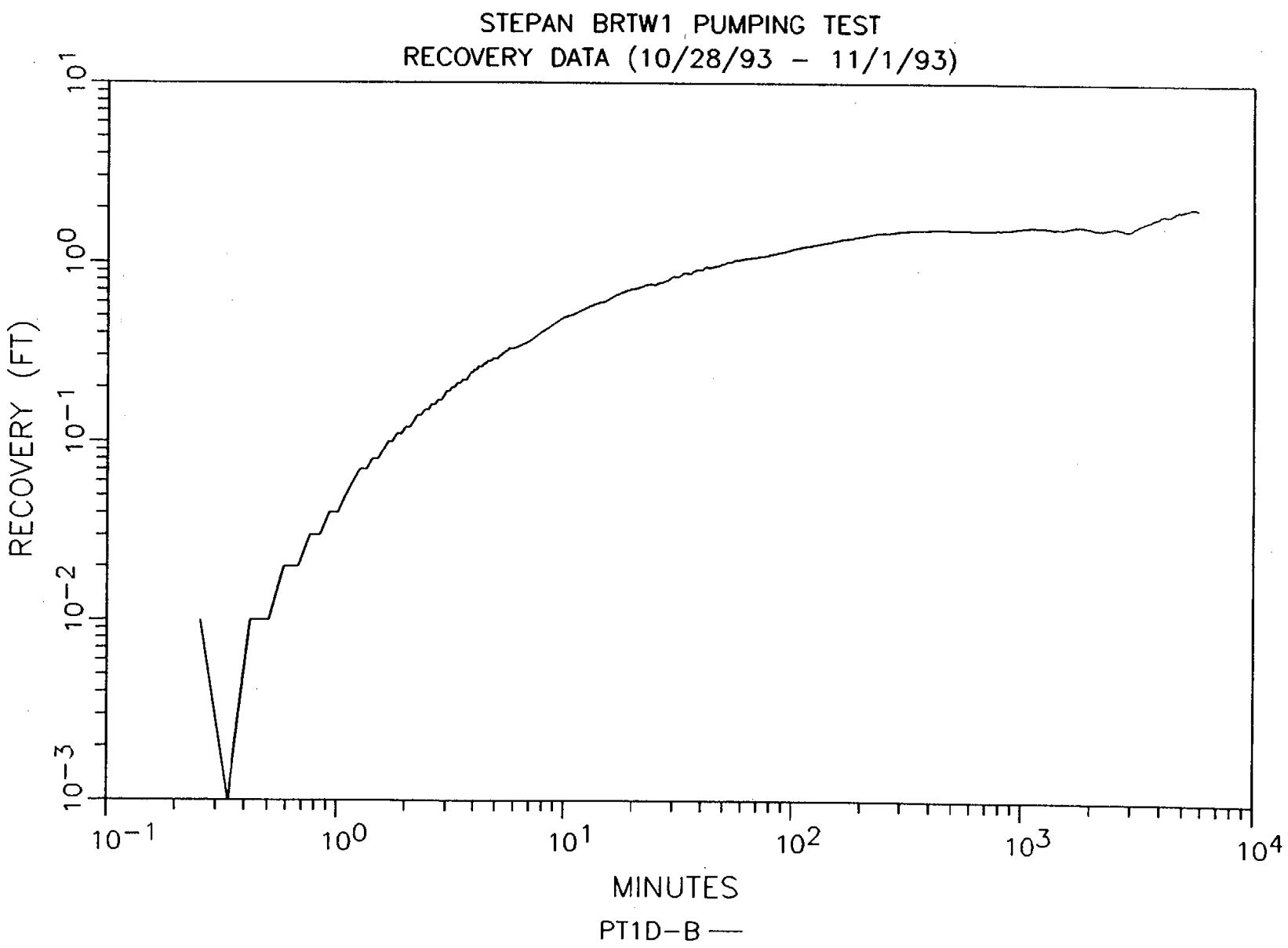

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
Match Point
RECOVERY (FT)
MINUTES
BRTW1 —

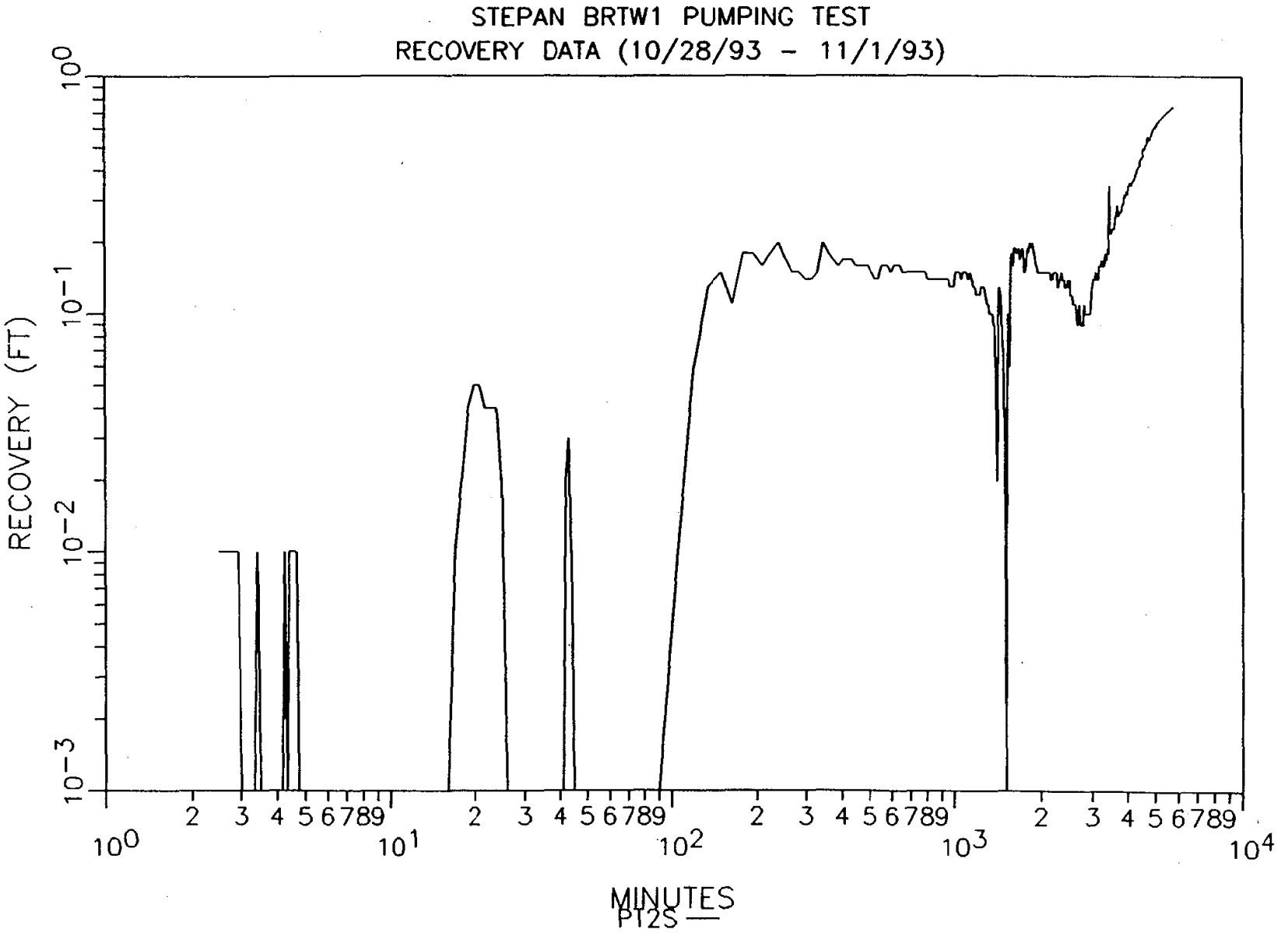
STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)

