DOE Oversight Bureau, New Mexico Environment Department

Groundwater Monitoring at Sandia National Laboratories/New Mexico Technical Area-V Groundwater

Conducted by the
New Mexico Environment Department DOE Oversight Bureau
for FFY 2016 Q-3

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Final Report

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The purpose of this communication is to transmit groundwater quality data collected by New Mexico Environment Department DOE Oversight Bureau from Technical Area-V Groundwater monitoring wells during third quarter FFY 2016.

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 May 2016. The Bureau collected groundwater samples from Technical Area-V (TAV) Area of Concern (AOC) monitoring wells AVN-1, LWDS-MW1, LWDS-MW2, TAV-MW2, TAV-MW3, TAV-MW4, TAV-MW6, TAV-MW7, TAV-MW8, TAV-MW9, TAV-MW10, TAV-MW11, TAV-MW12 and TAV-MW14. Split samples were collected using standard Sandia National Laboratories/New Mexico (SNL/NM) sampling procedures and equipment. Samples were analyzed for metals, anions, nitrates, volatile organic compounds (VOCs) and radionuclides. The Bureau used ALS Environmental Laboratory located in Fort Collins, Colorado to analyze and report data results from samples collected at TAV AOC. ALS Environmental is an independent analytical laboratory under contract with the NMED.

Nitrate levels exceeded the U.S. Environmental Protection Agency (EPA) maximum contaminant level (MCL), or drinking water standard of 10 mg/L at monitoring wells LWDS-MW1 and TAV-MW10. Trichloroethene (TCE) concentrations also exceeded the EPA MCL of 5 µg/L at monitoring wells LWDS-MW1, TAV-MW6, TAV-MW10, TAV-MW12 and TAV-MW14.

Data Assessment

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

Results

Analytical results for total target analyte list (TAL) metals plus uranium are presented in Table-1. All metal concentrations were below established MCLs.

Analytical results for anions (bromide, chloride, fluoride and sulfate), nitrate, nitrite and nitrate-nitrite as nitrogen are summarized in Table-2. All anions were below MCLs. Nitrate levels exceeded the EPA MCL of 10 mg/L at monitoring wells LWDS-MW1 (12 mg/L) and TAV-MW10 (11 mg/L). All other samples analyzed for nitrates were detected below the EPA MCL.

VOCs detected at concentrations above the laboratory method detection limits (MDLs) are listed in Table-3. Compounds detected above the laboratory MDLs include chloroform, dichloroethene [cis-, 2-] and TCE. No VOCs were detected above their associated MCL, except for TCE. TCE was detected above the EPA MCL of 5 µg/L at TAV monitoring wells LWDS-MW1 (20 µg/L), TAV-MW6 (16 µg/L), TAV-MW10 (14 µg/L), TAV-MW12 (9.4 µg/L) and TAV-MW14 (5.8 µg/L).

Table-4 summarizes the laboratory MDLs for the remaining VOCs analyzed from samples collected at TAV.

Analytical results for radionuclides are presented in Table-5 and used to screen for potential radiological contamination. Samples were analyzed for gross alpha, gross beta, gamma emitting isotopes and tritium. Gross alpha ranged from 1.9 pCi/L at LWDS-MW2 to 6.7 pCi/L at TAV-MW7. Tritium was not detected in any samples. All radionuclide results were below established EPA MCLs and consistent with previous monitoring results.

Conclusion

The DOE-OB collected split samples from a total of fourteen (14) TAV groundwater monitoring wells during third quarter FFY 2016. Samples were analyzed by ALS Environmental for metals, anions, nitrates, VOCs and radionuclides. Nitrate concentrations exceeded the EPA MCL of 10 mg/L in samples collected from monitoring wells LWDS-MW1 and TAV-MW10. TCE concentrations also exceeded the EPA MCL of 5 µg/L at monitoring wells LWDS-MW1, TAV-MW6, TAV-MW10, TAV-MW12 and TAV-MW14.

Both nitrate and TCE have been identified as contaminants of concern at TAV. Historically, nitrate and TCE have been detected above the EPA drinking water standards and data results from FFY16 Q-3 compare well to past results.

