Formerly Utilized Sites
Remedial Action Program
(FUSRAP)

Maywood Chemical Company Superfund Site

ADMINISTRATIVE RECORD

Document Number

MISS-184

US Army Corps
of Engineers®
New York District

083912

Bechtel

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Job No. 14501, FUSRAP Project
DOE Contract No. DE-AC05-91OR21949
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U.S. Department of Energy
Field Office, Oak Ridge
P.O. Box 2001
Oak Ridge, TN 37831-8723

Attention: Susan M. Cange, Site Manager
Former Sites Restoration Division

Subject: Radiological Characterization of the Myron Manufacturing Property at 205 Maywood Avenue, Maywood, New Jersey

Dear Ms. Cange:

Enclosed for your transmittal to Mr. Michael Digiora of the New Jersey Department of Environmental Protection and Energy are information and data collected during the subject characterization.

The property was surveyed during the remedial investigation of the Maywood site because radiological contamination extended onto it from an adjacent, designated property, i.e., the Stepan Company property. For that reason, an access agreement was obtained from Myron Manufacturing, and a complete radiological characterization of the property performed.

Data from surface and subsurface soil sample analyses and downhole gamma logs collected during this investigation indicate radiological contamination above DOE guidelines in three areas on properties comprising the Myron facility. Two areas of surface contamination are indicated on opposing sides of West Hunter Avenue; one area being immediately adjacent to a parking area owned by the Stepan Company, and the other area being directly across the street at the corner of the Myron property and a residential property. Subsurface contamination was found in an area at the rear of the main building that is immediately east of the Stepan Company property in the area of Burial Pit No. 3.

One borehole, B3890C622, was drilled and sampled for chemical analysis. The borehole was not radiologically contaminated. All metals were either nondetected or were present at concentrations typical of background concentrations. Toxicity characteristic leaching procedure (TCLP) tests for metals, volatiles, semivolatiles, and pesticides produced no concentrations that exceeded regulatory guidelines. Analysis for reactivity and corrosivity produced no results that would classify the soil as a hazardous waste.

If you have any questions or need further information, please call me at 6-3997 or Nicke Ring at 6-0454.