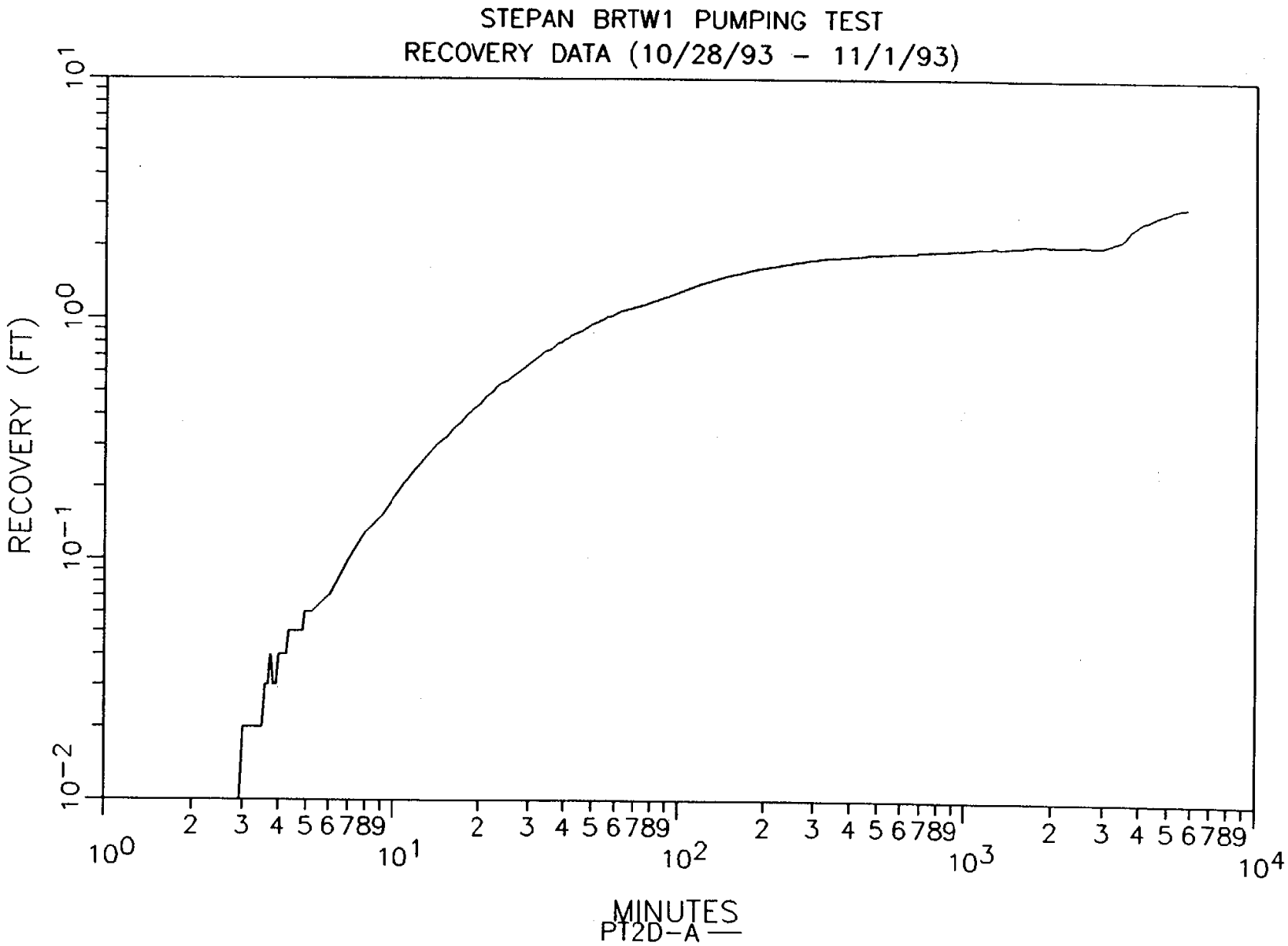


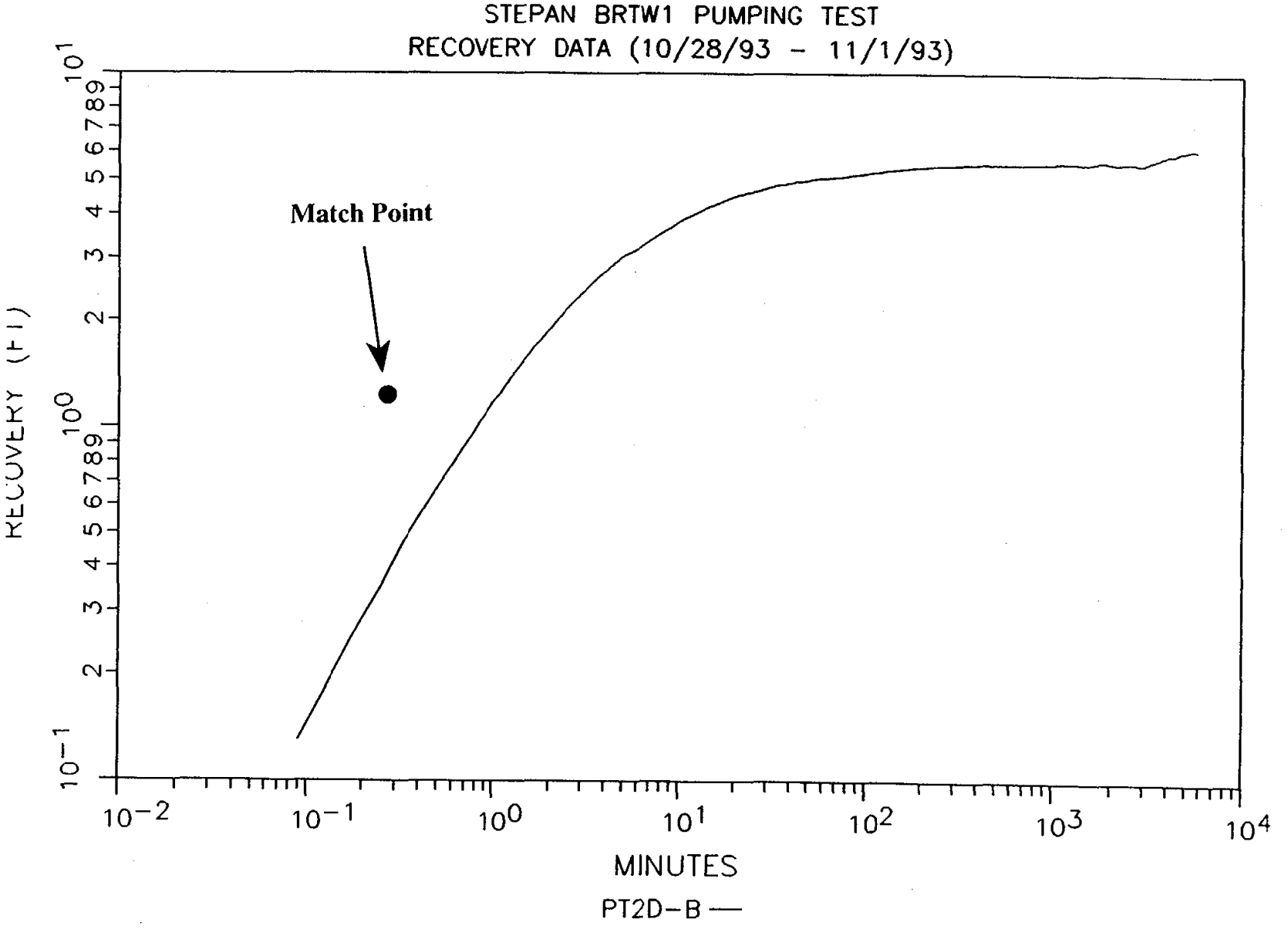

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT1S

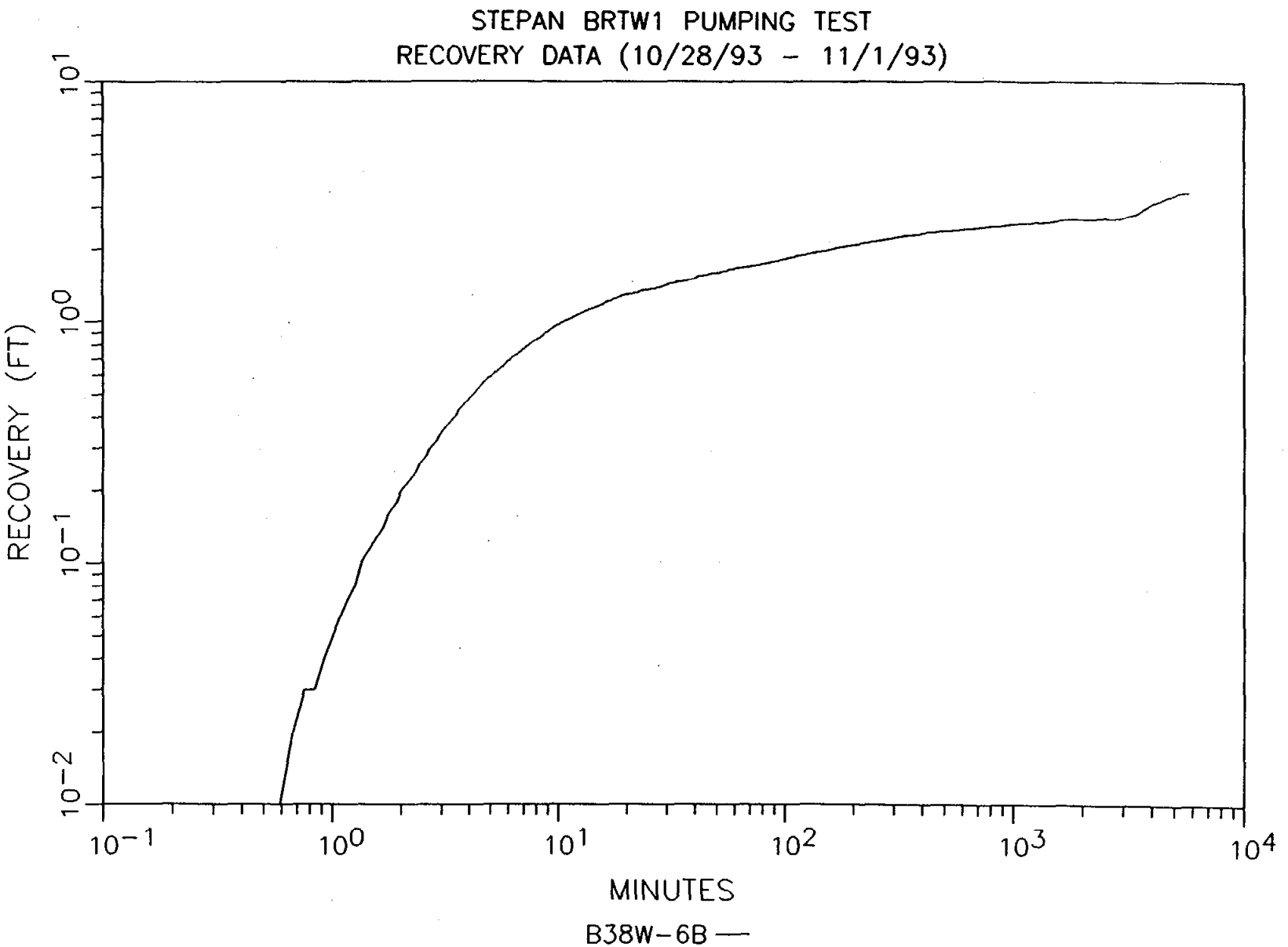

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
RECOVERY (FT)
Match Point
MINUTES
PT1D-A


STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT1D-B

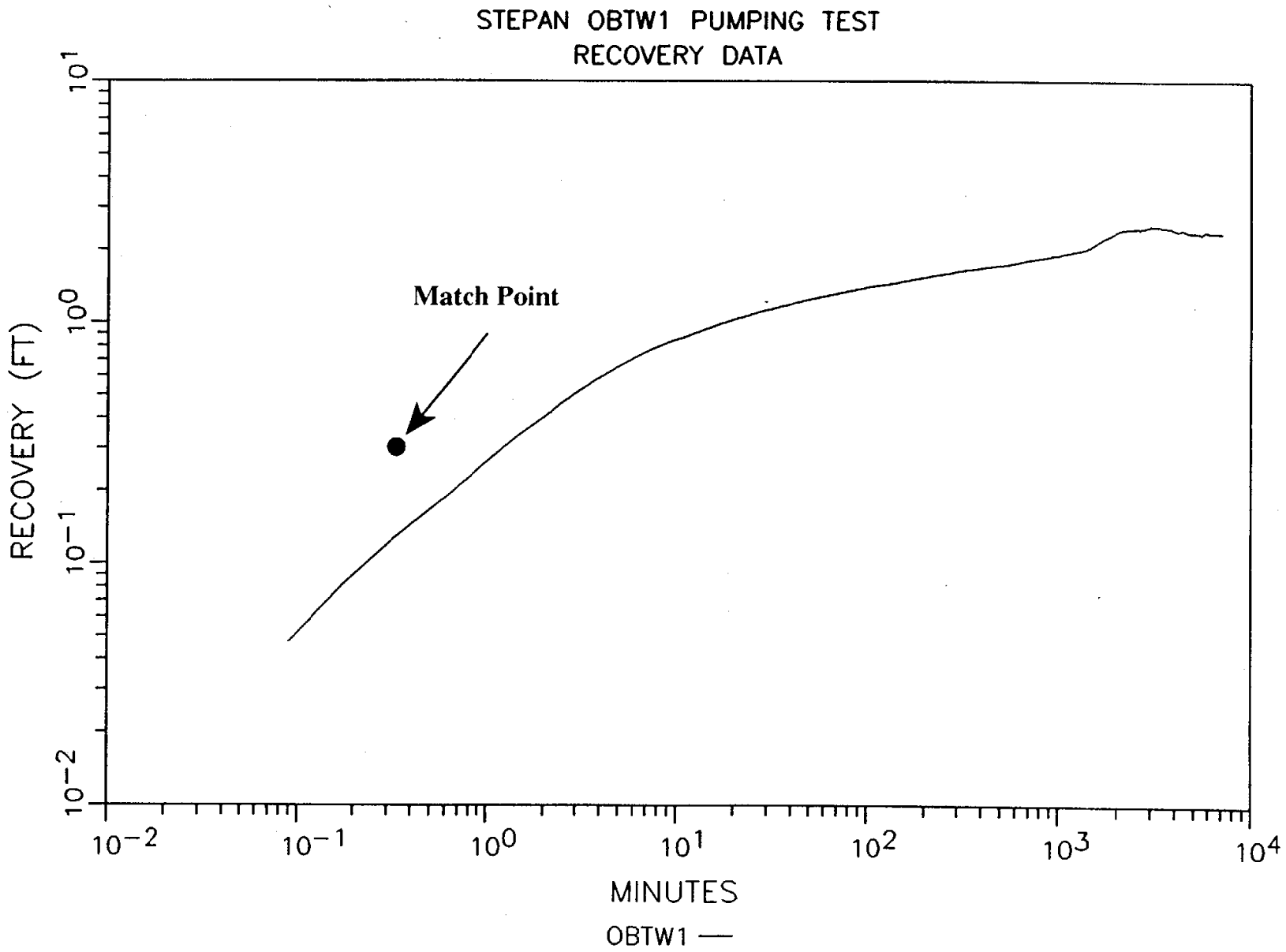

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
RECOVERY (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
2 3 4 5 6 7 8 9
MINUTES
PT2S

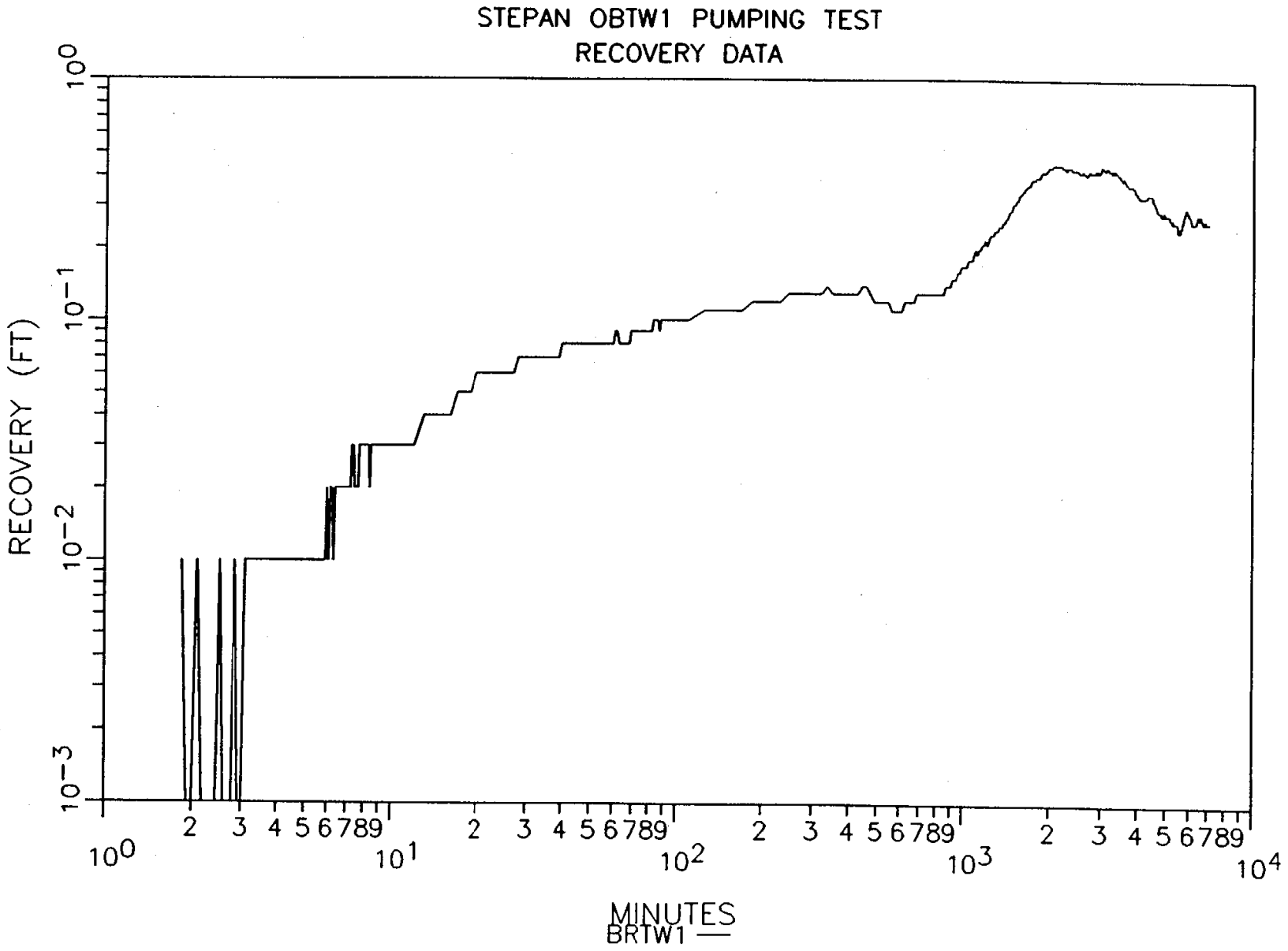

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{0}
2 3 4 5 6 7 8 9
10^{1}
2 3 4 5 6 7 8 9
10^{2}
2 3 4 5 6 7 8 9
10^{3}
2 3 4 5 6 7 8 9
10^{4}
MINUTES
PT2D-A

