



**NEW MEXICO  
ENVIRONMENT DEPARTMENT**



***DOE Oversight Bureau***

SUSANA MARTINEZ  
Governor  
JOHN A. SANCHEZ  
Lieutenant Governor

121 Tijeras Ave., NE Suite 1000  
Albuquerque, NM 87102  
Phone (505) 383-2073 Fax (505) 222-9510  
www.nmenv.state.nm.us

RYAN FLYNN  
Cabinet Secretary  
BUTCH TONGATE  
Deputy Secretary

**Groundwater Monitoring at Sandia National Laboratories/New Mexico Solid Waste Management Unit 149 and 154 Conducted by NMED DOE OB for FFY 2011 Q-3**

The New Mexico Environment Department (NMED) DOE Oversight Bureau (Bureau) has compiled and assessed groundwater data collected during May and June 2011. The Bureau collected groundwater samples from Solid Waste Management Unit (SWMU) 149 and 154 groundwater monitoring wells CTF-MW2 and CTF-MW3. Split samples were collected using standard Sandia National Laboratories/New Mexico (SNL/NM) sampling procedures and equipment. The samples were submitted for analysis to an independent analytical laboratory for Target Analyte List (TAL) metals plus uranium, anions, nitrate, nitrite, volatile organic compounds (VOCs), gamma emitting isotopes, gross alpha and beta, and isotopic uranium. Arsenic and thallium levels exceeded the EPA MCL at monitoring well CTF-MW2. Gross alpha activity at CTF-MW2 also exceeded the MCL of 15 pCi/L.

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, respectively. No parameters were detected above established MCLs, except for arsenic and thallium. Arsenic exceeded the MCL of 0.010 mg/L in both the unfiltered and filtered CTF-MW2 groundwater samples. Unfiltered and filtered arsenic was reported at 0.048 mg/L. Thallium was detected above the MCL of 0.002 mg/L in the CTF-MW2 filtered sample at a concentration of 0.0035 mg/L, but was not detected in the total unfiltered sample.

Analytical results for anions, nitrate, nitrite and perchlorate are presented in Table-3. No samples exceeded their associated MCL or exceeded the NMED COOC perchlorate screening level of 4 µg/L.

Analytical results for High Explosives (HE) compounds are presented in Table 4. No HE compounds were detected in samples collected from monitoring well CTF-MW2.

Analytical results for Volatile Organic Compounds (VOCs) detected above the Method Detection Limit (MDL) are listed in Table-5. All compounds detected above their associated MDL were detected below established MCLs.

Analytical results for semi-volatile organic compounds (SVOCs) are presented in Table-6. No SVOCs were detected in samples collected from monitoring well CTF-MW2.

Analytical results for radionuclides are listed in Table-7. Samples were analyzed for gross alpha, gross beta, gamma emitting isotopes and isotopic uranium. Gross alpha activity values in water samples from CTF-MW2 exceeded the EPA MCL of 15 pCi/L. Uncorrected gross alpha activity at CTF-MW2 was 125 pCi/L. When the uncorrected gross activity was adjusted to subtract the uranium activity only, the gross alpha activity exceeded the EPA MCL. The corrected gross alpha activity at CTF-MW2 was 54.2 pCi/L.

#### 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](mailto:chris.armijo1@state.nm.us), or to the address in the letterhead.

Enclosure:     (1) Table-1 Total TAL Metals plus Uranium  
                  (2) Table-2 Dissolved TAL Metals plus Uranium  
                  (3) Table-3 Anions, Nitrate, Nitrite and Perchlorate Results  
                  (4) Table-4 High Explosives Results  
                  (5) Table-5 Detected Volatile Organic Compounds Results  
                  (6) Table-6 Semi-Volatile Organic Compounds Results  
                  (7) Table-7 Gross Alpha, Gross Beta, Gamma Spectroscopy, and Isotopic Uranium Results

Distribution:   Karen Agogino, POC, DOE/SSO  
                  David Rast, DOE/SSO  
                  Karen Oden, DOE/SSO  
                  Michael Skelly, SNL/NM Groundwater  
                  Tim Jackson, SNL/NM Groundwater  
                  Susan Lucas Kamat, Bureau Chief, DOE OB