Very truly yours,

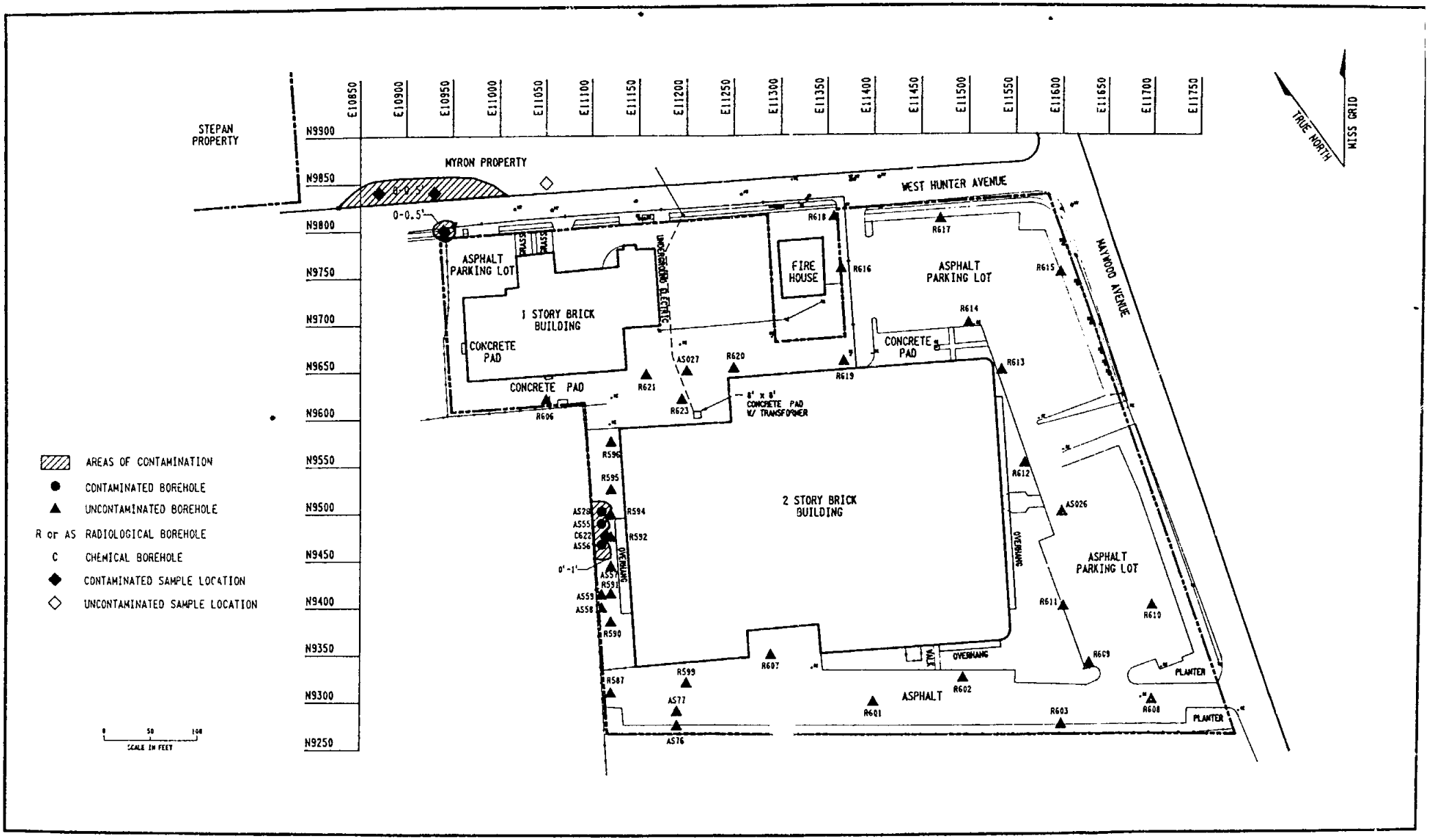
SD Liedle

S. D. Liedle
Project Manager - FUSRAP

SDL:rtn:0565
Enclosure: Letter to Mr. Michael Digiora, NJDEPE

cc: M. E. Redmon

Concurrence: MER



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AREAS OF SURFACE AND SUBSURFACE CONTAMINATION AT MYRON MANUFACTURING

Table F-13

Surface and Subsurface Radionuclide Concentrations in Soil, 205 Maywood Avenue

Coordinates East	Coordinates North	Depth	Uranium-238	Radium-226	Thorium-232
10870	9840	0.0 - 0.5	< 9.3	4.1 ± 0.9	1.3 ± 0.7
10930	9840	0.0 - 0.5	< 7.3	2.6 ± 0.8	9.8 ± 1.1
10955	9610	0.0 - 2.0	< 8.7	< 1.2	7.6 ± 1.6
		3.0 - 4.0	< 3.4	.5 ± 0.2	< .8
		7.0 - 8.0	< 4.7	< .9	1.5 ± 0.5
11050	9620	0.0 - 1.0	< 5.6	< 1.1	2.8 ± 0.7
		2.0 - 3.0	< 5.5	.8 ± 0.2	< 1.3
		5.0 - 6.0	< 5.4	< 1	1.9 ± 0.4
11100	9503	0.0 - 0.5	< 4.3	< .7	5.4 ± 1.2
		0.5 - 1.0	< 9.6	2.5 ± 0.6	31 ± 4.2
		1.0 - 1.5	< 5	< .1	4.5 ± 0.5
		1.5 - 2.0	< 4.1	< .8	3.5 ± 0.5
		2.0 - 2.5	< 3.1	1 ± 0.3	1.7 ± 0.4
		2.5 - 3.0	< 2.7	< .7	< 1
		3.0 - 3.5	< 2.1	.5 ± 0.2	1 ± 0.7
		3.5 - 4.0	< 2.6	< .5	1.1 ± 0.2
		4.0 - 4.5	< 3.2	< .7	1.3 ± 0.8
11110	9400	0.0 - 0.5	< 5.2	.7 ± 0.2	1.1 ± 0.3
		1.5 - 2.0	< 3.5	< .9	1.3 ± 0.6
		2.5 - 3.0	< 3.9	1 ± 0.8	< 1.3
11110	9414	0.0 - 0.5	< 6.1	.9 ± 0.3	1.3 ± 0.1
		1.5 - 2.0	< 4.1	1 ± 0.2	1.6 ± 0.7
		3.0 - 3.5	< 5.9	< 1.2	3.5 ± 1.6
11110	9468	0.0 - 0.5	< 3	< .6	< .6
		1.0 - 1.5	< 8.2	1.5 ± 0.7	4.2 ± 1.7
		1.5 - 2.0	< 6.4	< .9	3.6 ± 1.1
		2.5 - 3.0	< 4.7	< .7	< 1
		3.0 - 3.5	< 3.7	.7 ± 0.4	< .7
11110	9490	0.0 - 0.5	< 12.1	2.3 ± 0.7	18.1 ± 5.1
		1.0 - 1.5	< 6.8	1.5 ± 0.9	3.8 ± 1.4
		2.5 - 3.0	< 4.4	< .7	1 ± 0.1
		3.0 - 3.5	< 4.4	.7 ± 0.7	2.1 ± 1.1

Table F-13
(continued)

