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December 2, 2008

Gayle Dye, Ph.D.  
POC, NNSA, DOE  
P.O Box 5400  
Albuquerque, New Mexico 87185-5400

**Subject: NMED/DOE-OB Data Submittal for Groundwater Monitoring at Sandia National Laboratories, Third Quarter FFY 2008**

Dear Dr. Dye:

The DOE Oversight Bureau (Bureau) of the New Mexico Environment Department (NMED) has compiled groundwater data from third quarter FFY 2008. The Bureau collected groundwater samples at Chemical Waste Landfill (CWL) monitoring wells CWL-MW2BL, -BW4A, -MW5L, -MW5U, -MW6U, and -MW4; Burn Site monitoring well CYN-MW6; and Mixed Waste Landfill (MWL) monitoring wells MWL-BW2, -MW4, -MW5, and -MW6. The samples were submitted to an independent analytical laboratory for metals, organics, inorganics, and radiochemical analyses.

Data Assessment

Data results are compared to applicable Maximum Allowable Concentrations (MAC) from the New Mexico Water Quality Control Commission (WQCC) (20.6.2.3103A NMAC Human Health Standards) and Maximum Contaminant Levels (MCL) from the EPA National Primary Drinking Water Regulations (40 CFR 141).

Total (unfiltered) and dissolved (filtered) Target Analyte List (TAL) metals are listed in Table-1. All metal concentrations were below established regulatory standards.

Non-metallic inorganic compounds are listed in Table-2. Samples were analyzed for major anions, nitrate plus nitrite (NPN) and perchlorate. All anion concentrations were below established MCLs. The NPN concentration was detected above the MCL of 10 mg/L at Burn Site monitoring well CYN-MW6, at a concentration of 29 mg/L. The perchlorate concentration at CYN-MW6 was 5.9 µg/L, which exceeds the NMED Consent Order of Compliance screening level of 4.0 µg/L. Perchlorate was also detected at monitoring well MWL-BW2, but the concentration was below the NMED screening level. No federal or state of New Mexico MCL currently exists for perchlorate in groundwater.

Gross alpha/beta activities and radionuclide activities using gamma spectroscopy are listed in Table-3. All radionuclide activities were below established MCLs. Gross alpha activity at all monitoring wells was below the MCL of 15 pCi/L. Gross alpha activity ranged from  $6.4 \pm 1.3$  pCi/L at MWL-MW4 to  $13 \pm 2.5$  pCi/L at MWL-MW5.

Organic compounds, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), diesel-range organics (DRO), and gasoline-range organics (GRO) were analyzed using appropriate SW-846 methods. No organic compound concentrations were detected above their associated MCLs. Organic compound concentrations detected above the method detection limit are listed in Table-4.

### Conclusion

The NPN concentrations exceeded the MCL of 10 mg/L at monitoring well CYN-MW6. The NPN concentrations at CYN-MW6 have consistently exceeded the MCL. Trending analysis from previous sampling events indicates that NPN concentrations have been increasing over time. The Bureau recommends that SNL/NM continue monitoring this well for NPN.

Perchlorate was detected above the NMED screening level of 4.0  $\mu$ g/L at monitoring CYN-MW6. Perchlorate concentrations at CYN-MW6 have consistently been above the SNL/NM screening during the life of the well. The Bureau recommends that SNL/NM continue to sample for perchlorate at CYN-MW6.

The monitoring results are provided to DOE for review and comment prior to their release as final to other State of New Mexico and federal agencies, the Pueblos, the NMED website and interested members of the public. If you have any questions, or if you would like copies of the complete data set, please contact Chris Armijo at (505)845-5824 or contact me at (505)845-5933.

Sincerely,



Barry S. Birch, CHMM  
Program Manager  
Sandia Oversight Section

BSB:ca

Enclosure: (1) Table-1 TAL Metals Results  
(2) Table-2 Non-Metal Inorganic Results  
(3) Table-3 Gross Alpha/Beta and Gamma Spectroscopy Results  
(4) Table-4 Organics Results

cc: Karen Agogino, DOE/SSO  
John Gould, DOE/SSO  
Franz Lauffer, SNL/NM GWPP  
Michael Skelly, SNL/NM Groundwater  
Thomas Skibitski, Chief, DOE OB  
Chris Armijo, Environmental Scientist, DOE OB

