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**Groundwater Monitoring at Sandia National Laboratories/New Mexico Technical Area-V
Conducted by NMED DOE OB for FFY 2011 Q-2**

The New Mexico Environment Department (NMED) DOE Oversight Bureau (Bureau) has compiled and assessed groundwater data collected during January 2011. The Bureau collected groundwater samples from Technical Area-V (TAV) groundwater monitoring wells TAV-MW11, TAV-MW12, TAV-MW13 and TAV-MW14. Split samples were collected using standard Sandia National Laboratories/New Mexico (SNL/NM) sampling procedures and equipment. Bureau samples were submitted to an independent analytical laboratory where they were analyzed for metals, non-metal inorganics, and organics. Trichloroethylene (TCE) was detected at or above the EPA MCL of 5 µg/L at monitoring wells TAV-MW12 and TAV-MW14.

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) from the EPA National Primary Drinking Water Regulations (40 CFR 141).

Currently there is no U.S. EPA National Primary Drinking Water MCL or State of New Mexico drinking water standard for perchlorate. However, perchlorate results are compared to the *Compliance Order on Consent (COOC) Pursuant to the New Mexico Hazardous Waste Act 74-4-10: Sandia National Laboratories Consent Order*, New Mexico Environment Department, April 19, 2004.

Results

Analytical results for total unfiltered Target Compound List (TAL) metals plus uranium and dissolved filtered TAL metals plus uranium are presented in Table-1 and Table-2. All metal concentrations were below established MCLs.

Analytical results for major anions, nitrate-nitrite as Nitrogen and perchlorate are presented in Table-3. No samples were detected above applicable MCLs or the COOC limit for perchlorate, which is 4 µg/L.

Analytical results for volatile organic compounds (VOCs) detected above the method detection limit (MDL) are presented in Table-4. Trichloroethylene (TCE) was detected above the EPA MCL of 5 µg/L at monitoring wells TAV-MW12 and TAV-MW14. Concentrations were 5 µg/L and 6.3 µg/L, respectively.

Response

Questions or comments should be addressed to Chris Armijo by phone at (505) 383-2070, by e-mail at chris.armijo1@state.nm.us, or to the address in the letterhead.

Enclosure: (1) Table-1 Total TAL Metals plus Uranium Results
 (2) Table-2 Dissolved TAL Metals plus Uranium Results
 (3) Table-3 Anions and Nitrate-Nitrite as Nitrogen Results
 (4) Table-4 Detected Volatile Organic Compounds Results

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File: SGE42.Groundwater Monitoring. TAV. FFY 2011 Q-2

