DOE Oversight Bureau, New Mexico Environment Department

Groundwater Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill

Conducted by the
New Mexico Environment Department DOE Oversight Bureau
for FFY 2013 Q-2

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Final Report

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The purpose of this communication is to transmit groundwater data collected by NMED DOE Oversight Bureau from Mixed Waste Landfill groundwater monitoring wells during second quarter FFY 2013.

Acknowledgment:
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The New Mexico Environment Department (NMED) DOE Oversight Bureau (Bureau) compiled and assessed groundwater data collected during January and February 2013. The Bureau collected groundwater samples from Mixed Waste Landfill (MWL) groundwater monitoring wells MWL-BW2, MWL-MW4, MWL-MW5, MWL-MW6, MWL-MW7, MWLMW8, and MWL-MW9. Split samples were collected using standard Sandia National Laboratories/New Mexico (SNL/NM or Sandia) sampling procedures and equipment. The samples were submitted o an independent analytical laboratory for analysis of target analyte list (TAL) metals plus uranium, anions, nitrate-nitrite, volatile organic compounds (VOCs), gamma-emitting isotopes, gross alpha and beta, and isotopic uranium. No samples exceeded the U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs) during this sampling event.

Data Assessment

All groundwater samples were collected and analyzed in accordance with U.S. Environmental Protection Agency (EPA) protocols. Data results are compared to applicable maximum contaminant levels (MCLs) established by the EPA National Primary Drinking Water Regulations (40 CFR 141), National Primary Drinking Water Standards, EPA, July 2002.

Results

Analytical results for total unfiltered target analyte list (TAL) metals plus uranium and dissolved filtered TAL metals plus uranium are presented in Table-1 and Table-2, respectively. All metal concentrations were below established EPA MCLs.

The general chemistry analytical results are presented in Table-3. Samples were analyzed for anions (bromide, chloride, fluoride and sulfate) and nitrate-nitrite. No concentrations exceeded their established EPA MCL.

Table-4 summarizes detected volatile organic compounds (VOCs) results for groundwater samples collected during the FFY13 Q-2 sampling event. No VOCs were detected at concentrations above established MCLs. Tetrachloroethene and trichloroethene were the only VOCs detected above the laboratory method detection limit (MDL), but below reporting limits (RLs) or practical quantitation limits (PQLs). As a result, the concentration values reported by the laboratory are qualified with “J” as estimated concentrations. Tetrachloroethene and trichloroethene were detected in the sample taken from MWL-MW8 at concentrations of 0.23 µg/L and 0.23 µg/L, respectively. The laboratory method

detection limits for the remaining VOCs analyzed from MWL monitoring wells are presented in Table-5.

Analytical results for radionuclides are listed in Table-6. Samples were analyzed for gross alpha and beta, gamma-emitting isotopes, and tritium. No isotopes were detected above EPA MCLs.

Conclusion

Groundwater samples were collected from seven (7) monitoring wells during this sampling event at the Mixed Waste Landfill. Samples collected by the Oversight Bureau and analyzed by an independent laboratory show concentrations of metals, anions, radionuclides and VOCs below established EPA MCLs.

Table-1 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 29-Jan-13	Aluminum	0.055	NE	0.05	0.025		SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.001	U	SW-846:6020
	Barium	0.11	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	67	NE	0.05	0.03		SW-846:6020
	Chromium	0.0014	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.054	NE	0.05	0.025		SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	23	NE	0.05	0.025		SW-846:6020
	Manganese	0.016	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	4	NE	0.05	0.025		SW-846:6020
	Selenium	0.0027	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	58	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0071	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0034	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.0061	NE	0.005	0.004		SW-846:6020

B = Compound was found in the blank and sample.