Coordinates East	Coordinates North	Depth	Uranium-238	Radium-226	Thorium-232
11120	9310	0.0 - 1.0	< 3.7	< .9	< 1
		6.0 - 7.0	< 6.6	1.9 ± 0.6	2.3 ± 1.3
		13.0 - 14.0	< 3.2	< .7	.7 ± 0.6
11120	9385	0.0 - 1.0	< 4.1	< .9	< 1.2
		2.0 - 3.0	< 4.1	< .9	2.7 ± 0.5
		9.0 - 10.0	< 3.2	< .7	< 1.1
11120	9415	0.0 - 1.0	< 4.3	.6 ± 0.2	.8 ± 0.1
		6.0 - 7.0	< 3.4	< .8	< 1
		9.0 - 10.0	< 3.6	< .8	< 1.1
11120	9475	0.0 - 1.0	< 3.6	< .8	< 1.4
		1.0 - 2.0	< 6.5	< 1.4	2.9 ± 2.7
		7.0 - 8.0	< 7.7	.9 ± 0.3	1.4 ± 0.2
11120	9498	0.0 - 1.0	< 3.8	.7 ± 0.1	.9 ± 0.4
		5.0 - 6.0	< 1.6	.6 ± 0.1	.9 ± 0.3
		7.0 - 8.0	< 3.5	.6 ± 0.4	.7 ± 0.5
11120	9525	0.0 - 1.0	< 2	.8 ± 0.4	.7 ± 0.4
		0.0 - 2.0	< 1.9	.6 ± 0.3	1 ± 0.4
		1.0 - 2.0	< 1.9	.8 ± 0.1	.9 ± 0.4
		5.0 - 6.0	< 1.8	.6 ± 0.1	.8 ± 0.3
		6.0 - 7.0	< 3.5	.6 ± 0.2	.6 ± 0.4
		7.0 - 8.0	< 1.4	.3 ± 0.1	.4 ± 0.3
11120	9575	0.0 - 1.0	< 3.2	.5 ± 0.3	.4 ± 0.4
		3.0 - 4.0	< 2	.6 ± 0.1	.8 ± 0.4
		5.0 - 6.0	< 2.7	.5 ± 0.3	.9 ± 0.3
11157	9646	0.0 - 1.0	< 3.9	< 1.2	1.8 ± 1.0
		2.0 - 3.0	< 2.5	< .6	< .9
		5.0 - 6.0	< 3.2	< .8	< 1.3
11190	9275	0.0 - 0.5	< 3.6	.8 ± 0.3	1.8 ± 0.4
		1.5 - 2.0	< 5.6	1.4 ± 0.5	3.3 ± 0.4

Table F-13
(continued)

Coordinates East	Coordinates North	Depth	Uranium-238	Radium-226	Thorium-232
11190	9275	3.5 - 4.0	< 3.4	.6 ± 0.2	.6 ± 0.4
11190	9290	0.0 - 0.5	< 2	.7 ± 0.2	.6 ± 0.4
		1.5 - 2.0	< 3.5	.9 ± 0.4	.9 ± 0.1
		3.0 - 3.5	< 8.1	1.6 ± 0.5	3.1 ± 0.9
11195	9620	0.0 - 1.0	< 9.1	1.4 ± 0.2	1.7 ± 0.5
		3.0 - 4.0	< 5.1	1.7 ± 0.2	2.5 ± 0.2
		5.0 - 6.0	< 5	1.5 ± 1.0	2.7 ± 1.6
11200	9320	0.0 - 2.0	< 4.3	1.1 ± 0.5	1 ± 0.5
		4.0 - 6.0	< 3.4	1.7 ± 0.3	1.6 ± 0.7
		9.0 - 10.0	< 2.1	.6 ± 0.3	.8 ± 0.4
11200	9650	0.5 - 1.0	< 3	< .7	1.3 ± 1.0
11250	9650	0.0 - 2.0	< 2.7	< .8	< 1.2
		6.0 - 7.0	< 3.1	< .8	1.4 ± 0.7
		7.0 - 8.0	< 2.4	< .6	< .8
11290	9350	0.0 - 2.0	< 4.4	< 1	2 ± 0.3
		6.0 - 7.0	< 4.7	.6 ± 0.1	.7 ± 0.3
		11.0 - 12.0	< 5.2	.8 ± 0.2	1.1 ± 0.5
11300	9275	0.0 - 1.0	< 3.2	.6 ± 0.2	.6 ± 0.3
		4.0 - 5.0	< 1.9	.8 ± 0.2	.9 ± 0.3
		6.0 - 8.0	2.5 ± 1.9	.8 ± 0.1	.6 ± 0.5
11300	9300	0.0 - 2.0	< 4	< .7	.8 ± 0.6
		2.0 - 2.5	< 3.3	1 ± 0.7	1.4 ± 0.5
		4.0 - 6.0	< 3.9	< .7	< 1
11357	9813	0.0 - 2.0	< 3.5	< 1	< 1.3
		5.0 - 6.0	< 2.5	< .7	< .9
		7.0 - 8.0	< 7.2	.8 ± 0.2	1 ± 0.2
11365	9758	0.0 - 2.0	< 3	< .9	< 1.3

Table F-13
(continued)

