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July 3, 2019

Victoria Branson
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P.O Box 5400 MS 0184
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Subject: Data Submittal for Groundwater Monitoring at Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2019 Q-2

Ms. Branson:

This letter transmits the subject report as final. The report shows groundwater data results from Sandia National Laboratories/New Mexico Long-Term Stewardship Groundwater Monitoring Program collected by the New Mexico Environment Department DOE Oversight Bureau during the second quarter of FFY 2019.

The enclosed monitoring results were provided to the U.S Department of Energy in draft form on June 13, 2019 for 30-day review and comment. The final monitoring results are provided to DOE, the State of New Mexico and other federal agencies, 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 me by phone at (505) 383-2070, by email at chris.armijo1@state.nm.us, or by mail to the address in the above letterhead.

Sincerely,

A handwritten signature in blue ink that reads "Chris Armijo".

Chris Armijo
Environmental Scientist
Sandia Oversight Section

- Enclosure:
- (1) Groundwater Monitoring at Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2019 Q-2
 - (2) Table-1 Dissolved (Filtered) Target Analyte List Metals plus Uranium Results
 - (3) Table-2 Total (Unfiltered) Mercury Results
 - (4) Table-3 Alkalinity, Anions and Total Cyanide Results
 - (5) Table-4 Nitrate-Nitrite as Nitrogen Results
 - (6) Table-5 High Explosives Results
 - (7) Table-6 Detected Volatile Organic Compounds Results
 - (8) Table-7 Method Detection Limits for Volatile Organic Compounds
 - (9) Table-8 Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium Results
 - (10) Footnotes for LTS Groundwater Monitoring Program Analytical Results Tables

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DOE Oversight Bureau, New Mexico Environment Department

**Groundwater Monitoring at
Sandia National Laboratories/New Mexico
LTS Groundwater Monitoring Program**

**Conducted by the
New Mexico Environment Department DOE Oversight Bureau
for FFY 2019 Q-2**

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Final Report

7/3/2019

The purpose of this communication is to transmit groundwater quality data collected by the New Mexico Environment Department DOE Oversight Bureau from Sandia National Laboratories, New Mexico (SNL/NM) Long-term Stewardship Groundwater Monitoring Program during the second quarter of Federal Fiscal Year 2019.

Acknowledgment:

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Introduction

The New Mexico Environment Department (NMED) DOE Oversight Bureau (DOE-OB or Bureau) has compiled and assessed groundwater data collected during March 2019. The Bureau collected groundwater samples from Sandia National Laboratories/New Mexico (SNL/NM) Long-term Stewardship (LTS) Groundwater Monitoring Program (GMP). The Bureau collected samples from sixteen (16) GMP monitoring wells (CCBA-MW2, CTF-MW1, CYN-MW5, GREYSTONE-MW2, MRN-2, MRN-3D, NWT3-MW3D, OBS-MW1, PL-2, PL-4, SFR-2S, SFR-4T, SWTA3-MW2, SWTA3-MW3, SWTA3-MW4, and TRE-1). One (1) surface water sample was also collected from Coyote Springs located in Arroyo del Coyote. Samples were collected using standard SNL/NM sampling procedures and equipment. The samples were submitted to an independent analytical laboratory to be analyzed for target analyte list (TAL) metals plus uranium, total mercury, alkalinity, anions, nitrate-nitrite as nitrogen (N), cyanide, volatile organic compounds (VOCs), high explosives (HE), gamma emitting isotopes, gross alpha and beta, radium, and isotopic uranium. All samples were filtered in the field prior to sample collection using an in-line filter of 0.45-micron pore size, except those for VOCs, HE, and mercury fractions.

An elevated concentration of beryllium, exceeding the U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) of 0.004 mg/L was detected in the sample collected from Coyote Springs. Fluoride was also detected at or above the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standard of 1.6 mg/L from samples collected at Coyote Springs, OBS-MW1, SFR-4T environmental and duplicate environmental samples, SWTA3-MW4, and TRE-1. All other sample results were detected below applicable state and federal standards.

Data Assessment

All groundwater samples were collected and analyzed in accordance with U.S EPA-specified protocols. Data results are compared to applicable Maximum Contaminant Levels (MCLs) established by the U.S. EPA National Primary Drinking Water Regulations (40 CFR 141), National Primary Drinking Water Standards, EPA, July 2002 and Maximum Allowable Concentrations (MACs) established by the New Mexico Water Quality Control Commission (NMWQCC), Standards for Groundwater (20.6.2.3103A) Human Health Standards.

Results

Analytical results for TAL metals are presented in Table-1. Samples were analyzed for dissolved (filtered) metals plus uranium. No metal parameters, other than beryllium, were detected above established regulatory limits in any groundwater samples. Beryllium was detected above the MCL of 0.004

milligrams per liter (mg/L) in the sample collected from Coyote Springs at a concentration of 0.0069 mg/L.

Mercury results are summarized in Table-2. Mercury was analyzed using unfiltered samples and is reported as total mercury. Mercury was not detected above the associated laboratory method detection limits (MDLs) from any groundwater sample.

Analytical results for alkalinity, anions (bromide, chloride, fluoride and sulfate) and total cyanide are presented in Table-3. No analytes were detected at or above established MACs or MCLs, except for fluoride. Fluoride was detected at or above the MAC of 1.6 mg/L in samples collected from Coyote Springs and GMP monitoring wells OBS-MW1, SFR-4T environmental and duplicate environmental samples, SWTA3-MW4, and TRE-1 at concentrations of 1.7 mg/L, 2.1 mg/L, 2.7 mg/L, 2.8 mg/L, 1.6 mg/L and 1.6 mg/L, respectively. Total cyanide detected above the MDL ranged from 0.0011 mg/L at SFR-4T duplicate to 0.0082 mg/L at CTF-MW1.

Table-4 summarizes nitrate-nitrite as nitrogen results. Nitrate was detected in water samples above associated MDLs and ranged from 0.22 mg/L at SFR-4T to 7.5 mg/L at CTF-MW1.

There was no high explosives (HE) compounds detected above the laboratory MDLs. The MDLs for HE are listed in Table-5. Analysis for HE was only conducted on groundwater samples collected from CCBA-MW2, CTF-MW1, SFR-2S, SFR-4T, SWTA3-MW2, SWTA3-MW3, SWTA3-MW4, and TRE-1. These wells are located in or downgradient of the Coyote Canyon Test Field and Coyote Canyon Blast Area and are associated with the Dynamic Explosives Test Site.

Volatile organic compounds detected above the laboratory MDLs are listed in Table-6. No VOCs were detected at concentrations above established MCLs or MACs from any groundwater sample. Acetone, chloroform and trichloro-1,2,2-trifluoroethane [1,1,2-] were the only compounds detected above their MDLs. Acetone was detected at SFR-4T at a concentration of 3.5 micrograms per liter ($\mu\text{g/L}$) and chloroform was detected at TRE-1 at a concentration of 0.65 $\mu\text{g/L}$. Trichloro-1,2,2-trifluoroethane [1,1,2-] was detected at CTF-MW1 at a concentration of 13 $\mu\text{g/L}$. Table-7 lists the laboratory MDLs for the remaining VOC compounds.

Analytical results for radiological analyses are summarized in Table-8. Samples were analyzed for gross alpha, gross beta, gamma emitting isotopes, radium-226, radium-228, and isotopic uranium. Unadjusted gross alpha activity ranged from 1.9 picocuries per liter (pCi/L) at CYN-MW5 to 30.0 pCi/L at TRE-1. The EPA MCL for gross alpha activity of 15 pCi/L is based on a corrected gross alpha value, which excludes both total uranium and radon from initial gross alpha

count. Subsequently, when the total uranium activity is subtracted from the gross alpha value, the gross activity results from all samples are below the MCL. Gross alpha results in Table-8 are reported as uncorrected results. All other gamma emitters and radium isotopes were below established MACs and MCLs.

Conclusion

During this annual sampling event, the DOE Oversight Bureau collected environmental samples from sixteen (16) LTS GMP monitoring wells that included: CCBA-MW2, CTF-MW1, CYN-MW5, GREYSTONE-MW2, MRN-2, MRN-3D, NWT3-MW3D, OBS-MW1, PL-2, PL-4, SFR-2S, SFR-4T, SWTA3-MW2, SWTA3-MW3, SWTA3-MW4, and TRE-1. One (1) surface water sample was also collected from Coyote Springs. Beryllium was detected above the MCL of 0.004 mg/L in the sample collected from Coyote Springs at a concentration of 0.0069 mg/L. Beryllium concentrations observed during this event compare well to past data. Historically, beryllium concentrations at Coyote Springs have exceeded the EPA drinking water standard. Fluoride was detected above the MAC of 1.6 mg/L in samples collected from Coyote Springs and GMP monitoring wells OBS-MW1, SFR-4T, SWTA3-MW4, and TRE-1 at concentrations of 1.7 mg/L, 2.1 mg/L, 2.8 mg/L, 1.6 mg/L and 1.6 mg/L, respectively. Historically, fluoride has exceeded the MAC at these sites and results compare well to past concentrations. All other sample results were detected below associated MACs and MCLs.

The DOE-OB will continue to collect and monitor groundwater quality at these LTS GMP monitoring wells, including Coyote Springs. The analytical data for all past groundwater monitoring conducted by the DOE OB is available on the New Mexico Environment Department website at <https://www.env.nm.gov/doeob/>.

References

Data Submittal for Groundwater Monitoring at Sandia National Laboratories/New Mexico Long-Term Stewardship Consolidated Groundwater Monitoring Program Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2018.

New Mexico Water Quality Control Commission (NMWQCC), 2004. Environmental Protection, Water Quality, Ground and Surface Water Protection Regulations, Section 20.6.2 of the New Mexico Administrative Code, Santa Fe, New Mexico, September 26.

Sandia National Laboratories/New Mexico (SNL/NM). "Annual Groundwater Monitoring Report Calendar Year 2017." Sandia National Laboratories, Albuquerque, New Mexico.