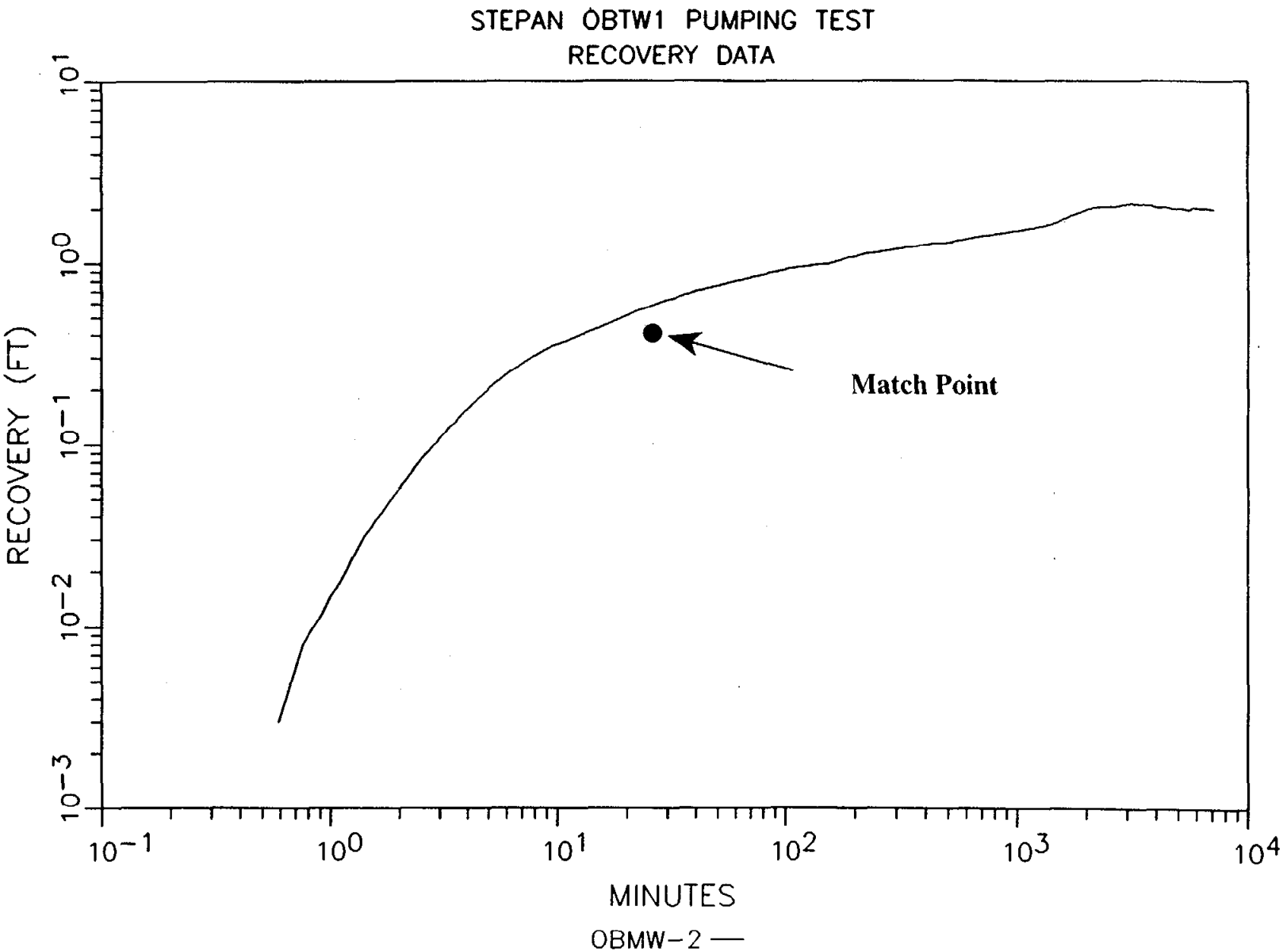

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
Match Point
RECOVERY (FT)
MINUTES
PT2D-B