Coordinates East	Coordinates North	Depth	Uranium-238	Radium-226	Thorium-232
11365	9758	5.0 - 6.0	< 2.3	< .7	< .9
		7.0 - 8.0	< 9.7	.6 ± 0.2	.9 ± 0.3
11368	9660	0.0 - 1.0	< 3.4	< .8	2.2 ± 0.3
		2.0 - 3.0	< 2.4	.7 ± 0.2	1.2 ± 0.1
		6.0 - 8.0	< 2.2	.9 ± 0.3	1.3 ± 0.5
11470	9810	0.0 - 2.0	< 4.3	< 1	< 1.2
		4.0 - 5.0	< 4.1	< 1	< 1.6
		8.0 - 10.0	< 2.3	< .5	.9 ± 0.3
11495	9325	0.0 - 1.0	< 7.2	< 1.1	4.1 ± 1.3
		9.0 - 10.0	< 5.2	2 ± 0.3	2 ± 0.7
		12.0 - 14.0	< 3.1	< .6	.9 ± 0.4
11500	9700	0.0 - 1.0	< 3.2	< .9	< 1.3
		2.0 - 4.0	< 2.8	.8 ± 0.1	< 1.1
		7.0 - 8.0	< 3	< .9	1.2
11500	9750	0.0 - 0.5	< 3.5	< .6	.6 ± 0.4
11500	9800	0.0 - 0.5	< 5.3	1.1 ± 0.4	< 1
11535	9650	0.0 - 1.0	< 2.6	< .8	< 1
		3.0 - 4.0	<	< .8	< 1
11540	9510	0.0 - 0.5	< 5.7	1.6 ± 0.4	3.3 ± 1.4
11550	9275	7.0 - 8.0	< 3.9	.9 ± 0.3	< .9
		14.0 - 16.0	< 3.1	.6 ± 0.3	.9 ± 0.2
11560	9550	0.0 - 1.0	< 2.9	.8 ± 0.2	< .9
		2.0 - 4.0	< 2.7	.8 ± 0.1	< 1
		6.0 - 8.0	< 6.4	.8 ± 0.3	.9 ± 0.2
11598	9753	0.0 - 2.0	< 3	< .9	< 1.2
		4.0 - 6.0	< 4.5	1.6 ± 0.7	< 1.6

Table F-13
(continued)

Coordinates East	Coordinates North	Depth	Uranium-238	Radium-226	Thorium-232
11600	9500	2.0 - 2.5	< 5.2	.5 ± 0.2	1 ± 0.3
11602	9400	0.0 - 2.0	< 4.5	2 ± 0.8	< 1.5
		7.0 - 8.0	< 4.2	1.3 ± 0.3	1.5 ± 0.5
		11.0 - 12.0	< 6.4	.7 ± 0.1	.7 ± 0.2
11630	9340	0.0 - 2.0	< 2.5	< .6	< .7
		7.0 - 8.0	< 4.4	< .9	1.8 ± 0.8
		10.0 - 12.0	< 4.4	1.1 ± 0.3	< 1.3
11700	9300	0.0 - 2.0	< 5.6	.8 ± 0.1	.7 ± 0.2
		7.0 - 8.0	< 3.9	.5 ± 0.1	.8 ± 0.6
		11.0 - 12.0	< 4.8	.8 ± 0.2	1.2 ± 0.3
11700	9400	0.0 - 1.0	< 2.8	< .6	< .7
		5.0 - 6.0	< 3.3	< .7	< 1.1
		9.0 - 10.0	< 3.3	< .6	1.2