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

* = LCS or LCSD exceeds the control limits

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-1 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW4 22-Feb-13	Aluminum	0.062	NE	0.05	0.025		SW-846:6020
	Antimony	0.00034	0.006	0.002	0.0002	J	SW-846:6020
	Arsenic	0.0075	0.01	0.002	0.001		SW-846:6020
	Barium	0.11	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	53	NE	0.05	0.03		SW-846:6020
	Chromium	0.15	0.1	0.002	0.001		SW-846:6020
	Cobalt	0.0065	NE	0.001	0.0006		SW-846:6020
	Copper	0.072	1.3	0.002	0.001	B	SW-846:6020
	Iron	6	NE	0.05	0.025		SW-846:6020
	Lead	0.0042	0.015	0.001	0.0006		SW-846:6020
	Magnesium	19	NE	0.05	0.025		SW-846:6020
	Manganese	0.16	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.52	NE	0.002	0.0001		SW-846:6020
	Potassium	5.1	NE	0.05	0.025		SW-846:6020
	Selenium	0.0014	0.05	0.002	0.001	J,*	SW-846:6020
	Silver	0.0033	NE	0.001	0.0003		SW-846:6020
	Sodium	49	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.07	NE	0.02	0.005		SW-846:6010B
	Uranium	0.0042	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.015	NE	0.01	0.003		SW-846:6020
	Zinc	0.34	NE	0.005	0.004		SW-846:6020

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Table-1 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW5 30-Jan-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0015	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.13	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	91	NE	0.05	0.03		SW-846:6020
	Chromium	0.001	0.1	0.002	0.001	U	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	32	NE	0.05	0.025		SW-846:6020
	Manganese	0.0095	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.7	NE	0.05	0.025		SW-846:6020
	Selenium	0.0029	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	70	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0094	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0055	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 31-Jan-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0013	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.12	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	87	NE	0.05	0.03		SW-846:6020
	Chromium	0.0011	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	30	NE	0.05	0.025		SW-846:6020
	Manganese	0.00061	NE	0.001	0.0004	J,^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.8	NE	0.05	0.025		SW-846:6020
	Selenium	0.004	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	66	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0095	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0049	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 31-Jan-13 DUP	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0018	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.12	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	89	NE	0.05	0.03		SW-846:6020
	Chromium	0.001	0.1	0.002	0.001	U	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	31	NE	0.05	0.025		SW-846:6020
	Manganese	0.00055	NE	0.001	0.0004	J,^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.9	NE	0.05	0.025		SW-846:6020
	Selenium	0.0033	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	69	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0096	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0067	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW7 7-Feb-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0012	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.11	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	56	NE	0.05	0.03		SW-846:6020
	Chromium	0.0013	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	20	NE	0.05	0.025		SW-846:6020
	Manganese	0.00096	NE	0.001	0.0004	J,^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.2	NE	0.05	0.025		SW-846:6020
	Selenium	0.001	0.05	0.002	0.001	U,*	SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	51	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0077	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0074	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U,*	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 6-Feb-13	Aluminum	0.046	NE	0.05	0.025	J	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.001	U	SW-846:6020
	Barium	0.13	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	56	NE	0.05	0.03		SW-846:6020
	Chromium	0.0022	0.1	0.002	0.001		SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.0017	1.3	0.002	0.001	J,B	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	20	NE	0.05	0.025		SW-846:6020
	Manganese	0.024	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.3	NE	0.05	0.025		SW-846:6020
	Selenium	0.001	0.05	0.002	0.001	U,*	SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	49	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0071	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.003	NE	0.01	0.003	U	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U,*	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW9 4-Feb-13	Aluminum	0.04	NE	0.05	0.025	J	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0029	0.01	0.002	0.001		SW-846:6020
	Barium	0.1	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	57	NE	0.05	0.03		SW-846:6020
	Chromium	0.0027	0.1	0.002	0.001		SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.027	NE	0.05	0.025	J	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	21	NE	0.05	0.025		SW-846:6020
	Manganese	0.0088	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.1	NE	0.05	0.025		SW-846:6020
	Selenium	0.002	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	51	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0093	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0064	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

B = Compound was found in the blank and sample.