File: 5680.16

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-BW3 9-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.049	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.0027	0.000042	0.0003	0.01	0.005		MG/L	SW-846:6020
	UF	Calcium	59	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.011	5.10E-07	0.005	0.05	0.1		MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.12	0.0000083	0.05	1	NE		MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	18	0.0000075	0.5	NE	NE		MG/L	SW-846:6010
	UF	Manganese	0.0044	1.50E-07	0.002	0.2	NE		MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.055	5.90E-07	0.005	0.2	NE		MG/L	SW-846:6010
UF	Potassium	8	0.000029	0.5	NE	NE		MG/L	SW-846:6010	
UF	Selenium	0.0013	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	MG/L	SW-846:6020	
UF	Sodium	98	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.0052	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.029	0.0000044	0.005	10	NE		MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-BW4A 2-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.0013	0.000041	0.0003	NE	0.006		MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.056	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.00031	0.000042	0.0003	0.01	0.005		MG/L	SW-846:6020
	UF	Calcium	120	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.005	5.10E-07	0.005	0.05	0.1	U	MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.05	0.0000083	0.05	1	NE	U,N	MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	29	0.0000075	0.5	NE	NE		MG/L	SW-846:6010
	UF	Manganese	0.002	1.50E-07	0.002	0.2	NE	U	MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.005	5.90E-07	0.005	0.2	NE	U	MG/L	SW-846:6010
	UF	Potassium	8.1	0.000029	0.5	NE	NE	E	MG/L	SW-846:6010
UF	Selenium	0.0013	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	MG/L	SW-846:6020	
UF	Sodium	84	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.013	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.011	0.0000044	0.005	10	NE		MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NIMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW2BL 10-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.061	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.0003	0.000042	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	UF	Calcium	130	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.005	5.10E-07	0.005	0.05	0.1	U	MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.05	0.0000083	0.05	1	NE	U	MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	37	0.0000075	0.5	NE	NE	U	MG/L	SW-846:6010
	UF	Manganese	0.002	1.50E-07	0.002	0.2	NE	U	MG/L	SW-846:6010
UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470	
UF	Nickel	0.005	5.90E-07	0.005	0.2	NE	U	MG/L	SW-846:6010	
UF	Potassium	8.1	0.000029	0.5	NE	NE		MG/L	SW-846:6010	
UF	Selenium	0.0014	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	MG/L	SW-846:6020	
UF	Sodium	80	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.015	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.005	0.0000044	0.005	10	NE	U	MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW4 17-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	Mg/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	Mg/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	Mg/L	SW-846:6020
	UF	Barium	0.058	0.0000001	0.002	1	2		Mg/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	Mg/L	SW-846:6010
	UF	Cadmium	0.0003	0.000042	0.0003	0.01	0.005	U	Mg/L	SW-846:6020
	UF	Calcium	110	0.000014	0.5	NE	NE		Mg/L	SW-846:6010
	UF	Chromium	0.005	5.10E-07	0.005	0.05	0.1	U	Mg/L	SW-846:6010
	UF	Cobalt	0.0023	3.10E-07	0.002	0.05	NE		Mg/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	Mg/L	SW-846:6010
	UF	Iron	0.32	0.0000083	0.05	1	NE		Mg/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	Mg/L	SW-846:6020
	UF	Magnesium	29	0.0000075	0.5	NE	NE		Mg/L	SW-846:6010
	UF	Manganese	0.032	1.50E-07	0.002	0.2	NE		Mg/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	Mg/L	SW-846:7470
	UF	Nickel	0.27	5.90E-07	0.005	0.2	NE		Mg/L	SW-846:6010
	UF	Potassium	11	0.000029	0.5	NE	NE		Mg/L	SW-846:6010
UF	Selenium	0.0015	0.00011	0.001	0.05	0.05		Mg/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	Mg/L	SW-846:6020	
UF	Sodium	69	0.000006	0.5	NE	NE		Mg/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	Mg/L	SW-846:6020	
UF	Uranium	0.012	0.0000074	0.0001	0.03	0.03		Mg/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	Mg/L	SW-846:6010	
UF	Zinc	0.005	0.0000044	0.005	10	NE	U	Mg/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NIMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW4 (DUP) 17-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.059	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.0003	0.000042	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	UF	Calcium	110	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.083	5.10E-07	0.005	0.05	0.1		MG/L	SW-846:6010
	UF	Cobalt	0.0032	3.10E-07	0.002	0.05	NE		MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.74	0.0000083	0.05	1	NE		MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	29	0.0000075	0.5	NE	NE		MG/L	SW-846:6010
	UF	Manganese	0.043	1.50E-07	0.002	0.2	NE		MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.32	5.90E-07	0.005	0.2	NE		MG/L	SW-846:6010
	UF	Potassium	11	0.000029	0.5	NE	NE		MG/L	SW-846:6010
UF	Selenium	0.0015	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	MG/L	SW-846:6020	
UF	Sodium	68	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.012	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.005	0.0000044	0.005	10	NE	U	MG/L	SW-846:6010	



**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW5L 5-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.062	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.0003	0.000042	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	UF	Calcium	120	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.005	5.10E-07	0.005	0.05	0.1	U	MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.05	0.0000083	0.05	1	NE	U	MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	36	0.0000075	0.5	NE	NE		MG/L	SW-846:6010
	UF	Manganese	0.002	1.50E-07	0.002	0.2	NE	U	MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.005	5.90E-07	0.005	0.2	NE	U	MG/L	SW-846:6010
	UF	Potassium	7.9	0.000029	0.5	NE	NE		MG/L	SW-846:6010
UF	Selenium	0.0016	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.00014	0.000014	0.0001	0.05	NE		MG/L	SW-846:6020	
UF	Sodium	78	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.014	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.005	0.0000044	0.005	10	NE	U	MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM/MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW5U 16-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.00069	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.072	0.0000001	0.002	1	2	U	MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.00053	0.000042	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	UF	Calcium	98	0.000014	0.5	NE	NE	U	MG/L	SW-846:6010
	UF	Chromium	0.005	5.10E-07	0.005	0.05	0.1	U	MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.0066	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.05	0.0000083	0.05	1	NE	U	MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	26	0.0000075	0.5	NE	NE	U	MG/L	SW-846:6010
	UF	Manganese	0.002	1.50E-07	0.002	0.2	NE	U	MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.005	5.90E-07	0.005	0.2	NE	U	MG/L	SW-846:6010
UF	Potassium	11	0.000029	0.5	NE	NE	U	MG/L	SW-846:6010	
UF	Selenium	0.0016	0.00011	0.001	0.05	0.05	U	MG/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	MG/L	SW-846:6020	
UF	Sodium	73	0.000006	0.5	NE	NE	U	MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.0049	0.0000074	0.0001	0.03	0.03	U	MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.044	0.0000044	0.005	10	NE	U	MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW6L 12-Jun-08	UF	Aluminum	0.28	0.000014	0.1	5	NE		MG/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.057	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.0003	0.000042	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	UF	Calcium	120	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.0082	5.10E-07	0.005	0.05	0.1		MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.28	0.0000083	0.05	1	NE		MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	35	0.0000075	0.5	NE	NE		MG/L	SW-846:6010
	UF	Manganese	0.0036	1.50E-07	0.002	0.2	NE		MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.005	5.90E-07	0.005	0.2	NE	U	MG/L	SW-846:6010
	UF	Potassium	7.7	0.000029	0.5	NE	NE		MG/L	SW-846:6010
UF	Selenium	0.0015	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.0001	0.000014	0.0001	0.05	NE	U	MG/L	SW-846:6020	
UF	Sodium	75	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.013	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.005	0.0000044	0.005	10	NE	U	MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-MW6U 4-Jun-08	UF	Aluminum	0.1	0.000014	0.1	5	NE	U	MG/L	SW-846:6010
	UF	Antimony	0.0003	0.000041	0.0003	NE	0.006	U	MG/L	SW-846:6020
	UF	Arsenic	0.002	0.00011	0.002	0.1	0.01	U	MG/L	SW-846:6020
	UF	Barium	0.073	0.0000001	0.002	1	2		MG/L	SW-846:6010
	UF	Beryllium	0.001	1.30E-07	0.001	NE	0.004	U	MG/L	SW-846:6010
	UF	Cadmium	0.0003	0.000042	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	UF	Calcium	110	0.000014	0.5	NE	NE		MG/L	SW-846:6010
	UF	Chromium	0.005	5.10E-07	0.005	0.05	0.1	U	MG/L	SW-846:6010
	UF	Cobalt	0.002	3.10E-07	0.002	0.05	NE	U	MG/L	SW-846:6010
	UF	Copper	0.002	4.70E-07	0.002	1	1.3	U	MG/L	SW-846:6010
	UF	Iron	0.05	0.0000083	0.05	1	NE	U	MG/L	SW-846:6010
	UF	Lead	0.0005	0.000045	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	UF	Magnesium	29	0.0000075	0.5	NE	NE		MG/L	SW-846:6010
	UF	Manganese	0.002	1.50E-07	0.002	0.2	NE	U	MG/L	SW-846:6010
	UF	Mercury	0.0001	0.000007	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	UF	Nickel	0.005	5.90E-07	0.005	0.2	NE	U	MG/L	SW-846:6010
UF	Potassium	12	0.000029	0.5	NE	NE		MG/L	SW-846:6010	
UF	Selenium	0.0016	0.00011	0.001	0.05	0.05		MG/L	SW-846:6020	
UF	Silver	0.0003	0.000014	0.0001	0.05	NE		MG/L	SW-846:6020	
UF	Sodium	68	0.000006	0.5	NE	NE		MG/L	SW-846:6010	
UF	Thallium	0.0002	0.000015	0.0002	NE	0.002	U	MG/L	SW-846:6020	
UF	Uranium	0.012	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
UF	Vanadium	0.005	5.10E-07	0.005	NE	NE	U	MG/L	SW-846:6010	
UF	Zinc	0.019	0.0000044	0.005	10	NE		MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE 08