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Table-1 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW11 6-Jan-11	Aluminum	0.055	NE	0.2	0.04	J	SW-846:6010B
	Antimony	0.00045	0.006	0.003	0.00023	J	SW-846:6020
	Arsenic	0.0015	0.01	0.001	0.00034		SW-846:6020
	Barium	0.075	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	51	NE	2	0.012		SW-846:6010B
	Chromium	0.0042	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.0002	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.001	1.3	0.001	0.00007		SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.000061	0.015	0.001	0.00006	J	SW-846:6020
	Magnesium	15	NE	2	0.04		SW-846:6010B
	Manganese	0.049	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7040
	Nickel	0.0027	NE	0.001	0.00017		SW-846:6020
	Potassium	3.8	NE	2	0.12		SW-846:6010B
	Selenium	0.0027	0.05	0.002	0.0012		SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	U	SW-846:6020
	Sodium	55	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.0031	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0058	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0033	NE	0.01	0.0033	U	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-1 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW12 19-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00023	0.006	0.003	0.00023	J	SW-846:6020
	Arsenic	0.001	0.01	0.001	0.00034		SW-846:6020
	Barium	0.083	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	54	NE	2	0.012		SW-846:6010B
	Chromium	0.0024	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00026	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.00094	1.3	0.001	0.00007	J	SW-846:6020
	Iron	0.054	NE	0.05	0.036		SW-846:6010B
	Lead	0.00015	0.015	0.001	0.00006	J	SW-846:6020
	Magnesium	18	NE	2	0.04		SW-846:6010B
	Manganese	0.11	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7040
	Nickel	0.0063	NE	0.001	0.00017		SW-846:6020
	Potassium	4.1	NE	2	0.12		SW-846:6010B
	Selenium	0.0012	0.05	0.002	0.0012	U	SW-846:6020
	Silver	0.000095	NE	0.001	0.00009	M2, J	SW-846:6020
	Sodium	57	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.005	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0034	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0033	NE	0.01	0.0033	U	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-1 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW12 19-Jan-11 DUP	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00023	0.006	0.003	0.00023	U	SW-846:6020
	Arsenic	0.001	0.01	0.001	0.00034		SW-846:6020
	Barium	0.082	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	56	NE	2	0.012		SW-846:6010B
	Chromium	0.0024	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00024	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.00086	1.3	0.001	0.00007	J	SW-846:6020
	Iron	0.059	NE	0.05	0.036		SW-846:6010B
	Lead	0.0001	0.015	0.001	0.00006	J	SW-846:6020
	Magnesium	19	NE	2	0.04		SW-846:6010B
	Manganese	0.11	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7040
	Nickel	0.0023	NE	0.001	0.00017		SW-846:6020
	Potassium	4.2	NE	2	0.12		SW-846:6010B
	Selenium	0.0012	0.05	0.002	0.0012	U	SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	U	SW-846:6020
	Sodium	59	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.005	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0034	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0033	NE	0.01	0.0033	U	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-1 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW13 10-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00023	0.006	0.003	0.00023	U	SW-846:6020
	Arsenic	0.0011	0.01	0.001	0.00034		SW-846:6020
	Barium	0.069	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	54	NE	2	0.012		SW-846:6010B
	Chromium	0.0012	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00015	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.001	1.3	0.001	0.00007		SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.00006	0.015	0.001	0.00006	U	SW-846:6020
	Magnesium	15	NE	2	0.04		SW-846:6010B
	Manganese	0.024	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7040
	Nickel	0.0033	NE	0.001	0.00017		SW-846:6020
	Potassium	4	NE	2	0.12		SW-846:6010B
	Selenium	0.0016	0.05	0.002	0.0012	J	SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	U	SW-846:6020
	Sodium	53	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.0042	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0038	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0033	NE	0.01	0.0033	U	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-1 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW14 20-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00027	0.006	0.003	0.00023	J	SW-846:6020
	Arsenic	0.0013	0.01	0.001	0.00034		SW-846:6020
	Barium	0.071	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	61	NE	2	0.012		SW-846:6010B
	Chromium	0.0026	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00024	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.0012	1.3	0.001	0.00007		SW-846:6020
	Iron	0.069	NE	0.05	0.036		SW-846:6010B
	Lead	0.00022	0.015	0.001	0.00006	J	SW-846:6020
	Magnesium	20	NE	2	0.04		SW-846:6010B
	Manganese	0.039	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7040
	Nickel	0.0024	NE	0.001	0.00017		SW-846:6020
	Potassium	4.7	NE	2	0.12		SW-846:6010B
	Selenium	0.0038	0.05	0.002	0.0012		SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	U	SW-846:6020
	Sodium	62	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.0049	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0037	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0057	NE	0.01	0.0033	J	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Dissolved TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW11 6-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00047	0.006	0.003	0.00023	J	SW-846:6020
	Arsenic	0.0017	0.01	0.001	0.00034		SW-846:6020
	Barium	0.078	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	51	NE	2	0.012		SW-846:6010B
	Chromium	0.0041	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00032	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.0016	1.3	0.001	0.00007		SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.00006	0.015	0.001	0.00006	U	SW-846:6020
	Magnesium	14	NE	2	0.04		SW-846:6010B
	Manganese	0.049	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7470
	Nickel	0.0039	NE	0.001	0.00017	M1, R-2	SW-846:6020
	Potassium	3.5	NE	2	0.12		SW-846:6010B
	Selenium	0.0058	0.05	0.002	0.0012		SW-846:6020
	Silver	0.00013	NE	0.001	0.00009	M2, J	SW-846:6020
	Sodium	49	NE	2	0.65		SW-846:6010B
	Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020
Uranium	0.003	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0061	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0052	NE	0.01	0.0033	J	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

R-2 = The RPD exceeded the acceptance limit.