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

* = LCS or LCSD exceeds the control limits

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 29-Jan-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.1	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0005	0.004	0.005	0.0005	D,U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	69	NE	0.05	0.03		SW-846:6020
	Chromium	0.001	0.1	0.002	0.001	U	SW-846:6020
	Cobalt	0.00092	NE	0.001	0.0006	J	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.13	NE	0.25	0.13	D,U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	22	NE	0.05	0.025		SW-846:6020
	Manganese	0.01	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.00012	NE	0.002	0.0001	J	SW-846:6020
	Potassium	4.2	NE	0.05	0.025		SW-846:6020
	Selenium	0.0036	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	58	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0067	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0056	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.01	NE	0.005	0.004		SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW4 22-Feb-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0017	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.1	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	54	NE	0.05	0.03		SW-846:6020
	Chromium	0.0012	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.0021	1.3	0.002	0.001		SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	19	NE	0.05	0.025		SW-846:6020
	Manganese	0.0035	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.16	NE	0.002	0.0001		SW-846:6020
	Potassium	5	NE	0.05	0.025		SW-846:6020
	Selenium	0.001	0.05	0.002	0.001	U	SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	47	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0053	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0061	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.046	NE	0.005	0.004		SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW5 30-Jan-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0012	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.13	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0005	0.004	0.005	0.0005	D,U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	93	NE	0.05	0.03		SW-846:6020
	Chromium	0.001	0.1	0.002	0.001	U	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.13	NE	0.25	0.13	D,U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	31	NE	0.05	0.025		SW-846:6020
	Manganese	0.0023	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.9	NE	0.05	0.025		SW-846:6020
	Selenium	0.0035	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	69	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.009	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.005	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 31-Jan-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0012	0.01	0.002	0.001	J	SW-846:6020
	Barium	0.12	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0005	0.004	0.005	0.0005	D,U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	91	NE	0.05	0.03		SW-846:6020
	Chromium	0.001	0.1	0.002	0.001	U	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.0016	1.3	0.002	0.001	J	SW-846:6020
	Iron	0.13	NE	0.25	0.13	D,U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	30	NE	0.05	0.025		SW-846:6020
	Manganese	0.0005	NE	0.001	0.0004	J,^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	6	NE	0.05	0.025		SW-846:6020
	Selenium	0.0028	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	67	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0091	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0066	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 31-Jan-13 DUP	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.001	U	SW-846:6020
	Barium	0.12	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0005	0.004	0.005	0.0005	D,U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	92	NE	0.05	0.03		SW-846:6020
	Chromium	0.0011	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.13	NE	0.25	0.13	D,U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	31	NE	0.05	0.025		SW-846:6020
	Manganese	0.00053	NE	0.001	0.0004	J,^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	6.1	NE	0.05	0.025		SW-846:6020
	Selenium	0.0032	0.05	0.002	0.001		SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	68	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0092	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0061	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW7 7-Feb-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.001	U	SW-846:6020
	Barium	0.1	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	54	NE	0.05	0.03		SW-846:6020
	Chromium	0.0011	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	20	NE	0.05	0.025		SW-846:6020
	Manganese	0.00064	NE	0.001	0.0004	J,^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	4.9	NE	0.05	0.025		SW-846:6020
	Selenium	0.001	0.05	0.002	0.001	U	SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	49	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.008	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0066	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.018	NE	0.005	0.004		SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 6-Feb-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.001	U	SW-846:6020
	Barium	0.14	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0001	0.004	0.001	0.0001	U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	55	NE	0.05	0.03		SW-846:6020
	Chromium	0.0017	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.0019	1.3	0.002	0.001	J	SW-846:6020
	Iron	0.025	NE	0.05	0.025	U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	20	NE	0.05	0.025		SW-846:6020
	Manganese	0.014	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.2	NE	0.05	0.025		SW-846:6020
	Selenium	0.0013	0.05	0.002	0.001	J	SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	49	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0076	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.003	NE	0.01	0.003	U	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-2 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals + U

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW9 4-Feb-13	Aluminum	0.025	NE	0.05	0.025	U	SW-846:6020
	Antimony	0.0002	0.006	0.002	0.0002	U	SW-846:6020
	Arsenic	0.0026	0.01	0.002	0.001		SW-846:6020
	Barium	0.098	2	0.001	0.0005		SW-846:6020
	Beryllium	0.0005	0.004	0.005	0.0005	D,U	SW-846:6020
	Cadmium	0.0005	0.005	0.001	0.0005	U	SW-846:6020
	Calcium	58	NE	0.05	0.03		SW-846:6020
	Chromium	0.0019	0.1	0.002	0.001	J	SW-846:6020
	Cobalt	0.0006	NE	0.001	0.0006	U	SW-846:6020
	Copper	0.001	1.3	0.002	0.001	U	SW-846:6020
	Iron	0.13	NE	0.25	0.13	D,U	SW-846:6020
	Lead	0.0006	0.015	0.001	0.0006	U	SW-846:6020
	Magnesium	20	NE	0.05	0.025		SW-846:6020
	Manganese	0.0022	NE	0.001	0.0004	^	SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.0001	U	SW-846:7470A
	Nickel	0.0001	NE	0.002	0.0001	U	SW-846:6020
	Potassium	5.1	NE	0.05	0.025		SW-846:6020
	Selenium	0.0014	0.05	0.002	0.001	J	SW-846:6020
	Silver	0.0003	NE	0.001	0.0003	U	SW-846:6020
	Sodium	49	NE	0.05	0.025		SW-846:6020
	Thallium	0.0005	0.002	0.001	0.0005	U	SW-846:6020
	Tin	0.005	NE	0.02	0.005	U	SW-846:6010B
	Uranium	0.0089	0.03	0.001	0.0002		SW-846:6020
	Vanadium	0.0075	NE	0.01	0.003	J	SW-846:6020
	Zinc	0.004	NE	0.005	0.004	U	SW-846:6020