The DOE-OB will continue to collect split samples with SNL/NM from TAV groundwater monitoring wells and continue to independently monitor TAV wells for nitrate and TCE.

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
AVN-1 17-May-16	Aluminum	0.065	NE	0.1	0.014	JB	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.0015	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.079	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	42	NE	1	0.061	B	SW-846:6020
	Chromium	0.027	0.1	0.01	0.0011		SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.31	NE	0.1	0.0053		SW-846:6020
	Lead	0.00018	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	9.4	NE	0.1	0.02		SW-846:6020
	Manganese	0.0032	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3	NE	1	0.32		SW-846:6020
	Selenium	0.0023	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	40	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.002	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0079	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
AVN-1 17-May-16 (Duplicate)	Aluminum	0.056	NE	0.1	0.014	JB	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.0016	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.082	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	44	NE	1	0.061	B	SW-846:6020
	Chromium	0.019	0.1	0.01	0.0011		SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.14	NE	0.1	0.0053		SW-846:6020
	Lead	0.00016	NE	0.002	0.00016	U	SW-846:6020
	Magnesium	9.8	NE	0.1	0.02		SW-846:6020
	Manganese	0.0017	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.2	NE	1	0.32		SW-846:6020
	Selenium	0.0021	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	41	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0021	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0074	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
LWDS-MW1 23-May-16	Aluminum	0.11	NE	0.1	0.014		SW-846:6020
	Antimony	0.00011	0.006	0.001	0.000084	J	SW-846:6020
	Arsenic	0.0018	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.09	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	67	NE	1	0.061		SW-846:6020
	Chromium	0.0017	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.13	NE	0.1	0.0053	B	SW-846:6020
	Lead	0.00024	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	21	NE	0.1	0.02		SW-846:6020
	Manganese	0.002	NE	0.005	0.0003	JB	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3	NE	1	0.32		SW-846:6020
	Selenium	0.0052	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	69	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0029	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0037	NE	0.005	0.00058	J	SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

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Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
LWDS-MW2 16-May-16	Aluminum	0.021	NE	0.1	0.014	JB	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.0012	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.071	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	48	NE	1	0.061	B	SW-846:6020
	Chromium	0.0025	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.026	NE	0.1	0.0053	J	SW-846:6020
	Lead	0.00016	NE	0.002	0.00016	U	SW-846:6020
	Magnesium	15	NE	0.1	0.02		SW-846:6020
	Manganese	0.0011	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	2.5	NE	1	0.32		SW-846:6020
	Selenium	0.0023	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.00017	NE	0.0005	0.000039	J	SW-846:6020
	Sodium	53	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0032	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0067	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

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TAV-MW2 11-May-16	Aluminum	0.14	NE	0.1	0.014	B	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.061	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	69	NE	1	0.061	B	SW-846:6020
	Chromium	0.002	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00019	NE	0.005	0.00007	J	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.11	NE	0.1	0.0053		SW-846:6020
	Lead	0.00024	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	21	NE	0.1	0.02		SW-846:6020
	Manganese	0.0077	NE	0.005	0.0003		SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.6	NE	1	0.32		SW-846:6020
	Selenium	0.0028	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	65	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0057	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0057	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

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TAV-MW3 4-May-16	Aluminum	0.081	NE	0.1	0.014	JB	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.00094	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.047	2	0.005	0.00023	B	SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	55	NE	1	0.061	B	SW-846:6020
	Chromium	0.0017	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.072	NE	0.1	0.0053	JB	SW-846:6020
	Lead	0.00026	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	14	NE	0.1	0.02		SW-846:6020
	Manganese	0.0038	NE	0.005	0.0003	JB	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	4.4	NE	1	0.32		SW-846:6020
	Selenium	0.0019	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	52	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0032	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0053	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

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TAV-MW4 10-May-16	Aluminum	0.12	NE	0.1	0.014	B	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.0013	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.089	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	51	NE	1	0.061	B	SW-846:6020
	Chromium	0.026	0.1	0.01	0.0011		SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.057	NE	0.1	0.0053	J	SW-846:6020
	Lead	0.0007	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	14	NE	0.1	0.02		SW-846:6020
	Manganese	0.0012	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3	NE	1	0.32		SW-846:6020
	Selenium	0.003	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	46	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0029	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0063	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