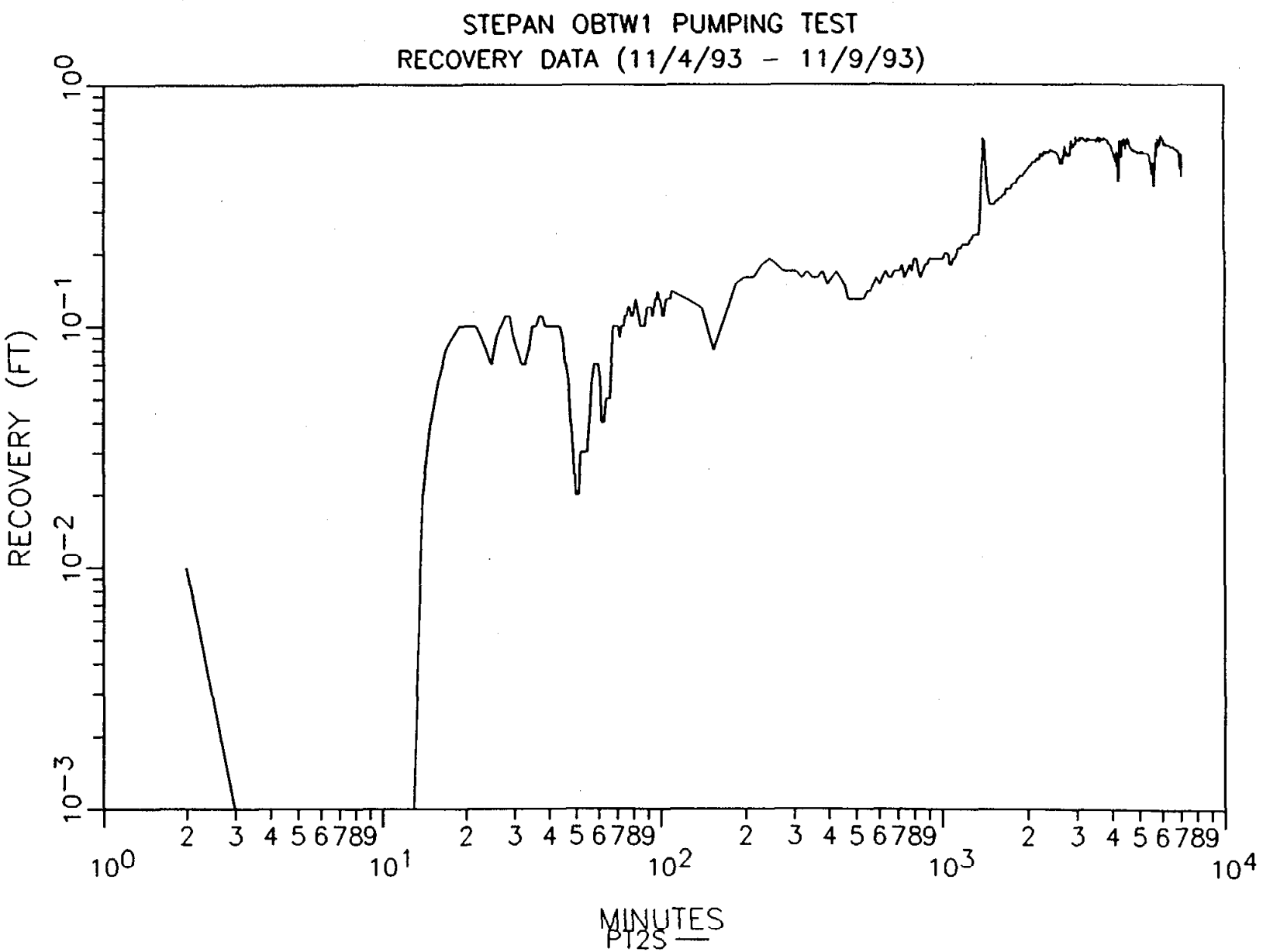

STEPAN BRTW1 PUMPING TEST
RECOVERY DATA (10/28/93 - 11/1/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
B38W-6B

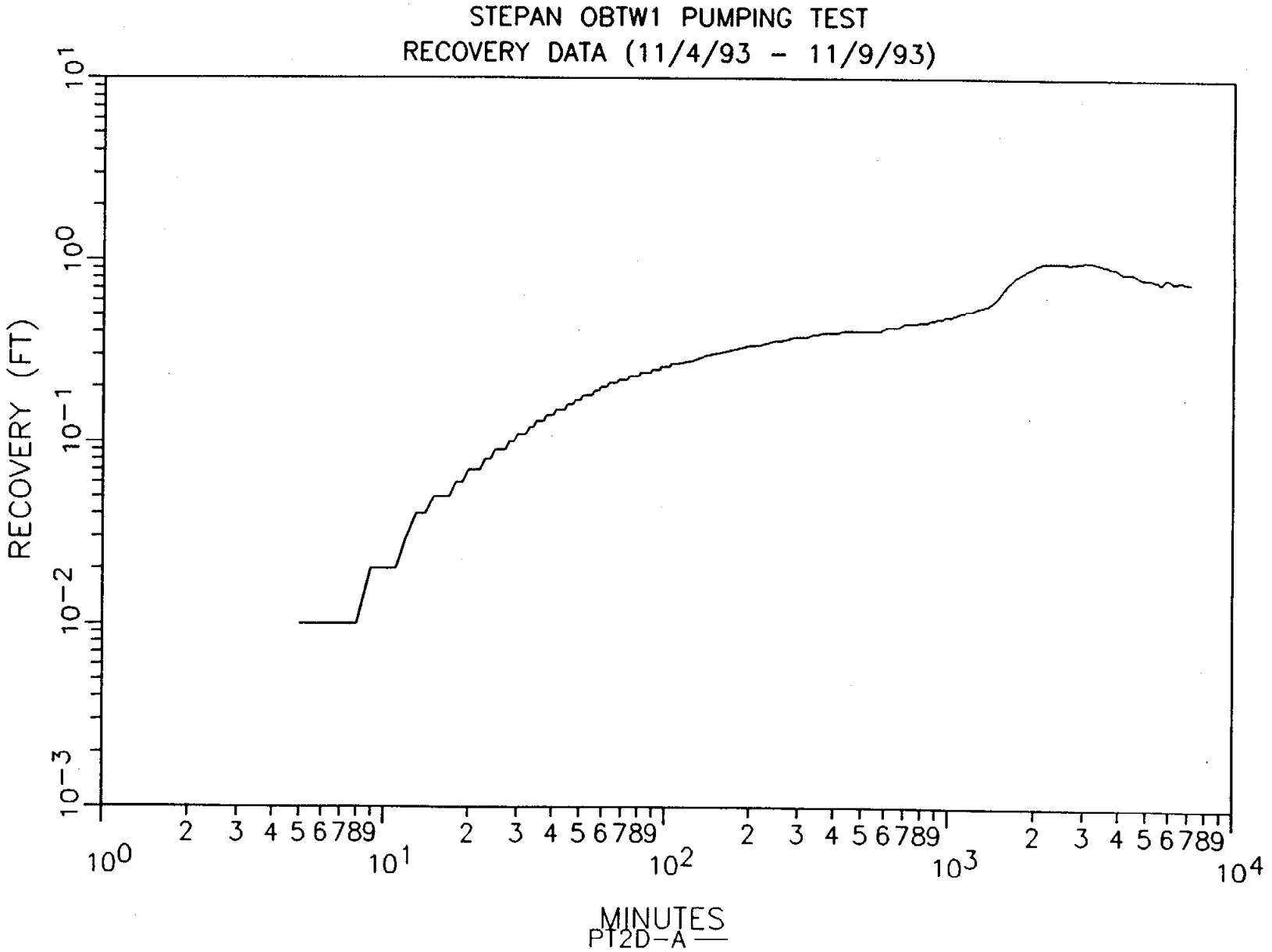
Stepan Overburden Recovery Test

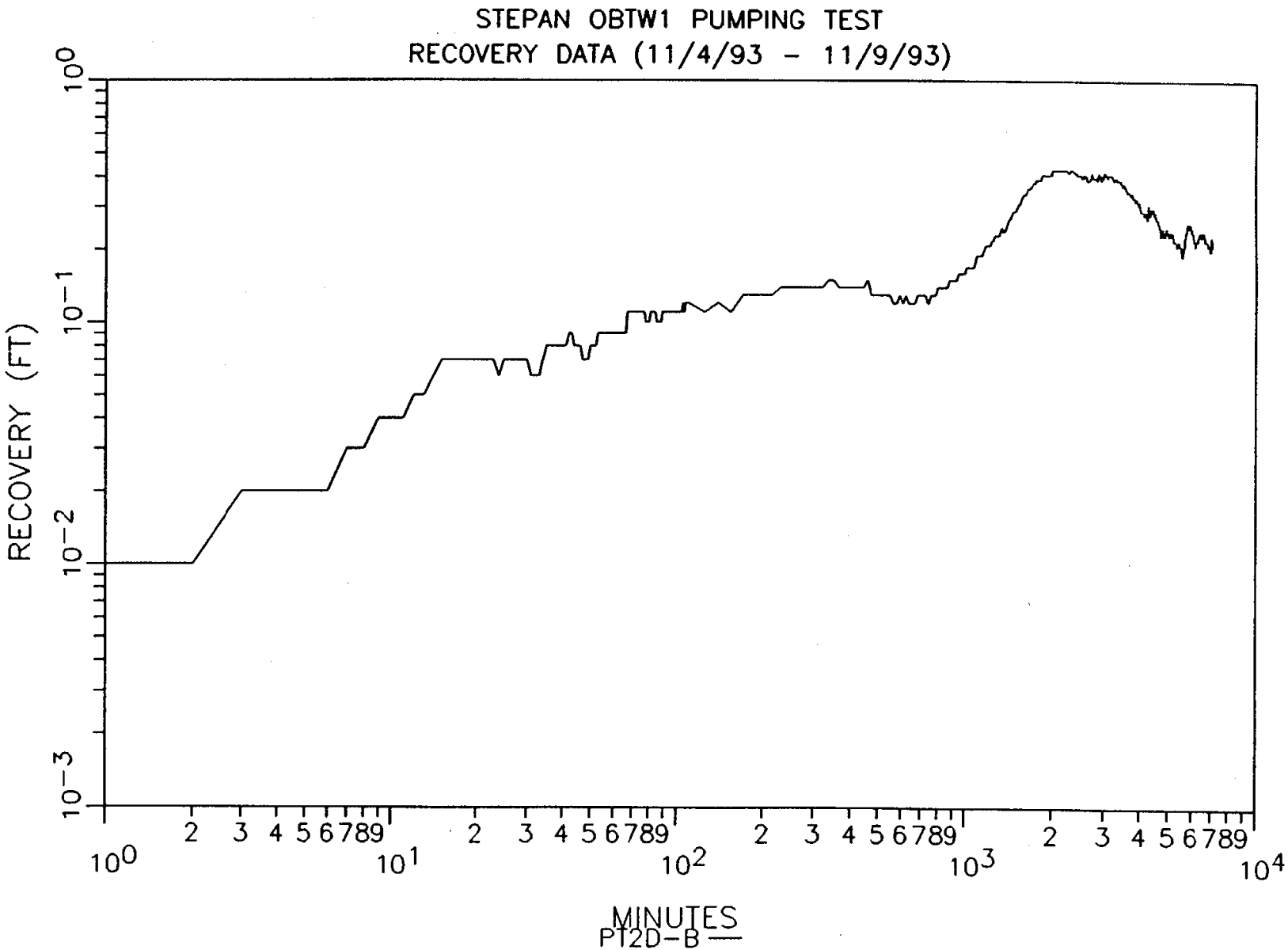

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA
Match Point
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
OBTW1 —

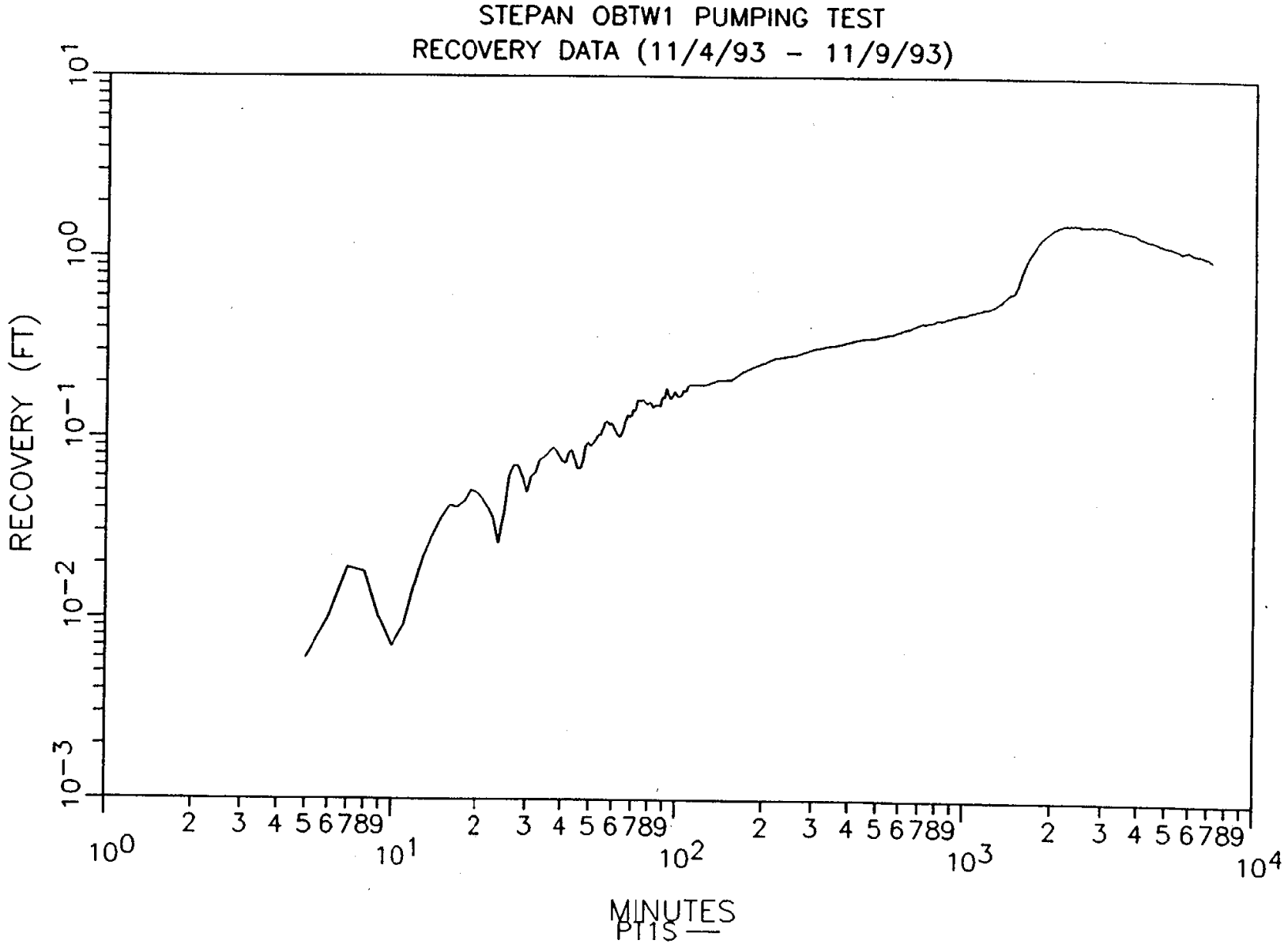

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA
RECOVERY (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
2 3 4 5 6 7 8 9
10^1
2 3 4 5 6 7 8 9
10^2
2 3 4 5 6 7 8 9
10^3
2 3 4 5 6 7 8 9
10^4
MINUTES
BRTW1