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

U = Not detected at the reporting limit (or MDL or EDL if shown)

^ = ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Table-3 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Anions and Nitrate-Nitrite

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 29-Jan-13	Bromide	0.088	NE	0.5	0.088	U	SW-846:9056
	Chloride	68	NE	10	0.37	D	SW-846:9056
	Fluoride	0.71	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	2.1	10	0.25	0.027	D	EPA:353.2
	Sulfate	47	NE	10	0.49	D	SW-846:9056
MWL-MW4 22-Feb-13	Bromide	0.34	NE	0.5	0.088	J	SW-846:9056
	Chloride	61	NE	5	0.19	D	SW-846:9056
	Fluoride	0.91	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	2.1	10	0.1	0.011	D	EPA:353.2
	Sulfate	45	NE	1	0.049		SW-846:9056
MWL-MW5 30-Jan-13	Bromide	0.48	NE	0.5	0.088	J	EPA:300.0
	Chloride	92	NE	10	0.37	D	EPA:300.0
	Fluoride	0.75	4	0.5	0.059		EPA:300.0
	Nitrate Nitrite as N	1.3	10	0.05	0.0053		EPA:353.2
	Sulfate	57	NE	10	0.49	D	EPA:300.0
MWL-MW6 31-Jan-13	Bromide	0.43	NE	0.5	0.088	J	SW-846:9056
	Chloride	87	NE	10	0.37	D	SW-846:9056
	Fluoride	0.71	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	1.7	10	0.05	0.0053		EPA:353.2
	Sulfate	55	NE	10	0.49	D	SW-846:9056
MWL-MW6 31-Jan-13 DUP	Bromide	0.46	NE	0.5	0.088	J	SW-846:9056
	Chloride	86	NE	10	0.37	D	SW-846:9056
	Fluoride	0.7	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	1.7	10	0.05	0.0053		EPA:353.2
	Sulfate	55	NE	10	0.49	D	SW-846:9056
MWL-MW7 7-Feb-13	Bromide	0.088	NE	0.5	0.088	U	SW-846:9056
	Chloride	47	NE	5	0.19	D	SW-846:9056
	Fluoride	1.1	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	3.2	10	0.1	0.011	D	EPA:353.2
	Sulfate	38	NE	1	0.049		SW-846:9056
MWL-MW8 6-Feb-13	Bromide	0.088	NE	0.5	0.088	U	SW-846:9056
	Chloride	56	NE	5	0.19	D	SW-846:9056
	Fluoride	1	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	1.4	10	0.1	0.011	D	EPA:353.2
	Sulfate	39	NE	1	0.049		SW-846:9056
MWL-MW9 4-Feb-13	Bromide	0.28	NE	0.5	0.088	J	SW-846:9056
	Chloride	46	NE	5	0.19	D	SW-846:9056
	Fluoride	1	4	0.5	0.059		SW-846:9056
	Nitrate Nitrite as N	2	10	0.1	0.011	D	EPA:353.2
	Sulfate	39	NE	1	0.049		SW-846:9056

D = Dilution

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NE = Not Established

Table-4 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Detected Volatile Organic Compounds

Monitoring Well/ Sample Date	Analyte	Result (µg/L)	EPA MCL (µg/L)	Quantitation Limit (µg/L)	MDL (µg/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 6-Feb-13	Tetrachloroethene	0.23	5	1	0.1	J	SW-846:8260B
	Trichloroethene	0.23	5	1	0.13	J	SW-846:8260B
MWL-MW8 6-Feb-13 Dup	Tetrachloroethene	0.28	5	1	0.1	J	SW-846:8260B
	Trichloroethene	0.23	5	1	0.13	J	SW-846:8260B

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Table-5 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Method Detection Limits for Volatile Organic Compounds