Table F-14
Downhole Gamma Logging Results,
205 Maywood Avenue

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole AS058			
11110	9400	0.5	7000
11110	9400	1.0	8000
11110	9400	1.5	9000
11110	9400	2.0	10000
11110	9400	2.5	8000
11110	9400	3.0	5000
Borehole AS059			
11110	9414	0.5	8000
11110	9414	1.0	11000
11110	9414	1.5	13000
11110	9414	2.0	16000
11110	9414	2.5	13000
11110	9414	3.0	14000
11110	9414	3.5	14000
Borehole AS056			
11110	9468	0.5	15000
11110	9468	1.0	38000
11110	9468	1.5	43000
11110	9468	2.0	20000
11110	9468	2.5	12000
11110	9468	3.0	10000
11110	9468	3.5	9000
11110	9468	4.0	9000
Borehole AS055			
11110	9490	0.5	24000
11110	9490	1.0	49000
11110	9490	1.5	26000
11110	9490	2.0	24000
11110	9490	2.5	11000
11110	9490	3.0	6000
11110	9490	3.5	5000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole AS028			
11110	9503	0.5	97000
11110	9503	1.0	87000
11110	9503	1.5	71000
11110	9503	2.0	31000
11110	9503	2.5	19000
11110	9503	3.0	12000
11110	9503	3.5	11000
11110	9503	4.0	10000
11110	9503	4.5	10000
Borehole B3890C622			
11115	9478	0.5	700
11115	9478	1.0	8000
11115	9478	1.5	9000
11115	9478	2.0	8000
11115	9478	2.5	8000
11115	9478	3.0	9000
11115	9478	3.5	9000
11115	9478	4.0	9000
11115	9478	4.5	10000
11115	9478	5.0	10000
11115	9478	5.5	10000
11115	9478	6.0	10000
Borehole B3890R587			
11120	9310	0.5	9000
11120	9310	1.0	11000
11120	9310	1.5	9000
11120	9310	2.0	11000
11120	9310	2.5	10000
11120	9310	3.0	9000
11120	9310	3.5	9000
11120	9310	4.0	11000
11120	9310	4.5	14000
11120	9310	5.0	16000
11120	9310	5.5	14000
11120	9310	6.0	14000
11120	9310	6.5	16000
11120	9310	7.0	13000
11120	9310	7.5	11000
11120	9310	8.0	11000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R587 (continued)			
11120	9310	8.5	11000
11120	9310	9.0	10000
11120	9310	9.5	9000
11120	9310	10.0	9000
11120	9310	10.5	9000
11120	9310	11.0	9000
11120	9310	11.5	9000
11120	9310	12.0	9000
11120	9310	12.5	9000
11120	9310	13.0	8000
11120	9310	13.5	8000
11120	9310	14.0	15000
Borehole B3890R590[d]			
11120	9385	0.5	9000
11120	9385	1.0	7000
11120	9385	1.5	10000
11120	9385	2.0	10000
11120	9385	2.5	11000
11120	9385	3.0	13000
11120	9385	3.5	19000
11120	9385	4.0	12000
11120	9385	4.5	12000
11120	9385	5.0	13000
11120	9385	5.5	11000
11120	9385	6.0	10000
11120	9385	6.5	10000
11120	9385	7.0	10000
11120	9385	7.5	10000
11120	9385	8.0	10000
11120	9385	8.5	10000
11120	9385	9.0	9000
11120	9385	9.5	11000
Borehole B3890R591[d]			
11120	9415	0.5	8000
11120	9415	1.0	8000
11120	9415	1.5	12000
11120	9415	2.0	13000
11120	9415	2.5	12000
11120	9415	3.0	1000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R591[d] (continued)			
11120	9415	3.5	11000
11120	9415	4.0	11000
11120	9415	4.5	1000
11120	9415	5.0	10000
11120	9415	5.5	9000
11120	9415	6.0	9000
11120	9415	6.5	9000
11120	9415	7.0	8000
11120	9415	7.5	8000
11120	9415	8.0	8000
11120	9415	8.5	8000
11120	9415	9.0	8000
Borehole AS057			
11120	9444	0.5	8000
11120	9444	1.0	10000
11120	9444	1.5	13000
Borehole B3890R593[d]			
11120	9475	0.5	9000
11120	9475	1.0	8000
11120	9475	1.5	11000
11120	9475	2.0	13000
11120	9475	2.5	17000
11120	9475	3.0	12000
11120	9475	3.5	10000
11120	9475	4.0	10000
11120	9475	4.5	10000
11120	9475	5.0	10000
11120	9475	5.5	10000
11120	9475	6.0	12000
11120	9475	6.5	11000
11120	9475	7.0	11000
Borehole B3890R594[d]			
11120	9498	0.5	8000
11120	9498	1.0	7000
11120	9498	1.5	10000
11120	9498	2.0	9000
11120	9498	2.5	10000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R594[d] (continued)			
11120	9498	3.0	11000
11120	9498	3.5	10000
11120	9498	4.0	10000
11120	9498	4.5	9000
11120	9498	5.0	10000
11120	9498	5.5	6000
11120	9498	6.0	8000
11120	9498	6.5	8000
11120	9498	7.0	9000
Borehole B3890R595[d]			
11120	9525	0.5	80[illegible]
11120	9525	1.0	8000
11120	9525	1.5	11000
11120	9525	2.0	10000
11120	9525	2.5	10000
11120	9525	3.0	10000
11120	9525	3.5	10000
11120	9525	4.0	9000
11120	9525	4.5	9000
11120	9525	5.0	9000