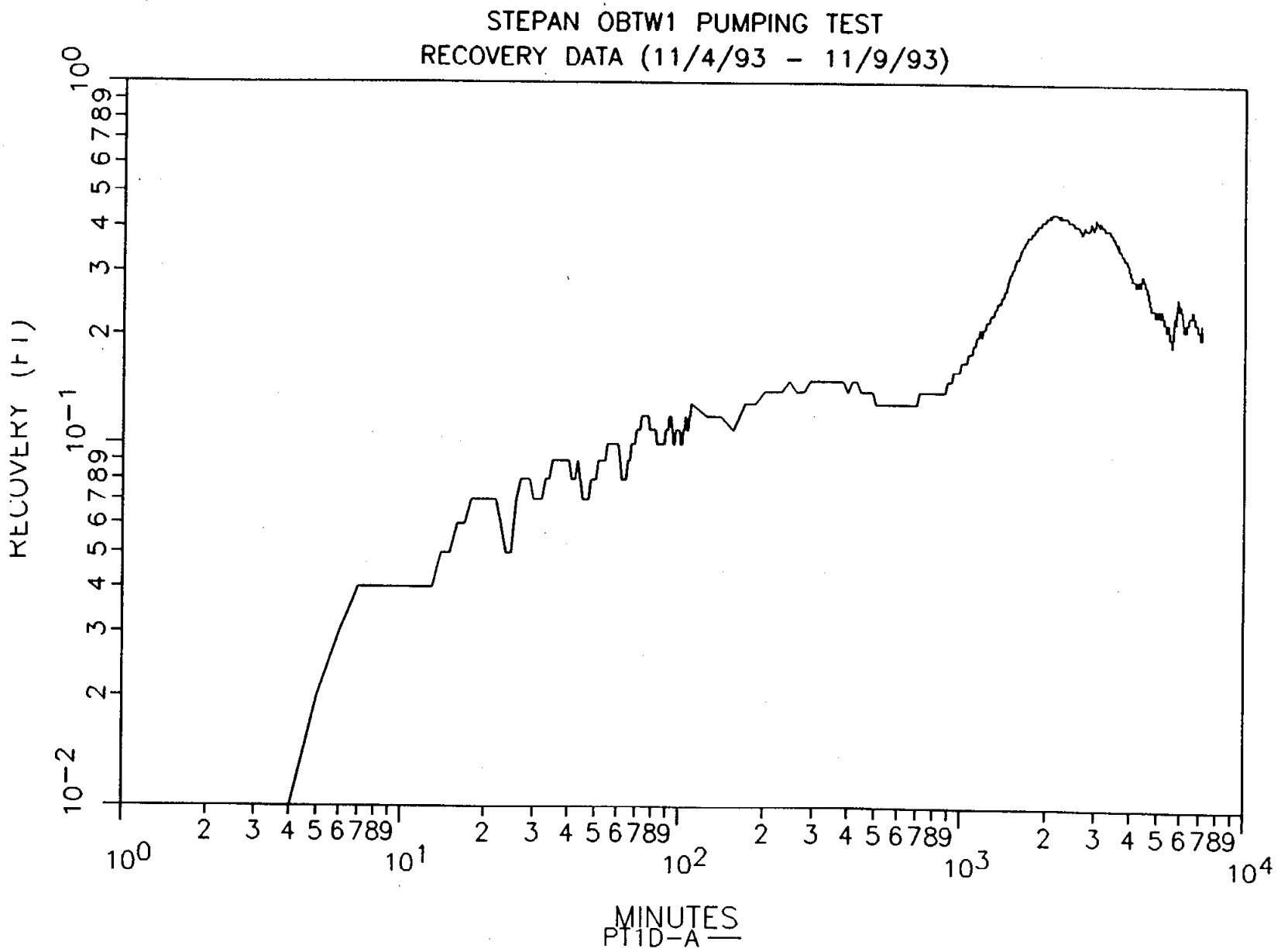

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
Match Point
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
OBMW-2

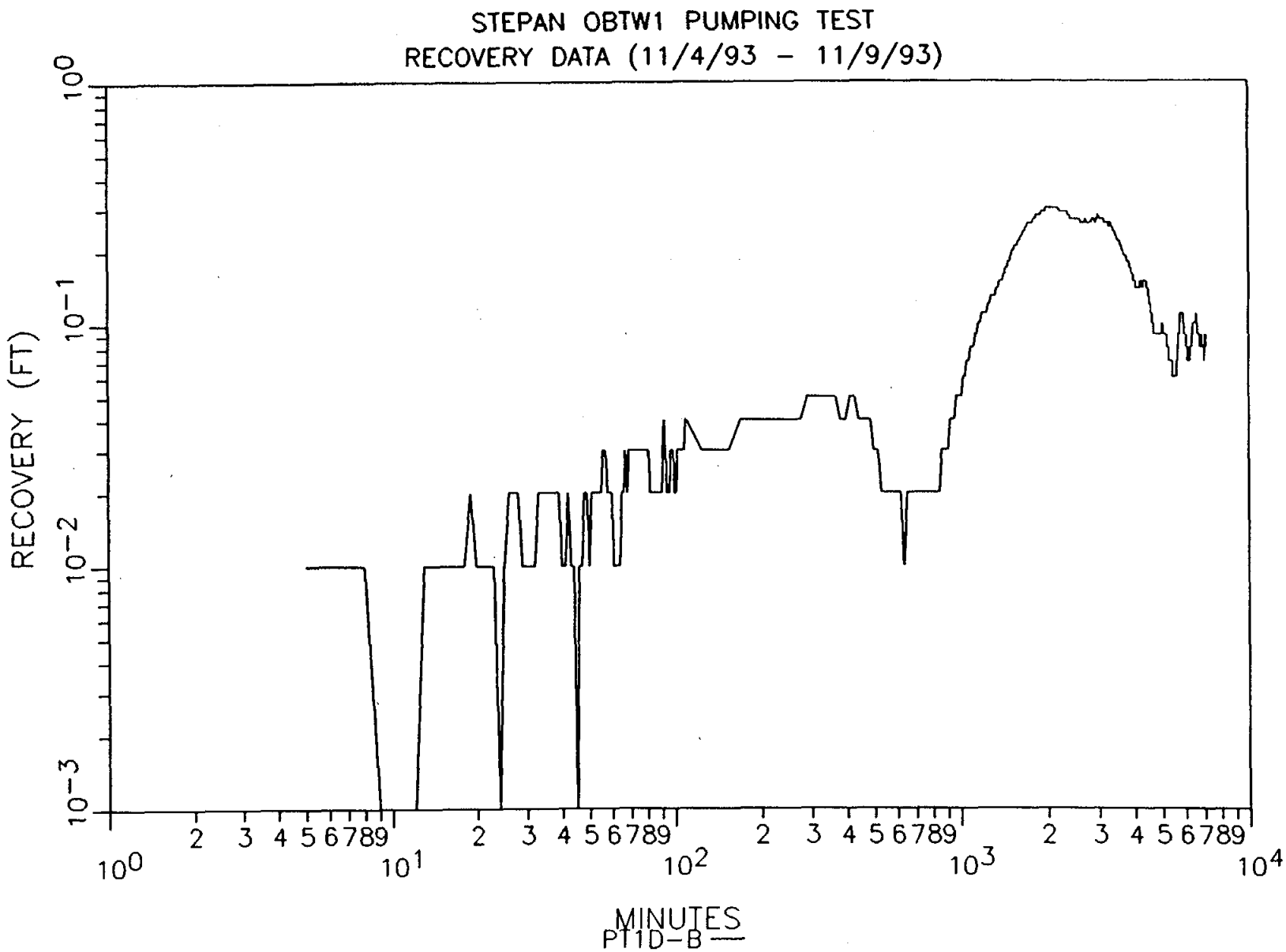

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA (11/4/93 - 11/9/93)
RECOVERY (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
2 3 4 5 6 7 8 9
10^0
10^1
10^2
10^3
10^4
MINUTES
PT2S


STEPAN OBTW1 PUMPING TEST
RECOVERY DATA (11/4/93 - 11/9/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
2 3 4 5 6 7 8 9
MINUTES
PT2D-A