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TAV-MW6 25-May-16	Aluminum	0.16	NE	0.1	0.014		SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.00088	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.071	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	62	NE	1	0.061		SW-846:6020
	Chromium	0.0011	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.14	NE	0.1	0.0053	B	SW-846:6020
	Lead	0.00027	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	19	NE	0.1	0.02		SW-846:6020
	Manganese	0.0026	NE	0.005	0.0003	JB	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.5	NE	1	0.32		SW-846:6020
	Selenium	0.0038	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	65	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0036	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0054	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW7 9-May-16	Aluminum	0.15	NE	0.1	0.014	B	SW-846:6020
	Antimony	0.00013	0.006	0.001	0.000084	J	SW-846:6020
	Arsenic	0.0016	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.058	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00063	0.004	0.0005	0.00027		SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	60	NE	1	0.061	B	SW-846:6020
	Chromium	0.0011	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.0002	NE	0.005	0.00007	J	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.047	NE	0.1	0.0053	J	SW-846:6020
	Lead	0.00022	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	18	NE	0.1	0.02		SW-846:6020
	Manganese	0.0048	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.9	NE	1	0.32		SW-846:6020
	Selenium	0.0026	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	58	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0047	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0065	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0092	NE	0.1	0.0091	J	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW8 12-May-16	Aluminum	0.24	NE	0.1	0.014	B	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.001	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.056	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	57	NE	1	0.061	B	SW-846:6020
	Chromium	0.0029	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	J	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.17	NE	0.1	0.0053		SW-846:6020
	Lead	0.00032	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	16	NE	0.1	0.02		SW-846:6020
	Manganese	0.004	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.6	NE	1	0.32		SW-846:6020
	Selenium	0.0027	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	57	NE	1	0.19	B	SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0033	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0063	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW9 5-May-16	Aluminum	0.054	NE	0.1	0.014	JB	SW-846:6020
	Antimony	0.00018	0.006	0.001	0.000084	J	SW-846:6020
	Arsenic	0.00084	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.065	2	0.005	0.00023	B	SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	61	NE	1	0.061	B	SW-846:6020
	Chromium	0.0018	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.055	NE	0.1	0.0053	JB	SW-846:6020
	Lead	0.00016	NE	0.002	0.00016	U	SW-846:6020
	Magnesium	18	NE	0.1	0.02		SW-846:6020
	Manganese	0.0066	NE	0.005	0.0003	B	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	4	NE	1	0.32		SW-846:6020
	Selenium	0.0021	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	55	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0049	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0065	NE	0.005	0.00058		SW-846:6020
	Zinc	0.013	NE	0.1	0.0091	J	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW10 31-May-16	Aluminum	0.016	NE	0.1	0.014	J	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.0011	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.062	2	0.005	0.00023		SW-846:6020
	Beryllium	0.0005	0.004	0.0005	0.00027	J	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	60	NE	1	0.061		SW-846:6020
	Chromium	0.0022	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	J	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.027	NE	0.1	0.0053	J	SW-846:6020
	Lead	0.00021	NE	0.002	0.00016	JB	SW-846:6020
	Magnesium	17	NE	0.1	0.02		SW-846:6020
	Manganese	0.00067	NE	0.005	0.0003	J	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	4	NE	1	0.32		SW-846:6020
	Selenium	0.0034	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	58	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0031	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0055	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW11 18-May-16	Aluminum	0.016	NE	0.1	0.014	J	SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.0011	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.068	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	53	NE	1	0.061		SW-846:6020
	Chromium	0.0019	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00007	NE	0.005	0.00007	U	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.014	NE	0.1	0.0053	JB	SW-846:6020
	Lead	0.00027	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	15	NE	0.1	0.02		SW-846:6020
	Manganese	0.002	NE	0.005	0.0003	JB	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.5	NE	1	0.32		SW-846:6020
	Selenium	0.0041	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	54	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0028	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0054	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW12 24-May-16	Aluminum	0.86	NE	0.1	0.014		SW-846:6020
	Antimony	0.0001	0.006	0.001	0.000084	J	SW-846:6020
	Arsenic	0.00065	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.088	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	62	NE	1	0.061		SW-846:6020
	Chromium	0.0023	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00032	NE	0.005	0.00007	J	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.67	NE	0.1	0.0053	B	SW-846:6020
	Lead	0.00071	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	20	NE	0.1	0.02		SW-846:6020
	Manganese	0.03	NE	0.005	0.0003	B	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	3.9	NE	1	0.32		SW-846:6020
	Selenium	0.0017	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	63	NE	1	0.19		SW-846:6020
	Thallium	0.00002	0.002	0.0001	0.000014	J	SW-846:6020
	Uranium	0.0052	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0036	NE	0.005	0.00058	J	SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-1 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Total Target Analyte List Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW14 19-May-16	Aluminum	0.3	NE	0.1	0.014		SW-846:6020
	Antimony	0.000084	0.006	0.001	0.000084	U	SW-846:6020
	Arsenic	0.00081	0.01	0.002	0.00018	J	SW-846:6020
	Barium	0.058	2	0.005	0.00023		SW-846:6020
	Beryllium	0.00027	0.004	0.0005	0.00027	U	SW-846:6020
	Cadmium	0.000099	0.005	0.002	0.000099	U	SW-846:6020
	Calcium	58	NE	1	0.061		SW-846:6020
	Chromium	0.0017	0.1	0.01	0.0011	J	SW-846:6020
	Cobalt	0.00012	NE	0.005	0.00007	J	SW-846:6020
	Copper	0.0011	NE	0.02	0.0011	U	SW-846:6020
	Iron	0.29	NE	0.1	0.0053	B	SW-846:6020
	Lead	0.00043	NE	0.002	0.00016	J	SW-846:6020
	Magnesium	18	NE	0.1	0.02		SW-846:6020
	Manganese	0.0059	NE	0.005	0.0003	B	SW-846:6020
	Mercury	0.00006	0.002	0.0001	0.00006	U	SW-846:7470A
	Nickel	0.0042	NE	0.02	0.0042	U	SW-846:6020
	Potassium	4.1	NE	1	0.32		SW-846:6020
	Selenium	0.0023	0.05	0.01	0.00066	J	SW-846:6020
	Silver	0.000039	NE	0.0005	0.000039	U	SW-846:6020
	Sodium	61	NE	1	0.19		SW-846:6020
	Thallium	0.000014	0.002	0.0001	0.000014	U	SW-846:6020
	Uranium	0.0039	0.03	0.0001	0.000027		SW-846:6020
	Vanadium	0.0055	NE	0.005	0.00058		SW-846:6020
	Zinc	0.0091	NE	0.1	0.0091	U	SW-846:6020