11120	9525	5.5	9000
Borehole B3890R596			
11120	9575	0.5	6000
11120	9575	1.0	7000
11120	9575	1.5	6000
11120	9575	2.0	5000
11120	9575	2.5	9000
11120	9575	3.0	10000
11120	9575	3.5	10000
11120	9575	4.0	10000
11120	9575	4.5	10000
11120	9575	5.0	10000
11120	9575	5.5	10000
11120	9575	6.0	9000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R592[d]			
11126	9475	0.5	8000
11126	9475	1.0	10000
11126	9475	1.5	12000
11126	9475	2.0	11000
11126	9475	2.5	12000
11126	9475	3.0	12000
11126	9475	3.5	10000
11126	9475	4.0	9000
11126	9475	4.5	10000
11126	9475	5.0	10000
11126	9475	5.5	10000
11126	9475	6.0	10000
11126	9475	6.5	10000
11126	9475	7.0	10000
11126	9475	7.5	10000
Borehole B3890R621[d]			
11157	9646	0.5	7000
11157	9646	1.0	9000
11157	9646	1.5	11000
11157	9646	2.0	11000
11157	9646	2.5	9000
11157	9646	3.0	8000
11157	9646	3.5	8000
11157	9646	4.0	8000
11157	9646	4.5	8000
11157	9646	5.0	7000
Borehole AS076			
11190	9275	0.5	12000
11190	9275	1.0	15000
11190	9275	1.5	13000
11190	9275	2.0	13000
11190	9275	2.5	11000
11190	9275	3.0	10000
11190	9275	3.5	10000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole AS077			
11190	9290	0.5	7000
11190	9290	1.0	7000
11190	9290	1.5	6000
11190	9290	2.0	12000
11190	9290	2.5	15000
11190	9290	3.0	18000
Borehole B3890R623[d]			
11195	9620	0.5	8000
11195	9620	1.0	9000
11195	9620	1.5	10000
11195	9620	2.0	9000
11195	9620	2.5	9000
11195	9620	3.0	9000
11195	9620	3.5	9000
11195	9620	4.0	9000
11195	9620	4.5	9000
11195	9620	5.0	9000
Borehole B3890R599[d]			
11200	9320	0.5	11000
11200	9320	1.0	9000
11200	9320	1.5	11000
11200	9320	2.0	12000
11200	9320	2.5	13000
11200	9320	3.0	15000
11200	9320	3.5	19000
11200	9320	4.0	19000
11200	9320	4.5	19000
11200	9320	5.0	17000
11200	9320	5.5	17000
11200	9320	6.0	16000
11200	9320	6.5	10000
11200	9320	7.0	8000
11200	9320	7.5	7000
11200	9320	8.0	6000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R620[d]			
11250	9653	0.5	6000
11250	9653	1.0	6000
11250	9653	1.5	7000
11250	9653	2.0	7000
11250	9653	2.5	7000
11250	9653	3.0	7000
11250	9653	3.5	8000
11250	9653	4.0	8000
11250	9653	4.5	8000
11250	9653	5.0	9000
11250	9653	5.5	900
11250	9653	6.0	8000
11250	9653	6.5	8000
11250	9653	7.0	10000
Borehole B3890R607[d]			
11290	9350	0.5	9000
11290	9350	1.0	10000
11290	9350	1.5	13000
11290	9350	2.0	12000
11290	9350	2.5	12000
11290	9350	3.0	8000
11290	9350	3.5	7000
11290	9350	4.0	6000
11290	9350	4.5	6000
11290	9350	5.0	6000
11290	9350	5.5	6000
11290	9350	6.0	7000
11290	9350	6.5	6000
11290	9350	7.0	6000
11290	9350	7.5	6000
11290	9350	8.0	7000
11290	9350	8.5	7000
11290	9350	9.0	6000
11290	9350	9.5	6000
11290	9350	10.0	6000
11290	9350	10.5	5000
11290	9350	11.0	6000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R600			
11300	9275	0.5	7000
11300	9275	1.0	7000
11300	9275	1.5	7000
11300	9275	2.0	8000
11300	9275	2.5	10000
11300	9275	3.0	13000
11300	9275	3.5	14000
11300	9275	4.0	12000
11300	9275	4.5	11000
11300	9275	5.0	11000
11300	9275	5.5	10000
11300	9275	6.0	10000
11300	9275	6.5	900
11300	9275	7.0	9000
Borehole B3890R618[d]			
11357	9813	0.5	9000
11357	9813	1.0	7000
11357	9813	1.5	5000
11357	9813	2.0	6000
11357	9813	2.5	5000
11357	9813	3.0	7000
11357	9813	3.5	6000
11357	9813	4.0	7000
11357	9813	4.5	7000
11357	9813	5.0	7000
11357	9813	5.5	7000
11357	9813	6.0	7000
11357	9813	6.5	7000
11357	9813	7.0	7000
11357	9813	7.5	7000
Borehole B3890R616[d]			
11365	9758	0.5	6000
11365	9758	1.0	5000
11365	9758	1.5	5000
11365	9758	2.0	7000
11365	9758	2.5	6000
11365	9758	3.0	3000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R616[d] (continued)			
11365	9758	3.5	5000
11365	9758	4.0	6000
11365	9758	4.5	7000
11365	9758	5.0	7000
11365	9758	5.5	7000
11365	9758	6.0	7000
11365	9758	6.5	7000
11365	9758	7.0	7000
11365	9758	7.5	6000
Borehole B3890R619[d]			
11368	9660	0.5	10000
11368	9660	1.0	12000
11368	9660	1.5	14000
11368	9660	2.0	14000
11368	9660	2.5	10000
11368	9660	3.0	7000