File:            SGE42.Groundwater Monitoring. SWMU 149 and 154. FFY 2011 Q-3

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**Table-1 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 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
CTF-MW2 31-May-11	Aluminum	0.1	NE	0.06	0.026		SW-846:6020
	Antimony	0.0033	0.006	0.01	0.0033	U	SW-846:6020
	Arsenic	<b>0.048</b>	0.01	0.02	0.0019		SW-846:6020
	Barium	0.081	2	0.004	0.00041		SW-846:6020
	Beryllium	0.0026	0.004	0.001	0.0007		SW-846:6020
	Cadmium	0.0002	0.005	0.001	0.0002	U	SW-846:6020
	Calcium	478	NE	2	1.4		SW-846:6020
	Chromium	0.0065	0.1	0.02	0.0065	U	SW-846:6020
	Cobalt	0.0081	NE	0.004	0.00043		SW-846:6020
	Copper	0.0009	1.3	0.002	0.0009	U	SW-846:6020
	Iron	1.8	NE	0.1	0.041		SW-846:6020
	Lead	0.0005	0.015	0.006	0.00035	B	SW-846:6020
	Magnesium	74.3	NE	0.1	0.01		SW-846:6020
	Manganese	3.1	NE	0.004	0.00049		SW-846:6020
	Mercury	0.0001	0.002	0.0002	0.00005	B	SW-846:7470A
	Nickel	0.014	NE	0.01	0.0008		SW-846:6020
	Potassium	45.3	NE	0.2	0.083		SW-846:6020
	Selenium	0.0032	0.05	0.01	0.0032	U	SW-846:6020
	Silver	0.00008	NE	0.004	0.00008	U	SW-846:6020
	Sodium	573	NE	1	0.3		SW-846:6020
Thallium	0.0019	0.002	0.004	0.0011	B	SW-846:6020	
Uranium	0.028	0.03	0.002	0.00046		SW-846:6020	
Vanadium	0.0047	NE	0.02	0.0047	U	SW-846:6020	
Zinc	0.017	NE	0.02	0.017	U	SW-846:6020	

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

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

**Table-1 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 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
CTF-MW3 3-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00095	0.01	0.01	0.00095	U	SW-846:6020
	Barium	0.029	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	195	NE	0.5	0.34		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.044	NE	0.05	0.02	B	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	44.8	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00097	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.0009	NE	0.005	0.0004	B	SW-846:6020
	Potassium	10.7	NE	0.1	0.042		SW-846:6020
	Selenium	0.021	0.05	0.005	0.0016		SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	167	NE	0.25	0.075	J	SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	U	SW-846:6020
Uranium	0.011	0.03	0.001	0.00023		SW-846:6020	
Vanadium	0.0024	NE	0.01	0.0024	U	SW-846:6020	
Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020	

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

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

**Table-2 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 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
CTF-MW2 31-May-11	Aluminum	0.1	NE	0.06	0.026		SW-846:6020
	Antimony	0.0033	0.006	0.01	0.0033	U	SW-846:6020
	Arsenic	<b>0.048</b>	0.01	0.02	0.0019		SW-846:6020
	Barium	0.081	2	0.004	0.00041		SW-846:6020
	Beryllium	0.0026	0.004	0.001	0.0007		SW-846:6020
	Cadmium	0.0002	0.005	0.001	0.0002	U	SW-846:6020
	Calcium	580	NE	2	1.4		SW-846:6020
	Chromium	0.0065	0.1	0.02	0.0065	U	SW-846:6020
	Cobalt	0.008	NE	0.004	0.00043		SW-846:6020
	Copper	0.0009	1.3	0.002	0.0009	U	SW-846:6020
	Iron	1.7	NE	0.1	0.041		SW-846:6020
	Lead	0.00035	0.015	0.006	0.00035	U	SW-846:6020
	Magnesium	73.9	NE	0.1	0.01		SW-846:6020
	Manganese	3.1	NE	0.004	0.00049		SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7470A
	Nickel	0.014	NE	0.01	0.0008		SW-846:6020
	Potassium	45.6	NE	0.2	0.083		SW-846:6020
	Selenium	0.0032	0.05	0.01	0.0032	U	SW-846:6020
	Silver	0.00008	NE	0.004	0.00008	U	SW-846:6020
	Sodium	725	NE	1	0.3		SW-846:6020
Thallium	<b>0.0035</b>	0.002	0.004	0.0011	B	SW-846:6020	
Uranium	0.028	0.03	0.002	0.00046		SW-846:6020	
Vanadium	0.0047	NE	0.02	0.0047	U	SW-846:6020	
Zinc	0.017	NE	0.02	0.017	U	SW-846:6020	