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-BW2 9-Apr-08	F	Aluminum	0.033	0.014	0.1	5	NE	B	MG/L	SW-846:6010
	F	Antimony	0.00022	4.10E-08	0.0003	NE	0.006	B	MG/L	SW-846:6020
	F	Arsenic	0.00076	1.10E-07	0.002	0.1	0.01	B	MG/L	SW-846:6020
	F	Barium	0.1	0.0001	0.002	1	2		MG/L	SW-846:6010
	F	Beryllium	0.00033	0.00013	0.001	NE	0.004	B	MG/L	SW-846:6010
	F	Cadmium	0.000055	4.20E-08	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	F	Calcium	71	0.014	0.5	NE	NE		MG/L	SW-846:6010
	F	Chromium	0.001	0.00051	0.005	0.05	0.1	U	MG/L	SW-846:6010
	F	Cobalt	0.001	0.00031	0.002	0.05	NE	U	MG/L	SW-846:6010
	F	Copper	0.0011	0.00047	0.002	1	1.3	U	MG/L	SW-846:6010
	F	Iron	0.0051	0.0083	0.05	1	NE	B	MG/L	SW-846:6010
	F	Lead	0.000026	4.50E-08	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	F	Magnesium	23	0.0075	0.5	NE	NE		MG/L	SW-846:6010
	F	Manganese	0.024	0.00015	0.002	0.2	NE		MG/L	SW-846:6010
	F	Mercury	0.000016	0.0000075	0.0001	0.002	0.002	B	MG/L	SW-846:7470
	F	Nickel	0.0014	0.00059	0.005	0.2	NE	B	MG/L	SW-846:6010
F	Potassium	4.6	0.029	0.5	NE	NE		MG/L	SW-846:6010	
F	Selenium	0.0028	1.10E-07	0.001	0.05	0.05		MG/L	SW-846:6020	
F	Silver	0.000024	1.40E-08	0.0001	0.05	NE	U	MG/L	SW-846:6020	
F	Sodium	51	0.006	0.5	NE	NE		MG/L	SW-846:6010	
F	Thallium	0.000019	1.50E-08	0.0002	NE	0.002	B	MG/L	SW-846:6020	
F	Uranium	0.007	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
F	Vanadium	0.0059	0.00051	0.005	NE	NE		MG/L	SW-846:6010	
F	Zinc	0.0021	0.0044	0.005	10	NE	B	MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/U/F	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW4 16-Apr-08	F	Aluminum	0.051	0.014	0.1	5	NE	B	MG/L	SW-846:6010
	F	Antimony	0.00012	4.10E-08	0.0003	NE	0.006	B	MG/L	SW-846:6020
	F	Arsenic	0.0014	1.10E-07	0.002	0.1	0.01	B	MG/L	SW-846:6020
	F	Barium	0.11	0.0001	0.002	1	2		MG/L	SW-846:6010
	F	Beryllium	0.00046	0.00013	0.001	NE	0.004	B	MG/L	SW-846:6010
	F	Cadmium	0.000067	4.20E-08	0.0003	0.01	0.005	B	MG/L	SW-846:6020
	F	Calcium	60	0.014	0.5	NE	NE		MG/L	SW-846:6010
	F	Chromium	0.001	0.00051	0.005	0.05	0.1	U	MG/L	SW-846:6010
	F	Cobalt	0.001	0.00031	0.002	0.05	NE	U	MG/L	SW-846:6010
	F	Copper	0.0011	0.00047	0.002	1	1.3	U	MG/L	SW-846:6010
	F	Iron	0.048	0.0083	0.05	1	NE	B	MG/L	SW-846:6010
	F	Lead	0.000026	4.50E-08	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	F	Magnesium	21	0.0075	0.5	NE	NE		MG/L	SW-846:6010
	F	Manganese	0.06	0.00015	0.002	0.2	NE		MG/L	SW-846:6010
	F	Mercury	0.000016	0.0000075	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	F	Nickel	0.0056	0.00059	0.005	0.2	NE		MG/L	SW-846:6010
	F	Potassium	5.6	0.029	0.5	NE	NE		MG/L	SW-846:6010
F	Selenium	0.00063	1.10E-07	0.001	0.05	0.05	B	MG/L	SW-846:6020	
F	Silver	0.000024	1.40E-08	0.0001	0.05	NE	U	MG/L	SW-846:6020	
F	Sodium	42	0.006	0.5	NE	NE		MG/L	SW-846:6010	
F	Thallium	0.000018	1.50E-08	0.0002	NE	0.002	B	MG/L	SW-846:6020	
F	Uranium	0.0074	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
F	Vanadium	0.0057	0.00051	0.005	NE	NE		MG/L	SW-846:6010	
F	Zinc	0.0057	0.0044	0.005	10	NE		MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW5 10-Apr-08	F	Aluminum	0.031	0.014	0.1	5	NE	B	MG/L	SW-846:6010
	F	Antimony	0.00015	4.10E-08	0.0003	NE	0.006	B	MG/L	SW-846:6020
	F	Arsenic	0.00094	1.10E-07	0.002	0.1	0.01	B	MG/L	SW-846:6020
	F	Barium	0.12	0.0001	0.002	1	2		MG/L	SW-846:6010
	F	Beryllium	0.00031	0.00013	0.001	NE	0.004	B	MG/L	SW-846:6010
	F	Cadmium	0.000055	4.20E-08	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	F	Calcium	93	0.014	0.5	NE	NE		MG/L	SW-846:6010
	F	Chromium	0.001	0.00051	0.005	0.05	0.1	U	MG/L	SW-846:6010
	F	Cobalt	0.001	0.00031	0.002	0.05	NE	U	MG/L	SW-846:6010
	F	Copper	0.0011	0.00047	0.002	1	1.3	U	MG/L	SW-846:6010
	F	Iron	0.0084	0.0083	0.05	1	NE	B	MG/L	SW-846:6010
	F	Lead	0.000026	4.50E-08	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	F	Magnesium	31	0.0075	0.5	NE	NE		MG/L	SW-846:6010
	F	Manganese	0.0088	0.00015	0.002	0.2	NE		MG/L	SW-846:6010
	F	Mercury	0.000016	0.0000075	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	F	Nickel	0.0013	0.00059	0.005	0.2	NE	B	MG/L	SW-846:6010
	F	Potassium	6.8	0.029	0.5	NE	NE		MG/L	SW-846:6010
F	Selenium	0.0019	1.10E-07	0.001	0.05	0.05		MG/L	SW-846:6020	
F	Silver	0.000024	1.40E-08	0.0001	0.05	NE	U	MG/L	SW-846:6020	
F	Sodium	60	0.006	0.5	NE	NE		MG/L	SW-846:6010	
F	Thallium	0.000033	1.50E-08	0.0002	NE	0.002	B	MG/L	SW-846:6020	
F	Uranium	0.0089	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
F	Vanadium	0.0053	0.00051	0.005	NE	NE		MG/L	SW-846:6010	
F	Zinc	0.0022	0.0044	0.005	10	NE	B	MG/L	SW-846:6010	