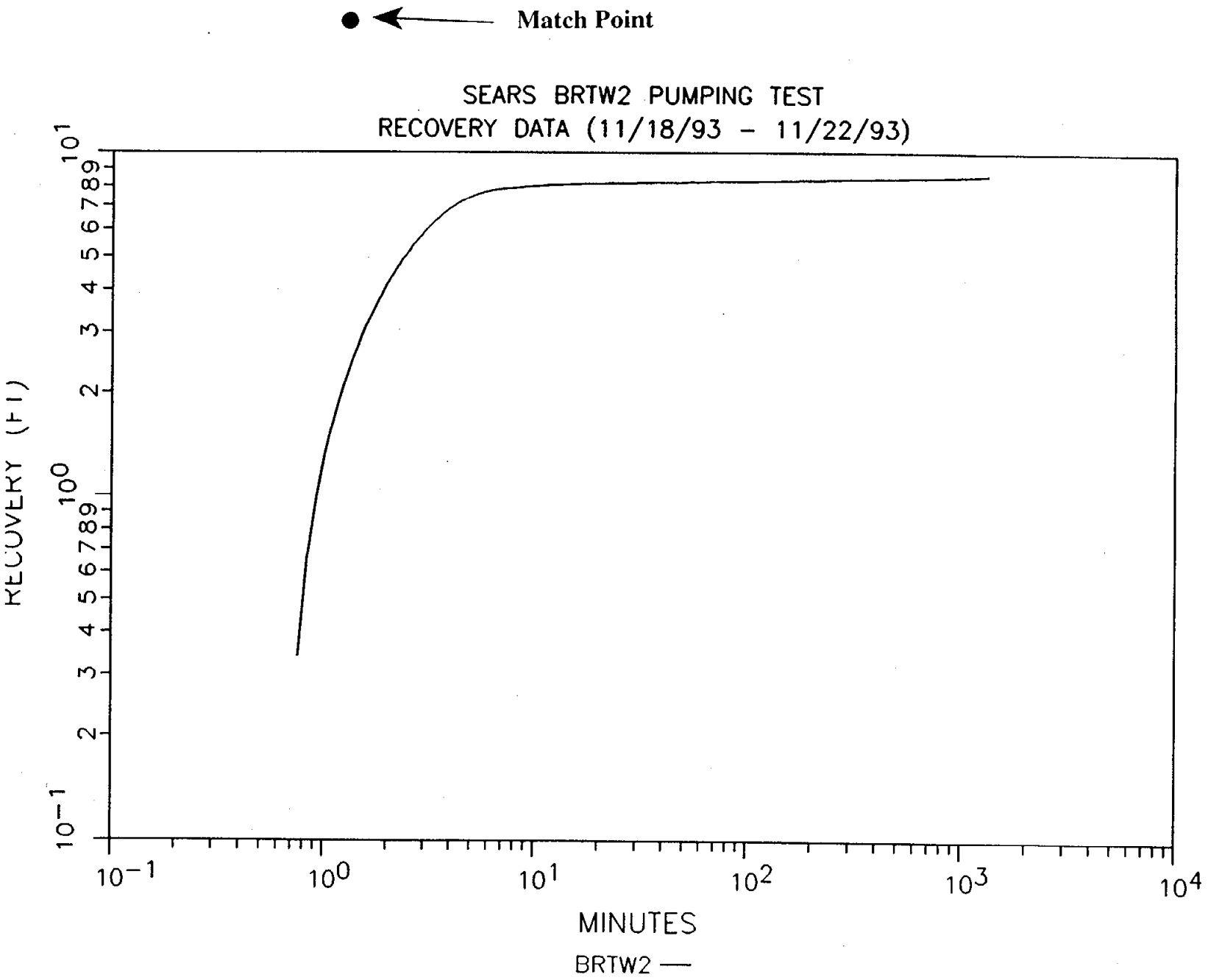

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA (11/4/93 - 11/9/93)
RECOVERY (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
2 3 4 5 6 7 8 9
MINUTES
PT2D-B

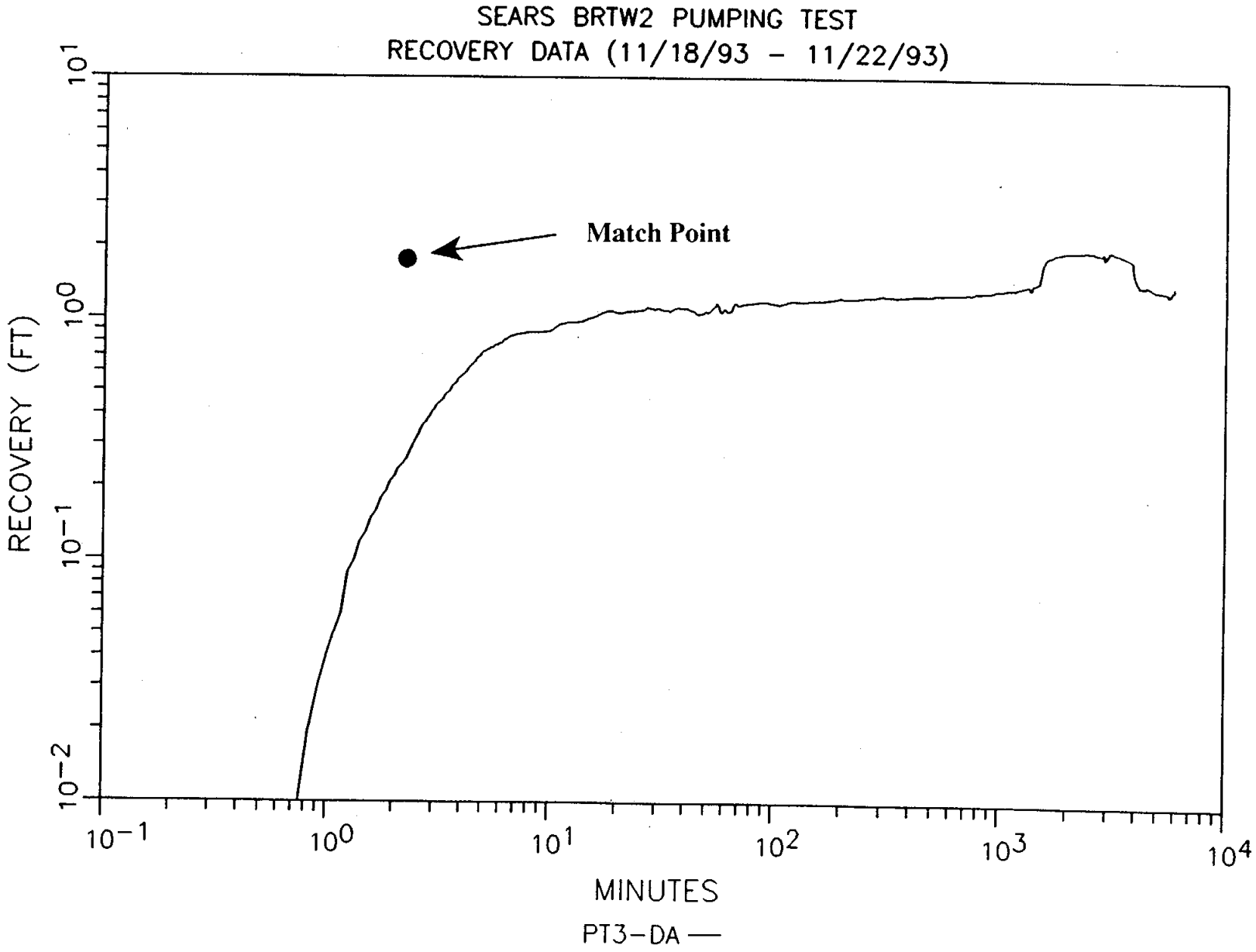

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA (11/4/93 - 11/9/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{0}
2 3 4 5 6 7 8 9
10^{1}
2 3 4 5 6 7 8 9
10^{2}
2 3 4 5 6 7 8 9
10^{3}
2 3 4 5 6 7 8 9
10^{4}
MINUTES
PT1S

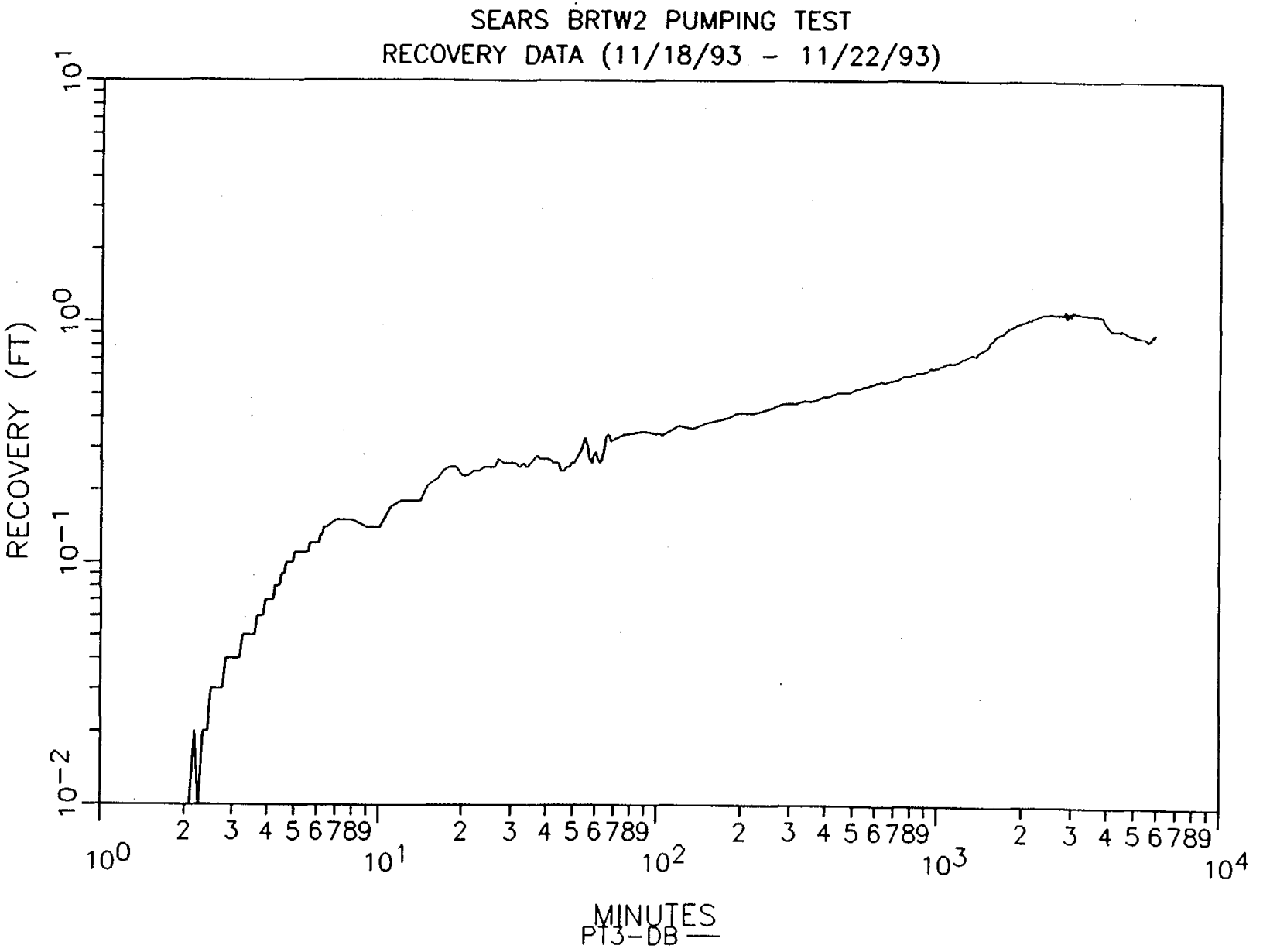

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA (11/4/93 - 11/9/93)
RECOVERY (FT)
MINUTES
PT1D-A