Analyte	MDL (µg/L)	Analytical Method
4-Methyl-2-pentanone (MIBK)	0.18	SW-846:8260B
Acetone	2.1	SW-846:8260B
Benzene	0.13	SW-846:8260B
Bromodichloromethane	0.14	SW-846:8260B
Bromoform	0.1	SW-846:8260B
Bromomethane	0.29	SW-846:8260B
Butanone[2-]	0.35	SW-846:8260B
Carbon Disulfide	0.16	SW-846:8260B
Carbon Tetrachloride	0.15	SW-846:8260B
Chlorobenzene	0.12	SW-846:8260B
Chloroethane	0.34	SW-846:8260B
Chloroform	0.12	SW-846:8260B
Chloromethane	0.25	SW-846:8260B
Dibromochloromethane	0.13	SW-846:8260B
Dichloroethane[1,1-]	0.1	SW-846:8260B
Dichloroethane[1,2-]	0.22	SW-846:8260B
Dichloroethene[1,1-]	0.14	SW-846:8260B
Dichloroethene[cis-1,2-]	0.1	SW-846:8260B
Dichloroethene[trans-1,2-]	0.11	SW-846:8260B
Dichloropropane[1,2-]	0.15	SW-846:8260B
Dichloropropene[cis-1,3-]	0.22	SW-846:8260B
Dichloropropene[trans-1,3-]	0.08	SW-846:8260B
Ethylbenzene	0.1	SW-846:8260B
Hexanone[2-]	0.17	SW-846:8260B
Methylene Chloride	0.35	SW-846:8260B
Styrene	0.15	SW-846:8260B
Tetrachloroethane[1,1,2,2-]	0.09	SW-846:8260B
Tetrachloroethene	0.1	SW-846:8260B
Toluene	0.25	SW-846:8260B
Trichloroethane[1,1,1-]	0.19	SW-846:8260B
Trichloroethane[1,1,2-]	0.31	SW-846:8260B
Trichloroethene	0.13	SW-846:8260B
Vinyl acetate	0.21	SW-846:8260B
Vinyl Chloride	0.22	SW-846:8260B
Xylenes, Total	0.18	SW-846:8260B

Table-6 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Gamma Spectroscopy, Gross Alpha, Gross Beta and Tritium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 29-Jan-13	Actinium-228	-15.30	±	16	19.30	U	EPA:901.1M
	Beryllium-7	-10.10	±	21	35.80	U	EPA:901.1M
	Bismuth-212	35.50	±	31	55.40	U	EPA:901.1M
	Bismuth-214	-26.80	±	32	40.80	U	EPA:901.1M
	Cesium-134	-1.27	±	2.30	3.86	U	EPA:901.1M
	Cesium-137	-0.511	±	2.20	3.75	U	EPA:901.1M
	Cobalt-60	-1.15	±	2.20	3.75	U	EPA:901.1M
	Gross Alpha	9.18	±	4.20	4.96		EPA:900.0
	Gross Beta	8.25	±	2.30	3.00		EPA:900.0
	Lead-212	-6	±	5.90	6.70	U	EPA:901.1M
	Potassium-40	-300	±	94	128	U	EPA:901.1M
	Protactinium-234m	111	±	260	466	U	EPA:901.1M
	Sodium-22	-0.59	±	2.40	4.14	U	EPA:901.1M
	Tallium-208	-3.92	±	4.30	4.70	U	EPA:901.1M
	Thorium-234	111	±	260	466	U	EPA:901.1M
	Tritium	222	±	180	366	U	EPA:906.0
MWL-MW4 11-Feb-13	Actinium-228	-14.80	±	18	18.90	U	EPA:901.1M
	Beryllium-7	16.30	±	19	33.30	U	EPA:901.1M
	Bismuth-212	28.50	±	29	52	U	EPA:901.1M
	Bismuth-214	-14.30	±	30	37.30	U	EPA:901.1M
	Cesium-134	-0.881	±	2.40	4.02	U	EPA:901.1M
	Cesium-137	-0.346	±	2.10	3.55	U	EPA:901.1M
	Cobalt-60	0.115	±	2.20	3.82	U	EPA:901.1M
	Gross Alpha	8.24	±	4.20	5.27		EPA:900.0
	Gross Beta	10.20	±	2.70	3.40		EPA:900.0
	Lead-212	1.27	±	8.20	5.31	U	EPA:901.1M
	Potassium-40	-407	±	99	121	U	EPA:901.1M
	Protactinium-234m	190	±	260	468	U	EPA:901.1M
	Sodium-22	-2.86	±	2.30	3.68	U	EPA:901.1M
	Tallium-208	-3.81	±	4.30	4.57	U	EPA:901.1M
	Thorium-234	190	±	260	468	U	EPA:901.1M
	Tritium	173	±	180	368	U	EPA:906.0

U = Result is less than the sample detection limit.