**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW6 8-Apr-08	F	Aluminum	0.037	0.014	0.1	5	NE	B	MG/L	SW-846:6010
	F	Antimony	0.000049	4.10E-08	0.0003	NE	0.006	U	MG/L	SW-846:6020
	F	Arsenic	0.0013	1.10E-07	0.002	0.1	0.01	B	MG/L	SW-846:6020
	F	Barium	0.11	0.0001	0.002	1	2		MG/L	SW-846:6010
	F	Beryllium	0.00039	0.00013	0.001	NE	0.004	B	MG/L	SW-846:6010
	F	Cadmium	0.000055	4.20E-08	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	F	Calcium	90	0.014	0.5	NE	NE		MG/L	SW-846:6010
	F	Chromium	0.0012	0.00051	0.005	0.05	0.1	B	MG/L	SW-846:6010
	F	Cobalt	0.001	0.00031	0.002	0.05	NE	U	MG/L	SW-846:6010
	F	Copper	0.0011	0.00047	0.002	1	1.3	U	MG/L	SW-846:6010
	F	Iron	0.022	0.0083	0.05	1	NE	B	MG/L	SW-846:6010
	F	Lead	0.00012	4.50E-08	0.0005	0.05	0.015	B	MG/L	SW-846:6020
	F	Magnesium	29	0.0075	0.5	NE	NE		MG/L	SW-846:6010
	F	Manganese	0.00057	0.00015	0.002	0.2	NE	B	MG/L	SW-846:6010
	F	Mercury	0.000016	0.0000075	0.0001	0.002	0.002	B	MG/L	SW-846:7470
	F	Nickel	0.0017	0.00059	0.005	0.2	NE	B	MG/L	SW-846:6010
F	Potassium	6.6	0.029	0.5	NE	NE		MG/L	SW-846:6010	
F	Selenium	0.0026	1.10E-07	0.001	0.05	0.05		MG/L	SW-846:6020	
F	Silver	0.000024	1.40E-08	0.0001	0.05	NE	U	MG/L	SW-846:6020	
F	Sodium	55	0.006	0.5	NE	NE		MG/L	SW-846:6010	
F	Thallium	0.000027	1.50E-08	0.0002	NE	0.002	B	MG/L	SW-846:6020	
F	Uranium	0.0091	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
F	Vanadium	0.0072	0.00051	0.005	NE	NE		MG/L	SW-846:6010	
F	Zinc	0.0056	0.0044	0.005	10	NE		MG/L	SW-846:6010	



**TABLE 1: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
TAL Metal Results

NMED DOE OB

Monitoring Well	F/UF	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW6 (DUP) 8-Apr-08	F	Aluminum	0.03	0.014	0.1	5	NE	B	MG/L	SW-846:6010
	F	Antimony	0.000049	4.10E-08	0.0003	NE	0.006	U	MG/L	SW-846:6020
	F	Arsenic	0.0014	1.10E-07	0.002	0.1	0.01	B	MG/L	SW-846:6020
	F	Barium	0.11	0.0001	0.002	1	2		MG/L	SW-846:6010
	F	Beryllium	0.00035	0.00013	0.001	NE	0.004	B	MG/L	SW-846:6010
	F	Cadmium	0.000055	4.20E-08	0.0003	0.01	0.005	U	MG/L	SW-846:6020
	F	Calcium	89	0.014	0.5	NE	NE		MG/L	SW-846:6010
	F	Chromium	0.0012	0.00051	0.005	0.05	0.1	B	MG/L	SW-846:6010
	F	Cobalt	0.001	0.00031	0.002	0.05	NE	U	MG/L	SW-846:6010
	F	Copper	0.0011	0.00047	0.002	1	1.3	U	MG/L	SW-846:6010
	F	Iron	0.0071	0.0083	0.05	1	NE	B	MG/L	SW-846:6010
	F	Lead	0.000026	4.50E-08	0.0005	0.05	0.015	U	MG/L	SW-846:6020
	F	Magnesium	29	0.0075	0.5	NE	NE		MG/L	SW-846:6010
	F	Manganese	0.00045	0.00015	0.002	0.2	NE	B	MG/L	SW-846:6010
	F	Mercury	0.000016	0.0000075	0.0001	0.002	0.002	U	MG/L	SW-846:7470
	F	Nickel	0.0016	0.00059	0.005	0.2	NE	B	MG/L	SW-846:6010
F	Potassium	6.5	0.029	0.5	NE	NE		MG/L	SW-846:6010	
F	Selenium	0.0021	1.10E-07	0.001	0.05	0.05		MG/L	SW-846:6020	
F	Silver	0.000024	1.40E-08	0.0001	0.05	NE	U	MG/L	SW-846:6020	
F	Sodium	55	0.006	0.5	NE	NE		MG/L	SW-846:6010	
F	Thallium	0.000019	1.50E-08	0.0002	NE	0.002	B	MG/L	SW-846:6020	
F	Uranium	0.009	0.0000074	0.0001	0.03	0.03		MG/L	SW-846:6020	
F	Vanadium	0.0068	0.00051	0.005	NE	NE		MG/L	SW-846:6010	
F	Zinc	0.00093	0.0044	0.005	10	NE	U	MG/L	SW-846:6010	

B = The reported value was obtained from a reading that was less than the Practical Quantitation limit but greater than or equal to the Instrument Detection Limit.  
 E = The reported value is estimated because of the presence of interference.  
 N = Spike sample recovery not within control limits.  
 NE = Not Established  
 U = Not detected at or above the detection limit.  
 F/UF = Samples were filter or unfiltered in the field.