U.S. EPA National Primary Drinking Water Regulations (40 CFR 141), National Primary Drinking Water Standards, EPA, July 2002.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CCBA-MW2 7-Mar-19	Aluminum	0.018	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00093	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.043	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	66	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.0007	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	13	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	1.3	1	0.039	NE	NE		SW846:6020
	Selenium	0.0039	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	42	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.0045	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0079	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.0041	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
COYOTE SPRINGS 25-Mar-19	Aluminum	0.21	0.1	0.01	NE	NE		SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.007	0.002	0.00039	0.01	0.100		SW846:6020
	Barium	0.04	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.0069	0.0005	0.000054	0.004	NE		SW846:6020
	Cadmium	0.00015	0.002	0.000083	0.005	0.010	J	SW846:6020
	Calcium	280	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.011	0.005	0.00011	NE	NE		SW846:6020
	Copper	0.0016	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.16	0.1	0.0098	NE	NE		SW846:6020
	Lead	0.0001	0.002	0.000079	NE	NE	J	SW846:6020
	Magnesium	59	0.1	0.016	NE	NE		SW846:6020
	Manganese	1.4	0.005	0.00036	NE	NE		SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.024	0.02	0.00092	NE	NE		SW846:6020
	Potassium	30	1	0.039	NE	NE		SW846:6020
	Selenium	0.00065	0.01	0.00065	0.05	0.05	U	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	400	1	0.022	NE	NE		SW846:6020
Thallium	0.0013	0.0001	0.000041	0.002	NE		SW846:6020	
Uranium	0.0067	0.0001	0.000049	0.03	0.03		SW846:6020	
Vanadium	0.00012	0.005	0.00012	NE	NE	U	SW846:6020	
Zinc	0.044	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CTF-MW1 14-Mar-19	Aluminum	0.015	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.0015	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.046	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	86	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00016	0.005	0.00011	NE	NE	J	SW846:6020
	Copper	0.00086	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	17	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	1.7	1	0.039	NE	NE		SW846:6020
	Selenium	0.0044	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	32	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.0096	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0011	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0035	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CYN-MW5 6-Mar-19	Aluminum	0.018	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.0048	0.002	0.00039	0.01	0.100		SW846:6020
	Barium	0.15	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.00013	0.0005	0.000054	0.004	NE	J	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	46	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.001	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.014	0.1	0.0098	NE	NE	J	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	8.1	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.0007	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.001	0.02	0.00092	NE	NE	J	SW846:6020
	Potassium	2	1	0.039	NE	NE		SW846:6020
	Selenium	0.001	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	14	1	0.022	NE	NE		SW846:6020
Thallium	0.00003	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.00058	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.001	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0049	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
GREYSTONE-MW2 15-Mar-19	Aluminum	0.013	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.0027	0.002	0.00039	0.01	0.100		SW846:6020
	Barium	0.13	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.00011	0.0005	0.000054	0.004	NE	J	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	130	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00034	0.005	0.00011	NE	NE	J	SW846:6020
	Copper	0.00076	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	26	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	5	1	0.039	NE	NE		SW846:6020
	Selenium	0.0019	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	87	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.0064	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0028	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0028	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
MRN-2 20-Mar-19	Aluminum	0.012	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00025	0.001	0.00012	0.006	NE	J	SW846:6020
	Arsenic	0.001	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.054	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	49	1	0.085	NE	NE		SW846:6020
	Chromium	0.0011	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00071	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	14	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.0004	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	3.1	1	0.039	NE	NE		SW846:6020
	Selenium	0.0016	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	22	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.0028	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0068	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.0022	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
MRN-3D 21-Mar-19	Aluminum	0.012	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00018	0.001	0.00012	0.006	NE	J	SW846:6020
	Arsenic	0.0012	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.13	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	59	1	0.085	NE	NE		SW846:6020
	Chromium	0.00074	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00085	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0099	0.1	0.0098	NE	NE	J	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	13	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00043	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	4.2	1	0.039	NE	NE		SW846:6020
	Selenium	0.0016	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	27	1	0.022	NE	NE		SW846:6020
Thallium	0.00002	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.0044	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0052	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.043	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
NWT3-MW3D 8-Mar-19	Aluminum	0.012	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00098	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.082	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	38	1	0.085	NE	NE		SW846:6020
	Chromium	0.0011	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00079	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	6.9	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	3.4	1	0.039	NE	NE		SW846:6020
	Selenium	0.0011	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	35	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.0032	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0068	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.029	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
OBS-MW1 18-Mar-19	Aluminum	0.011	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00039	0.002	0.00039	0.01	0.100	U	SW846:6020
	Barium	0.018	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	77	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00074	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	16	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	1.7	1	0.039	NE	NE		SW846:6020
	Selenium	0.0034	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	23	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.0089	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.00094	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0025	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
PL-2 19-Mar-19	Aluminum	0.013	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00076	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.07	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	57	1	0.085	NE	NE		SW846:6020
	Chromium	0.003	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.0017	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.014	0.1	0.0098	NE	NE	J	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	8.9	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.0023	0.02	0.00092	NE	NE	J	SW846:6020
	Potassium	3.4	1	0.039	NE	NE		SW846:6020
	Selenium	0.0017	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.00012	0.0005	0.000029	NE	0.05	J	SW846:6020
	Sodium	28	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.0032	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0054	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.014	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
PL-4 22-Mar-19	Aluminum	0.012	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00044	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.07	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	68	1	0.085	NE	NE		SW846:6020
	Chromium	0.0012	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00032	0.02	0.00032	NE	NE	U	SW846:6020
	Iron	0.016	0.1	0.0098	NE	NE	J	SW846:6020
	Lead	0.0001	0.002	0.000079	NE	NE	J	SW846:6020
	Magnesium	12	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.023	0.005	0.00036	NE	NE		SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	4.9	1	0.039	NE	NE		SW846:6020
	Selenium	0.0019	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	24	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.0034	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0035	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0038	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-2S 12-Mar-19	Aluminum	0.012	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00059	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.057	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	120	1	0.085	NE	NE		SW846:6020
	Chromium	0.00069	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.0042	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	33	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.0012	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.0033	0.02	0.00092	NE	NE	J	SW846:6020
	Potassium	7.2	1	0.039	NE	NE		SW846:6020
	Selenium	0.0021	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	79	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.015	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0032	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0056	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-4T 13-Mar-19	Aluminum	0.028	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.0015	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.0082	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	65	1	0.085	NE	NE		SW846:6020
	Chromium	0.0011	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.004	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.047	0.1	0.0098	NE	NE	J	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	3.2	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.0031	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.0016	0.02	0.00092	NE	NE	J	SW846:6020
	Potassium	2.5	1	0.039	NE	NE		SW846:6020
	Selenium	0.00065	0.01	0.00065	0.05	0.05	U	SW846:6020
	Silver	0.00003	0.0005	0.000029	NE	0.05	J	SW846:6020
	Sodium	1000	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.00021	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.00059	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.072	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-4T 13-Mar-19 (Duplicate)	Aluminum	0.049	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.0014	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.0085	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	66	1	0.085	NE	NE		SW846:6020
	Chromium	0.0012	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.004	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.043	0.1	0.0098	NE	NE	J	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	3.3	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.0027	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.0014	0.02	0.00092	NE	NE	J	SW846:6020
	Potassium	2.4	1	0.039	NE	NE		SW846:6020
	Selenium	0.00065	0.01	0.00065	0.05	0.05	U	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	1000	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.00021	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0006	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.07	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW2 19-Mar-19	Aluminum	0.012	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00013	0.001	0.00012	0.006	NE	J	SW846:6020
	Arsenic	0.001	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.069	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	44	1	0.085	NE	NE		SW846:6020
	Chromium	0.0014	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00078	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	12	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	4	1	0.039	NE	NE		SW846:6020
	Selenium	0.0013	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	37	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.003	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0058	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.0026	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW3 20-Mar-19	Aluminum	0.014	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.0011	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.056	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	38	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00071	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	10	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00081	0.005	0.00036	NE	NE	J	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	4.4	1	0.039	NE	NE		SW846:6020
	Selenium	0.0015	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	47	1	0.022	NE	NE		SW846:6020
Thallium	0.0000041	0.0001	0.0000041	0.002	NE	U	SW846:6020	
Uranium	0.0022	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0071	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.0034	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW4 21-Mar-19	Aluminum	0.016	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00091	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.051	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.000054	0.0005	0.000054	0.004	NE	U	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	37	1	0.085	NE	NE		SW846:6020
	Chromium	0.00074	0.01	0.00046	0.1	0.050	J	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.00076	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	9.6	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	4.2	1	0.039	NE	NE		SW846:6020
	Selenium	0.0015	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	56	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.0022	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0077	0.005	0.00012	NE	NE		SW846:6020	
Zinc	0.004	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-1

Groundwater Quality Results: Dissolved (Filtered) Target Analyte List Metals plus Uranium

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
TRE-1 11-Mar-19	Aluminum	0.016	0.1	0.01	NE	NE	J	SW846:6020
	Antimony	0.00012	0.001	0.00012	0.006	NE	U	SW846:6020
	Arsenic	0.00098	0.002	0.00039	0.01	0.100	J	SW846:6020
	Barium	0.044	0.005	0.00056	2	1		SW846:6020
	Beryllium	0.00016	0.0005	0.000054	0.004	NE	J	SW846:6020
	Cadmium	0.000083	0.002	0.000083	0.005	0.010	U	SW846:6020
	Calcium	150	1	0.085	NE	NE		SW846:6020
	Chromium	0.00046	0.01	0.00046	0.1	0.050	U	SW846:6020
	Cobalt	0.00011	0.005	0.00011	NE	NE	U	SW846:6020
	Copper	0.0008	0.02	0.00032	NE	NE	J	SW846:6020
	Iron	0.0098	0.1	0.0098	NE	NE	U	SW846:6020
	Lead	0.000079	0.002	0.000079	NE	NE	U	SW846:6020
	Magnesium	33	0.1	0.016	NE	NE		SW846:6020
	Manganese	0.00036	0.005	0.00036	NE	NE	U	SW846:6020
	Mercury	0.00006	0.0001	0.00006	0.002	0.002	U	SW846:7470A
	Nickel	0.00092	0.02	0.00092	NE	NE	U	SW846:6020
	Potassium	6.7	1	0.039	NE	NE		SW846:6020
	Selenium	0.0021	0.01	0.00065	0.05	0.05	J	SW846:6020
	Silver	0.000029	0.0005	0.000029	NE	0.05	U	SW846:6020
	Sodium	100	1	0.022	NE	NE		SW846:6020
Thallium	0.00001	0.0001	0.0000041	0.002	NE	J	SW846:6020	
Uranium	0.016	0.0001	0.0000049	0.03	0.03		SW846:6020	
Vanadium	0.0028	0.005	0.00012	NE	NE	J	SW846:6020	
Zinc	0.0042	0.1	0.0014	NE	NE	J	SW846:6020	

Refer to footnotes at the end of tables.