11368	9660	3.5	6000
11368	9660	4.0	6000
11368	9660	4.5	8000
11368	9660	5.0	8000
11368	9660	5.5	9000
11368	9660	6.0	10000
11368	9660	6.5	11000
Borehole B3890R601			
11400	9300	0.5	7000
11400	9300	0.5	7000
11400	9300	1.0	9000
11400	9300	1.0	9000
11400	9300	1.5	10000
11400	9300	1.5	10000
11400	9300	2.0	10000
11400	9300	2.0	10000
11400	9300	2.5	10000
11400	9300	2.5	10000
11400	9300	3.0	11000
11400	9300	3.0	11000
11400	9300	3.5	10000
11400	9300	3.5	10000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R601 (continued)			
11400	9300	4.0	10000
11400	9300	4.0	10000
11400	9300	4.5	9000
11400	9300	4.5	9000
Borehole B3890R617[d]			
11470	9810	0.5	3000
11470	9810	1.0	4000
11470	9810	1.5	6000
11470	9810	2.0	8000
11470	9810	2.5	8000
11470	9810	3.0	8000
11470	9810	3.5	8000
11470	9810	4.0	7000
11470	9810	4.5	7000
11470	9810	5.0	7000
11470	9810	5.5	8000
11470	9810	6.0	8000
11470	9810	6.5	8000
11470	9810	7.0	7000
11470	9810	7.5	9000
11470	9810	8.0	9000
Borehole B3890R602[d]			
11495	9325	0.5	6000
11495	9325	1.0	7000
11495	9325	1.5	7000
11495	9325	2.0	7000
11495	9325	2.5	7000
11495	9325	3.0	6000
11495	9325	3.5	6000
11495	9325	4.0	6000
11495	9325	4.5	6000
11495	9325	5.0	11000
11495	9325	5.5	11000
11495	9325	6.0	13000
11495	9325	6.5	11000
11495	9325	7.0	10000
11495	9325	7.5	8000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R602[d] (continued)			
11495	9325	8.0	7000
11495	9325	8.5	5000
11495	9325	9.0	6000
11495	9325	9.5	8000
11495	9325	10.0	7000
11495	9325	10.5	6000
11495	9325	11.0	6000
11495	9325	11.5	6000
11495	9325	12.0	5000
Borehole B3890R614[d]			
11500	9700	0.5	40[illegible]
11500	9700	1.0	6000
11500	9700	1.5	7000
11500	9700	2.0	7000
11500	9700	2.5	7000
11500	9700	3.0	7000
11500	9700	3.5	7000
11500	9700	4.0	7000
11500	9700	4.5	8000
11500	9700	5.0	9000
11500	9700	5.5	8000
11500	9700	6.0	8000
11500	9700	6.5	8000
11500	9700	7.0	7000
Borehole B3890R613[d]			
11535	9650	0.5	7000
11535	9650	1.0	8000
11535	9650	1.5	8000
11535	9650	2.0	8000
11535	9650	2.5	10000
11535	9650	3.0	11000
11535	9650	3.5	11000
Borehole B3890R612[d]			
11560	9550	0.5	6000
11560	9550	1.0	6000
11560	9550	1.5	8000
11560	9550	2.0	7000
11560	9550	2.5	4000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R612[d] (continued)			
11560	9550	3.0	2000
11560	9550	3.5	2000
11560	9550	4.0	4000
11560	9550	4.5	5000
11560	9550	5.0	6000
11560	9550	5.5	6000
11560	9550	6.0	6000
Borehole B3890R615[d]			
11598	9753	0.5	5000
11598	9753	1.0	50
11598	9753	1.5	5000
11598	9753	2.0	6000
11598	9753	2.5	9000
11598	9753	3.0	9000
Borehole B3890R603[d]			
11600	9275	0.5	6000
11600	9275	1.0	7000
11600	9275	1.5	8000
11600	9275	2.0	10000
11600	9275	2.5	9000
11600	9275	3.0	9000
11600	9275	3.5	9000
11600	9275	4.0	9000
11600	9275	4.5	9000
11600	9275	5.0	8000
11600	9275	5.5	7000
11600	9275	6.0	7000
11600	9275	6.5	7000
11600	9275	7.0	7000
11600	9275	7.5	7000
11600	9275	8.0	8000
11600	9275	8.5	7000
11600	9275	9.0	7000
11600	9275	9.5	7000
11600	9275	10.0	6000
11600	9275	10.5	8000
11600	9275	11.0	8000
11600	9275	11.5	7000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R603[d] (continued)			
11600	9275	12.0	7000
11600	9275	12.5	7000
11600	9275	13.0	7000
11600	9275	13.5	7000
11600	9275	14.0	7000
11600	9275	14.5	7000
11600	9275	15.0	6000
Borehole B3890R611[d]			
11602	9400	0.5	7000
11602	9400	1.0	5000
11602	9400	1.5	4000
11602	9400	2.0	3000
11602	9400	2.5	2000
11602	9400	3.0	2000
11602	9400	3.5	2000
11602	9400	4.0	2000
11602	9400	4.5	1000
11602	9400	5.0	2000
11602	9400	5.5	3000
11602	9400	6.0	4000
11602	9400	6.5	5000
11602	9400	7.0	8000
11602	9400	7.5	9000
11602	9400	8.0	10000
11602	9400	8.5	9000
11602	9400	9.0	9000
11602	9400	9.5	9000
Borehole B3890R609[d]			
11630	9340	0.5	5000
11630	9340	1.0	4000
11630	9340	1.5	4000
11630	9340	2.0	3000
11630	9340	2.5	2000
11630	9340	3.0	2000
11630	9340	3.5	2000
11630	9340	4.0	2000
11630	9340	4.5	3000
11630	9340	5.0	4000