**TABLE 2: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
 Non-Metal Inorganic Results

NMED-DOE OB

Monitoring Well	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CYN-MW6 23-Jun-08	Nitrate-Nitrite as N	29	0.037	0.2	10	10		MG/L	EPA:353.2
	Perchlorate	0.0059	0.0013	0.004	NE	NE		MG/L	EPA314.0
	Bromide	0.34	0.078	0.2	NE	NE		MG/L	EPA:300
	Chloride	72	0.5	2	250	NE		MG/L	EPA:300
MWL-BW2 9-Apr-08	Fluoride	0.61	0.033	0.1	1.6	4		MG/L	EPA:300
	Nitrate-Nitrite as N	2.1	0.0037	0.02	10	10		MG/L	EPA:353.2
	Perchlorate	0.00044	0.00001	0.00005	NE	NE		MG/L	SW-846:6850
	Sulfate	50	0.33	1	600	NE		MG/L	EPA:300
MWL-MW4 16-Apr-08	Bromide	0.29	0.078	0.2	NE	NE		MG/L	EPA:300
	Chloride	55	0.5	2	250	NE		MG/L	EPA:300
	Fluoride	0.85	0.033	0.1	1.6	4		MG/L	EPA:300
	Nitrate-Nitrite as N	1.1	0.0018	0.01	10	10		MG/L	EPA:353.2
MWL-MW5 10-Apr-08	Sulfate	41	0.33	1	600	NE		MG/L	EPA:300
	Bromide	0.4	0.078	0.2	NE	NE		MG/L	EPA:300
	Chloride	92	0.5	2	250	NE		MG/L	EPA:300
	Fluoride	0.63	0.033	0.1	1.6	4		MG/L	EPA:300
MWL-MW6 8-Apr-08	Nitrate-Nitrite as N	1.3	0.0018	0.01	10	10		MG/L	EPA:353.2
	Sulfate	58	0.33	1	600	NE		MG/L	EPA:300
	Bromide	0.38	0.078	0.2	NE	NE		MG/L	EPA:300
	Chloride	84	0.5	2	250	NE		MG/L	EPA:300
MWL-MW6 8-Apr-08	Fluoride	0.61	0.033	0.1	1.6	4		MG/L	EPA:300
	Nitrate-Nitrite as N	2.1	0.0037	0.02	10	10		MG/L	EPA:353.2
	Sulfate	55	0.33	1	600	NE		MG/L	EPA:300
	Bromide	0.36	0.078	0.2	NE	NE		MG/L	EPA:300
MWL-MW6 (DUP) 8-Apr-08	Chloride	83	0.5	2	250	NE		MG/L	EPA:300
	Fluoride	0.57	0.033	0.1	1.6	4		MG/L	EPA:300
	Nitrate-Nitrite as N	2	0.0037	0.02	10	10		MG/L	EPA:353.2
	Sulfate	55	0.33	1	600	NE		MG/L	EPA:300

NE = Not Established

**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
 Gross Alpha/Beta and Gamma Spectroscopy Results

NMED DOE-08

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-BW2 9-Apr-08	Actinium-228	17	12	19	NE	NE	U	pCi/L	713R9
	Aluminum-26	1.3	3.8	6.5	NE	NE	U	pCi/L	713R9
	Americium-241	-7.7	14	25	NE	NE	U	pCi/L	713R9
	Antimony-124	0.32	3.9	6.6	NE	NE	U	pCi/L	713R9
	Antimony-125	5.9	6.9	13	NE	NE	U	pCi/L	713R9
	Beryllium-7	-9.6	27	47	NE	NE	U	pCi/L	713R9
	Bismuth-212	24	47	78	NE	NE	U	pCi/L	713R9
	Bismuth-214	9.1	13	21	NE	NE	U,U	pCi/L	713R9
	Cadmium-109	13	58	96	NE	NE	U	pCi/L	713R9
	Cerium-139	-1.8	1.9	3.3	NE	NE	U	pCi/L	713R9
	Cerium-144	-2.5	12	21	NE	NE	U	pCi/L	713R9
	Cesium-134	-1.8	3.1	5.4	NE	NE	U	pCi/L	713R9
	Cesium-137	0.46	2.8	4.8	NE	NE	U	pCi/L	713R9
	Chromium-51	7.9	33	55	NE	NE	U	pCi/L	713R9
	Cobalt-56	7.5	6.2	9.8	NE	NE	U	pCi/L	713R9
	Cobalt-57	-0.74	1.6	2.8	NE	NE	U	pCi/L	713R9
	Cobalt-58	-0.81	3.6	6.2	NE	NE	U	pCi/L	713R9
	Cobalt-60	9.10E-07	3.4	6	NE	NE	U	pCi/L	713R9
	Europium-152	-5.3	16	28	NE	NE	U	pCi/L	713R9
	Europium-154	-28	18	33	NE	NE	U	pCi/L	713R9
Europium-155	1.1	7	12	NE	NE	U	pCi/L	713R9	
Gross Alpha	7.9	1.6	0.75	NE	NE	15	pCi/L	724R10	
Gross Beta	5.1	1.3	1.5	NE	NE	4 mrem/yr	pCi/L	724R10	
Iodine-131	6.5	19	31	NE	NE	U	pCi/L	713R9	
Iron-59	-11	9	16	NE	NE	U	pCi/L	713R9	
Lead-212	1.9	8.3	14	NE	NE	U	pCi/L	713R9	
Lead-214	2.4	12	21	NE	NE	U,U	pCi/L	713R9	
Manganese-54	-0.35	3.2	5.5	NE	NE	U	pCi/L	713R9	
Niobium-94	-2.3	3.4	6	NE	NE	U	pCi/L	713R9	
Niobium-95	0.63	3.7	6.3	NE	NE	U	pCi/L	713R9	
Potassium-40	37	81	130	NE	NE	U	pCi/L	713R9	
Protactinium-234m	550	540	870	NE	NE	U	pCi/L	713R9	
Ruthenium-106	-9.8	28	48	NE	NE	U	pCi/L	713R9	