Table-2

Groundwater Quality Results: Total (Unfiltered) Mercury
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MAC/MCL ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CCBA-MW2 7-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
COYOTE SPRINGS 25-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
CTF-MW1 14-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
CYN-MW5 6-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
GREYSTONE-MW2 15-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
MRN-2 20-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
MRN-3D 21-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
NWTA3-MW3D 8-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
OBS-MW1 18-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
PL-2 19-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
PL-4 22-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
SFR-2S 12-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
SFR-4T 13-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
SFR-4T (Duplicate) 13-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A

Refer to footnotes at the end of tables.

Table-2

Groundwater Quality Results: Total (Unfiltered) Mercury
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MAC/MCL ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW2 19-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
SWTA3-MW3 20-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
SWTA3-MW4 21-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A
TRE-1 11-Mar-19	Mercury	0.00006	0.0001	0.00006	0.002	U	SW846:7470A

Refer to footnotes at the end of tables.

Table-3

Groundwater Quality Results: Alkalinity, Anions, and Total Cyanide
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CCBA-MW2 7-Mar-19	Bromide	0.18	0.2	0.06	NE	NE	J	EPA 300.0
	Chloride	40	1	0.3	NE	NE		EPA 300.0
	Fluoride	1.5	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	90	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	200	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	200	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0036	0.005	0.00075	0.2	0.2	J	SW846: 9014
COYOTE SPRINGS 25-Mar-19	Bromide	1.3	2	0.6	NE	NE	J	EPA 300.0
	Chloride	500	20	6	NE	NE		EPA 300.0
	Fluoride	1.7	1	0.3	4	1.6		EPA 300.0
	Sulfate	110	10	3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	1100	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	1100	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014
CTF-MW1 14-Mar-19	Bromide	0.21	0.4	0.12	NE	NE	J	EPA 300.0
	Chloride	40	1	0.3	NE	NE		EPA 300.0
	Fluoride	1.4	0.2	0.06	4	1.6		EPA 300.0
	Sulfate	81	2	0.6	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	220	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	220	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0082	0.005	0.00075	0.2	0.2		SW846: 9014
CYN-MW5 6-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	14	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.29	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	23	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	160	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	160	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0036	0.005	0.00075	0.2	0.2	J	SW846: 9014

Refer to footnotes at the end of tables.

Table-3

Groundwater Quality Results: Alkalinity, Anions, and Total Cyanide
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CYN-MW5 6-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	14	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.29	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	23	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	160	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	160	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0036	0.005	0.00075	0.2	0.2	J	SW846: 9014
GREYSTONE-MW2 15-Mar-19	Bromide	0.3	0.4	0.12	NE	NE	J	EPA 300.0
	Chloride	120	4	1.2	NE	NE		EPA 300.0
	Fluoride	0.82	0.2	0.06	4	1.6		EPA 300.0
	Sulfate	47	2	0.6	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	470	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	470	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014
MRN-2 20-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	13	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.57	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	48	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	170	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	170	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0041	0.005	0.00075	0.2	0.2	J	SW846: 9014
MRN-3D 21-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	15	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.43	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	69	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	180	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	180	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014

Refer to footnotes at the end of tables.

Table-3

Groundwater Quality Results: Alkalinity, Anions, and Total Cyanide
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
NWTA3-MW3D 8-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	12	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.73	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	52	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	150	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	150	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0028	0.005	0.00075	0.2	0.2	J	SW846: 9014
OBS-MW1 18-Mar-19	Bromide	0.11	0.2	0.06	NE	NE	J	EPA 300.0
	Chloride	26	1	0.3	NE	NE		EPA 300.0
	Fluoride	2.1	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	83	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	200	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	200	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014
PL-2 19-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	15	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.47	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	70	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	170	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	170	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014
PL-4 22-Mar-19	Bromide	0.073	0.2	0.06	NE	NE	J	EPA 300.0
	Chloride	16	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.32	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	69	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	180	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	180	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014

Refer to footnotes at the end of tables.

Table-3

Groundwater Quality Results: Alkalinity, Anions, and Total Cyanide
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-2S 12-Mar-19	Bromide	0.28	0.4	0.12	NE	NE	J	EPA 300.0
	Chloride	130	4	1.2	NE	NE		EPA 300.0
	Fluoride	1.5	0.2	0.06	4	1.6		EPA 300.0
	Sulfate	68	2	0.6	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	420	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	420	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0024	0.005	0.00075	0.2	0.2	J	SW846: 9014
SFR-4T 13-Mar-19	Bromide	0.6	2	0.6	NE	NE	U	EPA 300.0
	Chloride	200	20	6	NE	NE		EPA 300.0
	Fluoride	2.7	1	0.3	4	1.6		EPA 300.0
	Sulfate	2000	100	30	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	130	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	130	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0015	0.005	0.00075	0.2	0.2	J	SW846: 9014
SFR-4T 13-Mar-19 (Duplicate)	Bromide	0.6	2	0.6	NE	NE	U	EPA 300.0
	Chloride	210	20	6	NE	NE		EPA 300.0
	Fluoride	2.8	1	0.3	4	1.6		EPA 300.0
	Sulfate	2000	100	30	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	120	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	120	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0011	0.005	0.00075	0.2	0.2	J	SW846: 9014
SWTA3-MW2 19-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	18	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	0.98	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	55	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	190	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	190	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014

Refer to footnotes at the end of tables.

Table-3

Groundwater Quality Results: Alkalinity, Anions, and Total Cyanide
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MCL ^d (mg/L)	MAC ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW3 20-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	14	0.2	0.06	NE	NE		EPA 300.0
	Fluoride	1.3	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	61	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	180	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	180	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014
SWTA3-MW4 21-Mar-19	Bromide	0.06	0.2	0.06	NE	NE	U	EPA 300.0
	Chloride	23	2	0.6	NE	NE		EPA 300.0
	Fluoride	1.6	0.1	0.03	4	1.6		EPA 300.0
	Sulfate	47	1	0.3	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	200	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	200	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.00075	0.005	0.00075	0.2	0.2	U	SW846: 9014
TRE-1 11-Mar-19	Bromide	0.27	0.4	0.12	NE	NE	J	EPA 300.0
	Chloride	140	4	1.2	NE	NE		EPA 300.0
	Fluoride	1.6	0.2	0.06	4	1.6		EPA 300.0
	Sulfate	100	2	0.6	NE	NE		EPA 300.0
	Alkalinity-CO3	20	20	20	NE	NE	U	SM2320B
	Alkalinity-CO3+HCO3	520	20	20	NE	NE		SM2320B
	Alkalinity-HCO3	520	20	20	NE	NE		SM2320B
	Cyanide (Total)	0.0028	0.005	0.00075	0.2	0.2	J	SW846: 9014

Refer to footnotes at the end of tables.

Table-4

Groundwater Quality Results: Nitrate-Nitrite as Nitrogen
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MAC/MCL ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CCBA-MW2 7-Mar-19	Nitrate-Nitrite as Nitrogen	3.2	0.02	0.006	10		EPA 353.2
COYOTE SPRINGS 25-Mar-19	Nitrate-Nitrite as Nitrogen	0.41	0.01	0.003	10		EPA 353.2
CTF-MW1 14-Mar-19	Nitrate-Nitrite as Nitrogen	7.5	0.1	0.03	10		EPA 353.2
CYN-MW5 6-Mar-19	Nitrate-Nitrite as Nitrogen	1.9	0.01	0.003	10		EPA 353.2
GREYSTONE-MW2 15-Mar-19	Nitrate-Nitrite as Nitrogen	4.3	0.1	0.03	10		EPA 353.2
MRN-2 20-Mar-19	Nitrate-Nitrite as Nitrogen	3.5	0.02	0.006	10		EPA 353.2
MRN-3D 21-Mar-19	Nitrate-Nitrite as Nitrogen	2.4	0.02	0.006	10		EPA 353.2
NWTA3-MW3D 8-Mar-19	Nitrate-Nitrite as Nitrogen	0.94	0.01	0.003	10		EPA 353.2
OBS-MW1 18-Mar-19	Nitrate-Nitrite as Nitrogen	1.7	0.01	0.003	10		EPA 353.2
PL-2 19-Mar-19	Nitrate-Nitrite as Nitrogen	2.6	0.02	0.006	10		EPA 353.2
PL-4 22-Mar-19	Nitrate-Nitrite as Nitrogen	4.7	0.05	0.015	10		EPA 353.2
SFR-2S 12-Mar-19	Nitrate-Nitrite as Nitrogen	0.9	0.01	0.003	10		EPA 353.2
SFR-4T 13-Mar-19	Nitrate-Nitrite as Nitrogen	0.22	0.01	0.003	10		EPA 353.2
SFR-4T (Duplicate) 13-Mar-19	Nitrate-Nitrite as Nitrogen	0.23	0.01	0.003	10		EPA 353.2

Refer to footnotes at the end of tables.

Table-4

Groundwater Quality Results: Nitrate-Nitrite as Nitrogen
Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
New Mexico Environment Department DOE Oversight Bureau
March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (mg/L)	Reporting Limit ^b (mg/L)	MDL ^c (mg/L)	MAC/MCL ^d (mg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW2 19-Mar-19	Nitrate-Nitrite as Nitrogen	0.9	0.01	0.003	10		EPA 353.2
SWTA3-MW3 20-Mar-19	Nitrate-Nitrite as Nitrogen	0.61	0.01	0.003	10		EPA 353.2
SWTA3-MW4 21-Mar-19	Nitrate-Nitrite as Nitrogen	1.2	0.01	0.003	10		EPA 353.2
TRE-1 11-Mar-19	Nitrate-Nitrite as Nitrogen	2.3	0.02	0.006	10		EPA 353.2

Refer to footnotes at the end of tables.

Table-5

Groundwater Quality Results: High Explosives

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (µg/L)	Reporting Limit ^b (µg/L)	MDL ^c (µg/L)	MAC/ MCL ^d (µg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CCBA-MW2 7-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.057	0.11	0.057	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.017	0.23	0.017	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.057	0.11	0.057	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.057	0.11	0.057	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.057	0.11	0.057	NE	U	SW846: 8330A
	HMX	0.041	0.11	0.041	NE	U	SW846: 8330A
	Nitrobenzene	0.057	0.11	0.057	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.1	0.57	0.1	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.065	0.57	0.065	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.1	0.57	0.1	NE	U	SW846: 8330A
	RDX	0.041	0.11	0.041	NE	U	SW846: 8330A
	Tetryl	0.057	0.11	0.057	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.035	0.11	0.035	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.057	0.11	0.057	NE	U	SW846: 8330A
CTF-MW1 14-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.017	0.22	0.017	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	HMX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Nitrobenzene	0.055	0.11	0.055	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.097	0.55	0.097	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.063	0.55	0.063	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.097	0.55	0.097	NE	U	SW846: 8330A
	RDX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Tetryl	0.055	0.11	0.055	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.034	0.11	0.034	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A

Refer to footnotes at the end of tables.