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Dissolved TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW12 19-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00024	0.006	0.003	0.00023	J	SW-846:6020
	Arsenic	0.00093	0.01	0.001	0.00034	J	SW-846:6020
	Barium	0.083	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	58	NE	2	0.012		SW-846:6010B
	Chromium	0.002	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00022	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.00077	1.3	0.001	0.00007	J	SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.00031	0.015	0.001	0.00006	J	SW-846:6020
	Magnesium	19	NE	2	0.04		SW-846:6010B
	Manganese	0.11	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7470
	Nickel	0.0022	NE	0.001	0.00017		SW-846:6020
	Potassium	4.4	NE	2	0.12		SW-846:6010B
	Selenium	0.0012	0.05	0.002	0.0012	U	SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	M2, R-2	SW-846:6020
	Sodium	61	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.0051	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.003	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0033	NE	0.01	0.0033	U	SW-846:6020	

J = Result falls between the MDL and RL.

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Table-2 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Dissolved TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW12 19-Jan-11 DUP	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00023	0.006	0.003	0.00023	U	SW-846:6020
	Arsenic	0.00096	0.01	0.001	0.00034	J	SW-846:6020
	Barium	0.082	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	57	NE	2	0.012		SW-846:6010B
	Chromium	0.0021	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00021	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.00082	1.3	0.001	0.00007	J	SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.00018	0.015	0.001	0.00006	J	SW-846:6020
	Magnesium	19	NE	2	0.04		SW-846:6010B
	Manganese	0.11	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7470
	Nickel	0.0021	NE	0.001	0.00017		SW-846:6020
	Potassium	4.4	NE	2	0.12		SW-846:6010B
	Selenium	0.0012	0.05	0.002	0.0012	U	SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	U	SW-846:6020
	Sodium	61	NE	2	0.65		SW-846:6010B
Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020	
Uranium	0.0051	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.003	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0042	NE	0.01	0.0033	J	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

R-2 = The RPD exceeded the acceptance limit.

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Dissolved TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW13 10-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00023	0.006	0.003	0.00023	U	SW-846:6020
	Arsenic	0.0011	0.01	0.001	0.00034		SW-846:6020
	Barium	0.071	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	49	NE	2	0.012		SW-846:6010B
	Chromium	0.0011	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00017	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.00095	1.3	0.001	0.00007	J	SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.00006	0.015	0.001	0.00006	U	SW-846:6020
	Magnesium	14	NE	2	0.04		SW-846:6010B
	Manganese	0.025	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7470
	Nickel	0.0041	NE	0.001	0.00017		SW-846:6020
	Potassium	3.3	NE	2	0.12		SW-846:6010B
	Selenium	0.0049	0.05	0.002	0.0012		SW-846:6020
	Silver	0.00012	NE	0.001	0.00009	M2, J	SW-846:6020
	Sodium	52	NE	2	0.65		SW-846:6010B
	Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020
Uranium	0.0042	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0039	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0033	NE	0.01	0.0033	U	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

R-2 = The RPD exceeded the acceptance limit.

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Dissolved TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW14 20-Jan-11	Aluminum	0.04	NE	0.2	0.04	U	SW-846:6010B
	Antimony	0.00023	0.006	0.003	0.00023	U	SW-846:6020
	Arsenic	0.0012	0.01	0.001	0.00034		SW-846:6020
	Barium	0.073	2	0.001	0.00026		SW-846:6020
	Beryllium	0.0004	0.004	0.001	0.0004	U	SW-846:6010B
	Cadmium	0.00009	0.005	0.001	0.00009	U	SW-846:6020
	Calcium	65	NE	2	0.012		SW-846:6010B
	Chromium	0.0024	0.1	0.001	0.00023		SW-846:6020
	Cobalt	0.00019	NE	0.001	0.00005	J	SW-846:6020
	Copper	0.00098	1.3	0.001	0.00007	J	SW-846:6020
	Iron	0.036	NE	0.05	0.036	U	SW-846:6010B
	Lead	0.00006	0.015	0.001	0.00006	U	SW-846:6020
	Magnesium	20	NE	2	0.04		SW-846:6010B
	Manganese	0.037	NE	0.005	0.00007		SW-846:6020
	Mercury	0.000089	0.002	0.0005	0.000089	U	SW-846:7470
	Nickel	0.0025	NE	0.001	0.00017		SW-846:6020
	Potassium	4	NE	2	0.12		SW-846:6010B
	Selenium	0.0017	0.05	0.002	0.0012	J	SW-846:6020
	Silver	0.00009	NE	0.001	0.00009	M2,U	SW-846:6020
	Sodium	57	NE	2	0.65		SW-846:6010B
	Thallium	0.00012	0.002	0.001	0.00012	U	SW-846:6020
Uranium	0.0046	0.03	0.001	0.00005		SW-846:6020	
Vanadium	0.0038	NE	0.001	0.00019		SW-846:6020	
Zinc	0.0047	NE	0.01	0.0033	J	SW-846:6020	

J = Result falls between the MDL and RL.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

NE = Not Established

R-2 = The RPD exceeded the acceptance limit.