**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
 Gross Alpha/Beta and Gamma Spectroscopy Results

NMED DOE-08

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-BW2 9-Apr-08	Scandium-46	1.5	3.6	6	NE	NE	U	pCi/L	713R9
	Silver-110m	0.32	2.7	4.7	NE	NE	U	pCi/L	713R9
	Sodium-22	-0.69	3.6	6.3	NE	NE	U	pCi/L	713R9
	Strontium-85	2.2	4.6	7.6	NE	NE	U	pCi/L	713R9
	Thallium-208	1.1	7.3	12	NE	NE	U	pCi/L	713R9
	Thorium-227	-0.43	13	23	NE	NE	U	pCi/L	713R9
	Thorium-234	10	77	130	NE	NE	U	pCi/L	713R9
	Uranium-235	15	12	20	NE	NE	U	pCi/L	713R9
	Zinc-65	2.7	7	12	NE	NE	U	pCi/L	713R9
	Actinium-228	12	6.7	14	NE	NE	U	pCi/L	713R9
	Aluminum-26	-1.4	2.8	4.9	NE	NE	U	pCi/L	713R9
	Americium-241	1.2	2.9	4.7	NE	NE	U	pCi/L	713R9
	Antimony-124	1.3	2.6	4.4	NE	NE	U	pCi/L	713R9
	Antimony-125	2.1	5	8.9	NE	NE	U	pCi/L	713R9
	Beryllium-7	25	19	30	NE	NE	U	pCi/L	713R9
	Bismuth-212	7.8	33	55	NE	NE	U	pCi/L	713R9
	Bismuth-214	4.2	9.5	16	NE	NE	U,J	pCi/L	713R9
Cadmium-109	33	31	50	NE	NE	U	pCi/L	713R9	
Cerium-139	-1.5	1.3	2.3	NE	NE	U	pCi/L	713R9	
Cerium-144	-3	8.2	14	NE	NE	U	pCi/L	713R9	
Cesium-134	-2.6	2.2	3.9	NE	NE	U	pCi/L	713R9	
Cesium-137	-0.31	2.2	3.8	NE	NE	U	pCi/L	713R9	
Chromium-51	-18	21	36	NE	NE	U	pCi/L	713R9	
Cobalt-56	-1.7	4.1	7.3	NE	NE	U	pCi/L	713R9	
Cobalt-57	-0.092	1	1.8	NE	NE	U	pCi/L	713R9	
Cobalt-58	-1.3	2.5	4.4	NE	NE	U	pCi/L	713R9	
Cobalt-60	0.35	2.6	4.4	NE	NE	U	pCi/L	713R9	
Europium-152	-4.5	11	20	NE	NE	U	pCi/L	713R9	
Europium-154	-3.6	12	22	NE	NE	U	pCi/L	713R9	
Europium-155	-1.1	4	6.7	NE	NE	U	pCi/L	713R9	
Gross Alpha	6.4	1.3	0.81	NE	15		pCi/L	724R10	
Gross Beta	6.9	1.4	1.3	NE	4 mrem/yr		pCi/L	724R10	
Iodine-131	1.3	8.6	14	NE	NE	U	pCi/L	713R9	
Iron-59	1.8	6	10	NE	NE	U	pCi/L	713R9	
MWL-MW4 16-Apr-08									

**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
Gross Alpha/Beta and Gamma Spectroscopy Results

NM/ED DOE-OB

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method	
MWL-MW4 16-Apr-08	Lead-212	-1.9	7.1	12	NE	NE	U	pc/l	713R9	
	Lead-214	0.0036	7	12	NE	NE	U,J	pc/l	713R9	
	Manganese-54	0.2	2.1	3.6	NE	NE	U	pc/l	713R9	
	Niobium-94	-3.1	2.6	4.5	NE	NE	U	pc/l	713R9	
	Niobium-95	0.96	2.5	4.2	NE	NE	U	pc/l	713R9	
	Potassium-40	22	58	96	NE	NE	U	pc/l	713R9	
	Protactinium-234m	260	390	640	NE	NE	U	pc/l	713R9	
	Ruthenium-106	0	20	34	NE	NE	U	pc/l	713R9	
	Scandium-46	0.79	2.5	4.2	NE	NE	U	pc/l	713R9	
	Silver-110m	0.21	2.1	3.6	NE	NE	U	pc/l	713R9	
	Sodium-22	0.67	2.5	4.2	NE	NE	U	pc/l	713R9	
	Strontium-85	4.6	3.1	4.8	NE	NE	U	pc/l	713R9	
	Thallium-208	0.25	4.2	7	NE	NE	U	pc/l	713R9	
	Thorium-227	4.4	10	17	NE	NE	U	pc/l	713R9	
	Thorium-234	0.74	40	67	NE	NE	U	pc/l	713R9	
	Uranium-235	0.61	19	31	NE	NE	U	pc/l	713R9	
	Zinc-65	-2.3	5.3	9.2	NE	NE	U	pc/l	713R9	
	MWL-MW5 10-Apr-08	Actinium-228	13	10	20	NE	NE	U	pc/l	713R9
		Aluminum-26	-1.9	3.1	5.6	NE	NE	U	pc/l	713R9
		Americium-241	-0.38	3.2	5.4	NE	NE	U	pc/l	713R9
Antimony-124		0.96	3.1	5.3	NE	NE	U	pc/l	713R9	
Antimony-125		2.7	6	10	NE	NE	U	pc/l	713R9	
Beryllium-7		5.8	21	36	NE	NE	U	pc/l	713R9	
Bismuth-212		24	37	62	NE	NE	U	pc/l	713R9	
Bismuth-214		4.9	9.4	16	NE	NE	U,J	pc/l	713R9	
Cadmium-109		24	20	32	NE	NE	U	pc/l	713R9	
Cerium-139		0.067	1.5	2.5	NE	NE	U	pc/l	713R9	
Cerium-144		-2.6	9.4	16	NE	NE	U	pc/l	713R9	
Cesium-134		-0.23	2.5	4.3	NE	NE	U	pc/l	713R9	
Cesium-137		2.3	2.4	3.9	NE	NE	U	pc/l	713R9	
Chromium-51		-15	26	44	NE	NE	U	pc/l	713R9	
Cobalt-56		-2.5	5	8.8	NE	NE	U	pc/l	713R9	
Cobalt-57		-0.46	1.2	2.1	NE	NE	U	pc/l	713R9	