Table-5

Groundwater Quality Results: High Explosives

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (µg/L)	Reporting Limit ^b (µg/L)	MDL ^c (µg/L)	MAC/ MCL ^d (µg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-2S 12-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.016	0.21	0.016	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	HMX	0.039	0.11	0.039	NE	U	SW846: 8330A
	Nitrobenzene	0.054	0.11	0.054	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.094	0.54	0.094	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.061	0.54	0.061	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.094	0.54	0.094	NE	U	SW846: 8330A
	RDX	0.039	0.11	0.039	NE	U	SW846: 8330A
	Tetryl	0.054	0.11	0.054	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.033	0.11	0.033	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.054	0.11	0.054	NE	U	SW846: 8330A
SFR-4T 13-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.058	0.12	0.058	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.018	0.23	0.018	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.058	0.12	0.058	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.058	0.12	0.058	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.058	0.12	0.058	NE	U	SW846: 8330A
	HMX	0.042	0.12	0.042	NE	U	SW846: 8330A
	Nitrobenzene	0.058	0.12	0.058	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.1	0.58	0.1	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.067	0.58	0.067	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.1	0.58	0.1	NE	U	SW846: 8330A
	RDX	0.042	0.12	0.042	NE	U	SW846: 8330A
	Tetryl	0.058	0.12	0.058	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.036	0.12	0.036	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.058	0.12	0.058	NE	U	SW846: 8330A

Refer to footnotes at the end of tables.

Table-5

Groundwater Quality Results: High Explosives
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (µg/L)	Reporting Limit ^b (µg/L)	MDL ^c (µg/L)	MAC/ MCL ^d (µg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-4T 13-Mar-19 (Duplicate)	Amino-2,6-dinitrotoluene[4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.017	0.22	0.017	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	HMX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Nitrobenzene	0.055	0.11	0.055	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.097	0.55	0.097	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.063	0.55	0.063	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.097	0.55	0.097	NE	U	SW846: 8330A
	RDX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Tetryl	0.055	0.11	0.055	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.034	0.11	0.034	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A
SWTA3-MW2 19-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.016	0.22	0.016	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	HMX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Nitrobenzene	0.055	0.11	0.055	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.097	0.55	0.097	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.063	0.55	0.063	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.097	0.55	0.097	NE	U	SW846: 8330A
	RDX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Tetryl	0.055	0.11	0.055	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.034	0.11	0.034	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A

Refer to footnotes at the end of tables.

Table-5

Groundwater Quality Results: High Explosives

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (µg/L)	Reporting Limit ^b (µg/L)	MDL ^c (µg/L)	MAC/ MCL ^d (µg/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW3 20-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.016	0.22	0.016	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A
	HMX	0.039	0.11	0.039	NE	U	SW846: 8330A
	Nitrobenzene	0.055	0.11	0.055	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.096	0.55	0.096	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.062	0.55	0.062	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.096	0.55	0.096	NE	U	SW846: 8330A
	RDX	0.039	0.11	0.039	NE	U	SW846: 8330A
	Tetryl	0.055	0.11	0.055	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.034	0.11	0.034	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.055	0.11	0.055	NE	U	SW846: 8330A
SWTA3-MW4 21-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.056	0.11	0.056	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.017	0.22	0.017	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.056	0.11	0.056	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.056	0.11	0.056	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.056	0.11	0.056	NE	U	SW846: 8330A
	HMX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Nitrobenzene	0.056	0.11	0.056	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.099	0.56	0.099	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.064	0.56	0.064	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.099	0.56	0.099	NE	U	SW846: 8330A
	RDX	0.04	0.11	0.04	NE	U	SW846: 8330A
	Tetryl	0.056	0.11	0.056	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.035	0.11	0.035	NE	U	SW846: 8330A
	Trinitrotoluene[2,4,6-]	0.056	0.11	0.056	NE	U	SW846: 8330A

Refer to footnotes at the end of tables.

Table-5

Groundwater Quality Results: High Explosives

Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program

New Mexico Environment Department DOE Oversight Bureau

March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (µg/L)	Reporting Limit ^b (µg/L)	MDL ^c (µg/L)	MAC/ MCL ^d (µg/L)	Laboratory Qualifier ^e	Analytical Method ^f
TRE-1 11-Mar-19	Amino-2,6-dinitrotoluene[4-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	Amino-4,6-dinitrotoluene[2-]	0.016	0.22	0.016	NE	U	SW846: 8330A
	Dinitrobenzene[1,3-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	Dinitrotoluene[2,4-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	Dinitrotoluene[2,6-]	0.054	0.11	0.054	NE	U	SW846: 8330A
	HMX	0.039	0.11	0.039	NE	U	SW846: 8330A
	Nitrobenzene	0.054	0.11	0.054	NE	U	SW846: 8330A
	Nitrotoluene[2-]	0.095	0.54	0.095	NE	U	SW846: 8330A
	Nitrotoluene[3-]	0.061	0.54	0.061	NE	U	SW846: 8330A
	Nitrotoluene[4-]	0.095	0.54	0.095	NE	U	SW846: 8330A
	RDX	0.039	0.11	0.039	NE	U	SW846: 8330A
	Tetryl	0.054	0.11	0.054	NE	U	SW846: 8330A
	Trinitrobenzene[1,3,5-]	0.033	0.11	0.033	NE	U	SW846: 8330A
Trinitrotoluene[2,4,6-]	0.054	0.11	0.054	NE	U	SW846: 8330A	

Refer to footnotes at the end of tables.

Table-6

Groundwater Quality Results: Detected Volatile Organic Compounds
Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
New Mexico Environment Department DOE Oversight Bureau
March 2019

Monitoring Well/ Sample Date	Analyte	Result ^a (µg/L)	Reporting Limit ^b (µg/L)	MDL ^c (µg/L)	MCL ^d (µg/L)	MAC ^d (µg/L)	Laboratory Qualifier ^e	Analytical Method ^f
CTF-MW1 14-Mar-19	Trichloro-1,2,2-trifluoroethane[1,1,2-]	13	1	0.3	NE	NE		SW846: 8260B
SFR-4T 13-Mar-19	Acetone	3.5	10	3	NE	NE	J	SW846: 8260B
TRE-1 11-Mar-19	Chloroform	0.65	1	0.3	NE	100	J	SW846: 8260B

Refer to footnotes at the end of tables.

Table-7

Groundwater Quality Results: Method Detection Limits for Volatile Organic Compounds
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Analyte	MDL ^c (µg/L)	Analytical Method ^f
Acetone	3	SW846: 8260B
Benzene	0.3	SW846: 8260B
Bromobenzene	0.3	SW846: 8260B
Bromochloromethane	0.3	SW846: 8260B
Bromodichloromethane	0.3	SW846: 8260B
Bromoform	0.3	SW846: 8260B
Bromomethane	0.33	SW846: 8260B
Butanone[2-]	3	SW846: 8260B
Butylbenzene[n-]	0.3	SW846: 8260B
Butylbenzene[sec-]	0.3	SW846: 8260B
Butylbenzene[tert-]	0.3	SW846: 8260B
Carbon Disulfide	0.3	SW846: 8260B
Carbon Tetrachloride	0.15	SW846: 8260B
Chlorobenzene	0.3	SW846: 8260B
Chlorodibromomethane	0.3	SW846: 8260B
Chloroethane	0.3	SW846: 8260B
Chloroform	0.3	SW846: 8260B
Chlorohexane[1-]	0.3	SW846: 8260B
Chloromethane	0.3	SW846: 8260B
Chlorotoluene[2-]	0.3	SW846: 8260B
Chlorotoluene[4-]	0.3	SW846: 8260B
Dibromo-3-Chloropropane[1,2-]	0.6	SW846: 8260B
Dibromoethane[1,2-]	0.3	SW846: 8260B
Dibromomethane	0.3	SW846: 8260B
Dichlorobenzene[1,2-]	0.3	SW846: 8260B
Dichlorobenzene[1,3-]	0.3	SW846: 8260B
Dichlorobenzene[1,4-]	0.3	SW846: 8260B
Dichlorodifluoromethane	0.3	SW846: 8260B
Dichloroethane[1,1-]	0.3	SW846: 8260B
Dichloroethane[1,2-]	0.15	SW846: 8260B
Dichloroethene[1,1-]	0.3	SW846: 8260B
Dichloroethene[cis-1,2-]	0.3	SW846: 8260B
Dichloroethene[trans-1,2-]	0.3	SW846: 8260B
Dichloropropane[1,2-]	0.3	SW846: 8260B
Dichloropropane[1,3-]	0.15	SW846: 8260B

Refer to footnotes at the end of tables.