Table-6 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Gamma Spectroscopy, Gross Alpha, Gross Beta and Tritium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-MW5 30-Jan-13	Actinium-228	-12.40	±	16	17	U	EPA:901.1M
	Beryllium-7	11.40	±	22	37.10	U	EPA:901.1M
	Bismuth-212	20.20	±	30	52.20	U	EPA:901.1M
	Bismuth-214	16.60	±	26	37.10	U	EPA:901.1M
	Cesium-134	0.294	±	2.30	4.00	U	EPA:901.1M
	Cesium-137	0.209	±	2.10	3.61	U	EPA:901.1M
	Cobalt-60	0.365	±	2.20	3.90	U	EPA:901.1M
	Gross Alpha	8.61	±	4.30	5.06		EPA:900.0
	Gross Beta	9.81	±	2.90	3.82		EPA:900.0
	Lead-212	-5.28	±	6	6.20	U	EPA:901.1M
	PB-210	243	±	190	237		EPA:901.1M
	Potassium-40	-184	±	72	102	U	EPA:901.1M
	Protactinium-234m	189.0	±	250	458	U	EPA:901.1M
	Sodium-22	0.804	±	2.30	4.07	U	EPA:901.1M
	Tallium-208	-2.11	±	4	4.33	U	EPA:901.1M
	Thorium-234	189	±	250	458	U	EPA:901.1M
	Tritium	258	±	180	371	U	EPA:906.0
MWL-MW6 31-Jan-13	Actinium-228	-13.10	±	16	18.80	U	EPA:901.1M
	Beryllium-7	11.60	±	21	36.10	U	EPA:901.1M
	Bismuth-212	15	±	31	53.40	U	EPA:901.1M
	Bismuth-214	-28.30	±	31	39	U	EPA:901.1M
	Cesium-134	2.39	±	2.40	4.30	U	EPA:901.1M
	Cesium-137	-0.809	±	2.10	3.47	U	EPA:901.1M
	Cobalt-60	-1.44	±	2.40	3.94	U	EPA:901.1M
	Gross Alpha	3.20	±	4.30	7.01	U	EPA:900.0
	Gross Beta	10.20	±	3.10	4.21		EPA:900.0
	Lead-212	-7.46	±	6	6.68	U	EPA:901.1M
	Potassium-40	-326	±	96	128	U	EPA:901.1M
	Protactinium-234m	241	±	260	471	U	EPA:901.1M
	Sodium-22	1.18	±	2.20	4.04	U	EPA:901.1M
	Tallium-208	-3.99	±	4.20	4.47	U	EPA:901.1M
	Thorium-234	241	±	260	471	U	EPA:901.1M
	Tritium	191	±	180	370	U	EPA:906.0

U = Result is less than the sample detection limit.