U = Analyte not detected at or above the reporting limit or MDL

Table-3 NMED DOE OB FFY 2011 Q-2 Technical Area-V Groundwater Quality Results: Anions, Nitrate-Nitrite as Nitrogen and Perchlorate

Monitoring Well/ Sample Date	Analyte	Result	EPA MCL	Quantitation Limit	MDL	Units	Laboratory Qualifier	Analytical Method
TAV-MW11 6-Jan-11	Bromide	0.4	NE	0.5	0.077	mg/L	J	EPA:300
	Chloride	38	NE	2	0.056	mg/L		EPA:300
	Fluoride	1.3	4	0.4	0.026	mg/L		EPA:300
	Nitrate-Nitrite as N	6	10	2	0.27	mg/L		EPA:300.0
	Perchlorate	1.2	NE	2	0.47	ug/L	J	EPA:314.0
	Sulfate	47	NE	2	0.091	mg/L		EPA:300
TAV-MW12 19-Jan-11	Bromide	0.26	NE	0.5	0.077	mg/L	J	EPA:300
	Chloride	39	NE	2	0.056	mg/L		EPA:300
	Fluoride	1.3	4	0.4	0.026	mg/L		EPA:300
	Nitrate-Nitrite as N	4.4	10	2	0.27	mg/L		EPA:300.0
	Perchlorate	0.47	NE	2	0.47	ug/L	U	EPA:314.0
	Sulfate	51	NE	2	0.091	mg/L		EPA:300
TAV-MW12 19-Jan-11 DUP	Bromide	0.27	NE	0.5	0.077	mg/L	J	EPA:300
	Chloride	39	NE	2	0.056	mg/L		EPA:300
	Fluoride	1.3	4	0.4	0.026	mg/L		EPA:300
	Nitrate-Nitrite as N	4.5	10	2	0.27	mg/L		EPA:300.0
	Perchlorate	0.47	NE	2	0.47	ug/L	U	EPA:314.0
	Sulfate	51	NE	2	0.091	mg/L		EPA:300
TAV-MW13 10-Jan-11	Bromide	0.2	NE	0.5	0.077	mg/L	J	EPA:300
	Chloride	17	NE	2	0.056	mg/L		EPA:300
	Fluoride	1.2	4	0.4	0.026	mg/L		EPA:300
	Nitrate-Nitrite as N	4.7	10	2	0.27	mg/L		EPA:300.0
	Perchlorate	0.47	NE	2	0.47	ug/L	U	EPA:314.0
	Sulfate	56	NE	2	0.091	mg/L		EPA:300
TAV-MW14 20-Jan-11	Bromide	0.34	NE	0.5	0.077	mg/L	J	EPA:300
	Chloride	54	NE	2	0.056	mg/L		EPA:300
	Fluoride	1.2	4	0.4	0.026	mg/L		EPA:300
	Nitrate-Nitrite as N	6.6	10	2	0.27	mg/L		EPA:300.0
	Perchlorate	0.47	NE	2	0.47	ug/L	U	EPA:314.0
	Sulfate	56	NE	2	0.091	mg/L		EPA:300

J = Result falls between the MDL and RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-4 NMED DOE OB FFY 2011 Q-2 Technical Area-V 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
TAV-MW11 6-Jan-11	Dichloroethene[cis-1,2-]	0.22	70	1	0.18	J	SW-846:8260B
	Trichloroethylene	1.9	5	1	0.19		SW-846:8260B
TAV-MW12 19-Jan-11	Carbon Disulfide	0.31	NE	1	0.18	J	SW-846:8260B
	Dichloroethene[cis-1,2-]	0.28	70	1	0.18	J	SW-846:8260B
	Trichloroethylene	5	5	1	0.19		SW-846:8260B
TAV-MW12 19-Jan-11 DUP	Trichloroethylene	4.8	5	1	0.19		SW-846:8260B
TAV-MW14 20-Jan-11	Dichloroethene[cis-1,2-]	0.73	70	1	0.18	J	SW-846:8260B
	Trichloroethylene	6.3	5	1	0.19		SW-846:8260B

J = Result falls between the MDL and RL.

NE = Not Established