Analyte	MDL ^c (µg/L)	Analytical Method ^f
Dichloropropane[2,2-]	0.3	SW846: 8260B
Dichloropropene[1,1-]	0.3	SW846: 8260B
Dichloropropene[cis-1,3-]	0.3	SW846: 8260B
Dichloropropene[trans-1,3-]	0.3	SW846: 8260B
Ethylbenzene	0.3	SW846: 8260B
Hexachlorobutadiene	0.3	SW846: 8260B
Hexanone[2-]	3	SW846: 8260B
Iodomethane	0.3	SW846: 8260B
Isopropylbenzene	0.3	SW846: 8260B
Isopropyltoluene[4-]	0.3	SW846: 8260B
Methyl tert-Butyl Ether	0.3	SW846: 8260B
Methyl-2-pentanone[4-]	3	SW846: 8260B
Methylene Chloride	0.34	SW846: 8260B
Naphthalene	0.3	SW846: 8260B
Propylbenzene[1-]	0.3	SW846: 8260B
Styrene	0.3	SW846: 8260B
Tetrachloroethane[1,1,1,2-]	0.3	SW846: 8260B
Tetrachloroethane[1,1,2,2-]	0.3	SW846: 8260B
Tetrachloroethene	0.3	SW846: 8260B
Toluene	0.3	SW846: 8260B
Trichloro-1,2,2-trifluoroethane[1,1,2-]	0.3	SW846: 8260B
Trichlorobenzene[1,2,3-]	0.3	SW846: 8260B
Trichlorobenzene[1,2,4-]	0.3	SW846: 8260B
Trichloroethane[1,1,1-]	0.3	SW846: 8260B
Trichloroethane[1,1,2-]	0.3	SW846: 8260B
Trichloroethene	0.5	SW846: 8260B
Trichlorofluoromethane	0.3	SW846: 8260B
Trichloropropane[1,2,3-]	0.3	SW846: 8260B
Trimethylbenzene[1,2,4-]	0.3	SW846: 8260B
Trimethylbenzene[1,3,5-]	0.3	SW846: 8260B
Vinyl acetate	0.73	SW846: 8260B
Vinyl Chloride	0.15	SW846: 8260B
Xylene[1,2-]	0.3	SW846: 8260B
Xylene[1,3-]+Xylene[1,4-]	0.3	SW846: 8260B

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
CCBA-MW2 7-Mar-19	Actinium-228	14 ± 4.4	16	NE	NE	U	EPA: 901.1
	Americium-241	5.4 ± 2.1	6.8	NE	NE	U	EPA: 901.1
	Beryllium-7	13 ± 8.2	27	NE	NE	U	EPA: 901.1
	Bismuth-212	55 ± 19	61	NE	NE	U	EPA: 901.1
	Bismuth-214	12 ± 6	19	NE	NE	U	EPA: 901.1
	Cesium-134	0.23 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Cesium-137	0.67 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Cobalt-60	0.59 ± 1.3	4.5	NE	NE	U	EPA: 901.1
	Gross alpha	7.6 ± 1	2.2	15	NE	M3	EPA: 900.0
	Gross beta	-0.15 ± 0.59	2	4mrem/yr	NE	U,M	EPA: 900.0
	Iodine-131	2.1 ± 4	13	NE	NE	U	EPA: 901.1
	Lead-212	3.1 ± 3.5	12	NE	NE	U	EPA: 901.1
	Lead-214	9.4 ± 5.7	19	NE	NE	U	EPA: 901.1
	Potassium-40	-29 ± 34	120	NE	NE	U	EPA: 901.1
	Protactinium-234m	310 ± 230	740	NE	NE	U	EPA: 901.1
	Radium-226	0.1 ± 0.088	0.3	5	30	U	EPA: 903.1
	Radium-228	0.34 ± 0.17	0.71	5	30	U	EPA: 904.0
	Sodium-22	-2.8 ± 1.4	5.2	NE	NE	U	EPA: 901.1
	Thallium-208	4.4 ± 1.4	4.5	NE	NE	U	EPA: 901.1
	Thorium-234	12 ± 19	76	NE	NE	U	EPA: 901.1
Uranium-234	7.6 ± 0.69	0.091	NE	NE		HASL300:ISOU	
Uranium-235	0.19 ± 0.052	0.071	NE	NE		HASL300:ISOU	
Uranium-238	1.7 ± 0.19	0.06	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
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 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
COYOTE SPRINGS 25-Mar-19	Actinium-228	0.73 ± 5	16	NE	NE	U	EPA: 901.1
	Americium-241	6.9 ± 8.1	27	NE	NE	U	EPA: 901.1
	Beryllium-7	-7.3 ± 4.9	17	NE	NE	U	EPA: 901.1
	Bismuth-212	31 ± 9.2	29	NE	NE	NQ	EPA: 901.1
	Bismuth-214	0.53 ± 4.2	14	NE	NE	U	EPA: 901.1
	Cesium-134	-1.4 ± 0.72	2.4	NE	NE	U	EPA: 901.1
	Cesium-137	-0.33 ± 0.68	2.3	NE	NE	U	EPA: 901.1
	Cobalt-60	-0.54 ± 0.7	2.4	NE	NE	U	EPA: 901.1
	Gross alpha	15 ± 3	7.8	15	NE	M3	EPA: 900.0
	Gross beta	25 ± 4	11	4mrem/yr	NE	M3	EPA: 900.0
	Iodine-131	-1.5 ± 1.2	4.1	NE	NE	U	EPA: 901.1
	Lead-212	4 ± 2.3	7.5	NE	NE	U	EPA: 901.1
	Lead-214	-2.1 ± 4	13	NE	NE	U	EPA: 901.1
	Potassium-40	4.3 ± 19	65	NE	NE	U	EPA: 901.1
	Protactinium-234m	340 ± 110	360	NE	NE	U	EPA: 901.1
	Radium-226	0.24 ± 0.13	0.37	5	30	U	EPA: 903.1
	Radium-228	1.2 ± 0.23	0.69	5	30		EPA: 904.0
	Sodium-22	-2 ± 0.74	2.5	NE	NE	U	EPA: 901.1
	Thallium-208	1 ± 1.4	4.8	NE	NE	U	EPA: 901.1
	Thorium-234	52 ± 31	100	NE	NE	U	EPA: 901.1
Uranium-234	9.2 ± 0.9	0.17	NE	NE		HASL300:ISOU	
Uranium-235	0.29 ± 0.086	0.15	NE	NE		HASL300:ISOU	
Uranium-238	2 ± 0.26	0.15	NE	NE		HASL300:ISOU	

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Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
CTF-MW1 14-Mar-19	Actinium-228	1.6 ± 4.9	16	NE	NE	U	EPA: 901.1
	Americium-241	10 ± 5.7	19	NE	NE	U	EPA: 901.1
	Beryllium-7	8.2 ± 5	16	NE	NE	U	EPA: 901.1
	Bismuth-212	33 ± 9.2	29	NE	NE	NQ	EPA: 901.1
	Bismuth-214	17 ± 4.4	14	NE	NE		EPA: 901.1
	Cesium-134	-0.18 ± 1	3.3	NE	NE	U	EPA: 901.1
	Cesium-137	-2.4 ± 0.69	2.3	NE	NE	U	EPA: 901.1
	Cobalt-60	0.083 ± 0.71	2.4	NE	NE	U	EPA: 901.1
	Gross alpha	22 ± 2	1.6	15	NE	M3	EPA: 900.0
	Gross beta	1 ± 0.58	1.9	4mrem/yr	NE	U,M	EPA: 900.0
	Iodine-131	2.2 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Lead-212	1.5 ± 2.2	7.4	NE	NE	U	EPA: 901.1
	Lead-214	20 ± 3.7	13	NE	NE		EPA: 901.1
	Potassium-40	-27 ± 19	64	NE	NE	U	EPA: 901.1
	Protactinium-234m	41 ± 200	680	NE	NE	U	EPA: 901.1
	Radium-226	0.38 ± 0.14	0.32	5	30		EPA: 903.1
	Radium-228	0.18 ± 0.17	0.76	5	30	U	EPA: 904.0
	Sodium-22	-0.1 ± 1	3.4	NE	NE	U	EPA: 901.1
	Thallium-208	0.75 ± 1.4	4.7	NE	NE	U	EPA: 901.1
	Thorium-234	34 ± 31	100	NE	NE	U	EPA: 901.1
Uranium-234	23 ± 1.9	0.062	NE	NE		HASL300:ISOU	
Uranium-235	0.26 ± 0.058	0.06	NE	NE		HASL300:ISOU	
Uranium-238	3.8 ± 0.36	0.084	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
CYN-MW5 6-Mar-19	Actinium-228	-1.8 ± 9.6	32	NE	NE	U	EPA: 901.1
	Americium-241	7 ± 28	92	NE	NE	U	EPA: 901.1
	Beryllium-7	16 ± 11	35	NE	NE	U	EPA: 901.1
	Bismuth-212	56 ± 18	56	NE	NE	U	EPA: 901.1
	Bismuth-214	3.2 ± 6.5	22	NE	NE	U	EPA: 901.1
	Cesium-134	-2.6 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Cesium-137	-2.4 ± 1.3	4.5	NE	NE	U	EPA: 901.1
	Cobalt-60	1.2 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Gross alpha	1.9 ± 0.43	1.2	15	NE		EPA: 900.0
	Gross beta	3.1 ± 0.45	1.2	4mrem/yr	NE		EPA: 900.0
	Iodine-131	-2.5 ± 4.2	14	NE	NE	U	EPA: 901.1
	Lead-212	5.3 ± 4.1	13	NE	NE	U	EPA: 901.1
	Lead-214	11 ± 4.5	19	NE	NE	U	EPA: 901.1
	Potassium-40	-23 ± 32	110	NE	NE	U	EPA: 901.1
	Protactinium-234m	67 ± 210	720	NE	NE	U	EPA: 901.1
	Radium-226	0.45 ± 0.12	0.17	5	30		EPA: 903.1
	Radium-228	1.1 ± 0.23	0.73	5	30		EPA: 904.0
	Sodium-22	0.28 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Thallium-208	0.76 ± 2.5	8.2	NE	NE	U	EPA: 901.1
	Thorium-234	-7.4 ± 51	170	NE	NE	U	EPA: 901.1
Uranium-234	0.96 ± 0.12	0.073	NE	NE		HASL300:ISOU	
Uranium-235	0.03 ± 0.021	0.063	NE	NE	U	HASL300:ISOU	
Uranium-238	0.26 ± 0.056	0.065	NE	NE		HASL300:ISOU	

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Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
GREYSTONE-MW2 15-Mar-19	Actinium-228	7.7 ± 4.3	14	NE	NE	U	EPA: 901.1
	Americium-241	8.3 ± 9.3	31	NE	NE	U	EPA: 901.1
	Beryllium-7	-21 ± 14	47	NE	NE	U	EPA: 901.1
	Bismuth-212	19 ± 22	73	NE	NE	U	EPA: 901.1
	Bismuth-214	37 ± 6.9	25	NE	NE		EPA: 901.1
	Cesium-134	5.6 ± 12	40	NE	NE	U	EPA: 901.1
	Cesium-137	-1.8 ± 1.7	5.8	NE	NE	U,M	EPA: 901.1
	Cobalt-60	2.1 ± 1.9	6.4	NE	NE	U	EPA: 901.1
	Gross alpha	8.2 ± 1.1	2.5	15	NE	M3	EPA: 900.0
	Gross beta	6.9 ± 0.84	1.9	4mrem/yr	NE	M3	EPA: 900.0
	Iodine-131	8.1 ± 4.4	14	NE	NE	U	EPA: 901.1
	Lead-212	-0.89 ± 4.8	16	NE	NE	U	EPA: 901.1
	Lead-214	26 ± 5.2	19	NE	NE		EPA: 901.1
	Potassium-40	-68 ± 49	170	NE	NE	U	EPA: 901.1
	Protactinium-234m	620 ± 300	980	NE	NE	U	EPA: 901.1
	Radium-226	0.16 ± 0.11	0.36	5	30	U	EPA: 903.1
	Radium-228	-0.33 ± 0.19	0.89	5	30	U	EPA: 904.0
	Sodium-22	0 ± 2.1	7.2	NE	NE	U	EPA: 901.1
	Thallium-208	5.7 ± 1.6	4.9	NE	NE	NQ	EPA: 901.1
	Thorium-234	-29 ± 46	150	NE	NE	U	EPA: 901.1
Uranium-234	9.4 ± 0.82	0.07	NE	NE		HASL300:ISOU	
Uranium-235	0.16 ± 0.044	0.03	NE	NE		HASL300:ISOU	
Uranium-238	2.4 ± 0.24	0.062	NE	NE		HASL300:ISOU	