Table-6 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Gamma Spectroscopy, Gross Alpha, Gross Beta and Tritium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 31-Jan-13 DUP	Actinium-228	-26.60	±	19	19.20	U	EPA:901.1M
	Beryllium-7	-13.50	±	22	35.80	U	EPA:901.1M
	Bismuth-212	35.50	±	31	55.60	U	EPA:901.1M
	Bismuth-214	-20.30	±	32	40.90	U	EPA:901.1M
	Cesium-134	0.135	±	2.40	4.11	U	EPA:901.1M
	Cesium-137	-0.947	±	2.20	3.68	U	EPA:901.1M
	Cobalt-60	1.52	±	2.40	4.33	U	EPA:901.1M
	Gross Alpha	12	±	5.20	5.78		EPA:900.0
	Gross Beta	10.50	±	3.00	3.89		EPA:900.0
	Lead-212	-5.95	±	6.70	6.84	U	EPA:901.1M
	PB-210	300	±	170	280	U	EPA:901.1M
	Potassium-40	-318	±	98	132	U	EPA:901.1M
	Protactinium-234m	211	±	270	484	U	EPA:901.1M
	Sodium-22	-1.02	±	2.50	4.30	U	EPA:901.1M
	Tallium-208	-6.87	±	4.50	4.50	U	EPA:901.1M
	Thorium-234	211	±	270	484	U	EPA:901.1M
	Tritium	295	±	190	381	U	EPA:906.0
MWL-MW7 7-Feb-13	Actinium-228	-22	±	14	15.30	U	EPA:901.1M
	Beryllium-7	-0.542	±	18	29.60	U	EPA:901.1M
	Bismuth-212	9.35	±	27	46.90	U	EPA:901.1M
	Bismuth-214	24.60	±	16	29.80	U	EPA:901.1M
	Cesium-134	-0.238	±	2.20	3.69	U	EPA:901.1M
	Cesium-137	2.63	±	2	3.61	U	EPA:901.1M
	Cobalt-60	-0.408	±	2	3.48	U	EPA:901.1M
	Gross Alpha	8.10	±	3.50	3.46		EPA:900.0
	Gross Beta	7.72	±	2.10	2.77		EPA:900.0
	Lead-212	-4.73	±	5.60	6.02	U	EPA:901.1M
	Potassium-40	-238	±	71	94.70	U	EPA:901.1M
	Protactinium-234m	7.72	±	240	414	U	EPA:901.1M
	Sodium-22	0.568	±	2.20	3.83	U	EPA:901.1M
	Tallium-208	-3.81	±	3.90	3.92	U	EPA:901.1M
	Thorium-234	7.72	±	240	414	U	EPA:901.1M
	Tritium	167	±	180	371	U	EPA:906.0

U = Result is less than the sample detection limit.

Table-6 NMED DOE OB FFY 2013 Q-2 Mixed Waste Landfill Groundwater Quality Results: Gamma Spectroscopy, Gross Alpha, Gross Beta and Tritium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 6-Feb-13	Actinium-228	-30.40	±	19	18.30	U	EPA:901.1M
	Beryllium-7	11	±	20	35.30	U	EPA:901.1M
	Bismuth-212	25.60	±	30	53.30	U	EPA:901.1M
	Bismuth-214	-8.17	±	32	41.10	U	EPA:901.1M
	Cesium-134	0.293	±	2.40	4.15	U	EPA:901.1M
	Cesium-137	-1.67	±	2.20	3.69	U	EPA:901.1M
	Cobalt-60	-0.728	±	2.40	4.11	U	EPA:901.1M
	Gross Alpha	5.81	±	3.30	4.38		EPA:900.0
	Gross Beta	6.23	±	2.20	3.03		EPA:900.0
	Lead-212	-5.26	±	6.70	6.56	U	EPA:901.1M
	Potassium-40	-380	±	100	129	U	EPA:901.1M
	Protactinium-234m	147	±	250	450	U	EPA:901.1M
	Sodium-22	-0.843	±	2.60	4.40	U	EPA:901.1M
	Tallium-208	-6.47	±	4.50	4.56	U	EPA:901.1M
	Thorium-234	147	±	250	450	U	EPA:901.1M
	Tritium	190	±	180	370	U	EPA:906.0
MWL-MW9 4-Feb-13	Actinium-228	-10.90	±	14	17.30	U	EPA:901.1M
	Beryllium-7	1.04	±	19	32.60	U	EPA:901.1M
	Bismuth-212	27.60	±	29	50.40	U	EPA:901.1M
	Bismuth-214	38.80	±	17	33.20	U	EPA:901.1M
	Cesium-134	1.95	±	2.20	3.94	U	EPA:901.1M
	Cesium-137	-1.97	±	2.10	3.45	U	EPA:901.1M
	Cobalt-60	1.55	±	2.10	3.89	U	EPA:901.1M
	Gross Alpha	6.52	±	3.40	4.24		EPA:900.0
	Gross Beta	5.90	±	2.40	3.43		EPA:900.0
	Lead-212	0.321	±	7.00	5.12	U	EPA:901.1M
	Potassium-40	-263	±	73	95	U	EPA:901.1M
	Protactinium-234m	230	±	260	459	U	EPA:901.1M
	Sodium-22	0.823	±	2.20	3.88	U	EPA:901.1M
	Tallium-208	-4.11	±	4.10	4.09	U	EPA:901.1M
	Thorium-234	230	±	260	459	U	EPA:901.1M
	Tritium	86.80	±	170	367	U	EPA:906.0

U = Result is less than the sample detection limit.