B = Compound was found in the blank and sample.

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).

NE = Not Established

U = the analyte was analyzed for but not detected

Table-2 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Anions, Nitrate, Nitrite and Nitrate-Nitrite as Nitrogen

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
AVN-1 17-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	10	NE	0.2	0.06		EPA:300.0
	Fluoride	1.3	4	0.1	0.03		EPA:300.0
	Nitrate as N	9.2	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	9.3	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	32	NE	1	0.3		EPA:300.0
AVN-1 17-May-16 (Duplicate)	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	9.9	NE	0.2	0.06		EPA:300.0
	Fluoride	1.2	4	0.1	0.03		EPA:300.0
	Nitrate as N	9	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	9	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	31	NE	1	0.3		EPA:300.0
LWDS-MW1 23-May-16	Bromide	0.67	NE	0.2	0.06		EPA:300.0
	Chloride	86	NE	4	1.2		EPA:300.0
	Fluoride	0.55	4	0.1	0.03		EPA:300.0
	Nitrate as N	**12**	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	**12**	10	0.2	0.06		EPA:353.2
	Nitrite as N	0.1	1	0.1	0.03	UH	EPA:300.0
	Sulfate	40	NE	1	0.3		EPA:300.0
LWDS-MW2 16-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	13	NE	1	0.3		EPA:300.0
	Fluoride	1.3	4	0.1	0.03		EPA:300.0
	Nitrate as N	7.5	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	7.7	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	40	NE	1	0.3		EPA:300.0
TAV-MW2 11-May-16	Bromide	0.28	NE	0.2	0.06		EPA:300.0
	Chloride	61	NE	4	1.2		EPA:300.0
	Fluoride	0.95	4	0.1	0.03		EPA:300.0
	Nitrate as N	3.9	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	3.9	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	59	NE	1	0.3		EPA:300.0