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

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

**Table-2 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 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
CTF-MW3 3-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.001	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.029	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	203	NE	0.5	0.34		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.042	NE	0.05	0.02	B	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	46.3	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00027	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.000051	0.002	0.0002	0.000016	B,J	SW-846:7470A
	Nickel	0.00057	NE	0.005	0.0004	B	SW-846:6020
	Potassium	10.9	NE	0.1	0.042		SW-846:6020
	Selenium	0.022	0.05	0.005	0.0016		SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	172	NE	0.25	0.075	J	SW-846:6020
Thallium	0.0013	0.002	0.002	0.00055	B	SW-846:6020	
Uranium	0.011	0.03	0.001	0.00023		SW-846:6020	
Vanadium	0.0024	NE	0.01	0.0024	U	SW-846:6020	
Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020	

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

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



**Table-3 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 Groundwater Quality Results: Anions, Nitrate, Nitrite & Perchlorate**

Monitoring Well/ Sample Date	Analyte	Result	EPA MCL	Quantitation Limit	MDL	Units	Laboratory Qualifier	Analytical Method
CTF-MW2 31-May-11	Bromide	1.7	NE	0.25	0.025	mg/L		EPA:300.0
	Chloride	435	NE	40	4	mg/L		EPA:300.0
	Fluoride	2.3	4	1	0.1	mg/L		EPA:300.0
	Nitrate	0.004	10	0.02	0.004	mg/L	U	EPA:300.0
	Nitrite	0.15	1	1	0.15	mg/L	U	EPA:300.0
	Perchlorate - LC/MS/MS	0.001	NE	0.004	0.001	mg/L	U	EPA:314.0
	Sulfate	154	NE	5	0.5	mg/L		EPA:300.0
CTF-MW3 3-Jun-11	Bromide	1.1	NE	0.25	0.025	mg/L	J	EPA:300.0
	Chloride	120	NE	20	2	mg/L		EPA:300.0
	Fluoride	2.3	4	1	0.1	mg/L		EPA:300.0
	Nitrate	5.6	10	0.2	0.04	mg/L		EPA:300.0
	Nitrite	0.03	0	0.2	0.03	mg/L	U	EPA:300.0
	Perchlorate - LC/MS/MS	1	NE	4	1	ug/L	U	EPA:314.0
	Sulfate	461	NE	50	5	mg/L		EPA:300.0

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

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

**Table-4 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 Groundwater Quality Results: High Explosives**

Monitoring Well/ Sample Date	Analyte	Result (µg/L)	Quantitation Limit (µg/L)	MDL (µg/L)	Laboratory Qualifier	Analytical Method
CTF-MW2 31-May-11	1,3,5-trinitrobenzene	0.05	0.2	0.05	U	SW-846:8321A
	1,3-Dinitrobenzene	0.014	0.2	0.014	U	SW-846:8321A
	2,4,6-Trinitrotoluene	0.025	0.1	0.025	U	SW-846:8321A
	2,4-Dinitrotoluene	0.05	0.2	0.05	U	SW-846:8321A
	2,6-Dinitrotoluene	0.05	0.2	0.05	U	SW-846:8321A
	2-Amino-4,6-dinitrotoluene	0.05	0.2	0.05	U	SW-846:8321A
	2-nitrotoluene	0.034	0.5	0.034	U	SW-846:8321A
	3-Nitrotoluene	0.05	0.2	0.05	U	SW-846:8321A
	4-Amino-2,6-dinitrotoluene	0.05	0.2	0.05	U	SW-846:8321A
	4-Methylnitrobenzene	0.23	0.5	0.23	U	SW-846:8321A
	HMX	0.016	0.2	0.016	U	SW-846:8321A
	Nitrobenzene	0.06	0.25	0.06	U	SW-846:8321A
	PETN	0.072	2	0.072	U	SW846-8321A
	RDX	0.014	0.2	0.014	U	SW-846:8321A
	TATB	0.47	2	0.47	U	SW846-8321A
	Tetryl	0.055	0.75	0.055	U	SW846-8321A
Tri-o-cresylphosphate (TOCP)	0.021	2	0.021	U	SW846-8321A	