**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
Gross Alpha/Beta and Gamma Spectroscopy Results

NMED DOE-08

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW5 10-Apr-08	Cobalt-58	-2.2	2.9	5.1	NE	NE	U	pc/l	713R9
	Cobalt-60	-1.3	2.9	5.2	NE	NE	U	pc/l	713R9
	Europium-152	-1.1	14	24	NE	NE	U	pc/l	713R9
	Europium-154	-23	15	27	NE	NE	U	pc/l	713R9
	Europium-155	-3.4	4.5	7.7	NE	NE	U	pc/l	713R9
	Gross Alpha	13	2.5	0.96	NE	15		pc/l	724R10
	Gross Beta	9.1	1.9	1.8	NE	4 mem/yr	M3	pc/l	724R10
	Iodine-131	0.71	14	23	NE	NE	U	pc/l	713R9
	Iron-59	6.3	5.1	11	NE	NE	U	pc/l	713R9
	Lead-212	0.39	6.9	11	NE	NE	U	pc/l	713R9
	Lead-214	5.3	5.1	8.2	NE	NE	U,U	pc/l	713R9
	Manganese-54	0.69	2.5	4.2	NE	NE	U	pc/l	713R9
	Niobium-94	0.8	2.8	4.7	NE	NE	U	pc/l	713R9
	Niobium-95	0.12	3	5.1	NE	NE	U	pc/l	713R9
	Potassium-40	43	64	110	NE	NE	U	pc/l	713R9
	Protactinium-234m	320	440	720	NE	NE	U	pc/l	713R9
	Ruthenium-106	9.5	24	39	NE	NE	U	pc/l	713R9
	Scandium-46	-0.87	3	5.2	NE	NE	U	pc/l	713R9
	Silver-110m	-2.3	3.8	6.4	NE	NE	U	pc/l	713R9
	Sodium-22	0.84	2.8	4.7	NE	NE	U	pc/l	713R9
Strontium-85	4.4	3.8	6	NE	NE	U	pc/l	713R9	
Thallium-208	-1.4	5.3	9	NE	NE	U	pc/l	713R9	
Thorium-227	-0.33	16	27	NE	NE	U	pc/l	713R9	
Thorium-234	-19	45	75	NE	NE	U	pc/l	713R9	
Uranium-235	10	11	26	NE	NE	U	pc/l	713R9	
Zinc-65	-2.9	6.3	11	NE	NE	U	pc/l	713R9	
MWL-MW6 8-Apr-08	Actinium-228	24	11	17	NE	NE	TI	pc/l	713R9
	Aluminum-26	-0.73	3.6	6.3	NE	NE	U	pc/l	713R9
	Americium-241	10	26	44	NE	NE	U	pc/l	713R9
	Antimony-124	0.84	3.6	6.1	NE	NE	U	pc/l	713R9
	Antimony-125	1.5	5.5	9.7	NE	NE	U	pc/l	713R9
	Beryllium-7	-5.4	34	58	NE	NE	U	pc/l	713R9
	Bismuth-212	22	36	60	NE	NE	U	pc/l	713R9

**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
 Gross Alpha/Beta and Gamma Spectroscopy Results

NMED DOE-OB

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method	
MWL-MW6 8-Apr-08	Bismuth-214	6	11	19	NE	NE	U,J	pc/l	713R9	
	Cadmium-109	34	60	100	NE	NE	U	pc/l	713R9	
	Cerium-139	0.63	2	3.3	NE	NE	U	pc/l	713R9	
	Cerium-144	9.4	11	19	NE	NE	U	pc/l	713R9	
	Cesium-134	-0.31	2.9	4.9	NE	NE	U	pc/l	713R9	
	Cesium-137	-3.2	2.7	4.8	NE	NE	U	pc/l	713R9	
	Chromium-51	13	32	54	NE	NE	U	pc/l	713R9	
	Cobalt-56	3.2	5.3	8.8	NE	NE	U	pc/l	713R9	
	Cobalt-57	-0.18	1.5	2.6	NE	NE	U	pc/l	713R9	
	Cobalt-58	-0.63	3.1	5.3	NE	NE	U	pc/l	713R9	
	Cobalt-60	-0.57	3	5.2	NE	NE	U	pc/l	713R9	
	Europium-152	-15	15	26	NE	NE	U	pc/l	713R9	
	Europium-154	-2.2	14	24	NE	NE	U	pc/l	713R9	
	Europium-155	0.27	6.9	12	NE	NE	U	pc/l	713R9	
	Gross Alpha	10	2	1	NE	15			pc/l	724R10
	Gross Beta	6.9	1.6	1.6	NE	4 mem/yr	M3		pc/l	724R10
	Iodine-131	1.3	16	26	NE	NE	U		pc/l	713R9
	Iron-59	4.3	7.3	12	NE	NE	U		pc/l	713R9
	Lead-212	1.2	6.4	11	NE	NE	U		pc/l	713R9
	Lead-214	4	10	16	NE	NE	U,J		pc/l	713R9
	Manganese-54	-2.8	2.8	5	NE	NE	U		pc/l	713R9
	Niobium-94	0.56	2.6	4.4	NE	NE	U		pc/l	713R9
	Niobium-95	-0.068	3.2	5.5	NE	NE	U		pc/l	713R9
Potassium-40	31	67	110	NE	NE	U		pc/l	713R9	
Protactinium-234m	-68	460	790	NE	NE	U		pc/l	713R9	
Ruthenium-106	-4.7	26	44	NE	NE	U		pc/l	713R9	
Scandium-46	1.3	2.9	4.8	NE	NE	U		pc/l	713R9	
Silver-110m	-0.02	2.6	4.4	NE	NE	U		pc/l	713R9	
Sodium-22	0.034	3.2	5.4	NE	NE	U		pc/l	713R9	
Strontium-85	-0.9	4	6.8	NE	NE	U		pc/l	713R9	
Thallium-208	-0.29	4.8	8.1	NE	NE	U		pc/l	713R9	
Thorium-227	-5	12	20	NE	NE	U		pc/l	713R9	
Thorium-234	24	84	140	NE	NE	U		pc/l	713R9	
Uranium-235	7.2	22	37	NE	NE	U		pc/l	713R9	
Zinc-65	1.1	6.2	11	NE	NE	U		pc/l	713R9	