H = Analytical holding time was exceeded

NE = Not Established

U = the analyte was analyzed for but not detected

Table-2 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Anions, Nitrate, Nitrite and Nitrate-Nitrite as Nitrogen

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW3 4-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	26	NE	2	0.6		EPA:300.0
	Fluoride	1.6	4	0.1	0.03		EPA:300.0
	Nitrate as N	5.2	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	5.3	10	0.1	0.03		EPA:353.2
	Nitrite as N	0.1	1	0.1	0.03	UH	EPA:300.0
	Sulfate	65	NE	10	3		EPA:300.0
TAV-MW4 10-May-16	Bromide	0.33	NE	0.2	0.06		EPA:300.0
	Chloride	43	NE	2	0.6		EPA:300.0
	Fluoride	1.3	4	0.1	0.03		EPA:300.0
	Nitrate as N	4.9	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	4.7	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	36	NE	1	0.3		EPA:300.0
TAV-MW6 25-May-16	Bromide	0.72	NE	0.2	0.06		EPA:300.0
	Chloride	82	NE	2	0.6		EPA:300.0
	Fluoride	1.2	4	0.1	0.03		EPA:300.0
	Nitrate as N	7.7	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	7.5	10	0.1	0.03		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	42	NE	1	0.3		EPA:300.0
TAV-MW7 9-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	28	NE	4	1.2		EPA:300.0
	Fluoride	1.1	4	0.1	0.03		EPA:300.0
	Nitrate as N	4	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	4	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	61	NE	20	6		EPA:300.0
TAV-MW8 12-May-16	Bromide	0.28	NE	0.2	0.06		EPA:300.0
	Chloride	48	NE	2	0.6		EPA:300.0
	Fluoride	1.5	4	0.1	0.03		EPA:300.0
	Nitrate as N	6.3	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	6.4	10	0.05	0.015		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	55	NE	1	0.3		EPA:300.0

H = Analytical holding time was exceeded

NE = Not Established

U = the analyte was analyzed for but not detected

Table-2 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Anions, Nitrate, Nitrite and Nitrate-Nitrite as Nitrogen

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
TAV-MW9 5-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	33	NE	4	1.2		EPA:300.0
	Fluoride	0.9	4	0.1	0.03		EPA:300.0
	Nitrate as N	3.4	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	3.5	10	0.1	0.03		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	58	NE	1	0.3		EPA:300.0
TAV-MW10 31-May-16	Bromide	0.24	NE	0.2	0.06		EPA:300.0
	Chloride	50	NE	2	0.6		EPA:300.0
	Fluoride	1.5	4	0.1	0.03		EPA:300.0
	Nitrate as N	**11**	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	**12**	10	0.1	0.03		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	47	NE	1	0.3		EPA:300.0
TAV-MW10 31-May-16 (Duplicate)	Nitrate-Nitrite as Nitrogen	**12**	10	1	0.3		EPA:353.2
TAV-MW11 18-May-16	Bromide	0.4	NE	0.2	0.06		EPA:300.0
	Chloride	53	NE	4	1.2		EPA:300.0
	Fluoride	1.4	4	0.1	0.03		EPA:300.0
	Nitrate as N	6.3	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	6.4	10	0.1	0.03		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	45	NE	1	0.3		EPA:300.0
TAV-MW12 24-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	47	NE	2	0.6		EPA:300.0
	Fluoride	1.3	4	0.1	0.03		EPA:300.0
	Nitrate as N	6.6	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	4.6	10	0.1	0.03		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	49	NE	1	0.3		EPA:300.0
TAV-MW14 19-May-16	Bromide	0.06	NE	0.2	0.06	U	EPA:300.0
	Chloride	54	NE	4	1.2		EPA:300.0
	Fluoride	1.5	4	0.1	0.03		EPA:300.0
	Nitrate as N	8.8	10	0.2	0.06		EPA:300.0
	Nitrate-Nitrite as Nitrogen	9	10	0.2	0.06		EPA:353.2
	Nitrite as N	0.03	1	0.1	0.03	U	EPA:300.0
	Sulfate	53	NE	1	0.3		EPA:300.0