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Table-8

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 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
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 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
MRN-2 20-Mar-19	Actinium-228	21 ± 4.7	14	NE	NE	NQ	EPA: 901.1
	Americium-241	1.8 ± 1.3	4.4	NE	NE	U	EPA: 901.1
	Beryllium-7	-5.3 ± 8.3	29	NE	NE	U	EPA: 901.1
	Bismuth-212	43 ± 16	52	NE	NE	U	EPA: 901.1
	Bismuth-214	3.7 ± 4.7	15	NE	NE	U	EPA: 901.1
	Cesium-134	0.51 ± 1.6	5.2	NE	NE	U	EPA: 901.1
	Cesium-137	0.29 ± 1.2	4.1	NE	NE	U	EPA: 901.1
	Cobalt-60	-2.2 ± 1.4	4.8	NE	NE	U	EPA: 901.1
	Gross alpha	4.3 ± 0.54	1.1	15	NE		EPA: 900.0
	Gross beta	3.9 ± 0.48	1.1	4mrem/yr	NE		EPA: 900.0
	Iodine-131	2.7 ± 2.5	8.2	NE	NE	U	EPA: 901.1
	Lead-212	0.18 ± 2.9	9.8	NE	NE	U	EPA: 901.1
	Lead-214	0.15 ± 4.5	15	NE	NE	U	EPA: 901.1
	Potassium-40	13 ± 33	110	NE	NE	U	EPA: 901.1
	Protactinium-234m	-460 ± 490	1600	NE	NE	U	EPA: 901.1
	Radium-226	0 ± 0.11	0.44	5	30	U	EPA: 903.1
	Radium-228	0.37 ± 0.17	0.69	5	30	U	EPA: 904.0
Sodium-22	2.3 ± 1.3	4.1	NE	NE	U	EPA: 901.1	
Thallium-208	1.2 ± 2.6	8.6	NE	NE	U	EPA: 901.1	
Thorium-234	-4.7 ± 21	69	NE	NE	U	EPA: 901.1	

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Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
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Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
MRN-3D 21-Mar-19	Actinium-228	16 ± 4.6	14	NE	NE	NQ	EPA: 901.1
	Americium-241	-2.4 ± 8.5	29	NE	NE	U	EPA: 901.1
	Beryllium-7	-0.63 ± 9	30	NE	NE	U	EPA: 901.1
	Bismuth-212	18 ± 18	60	NE	NE	U	EPA: 901.1
	Bismuth-214	-6.3 ± 6	20	NE	NE	U	EPA: 901.1
	Cesium-134	-2.7 ± 1.2	4.3	NE	NE	U	EPA: 901.1
	Cesium-137	-0.76 ± 1.2	4.1	NE	NE	U	EPA: 901.1
	Cobalt-60	1 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Gross alpha	4.2 ± 0.56	1.2	15	NE		EPA: 900.0
	Gross beta	4.4 ± 0.51	1.1	4mrem/yr	NE		EPA: 900.0
	Iodine-131	-0.69 ± 2.7	9.3	NE	NE	U	EPA: 901.1
	Lead-212	0.62 ± 3.3	11	NE	NE	U	EPA: 901.1
	Lead-214	12 ± 2.5	7.5	NE	NE	NQ	EPA: 901.1
	Potassium-40	-9.7 ± 35	120	NE	NE	U	EPA: 901.1
	Protactinium-234m	270 ± 200	660	NE	NE	U	EPA: 901.1
	Radium-226	0.038 ± 0.1	0.41	5	30	U	EPA: 903.1
	Radium-228	0.61 ± 0.18	0.67	5	30	U	EPA: 904.0
	Sodium-22	0.99 ± 1.2	3.9	NE	NE	U	EPA: 901.1
Thallium-208	-0.82 ± 2.8	9.3	NE	NE	U	EPA: 901.1	
Thorium-234	-30 ± 42	140	NE	NE	U	EPA: 901.1	