Table F-14

(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R609[d] (continued)			
11630	9340	5.5	3000
11630	9340	6.0	4000
11630	9340	6.5	8000
11630	9340	7.0	10000
11630	9340	7.5	10000
11630	9340	8.0	10000
11630	9340	8.5	9000
11630	9340	9.0	9000
11630	9340	9.5	9000
11630	9340	10.0	1000
Borehole B3890R608[d]			
11700	9300	0.5	5000
11700	9300	1.0	5000
11700	9300	1.5	4000
11700	9300	2.0	4000
11700	9300	2.5	2000
11700	9300	3.0	2000
11700	9300	3.5	2000
11700	9300	4.0	2000
11700	9300	4.5	3000
11700	9300	5.0	4000
11700	9300	5.5	4000
11700	9300	6.0	4000
11700	9300	6.5	4000
11700	9300	7.0	4000
11700	9300	7.5	4000
11700	9300	8.0	5000
11700	9300	8.5	5000
11700	9300	9.0	6000
11700	9300	9.5	6000
11700	9300	10.0	6000
11700	9300	10.5	6000
11700	9300	11.0	8000
11700	9300	11.5	7000
Borehole B3890R610[d]			
11700	9400	0.5	6000
11700	9400	1.0	3000
11700	9400	1.5	2000
11700	9400	2.0	2000
11700	9400	2.5	2000

Table F-14
(continued)

Coordinates[a] East	Coordinates[a] North	Depth[b] (ft)	Count Rate[c] (cpm)
Borehole B3890R610[d] (continued)			
11700	9400	3.0	2000
11700	9400	3.5	2000
11700	9400	4.0	2000
11700	9400	4.5	4000
11700	9400	5.0	8000
11700	9400	5.5	9000
11700	9400	6.0	10000
11700	9400	6.5	10000
11700	9400	7.0	11000
11700	9400	7.5	11000
11700	9400	8.0	11000
11700	9400	8.5	11000
11700	9400	9.0	11000
11700	9400	9.5	10000

[a]Borehole locations are shown in Figure 4-44.

[b]The variations in depths of boreholes and corresponding results given in this table are based on the boreholes penetrating the contamination or the drill reaching refusal.

[c]Instrument used was 5.0- by 5.0-cm (2- by 2-in.) thallium-activated sodium iodide gamma scintillation detector.

[d]Bottom of borehole collapsed.

Sample ID No.	138-MWC-020		138-MWC-021		138-MWC-022	
Borehole ID No.	B3890C622		B3890C622		B3890C622	
Sample Depth (ft)	0 - 2		2 - 4		4 - 6	
Analyte						
Aluminum, Total	6080	=	3770	=	6080	=
Antimony, Total	12.5	U	12.1	U	12.4	U
Arsenic, Total	5.3	=	1.7	=	2.1	=
Barium, Total	109	=	40.4	U	42.4	=
Beryllium, Total	1.0	U	1.0	U	1.0	U
Boron, Total	20.8	U	20.2	U	20.6	U
Cadmium, Total	1.0	U	1.0	U	1.0	U
Calcium, Total	2360	=	1010	U	1030	U
Cerium, Total	41.6	U	40.4	U	41.3	U
Chromium, Total	6.9	=	4.4	=	6.8	=
Cobalt, Total	10.4	U	10.1	U	10.3	U
Copper, Total	101	J	11.3	J	31.9	=
Dysprosium, Total	41.6	U	40.4	U	41.3	U
Erbium, Total	41.6	U	40.4	U	41.3	U
Europium, Total	41.6	U	40.4	U	41.3	U
Gadolinium, Total	41.6	U	40.4	U	41.3	U
Holmium, Total	41.6	U	40.4	U	41.3	U
Iron, Total	13100	=	5930	=	9200	=
Lanthanum, Total	41.6	U	40.4	U	41.3	U
Lead, Total	455	=	6.0	=	31.1	=
Lithium, Total	20.8	U	20.2	U	20.6	U
Lutetium, Total	41.6	U	40.4	U	41.3	U
Magnesium, Total	1890	=	862	B	988	B
Manganese, Total	145	=	65.8	=	70.9	=
Molybdenum, Total	20.8	U	20.2	U	20.6	U
Neodemium, Total	41.6	U	40.4	U	41.3	U
Nickel, Total	8.6	=	8.1	U	8.3	U
Potassium, Total	1040	U	1010	U	1030	U
Praseodymium, Total	41.6	U	40.4	U	41.3	U
Samarium, Total	41.6	U	40.4	U	41.3	U
Selenium, Total	0.87	U	0.83	U	1.1	U
Silver, Total	2.1	U	2.0	U	2.1	U
Sodium, Total	1040	U	1010	U	1030	U
Tellurium, Total	41.6	U	40.4	U	41.3	U
Terbium, Total	41.6	U	40.4	U	41.3	U
Thallium, Total	1.7	U	1.7	U	2.1	U
Thulium, Total	41.6	U	40.4	U	41.3	U
Vanadium, Total	17.4	=	10.1	U	11.2	=
Ytterbium, Total	41.6	U	40.4	U	41.3	U
Zinc, Total	109	=	25.0	=	82.3	=

Concentration Units - mg/kg - milligrams per kilogram.

J - Analyte present. Reported value may or may not be accurate or precise.
U - The analyte was not detected. The minimum detection limit for the sample is reported.
= - No data qualifier required.
R - Unreliable result. Analyte may or may not be present in the sample.
B - The analyte was found in an associated blank as well as sample.

NOTE: Unreliable results identified as such mainly due to rejected matrix spike recovery and/or low (or high) CRDL recovery percentages.