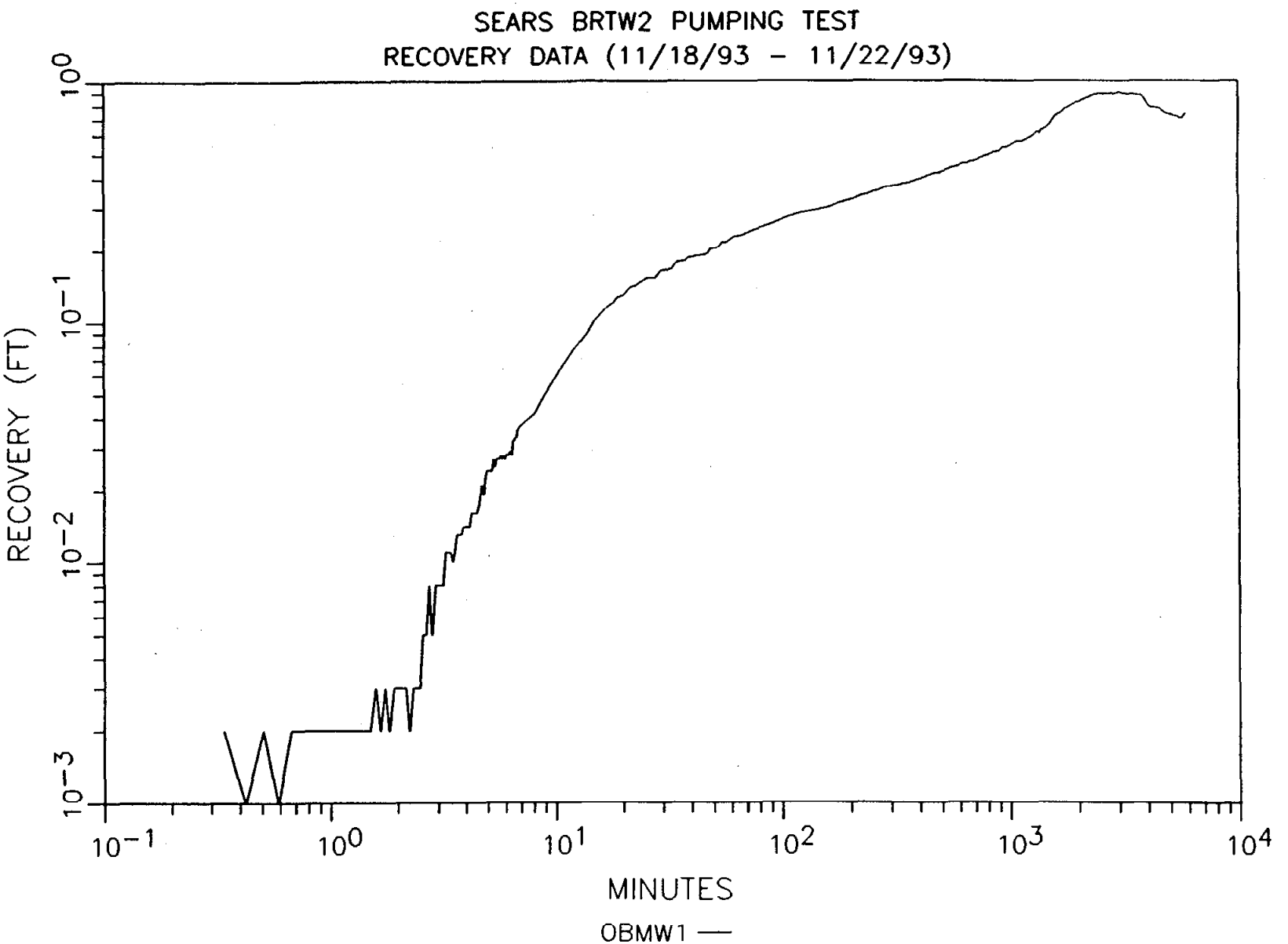

STEPAN OBTW1 PUMPING TEST
RECOVERY DATA (11/4/93 - 11/9/93)
RECOVERY (FT)
10^0
10^{-1}
10^{-2}
10^{-3}
10^0
10^1
10^2
10^3
10^4
2 3 4 5 6 7 8 9
MINUTES
PT1D-B

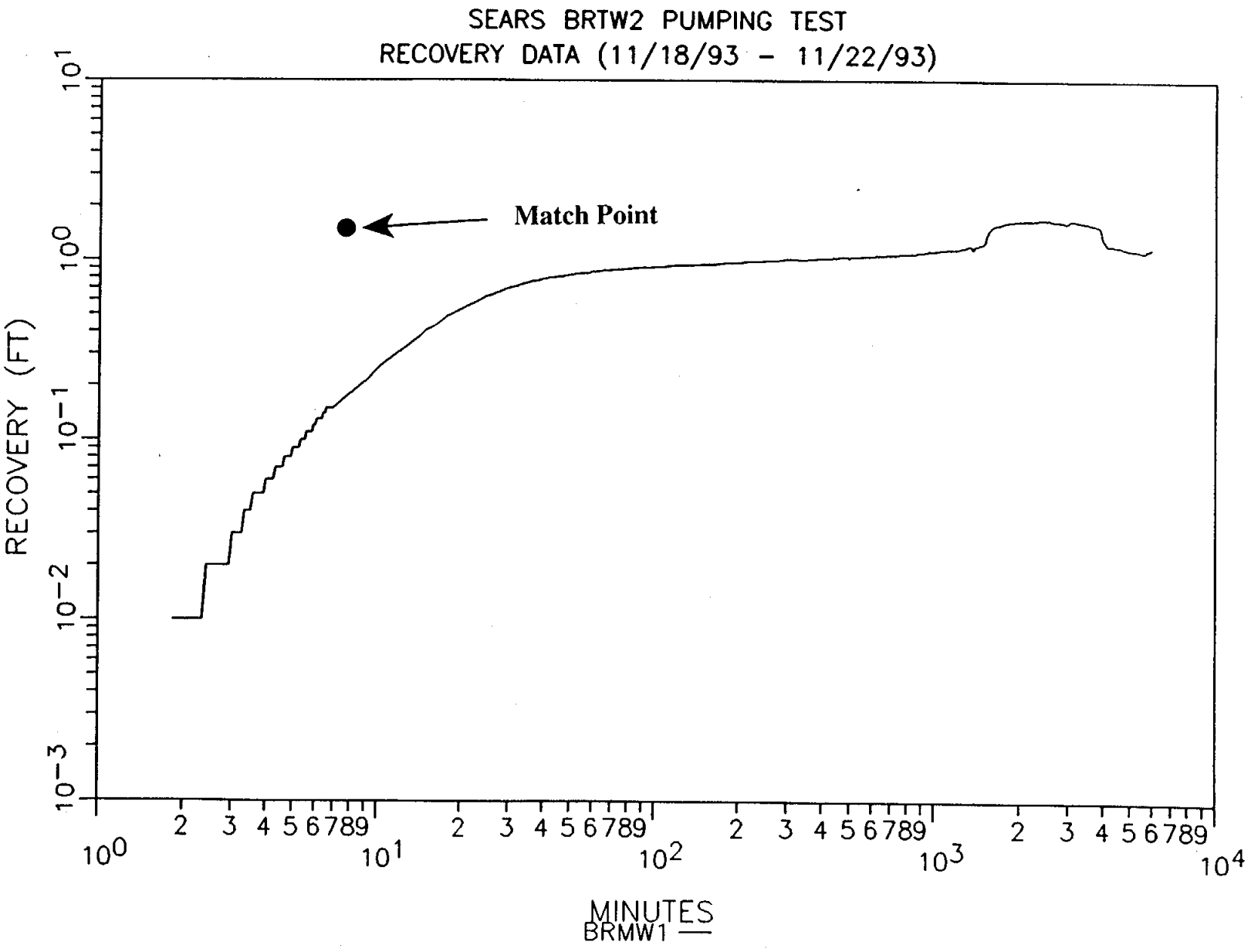
Sears Bedrock Recovery Test


Match Point
SEARS BRTW2 PUMPING TEST
RECOVERY DATA (11/18/93 - 11/22/93)
RECOVERY (FT)
MINUTES
BRTW2


SEARS BRTW2 PUMPING TEST
RECOVERY DATA (11/18/93 - 11/22/93)
Match Point
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
PT3-DA —


SEARS BRTW2 PUMPING TEST
RECOVERY DATA (11/18/93 - 11/22/93)
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
2 3 4 5 6 7 8 9
MINUTES
PT3-DB


SEARS BRTW2 PUMPING TEST
RECOVERY DATA (11/18/93 - 11/22/93)
RECOVERY (FT)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
OBMW1 —


SEARS BRTW2 PUMPING TEST
RECOVERY DATA (11/18/93 - 11/22/93)
Match Point
RECOVERY (FT)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
2 3 4 5 6 7 8 9
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
MINUTES
BRMW1