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Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
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Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
NWT3-MW3D 8-Mar-19	Actinium-228	5.9 ± 5.1	17	NE	NE	U	EPA: 901.1
	Americium-241	-8.8 ± 7.9	26	NE	NE	U	EPA: 901.1
	Beryllium-7	-5.7 ± 5.3	18	NE	NE	U	EPA: 901.1
	Bismuth-212	14 ± 15	50	NE	NE	U	EPA: 901.1
	Bismuth-214	0.87 ± 4.2	14	NE	NE	U	EPA: 901.1
	Cesium-134	0.34 ± 0.49	2.2	NE	NE	U	EPA: 901.1
	Cesium-137	0.41 ± 1	3.3	NE	NE	U	EPA: 901.1
	Cobalt-60	-0.015 ± 0.7	2.4	NE	NE	U	EPA: 901.1
	Gross alpha	3.3 ± 0.45	0.92	15	NE		EPA: 900.0
	Gross beta	3.1 ± 0.42	1	4mrem/yr	NE		EPA: 900.0
	Iodine-131	-1.2 ± 2	6.7	NE	NE	U	EPA: 901.1
	Lead-212	1.2 ± 2.3	7.6	NE	NE	U	EPA: 901.1
	Lead-214	3.3 ± 4.1	13	NE	NE	U	EPA: 901.1
	Potassium-40	-23 ± 19	65	NE	NE	U	EPA: 901.1
	Protactinium-234m	-230 ± 210	690	NE	NE	U	EPA: 901.1
	Radium-226	0 ± 0.11	0.45	5	30	U	EPA: 903.1
	Radium-228	0.24 ± 0.17	0.73	5	30	U	EPA: 904.0
	Sodium-22	0.31 ± 0.71	2.4	NE	NE	U	EPA: 901.1
Thallium-208	0.26 ± 1.3	4.6	NE	NE	U	EPA: 901.1	
Thorium-234	31 ± 31	100	NE	NE	U	EPA: 901.1	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
OBS-MW1 18-Mar-19	Actinium-228	16 ± 5.3	17	NE	NE	U	EPA: 901.1
	Americium-241	-37 ± 52	180	NE	NE	U	EPA: 901.1
	Beryllium-7	11 ± 12	39	NE	NE	U	EPA: 901.1
	Bismuth-212	21 ± 17	58	NE	NE	U	EPA: 901.1
	Bismuth-214	44 ± 16	57	NE	NE	U	EPA: 901.1
	Cesium-134	-2.2 ± 2	6.7	NE	NE	U	EPA: 901.1
	Cesium-137	-1.3 ± 1.3	4.5	NE	NE	U	EPA: 901.1
	Cobalt-60	0.082 ± 1.5	5.2	NE	NE	U	EPA: 901.1
	Gross alpha	19 ± 1.6	1.1	15	NE		EPA: 900.0
	Gross beta	3 ± 0.46	1.2	4mrem/yr	NE		EPA: 900.0
	Iodine-131	-0.18 ± 3.4	11	NE	NE	U	EPA: 901.1
	Lead-212	1.3 ± 3.7	12	NE	NE	U	EPA: 901.1
	Lead-214	60 ± 5.7	16	NE	NE		EPA: 901.1
	Potassium-40	-85 ± 43	150	NE	NE	U	EPA: 901.1
	Protactinium-234m	210 ± 220	740	NE	NE	U	EPA: 901.1
	Radium-226	-0.042 ± 0.14	0.59	5	30	U	EPA: 903.1
	Radium-228	0.33 ± 0.18	0.75	5	30	U	EPA: 904.0
	Sodium-22	-2.8 ± 1.5	5.4	NE	NE	U	EPA: 901.1
	Thallium-208	3 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Thorium-234	24 ± 69	230	NE	NE	U	EPA: 901.1
Uranium-234	16 ± 1.3	0.069	NE	NE		HASL300:ISOU	
Uranium-235	0.23 ± 0.052	0.054	NE	NE		HASL300:ISOU	
Uranium-238	2.9 ± 0.28	0.056	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
PL-2 19-Mar-19	Actinium-228	8.2 ± 4.9	16	NE	NE	U	EPA: 901.1
	Americium-241	1.6 ± 1.4	4.6	NE	NE	U	EPA: 901.1
	Beryllium-7	3.7 ± 9.6	32	NE	NE	U	EPA: 901.1
	Bismuth-212	6 ± 18	62	NE	NE	U	EPA: 901.1
	Bismuth-214	6.9 ± 5.8	19	NE	NE	U	EPA: 901.1
	Cesium-134	1.1 ± 1.2	4.1	NE	NE	U	EPA: 901.1
	Cesium-137	0 ± 1.2	4.2	NE	NE	U	EPA: 901.1
	Cobalt-60	-2.4 ± 1.3	4.7	NE	NE	U	EPA: 901.1
	Gross alpha	2.5 ± 0.4	1	15	NE		EPA: 900.0
	Gross beta	4.4 ± 0.5	1.1	4mrem/yr	NE		EPA: 900.0
	Iodine-131	2.5 ± 2.8	9.3	NE	NE	U	EPA: 901.1
	Lead-212	0.35 ± 3.4	11	NE	NE	U	EPA: 901.1
	Lead-214	3.6 ± 5.7	19	NE	NE	U	EPA: 901.1
	Potassium-40	-18 ± 34	120	NE	NE	U	EPA: 901.1
	Protactinium-234m	220 ± 220	720	NE	NE	U	EPA: 901.1
	Radium-226	0 ± 0.13	0.4	5	30	U	EPA: 903.1
	Radium-228	0.063 ± 0.17	0.75	5	30	U	EPA: 904.0
	Sodium-22	-0.16 ± 1.4	4.8	NE	NE	U	EPA: 901.1
Thallium-208	1.3 ± 2.7	9	NE	NE	U	EPA: 901.1	
Thorium-234	-13 ± 23	77	NE	NE	U	EPA: 901.1	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
PL-4 22-Mar-19	Actinium-228	7.9 ± 4.9	19	NE	NE	U	EPA: 901.1
	Americium-241	-11 ± 52	170	NE	NE	U	EPA: 901.1
	Beryllium-7	-8.3 ± 11	39	NE	NE	U	EPA: 901.1
	Bismuth-212	63 ± 18	57	NE	NE	NQ	EPA: 901.1
	Bismuth-214	-0.94 ± 6.1	20	NE	NE	U	EPA: 901.1
	Cesium-134	-4.3 ± 1.4	5	NE	NE	U	EPA: 901.1
	Cesium-137	1.8 ± 1.3	4.4	NE	NE	U	EPA: 901.1
	Cobalt-60	-3.5 ± 1.5	5.3	NE	NE	U	EPA: 901.1
	Gross alpha	2.7 ± 0.45	1.1	15	NE		EPA: 900.0
	Gross beta	5.3 ± 0.57	1.1	4mrem/yr	NE		EPA: 900.0
	Iodine-131	8.1 ± 3.2	10	NE	NE	U	EPA: 901.1
	Lead-212	3.1 ± 3.6	12	NE	NE	U	EPA: 901.1
	Lead-214	4.2 ± 4.7	16	NE	NE	U	EPA: 901.1
	Potassium-40	-78 ± 43	150	NE	NE	U	EPA: 901.1
	Protactinium-234m	-270 ± 440	1500	NE	NE	U	EPA: 901.1
	Radium-226	0.051 ± 0.13	0.38	5	30	U	EPA: 903.1
	Radium-228	2.2 ± 0.33	0.69	5	30		EPA: 904.0
	Sodium-22	-2.4 ± 1.5	5.4	NE	NE	U	EPA: 901.1
Thallium-208	4 ± 1.3	4.1	NE	NE	U	EPA: 901.1	
Thorium-234	63 ± 70	230	NE	NE	U	EPA: 901.1	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-2S 12-Mar-19	Actinium-228	8.5 ± 9.9	33	NE	NE	U	EPA: 901.1
	Americium-241	65 ± 38	130	NE	NE	U	EPA: 901.1
	Beryllium-7	-38 ± 12	42	NE	NE	U	EPA: 901.1
	Bismuth-212	50 ± 19	60	NE	NE	U	EPA: 901.1
	Bismuth-214	11 ± 6	20	NE	NE	U	EPA: 901.1
	Cesium-134	0 ± 2	6.8	NE	NE	U	EPA: 901.1
	Cesium-137	2.1 ± 1.4	4.7	NE	NE	U	EPA: 901.1
	Cobalt-60	-1.6 ± 1.6	5.4	NE	NE	U	EPA: 901.1
	Gross alpha	23 ± 2.3	3	15	NE	M3	EPA: 900.0
	Gross beta	8 ± 1.2	3.2	4mrem/yr	NE	M3	EPA: 900.0
	Iodine-131	-0.49 ± 3.2	11	NE	NE	U	EPA: 901.1
	Lead-212	-3.7 ± 4.1	14	NE	NE	U	EPA: 901.1
	Lead-214	7.5 ± 5	16	NE	NE	U	EPA: 901.1
	Potassium-40	95 ± 43	140	NE	NE	U	EPA: 901.1
	Protactinium-234m	150 ± 230	780	NE	NE	U	EPA: 901.1
	Radium-226	0.19 ± 0.081	0.2	5	30	Y1,U	EPA: 903.1
	Radium-228	0.72 ± 0.2	0.73	5	30	U	EPA: 904.0
	Sodium-22	-2.5 ± 1.5	5.3	NE	NE	U	EPA: 901.1
	Thallium-208	3.6 ± 2.9	9.5	NE	NE	U	EPA: 901.1
	Thorium-234	-29 ± 68	220	NE	NE	U	EPA: 901.1
Uranium-234	19 ± 1.6	0.029	NE	NE		HASL300:ISOU	
Uranium-235	0.4 ± 0.079	0.083	NE	NE		HASL300:ISOU	
Uranium-238	5.6 ± 0.51	0.029	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-4T 13-Mar-19	Actinium-228	-0.083 ± 9.8	33	NE	NE	U	EPA: 901.1
	Americium-241	9.5 ± 17	56	NE	NE	U	EPA: 901.1
	Beryllium-7	6.2 ± 10	34	NE	NE	U	EPA: 901.1
	Bismuth-212	37 ± 18	57	NE	NE	U	EPA: 901.1
	Bismuth-214	-6.8 ± 7	23	NE	NE	U	EPA: 901.1
	Cesium-134	0.75 ± 0.77	2.8	NE	NE	U	EPA: 901.1
	Cesium-137	-1.3 ± 1.3	4.4	NE	NE	U	EPA: 901.1
	Cobalt-60	1.2 ± 1.3	4.5	NE	NE	U	EPA: 901.1
	Gross alpha	-1.2 ± 2.7	9.4	15	NE	U,M	EPA: 900.0
	Gross beta	-2.9 ± 3	10	4mrem/yr	NE	U,M	EPA: 900.0
	Iodine-131	-1.8 ± 2.6	8.8	NE	NE	U	EPA: 901.1
	Lead-212	-2 ± 3.8	13	NE	NE	U	EPA: 901.1
	Lead-214	-6.5 ± 5.6	19	NE	NE	U	EPA: 901.1
	Potassium-40	0.38 ± 33	110	NE	NE	U	EPA: 901.1
	Protactinium-234m	400 ± 160	520	NE	NE	U	EPA: 901.1
	Radium-226	0.26 ± 0.13	0.35	5	30	U	EPA: 903.1
	Radium-228	0.4 ± 0.19	0.76	5	30	U	EPA: 904.0
	Sodium-22	-0.14 ± 1.3	4.3	NE	NE	U	EPA: 901.1
	Thallium-208	1.3 ± 2.5	8.4	NE	NE	U	EPA: 901.1
	Thorium-234	-83 ± 53	180	NE	NE	U	EPA: 901.1
Uranium-234	0.5 ± 0.081	0.065	NE	NE		HASL300:ISOU	
Uranium-235	0.011 ± 0.021	0.031	NE	NE	U	HASL300:ISOU	
Uranium-238	0.12 ± 0.037	0.065	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
SFR-4T 13-Mar-19 (Duplicate)	Actinium-228	14 ± 5.7	18	NE	NE	U	EPA: 901.1
	Americium-241	-5.5 ± 9.5	32	NE	NE	U	EPA: 901.1
	Beryllium-7	-0.89 ± 13	44	NE	NE	U	EPA: 901.1
	Bismuth-212	4.5 ± 22	76	NE	NE	U	EPA: 901.1
	Bismuth-214	-0.51 ± 7.5	25	NE	NE	U	EPA: 901.1
	Cesium-134	2.8 ± 2.6	8.3	NE	NE	U	EPA: 901.1
	Cesium-137	0.63 ± 1.7	5.8	NE	NE	U,M	EPA: 901.1
	Cobalt-60	-0.11 ± 2.2	7.5	NE	NE	U	EPA: 901.1
	Gross alpha	-5.6 ± 3.2	12	15	NE	U,M	EPA: 900.0
	Gross beta	-1.4 ± 3.6	12	4mrem/yr	NE	U,M	EPA: 900.0
	Iodine-131	-5.3 ± 3.3	11	NE	NE	U	EPA: 901.1
	Lead-212	-0.059 ± 4.8	16	NE	NE	U	EPA: 901.1
	Lead-214	7.5 ± 3.3	10	NE	NE	U	EPA: 901.1
	Potassium-40	-7.8 ± 52	170	NE	NE	U	EPA: 901.1
	Protactinium-234m	480 ± 320	1100	NE	NE	U	EPA: 901.1
	Radium-226	0.057 ± 0.099	0.37	5	30	U	EPA: 903.1
	Radium-228	0.55 ± 0.18	0.7	5	30	U	EPA: 904.0
	Sodium-22	4.7 ± 2.1	6.7	NE	NE	U	EPA: 901.1
	Thallium-208	5.4 ± 1.6	5.1	NE	NE	NQ	EPA: 901.1
	Thorium-234	24 ± 47	160	NE	NE	U	EPA: 901.1
Uranium-234	0.46 ± 0.076	0.053	NE	NE		HASL300:ISOU	
Uranium-235	0.0073 ± 0.021	0.062	NE	NE	U	HASL300:ISOU	
Uranium-238	0.12 ± 0.035	0.026	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW2 19-Mar-19	Actinium-228	-4.3 ± 9	30	NE	NE	U	EPA: 901.1
	Americium-241	-10 ± 16	56	NE	NE	U	EPA: 901.1
	Beryllium-7	8.1 ± 9.8	33	NE	NE	U	EPA: 901.1
	Bismuth-212	45 ± 17	53	NE	NE	U	EPA: 901.1
	Bismuth-214	-1 ± 6.5	22	NE	NE	U	EPA: 901.1
	Cesium-134	-1.8 ± 1.2	4.2	NE	NE	U	EPA: 901.1
	Cesium-137	-0.82 ± 1.2	4.3	NE	NE	U	EPA: 901.1
	Cobalt-60	-0.073 ± 1.3	4.5	NE	NE	U	EPA: 901.1
	Gross alpha	3.7 ± 0.47	0.97	15	NE		EPA: 900.0
	Gross beta	5.7 ± 0.59	1.1	4mrem/yr	NE		EPA: 900.0
	Iodine-131	-2.7 ± 2.7	9.3	NE	NE	U	EPA: 901.1
	Lead-212	3.7 ± 4	13	NE	NE	U	EPA: 901.1
	Lead-214	0.54 ± 5.5	18	NE	NE	U	EPA: 901.1
	Potassium-40	-6 ± 33	110	NE	NE	U	EPA: 901.1
	Protactinium-234m	310 ± 200	660	NE	NE	U	EPA: 901.1
	Radium-226	-0.039 ± 0.14	0.59	5	30	U	EPA: 903.1
	Radium-228	0.59 ± 0.22	0.85	5	30	U	EPA: 904.0
	Sodium-22	-0.71 ± 1.2	4.3	NE	NE	U	EPA: 901.1
Thallium-208	0.31 ± 2.3	7.8	NE	NE	U	EPA: 901.1	
Thorium-234	-15 ± 51	170	NE	NE	U	EPA: 901.1	