H = Analytical holding time was exceeded

NE = Not Established

U = the analyte was analyzed for but not detected

Table-3 NMED DOE Oversight Bureau FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Detected Volatile Organic Compounds

Monitoring Well/ Sample Date	Analyte	Result (µg/L)	EPA MCL (µg/L)	Quantitation Limit (µg/L)	MDL (µg/L)	Laboratory Qualifier	Analytical Method
LWDS-MW1 23-May-16	Dichloroethene[cis-1,2-]	4.2	70	1	0.3		SW-846:8260B_25
	Trichloroethene	**20**	5	1	0.3		SW-846:8260B_25
TAV-MW2 11-May-16	Trichloroethene	2.2	5	1	0.3		SW-846:8260B_25
TAV-MW4 10-May-16	Chloroform	0.91	NE	1	0.3	J	SW-846:8260B_25
	Dichloroethene[cis-1,2-]	0.36	70	1	0.3	J	SW-846:8260B_25
	Trichloroethene	4.2	5	1	0.3		SW-846:8260B_25
TAV-MW6 25-May-16	Dichloroethene[cis-1,2-]	3	70	1	0.3		SW-846:8260B_25
	Trichloroethene	**16**	5	1	0.3		SW-846:8260B_25
TAV-MW6 25-May-16 (Duplicate)	Dichloroethene[cis-1,2-]	3	70	1	0.3		SW-846:8260B_25
	Trichloroethene	**16**	5	1	0.3		SW-846:8260B_25
TAV-MW8 12-May-16	Dichloroethene[cis-1,2-]	0.35	70	1	0.3	J	SW-846:8260B_25
	Trichloroethene	3.9	5	1	0.3		SW-846:8260B_25
TAV-MW10 31-May-16	Dichloroethene[cis-1,2-]	2.6	70	1	0.3		SW-846:8260B_25
	Trichloroethene	**14**	5	1	0.3		SW-846:8260B_25
TAV-MW10 31-May-16 (Duplicate)	Dichloroethene[cis-1,2-]	2.5	70	1	0.3		SW-846:8260B_25
	Trichloroethene	**14**	5	1	0.3		SW-846:8260B_25
TAV-MW11 18-May-16	Dichloroethene[cis-1,2-]	0.47	70	1	0.3	J	SW-846:8260B_25
	Trichloroethene	3.7	5	1	0.3		SW-846:8260B_25
TAV-MW12 24-May-16	Dichloroethene[cis-1,2-]	0.54	70	1	0.3	J	SW-846:8260B_25
	Trichloroethene	**9.4**	5	1	0.3		SW-846:8260B_25
TAV-MW12 24-May-16 (Duplicate)	Dichloroethene[cis-1,2-]	0.54	70	1	0.3	J	SW-846:8260B_25
	Trichloroethene	**9.7**	5	1	0.3		SW-846:8260B_25
TAV-MW14 19-May-16	Dichloroethene[cis-1,2-]	0.84	70	1	0.3	J	SW-846:8260B_25
	Trichloroethene	**5.8**	5	1	0.3		SW-846:8260B_25

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

NE = Not Established

Table-4 NMED DOE Oversight Bureau FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Method Detection Limits for Volatile Organic Compounds by Method SW-846:8260B_25