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

**Table-5 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 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
CTF-MW2 31-May-11	Toluene	1.3	1000	5	0.3	J	SW-846:8260B
CTF-MW3 3-Jun-11	Acetone	9.7	NE	20	6.5	J B	SW-846:8260B
	Chloroform	0.62	NE	5	0.092	J	SW-846:8260B
	Dibromochloromethane	0.4	NE	5	0.33	J	SW-846:8260B
	Naphthalene	0.52	NE	5	0.49	J B	SW-846:8260B
	Toluene	0.69	1000	5	0.3	J B	SW-846:8260B
	Trichlorobenzene[1,2,3-]	0.5	NE	5	0.33	J B	SW-846:8260B
	Trichlorobenzene[1,2,4-]	0.41	70	5	0.26	J B	SW-846:8260B

B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

NE = Not Established

**Table-6 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 Groundwater Quality Results: Semi-Volatile Organic Compounds**

Monitoring Well/ Sample Date	Analyte	Result (µg/L)	Quantitation Limit (µg/L)	MDL (µg/L)	Laboratory Qualifier	Analytical Method
CTF-MW2 31-May-11	2,4-Dinitrotoluene	1	10	1	U	SW-846:8270C
	2,6-Dinitrotoluene	2.2	10	2.2	U	SW-846:8270C
	Acenaphthene	1	10	1	U	SW-846:8270C
	Acenaphthylene	1	10	1	U	SW-846:8270C
	Aniline	1	10	1	U	SW-846:8270C
	Anthracene	1	10	1	U	SW-846:8270C
	Azobenzene	1	10	1	U	SW-846:8270C
	Benzidine	20	100	20	U	SW-846:8270C
	Benzo(a)anthracene	1	10	1	U	SW-846:8270C
	Benzo(a)pyrene	1	10	1	U	SW-846:8270C
	Benzo(b)fluoranthene	1	10	1	U	SW-846:8270C
	Benzo(g,h,i)perylene	1	10	1	U	SW-846:8270C
	Benzo(k)fluoranthene	1	10	1	U	SW-846:8270C
	Benzoic acid	5	50	5	U	SW-846:8270C
	Benzyl alcohol	1	10	1	U	SW-846:8270C
	Bis(2-chloroethoxy)methane	1	10	1	U	SW-846:8270C
	Bis(2-chloroethyl)ether	1	10	1	U	SW-846:8270C
	Bis(2-ethylhexyl)phthalate	1	10	1	U	SW-846:8270C
	Bromophenyl-phenylether[4-]	1	10	1	U	SW-846:8270C
	Butylbenzylphthalate	1	10	1	U	SW-846:8270C
	Carbazole	1	10	1	U	SW-846:8270C
	Chloro-3-methylphenol[4-]	1	10	1	U	SW-846:8270C
	Chloroaniline[4-]	1	10	1	U	SW-846:8270C
	Chloronaphthalene[2-]	1	10	1	U	SW-846:8270C
	Chlorophenol[2-]	1	10	1	U	SW-846:8270C
	Chlorophenyl-phenyl[4-] ether	1	10	1	U	SW-846:8270C
	Chrysene	1	10	1	U	SW-846:8270C
	Dibenz(a,h)anthracene	1	10	1	U	SW-846:8270C
	Dibenzofuran	1	10	1	U	SW-846:8270C
	Dichlorobenzene[1,2-]	1	10	1	U	SW-846:8270C
	Dichlorobenzene[1,3-]	1	10	1	U	SW-846:8270C
	Dichlorobenzene[1,4-]	1	10	1	U	SW-846:8270C
	Dichlorobenzidine[3,3'-]	1	50	1	U	SW-846:8270C
	Dichlorophenol[2,4-]	1	10	1	U	SW-846:8270C
	Diethylphthalate	1	10	1	U	SW-846:8270C
	Dimethyl Phthalate	1	10	1	U	SW-846:8270C
	Dimethylphenol[2,4-]	1	10	1	U	SW-846:8270C
	Di-n-butylphthalate	1	10	1	U	SW-846:8270C
	Dinitro-2-methylphenol[4,6-]	1	10	1	U	SW-846:8270C
	Dinitrophenol[2,4-]	2	50	2	U	SW-846:8270C

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

**Table-6 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 Groundwater Quality Results: Semi-Volatile Organic Compounds**