**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
 Gross Alpha/Beta and Gamma Spectroscopy Results

NMED DOE-08

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW6 (DUP) 8-Apr-08	Actinium-228	21	11	16	NE	NE	TI	pCi/L	713R9
	Aluminum-26	-0.8	3.4	6	NE	NE	U	pCi/L	713R9
	Americium-241	-0.28	27	45	NE	NE	U	pCi/L	713R9
	Antimony-124	0.64	3.5	5.9	NE	NE	U	pCi/L	713R9
	Antimony-125	-2.1	5.6	10	NE	NE	U	pCi/L	713R9
	Beryllium-7	-5.7	34	58	NE	NE	U	pCi/L	713R9
	Bismuth-212	18	35	58	NE	NE	U	pCi/L	713R9
	Bismuth-214	7.5	8.5	18	NE	NE	U,U	pCi/L	713R9
	Cadmium-109	9.4	63	110	NE	NE	U	pCi/L	713R9
	Cerium-139	1.2	2	3.3	NE	NE	U	pCi/L	713R9
	Cerium-144	-7	11	19	NE	NE	U	pCi/L	713R9
	Cesium-134	-0.66	2.8	4.8	NE	NE	U	pCi/L	713R9
	Cesium-137	-3.8	2.7	4.7	NE	NE	U	pCi/L	713R9
	Chromium-51	3.8	31	51	NE	NE	U	pCi/L	713R9
	Cobalt-56	5.7	5.4	8.7	NE	NE	U	pCi/L	713R9
	Cobalt-57	-0.78	1.5	2.6	NE	NE	U	pCi/L	713R9
	Cobalt-58	-1.9	3.1	5.4	NE	NE	U	pCi/L	713R9
	Cobalt-60	0.96	2.8	4.8	NE	NE	U	pCi/L	713R9
	Europium-152	2.5	15	26	NE	NE	U	pCi/L	713R9
	Europium-154	-20	15	26	NE	NE	U	pCi/L	713R9
Europium-155	7.4	7.1	11	NE	NE	U	pCi/L	713R9	
Gross Alpha	9.7	1.9	0.92	NE	15			pCi/L	724R10
Gross Beta	7.6	1.7	1.8	NE	4 mrem/yr	M3		pCi/L	724R10
Iodine-131	0.68	14	24	NE	NE	U		pCi/L	713R9
Iron-59	8.5	6.9	11	NE	NE	U		pCi/L	713R9
Lead-212	-1.9	6.2	10	NE	NE	U		pCi/L	713R9
Lead-214	-0.12	10	17	NE	NE	U,U		pCi/L	713R9
Manganese-54	1.5	2.8	4.7	NE	NE	U		pCi/L	713R9
Niobium-94	-0.24	2.6	4.5	NE	NE	U		pCi/L	713R9
Niobium-95	1.7	3.1	5.1	NE	NE	U		pCi/L	713R9
Potassium-40	45	66	110	NE	NE	U		pCi/L	713R9



**TABLE 3: SNL/NM Groundwater Monitoring, Third Quarter FFY 2008**  
 Gross Alpha/Beta and Gamma Spectroscopy Results

NIMED DOE-08

Monitoring Well	Analyte	Result	Uncertainty	MDA	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
MWL-MW6 (DUP) 8-Apr-08	Protactinium-234m	830	440	660	NE	NE	TI	pCi/L	713R9
	Ruthenium-106	-22	27	46	NE	NE	U	pCi/L	713R9
	Scandium-46	-0.72	2.9	5	NE	NE	U	pCi/L	713R9
	Silver-110m	1.6	2.6	4.3	NE	NE	U	pCi/L	713R9
	Sodium-22	-0.083	3	5.1	NE	NE	U	pCi/L	713R9
	Strontium-85	2.1	2.4	4	NE	NE	U	pCi/L	713R9
	Thallium-208	2.8	5.9	9.7	NE	NE	U	pCi/L	713R9
	Thorium-227	0.52	12	20	NE	NE	U	pCi/L	713R9
	Thorium-234	73	73	130	NE	NE	U	pCi/L	713R9
	Uranium-235	12	11	18	NE	NE	U	pCi/L	713R9
	Zinc-65	7.2	5.9	9.4	NE	NE	U	pCi/L	713R9

M3 = The requested MDC was not met, greater than the sample specific Minimum Detectable Activity (MDA).  
 NE = Not Established  
 TI = Nuclide identification is tentative.  
 U = Result is less than the sample specific MDA.

TABLE 4: SNI/NM Groundwater Monitoring, Third Quarter FFY 2008  
 Detected Volatile Organic Compounds

NMED DOE-08

Monitoring Well	Analyte	Result	MDL	Quantitation Limit	NM MAC	EPA MCL	Laboratory Qualifier	Units	Analytical Method
CWL-BW3 9-Jun-08	Toluene	0.65	0.17	1	750	1000	J	UG/L	SW8260_25
	Trichloroethylene	0.96	0.17	1	100	5	J	UG/L	SW8260_25
CWL-BW4A 2-Jun-08	Toluene	0.73	0.17	1	750	1000	J	UG/L	SW8260_25
	Trichloroethylene	0.4	0.17	1	100	5	J	UG/L	SW8260_25
CWL-MW2BL 10-Jun-08	Chloroform	0.22	0.17	1	100	NE	J	UG/L	SW8260_25
CWL-MW2BU 11-Jun-08	Trichloroethylene	4.1	0.17	1	100	5		UG/L	SW8260_25
CWL-MW4 17-Jun-08	Toluene	0.21	0.17	1	750	1000	J	UG/L	SW8260_25
	Trichloroethylene	0.2	0.17	1	100	5	J	UG/L	SW8260_25
CWL-MW4 (DUP) 13-Jun-08	Toluene	0.2	0.17	1	750	1000	J	UG/L	SW8260_25
	Trichloroethylene	0.2	0.17	1	100	5	J	UG/L	SW8260_25
CWL-MW5L 5-Jun-08	Chloroform	0.23	0.17	1	100	NE	J	UG/L	SW8260_25
	Trichloroethylene	0.71	0.17	1	100	5	J	UG/L	SW8260_25
CWL--MW5U 16-Jun-08	Toluene	0.54	0.17	1	750	1000	J	UG/L	SW8260_25
	Trichloroethylene	2.1	0.17	1	100	5		UG/L	SW8260_25
CWL-MW6U 4-Jun-08	Toluene	0.2	0.17	1	750	1000	J	UG/L	SW8260_25
	Trichloroethylene	0.36	0.17	1	100	5	J	UG/L	SW8260_25

J = Indicates an estimated value.