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Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW3 20-Mar-19	Actinium-228	2.4 ± 5	17	NE	NE	U	EPA: 901.1
	Americium-241	3.4 ± 5.5	18	NE	NE	U	EPA: 901.1
	Beryllium-7	-3.3 ± 4.9	17	NE	NE	U	EPA: 901.1
	Bismuth-212	32 ± 9	28	NE	NE	NQ	EPA: 901.1
	Bismuth-214	5.8 ± 4.3	14	NE	NE	U	EPA: 901.1
	Cesium-134	0.12 ± 0.96	3.2	NE	NE	U	EPA: 901.1
	Cesium-137	-1.1 ± 0.66	2.2	NE	NE	U	EPA: 901.1
	Cobalt-60	-0.87 ± 0.7	2.4	NE	NE	U	EPA: 901.1
	Gross alpha	3.2 ± 0.54	1.4	15	NE		EPA: 900.0
	Gross beta	4.3 ± 0.51	1.2	4mrem/yr	NE		EPA: 900.0
	Iodine-131	0.76 ± 1.4	4.7	NE	NE	U	EPA: 901.1
	Lead-212	3.1 ± 2.3	7.5	NE	NE	U	EPA: 901.1
	Lead-214	1 ± 4	13	NE	NE	U	EPA: 901.1
	Potassium-40	-32 ± 19	64	NE	NE	U	EPA: 901.1
	Protactinium-234m	400 ± 110	340	NE	NE	NQ	EPA: 901.1
	Radium-226	-0.11 ± 0.13	0.57	5	30	U	EPA: 903.1
	Radium-228	0.27 ± 0.17	0.73	5	30	U	EPA: 904.0
Sodium-22	-0.4 ± 0.71	2.4	NE	NE	U	EPA: 901.1	
Thallium-208	0.93 ± 1.3	4.6	NE	NE	U	EPA: 901.1	
Thorium-234	49 ± 32	100	NE	NE	U	EPA: 901.1	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
SWTA3-MW4 21-Mar-19	Actinium-228	7 ± 5.8	19	NE	NE	U	EPA: 901.1
	Americium-241	4.9 ± 15	50	NE	NE	U	EPA: 901.1
	Beryllium-7	-3 ± 12	40	NE	NE	U	EPA: 901.1
	Bismuth-212	11 ± 20	68	NE	NE	U	EPA: 901.1
	Bismuth-214	-1.1 ± 6.5	22	NE	NE	U	EPA: 901.1
	Cesium-134	0.53 ± 1.4	4.7	NE	NE	U	EPA: 901.1
	Cesium-137	-0.52 ± 1.5	5.2	NE	NE	U,M	EPA: 901.1
	Cobalt-60	-1.4 ± 1.5	5.3	NE	NE	U	EPA: 901.1
	Gross alpha	3.6 ± 0.55	1.3	15	NE		EPA: 900.0
	Gross beta	4.9 ± 0.57	1.3	4mrem/yr	NE		EPA: 900.0
	Iodine-131	3.6 ± 3.3	11	NE	NE	U	EPA: 901.1
	Lead-212	8.1 ± 2.2	6.9	NE	NE	NQ	EPA: 901.1
	Lead-214	-1 ± 6.4	21	NE	NE	U	EPA: 901.1
	Potassium-40	-170 ± 56	190	NE	NE	U	EPA: 901.1
	Protactinium-234m	380 ± 240	780	NE	NE	U	EPA: 901.1
	Radium-226	0.039 ± 0.14	0.54	5	30	U	EPA: 903.1
	Radium-228	0.77 ± 0.2	0.69	5	30		EPA: 904.0
Sodium-22	-1.2 ± 1.5	5.3	NE	NE	U	EPA: 901.1	
Thallium-208	3.4 ± 1.5	4.7	NE	NE	U	EPA: 901.1	
Thorium-234	49 ± 46	150	NE	NE	U	EPA: 901.1	

Refer to footnotes at the end of tables.

Table-8

Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Radium-226, Radium-228 and Isotopic Uranium
 Sandia National Laboratories/New Mexico LTS Groundwater Monitoring Program
 New Mexico Environment Department DOE Oversight Bureau
 March 2019

Monitoring Well/ Sample Date	Analyte	Activity ^a (pCi/L)	MDA ^b (pCi/L)	MCL ^d (pCi/L)	MAC ^d (pCi/L)	Laboratory Qualifier ^e	Analytical Method ^f
TRE-1 11-Mar-19	Actinium-228	23 ± 6.1	19	NE	NE	NQ	EPA: 901.1
	Americium-241	14 ± 15	50	NE	NE	U	EPA: 901.1
	Beryllium-7	8.1 ± 13	42	NE	NE	U	EPA: 901.1
	Bismuth-212	-20 ± 21	73	NE	NE	U	EPA: 901.1
	Bismuth-214	14 ± 6.8	22	NE	NE	U	EPA: 901.1
	Cesium-134	-1.4 ± 1.5	5.2	NE	NE	U	EPA: 901.1
	Cesium-137	-2.2 ± 1.6	5.5	NE	NE	U,M	EPA: 901.1
	Cobalt-60	1.1 ± 1.6	5.5	NE	NE	U	EPA: 901.1
	Gross alpha	30 ± 2.9	3.4	15	NE	M3	EPA: 900.0
	Gross beta	5.5 ± 1.2	3.4	4mrem/yr	NE	M3	EPA: 900.0
	Iodine-131	4.9 ± 3.7	12	NE	NE	U	EPA: 901.1
	Lead-212	6.3 ± 4.2	14	NE	NE	U	EPA: 901.1
	Lead-214	11 ± 5.4	20	NE	NE	U	EPA: 901.1
	Potassium-40	20 ± 57	190	NE	NE	U	EPA: 901.1
	Protactinium-234m	0 ± 250	850	NE	NE	U	EPA: 901.1
	Radium-226	0.25 ± 0.11	0.26	5	30	U	EPA: 903.1
	Radium-228	0.45 ± 0.18	0.71	5	30	U	EPA: 904.0
	Sodium-22	-0.18 ± 1.6	5.4	NE	NE	U	EPA: 901.1
	Thallium-208	0.25 ± 2.9	9.6	NE	NE	U	EPA: 901.1
	Thorium-234	60 ± 20	65	NE	NE	U	EPA: 901.1
Uranium-234	24 ± 2	0.067	NE	NE		HASL300:ISOU	
Uranium-235	0.46 ± 0.084	0.078	NE	NE		HASL300:ISOU	
Uranium-238	5.8 ± 0.53	0.055	NE	NE		HASL300:ISOU	

Refer to footnotes at the end of tables.

Footnotes for LTS Groundwater Monitoring Program Analytical Results Tables

Sandia National Laboratories/New Mexico

New Mexico Environment Department DOE Oversight Bureau

March 2019

EPA	= U.S. Environmental Protection Agency.
HMX	= Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine.
µg/L	= Micrograms per liter.
mg/L	= Milligrams per liter.
mrem/yr	= Millirem per year.
pCi/L	= Picocuries per liter.
RDX	= Hexahydro-1,3,5-trinitro-1,3,5-triazine.
Tetryl	= Methyl-2,4,6-trinitrophenylnitramine.

^aResult or Activity

Result applies to Tables-1 through -7. Activity applies to Table-8.

Activity = A negative value indicates that the sample count rate was below that of the instrument background; result is below the Minimum Detectable Activity (MDA).

Bold = Value exceeds the established MCL or MAC.

^bReporting Limit (RL)

The RL applies to Tables-1 through -7.

RL = The reporting limit is the lowest that can be reliably measured by a laboratory with defined limits of precision and accuracy.

^cMDL or MDA

The MDL applies to Tables-1 through -7. MDA applies to Table-8.

MDA = The minimal detectable activity is used for radiochemical procedures and is defined as the concentration at which there is a 95% confidence that an analyte signal will be distinguishable from an analyte-free sample.

MDL = Method detection limit. The minimum concentration of an analyte that can be measured and reported with 99% confidence that the analyte is greater than zero.

^dMCL and MAC

Regulatory limits: The MCL is listed first, followed by the MAC. A single value is listed when the MCL and MAC are equal (for example, total mercury). If no value exists, NE is used.

MAC = Maximum allowable concentration. MACs were established by the New Mexico Water Quality Control Commission (NMWQCC September 2004).

MCL = Maximum contaminant level. MCLs were established by the EPA Office of Water, National Primary Water Standards (EPA May 2009).

The following are the MCLs for gross alpha particles and beta particles in community water systems:

- 15 pCi/L = Gross alpha particle activity, excluding total uranium (40 CFR Part 141).
 - 4 mrem/yr = any combination of beta and/or gamma emitting radionuclides (as dose rate).
- NE = Not established

Footnotes for LTS Groundwater Monitoring Program Analytical Results Tables (Concluded)

Sandia National Laboratories/New Mexico

New Mexico Environment Department DOE Oversight Bureau

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^eLaboratory Qualifier

Lab qualifier applies to Tables-1 through -7.

J = the reported value was obtained from a reading that was less than the Reporting Limit but greater than or equal to the Method Detection Limit (MDL).

U = the analyte was analyzed for, but not detected.

Lab qualifier applies to Table-8

M = the requested MDA not met.

M3 = The requested MDA was not met, but the reported activity is greater than the reported MDA.

NQ = an NQ flag indicates that no peak was found, therefore the nuclide is not detected or supported at any level above the reported MDC.

U = result is less than the sample specific Minimum Detectable Activity (MDA).

Y1 = chemical yield is in control at 100-110%. Quantitative yield is assumed.

^fAnalytical Method

DOE, 1997, EML [Environmental Measurements Laboratory] Procedures Manual, 28th ed., Vol. 1, Rev. 0, HASL-300, Environmental Measurements Laboratory.

EPA, 1986 (and updates), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd ed., U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1984, Methods for Chemical Analysis of Water and Wastes. EPA 600-4-79-020, U.S. Environmental Protection Agency, Cincinnati, Ohio.

EPA, 1980, Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600-4-80-032, U.S. Environmental Protection Agency, Cincinnati, Ohio.

Rice, E.W., R.B. Baird, A.D. Eaton, and L.S. Clesceri, 2012, Standard Methods for the Examination of Water and Wastewater, 22nd ed., Standard Method 2320B, Washington, D.C.

DOE = U.S. Department of Energy.

EPA = U.S. Environmental Protection Agency

HASL = Health and Safety Laboratory

SM = Standard Method.