Monitoring Well/ Sample Date	Analyte	Result (µg/L)	Quantitation Limit (µg/L)	MDL (µg/L)	Laboratory Qualifier	Analytical Method
CTF-MW2 31-May-11	Di-n-octylphthalate	1	10	1	U	SW-846:8270C
	Fluoranthene	1	10	1	U	SW-846:8270C
	Fluorene	1	10	1	U	SW-846:8270C
	Hexachlorobenzene	1	10	1	U	SW-846:8270C
	Hexachlorobutadiene	1	10	1	U	SW-846:8270C
	Hexachlorocyclopentadiene	1	10	1	U	SW-846:8270C
	Hexachloroethane	1	10	1	U	SW-846:8270C
	Indeno(1,2,3-cd)pyrene	1	10	1	U	SW-846:8270C
	Isophorone	1	10	1	U	SW-846:8270C
	Methylnaphthalene[2-]	1	10	1	U	SW-846:8270C
	Methylphenol[2-]	1	10	1	U	SW-846:8270C
	Methylphenol[4-]	2	10	2	U	SW-846:8270C
	Naphthalene	1	10	1	U	SW-846:8270C
	Nitroaniline[2-]	1	10	1	U	SW-846:8270C
	Nitroaniline[3-]	1	10	1	U	SW-846:8270C
	Nitroaniline[4-]	1	10	1	U	SW-846:8270C
	Nitrobenzene	1	10	1	U	SW-846:8270C
	Nitrophenol[2-]	1	10	1	U	SW-846:8270C
	Nitrophenol[4-]	2	10	2	U	SW-846:8270C
	Nitrosodimethylamine[N-]	2	10	2	U	SW-846:8270C
	Nitroso-di-n-propylamine[N-]	1	10	1	U	SW-846:8270C
	Nitrosodiphenylamine[N-]	1	10	1	U	SW-846:8270C
	Oxybis(1-chloropropane)[2,2'-]	1	10	1	U	SW-846:8270C
	Pentachlorophenol	1.3	10	1.3	U	SW-846:8270C
	Phenanthrene	1	10	1	U	SW-846:8270C
	Phenol	2	10	2	U	SW-846:8270C
	Pyrene	1	10	1	U	SW-846:8270C
	Pyridine	2	20	2	U	SW-846:8270C
	Tetrachlorophenol[2,3,4,6-]	1	50	1	U	SW-846:8270C
	Trichlorobenzene[1,2,4-]	1	10	1	U	SW-846:8270C
Trichlorophenol[2,4,5-]	1	10	1	U	SW-846:8270C	
Trichlorophenol[2,4,6-]	1	10	1	U	SW-846:8270C	

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

**Table-7 NMED DOE OB FFY 2011 Q-3 SWMU 149 and 154 Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Isotopic Uranium**

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)	MDA (pCi/L)	Laboratory Qualifier	Analytical Method
CTF-MW2 31-May-11	Actinium-228	11.9 ± 5.8	7.9		EPA:901.1
	Americium-241	0.1 ± 3.1	5.1	U	EPA:901.1
	Bismuth-212	7 ± 10	18	U	EPA:901.1
	Bismuth-214	6.7 ± 6.1	6.3		EPA:901.1
	Cesium-134	1 ± 1.6	2.3	U	EPA:901.1
	Cesium-137	-0.07 ± 1.3	2.3	U	EPA:901.1
	Cobalt-60	-0.8 ± 1.7	2.8	U	EPA:901.1
	Gross alpha	<b>125</b> ± 37	36		EPA:900
	Gross alpha (Adjusted)	<b>54.23</b>	NA	NA	EPA:900
	Gross beta	51 ± 13	14		EPA:900
	Lead-212	1.9 ± 2.6	5	U	EPA:901.1
	Lead-214	2.8 ± 3.4	5.2	U	EPA:901.1
	Potassium-40	81 ± 27	35		EPA:901.1
	Protactinium-234M	-12 ± 44	330	U	EPA:901.1
	Sodium-22	0.02 ± 1.5	2.6	U	EPA:901.1
	Thallium-208	1 ± 2.3	3	U	EPA:901.1
	Thorium-234	16 ± 17	51	U	EPA:901.1
	Uranium-234	62 ± 5.7	0.06		HASL-300:ISOU
	Uranium-235	-0.55 ± 9.96	13	U	EPA:901.1
	Uranium-235/236	0.37 ± 0.2	0.07		HASL-300:ISOU
Uranium-238	8.4 ± 1.1	0.06		HASL-300:ISOU	

Gross alpha (adjusted): total uranium activity was subtracted from the gross alpha.

NA = not applicable for gross alpha activities. The MDA could not be calculated as the gross alpha activity was corrected by subtracting out the total uranium activity.

U = Result is less than the sample detection limit.