Analyte	MDL (µg/L)
Acetone	3
Benzene	0.3
Bromobenzene	0.3
Bromochloromethane	0.3
Bromodichloromethane	0.3
Bromoform	0.3
Bromomethane	0.3
Butanone[2-]	3
Butylbenzene[n-]	0.3
Butylbenzene[sec-]	0.3
Butylbenzene[tert-]	0.3
Carbon Disulfide	0.3
Carbon Tetrachloride	0.3
Chlorobenzene	0.3
Chlorodibromomethane	0.3
Chloroethane	0.3
Chloroform	0.3
Chlorohexane[1-]	0.3
Chloromethane	0.3
Chlorotoluene[2-]	0.3
Chlorotoluene[4-]	0.3
Dibromo-3-Chloropropane[1,2-]	0.4
Dibromoethane[1,2-]	0.3
Dibromomethane	0.3
Dichlorobenzene[1,2-]	0.3
Dichlorobenzene[1,3-]	0.3
Dichlorobenzene[1,4-]	0.3
Dichlorodifluoromethane	0.3
Dichloroethane[1,1-]	0.3
Dichloroethane[1,2-]	0.3
Dichloroethene[1,1-]	0.3
Dichloroethene[cis-1,2-]	0.3
Dichloroethene[trans-1,2-]	0.3
Dichloropropane[1,2-]	0.3
Dichloropropane[1,3-]	0.3

Analyte	MDL (µg/L)
Dichloropropane[2,2-]	0.3
Dichloropropene[1,1-]	0.3
Dichloropropene[cis-1,3-]	0.3
Dichloropropene[trans-1,3-]	0.3
Ethylbenzene	0.3
Hexachlorobutadiene	0.3
Hexanone[2-]	3
Iodomethane	0.38
Isopropylbenzene	0.3
Isopropyltoluene[4-]	0.3
Methyl tert-Butyl Ether	0.3
Methyl-2-pentanone[4-]	3
Methylene Chloride	0.44
Naphthalene	0.3
Propylbenzene[1-]	0.3
Styrene	0.3
Tetrachloroethane[1,1,1,2-]	0.3
Tetrachloroethane[1,1,2,2-]	0.3
Tetrachloroethene	0.2
Toluene	0.3
Trichloro-1,2,2-trifluoroethane[1,1,2-]	0.3
Trichlorobenzene[1,2,3-]	0.3
Trichlorobenzene[1,2,4-]	0.3
Trichloroethane[1,1,1-]	0.3
Trichloroethane[1,1,2-]	0.3
Trichloroethene	0.3
Trichlorofluoromethane	0.3
Trichloropropane[1,2,3-]	0.3
Trimethylbenzene[1,2,4-]	0.3
Trimethylbenzene[1,3,5-]	0.3
Vinyl acetate	0.3
Vinyl Chloride	0.3
Xylene[1,2-]	0.3
Xylene[1,3-]+Xylene[1,4-]	0.3

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
AVN-1 17-May-16	Actinium-228	16	±	5.5	17	U	EPA:901.1
	Americium-241	3.1	±	1.5	5	U	EPA:901.1
	Beryllium-7	5.7	±	32	110	U	EPA:901.1
	Bismuth-212	-21	±	39	130	U	EPA:901.1
	Bismuth-214	5.5	±	7.1	23	U	EPA:901.1
	Cesium-134	-2.2	±	1.3	4.4	U	EPA:901.1
	Cesium-137	-0.72	±	1.3	4.3	U	EPA:901.1
	Cobalt-60	-0.39	±	1.4	4.9	U	EPA:901.1
	Gross alpha	2.4	±	0.46	1.2		EPA:900
	Gross beta	3.4	±	0.6	1.7		EPA:900
	Iodine-131	-4.3	±	3.9	13	U	EPA:901.1
	Lead-212	-0.82	±	3.5	12	U	EPA:901.1
	Lead-214	0.95	±	5.5	18	U	EPA:901.1
	Potassium-40	16	±	37	120	U	EPA:901.1
	Protactinium-234m	47	±	220	760	U	EPA:901.1
	Sodium-22	1.7	±	1.5	5	U	EPA:901.1
	Thallium-208	3.1	±	1.3	4.2	U	EPA:901.1
	Thorium-234	15	±	23	75	U	EPA:901.1
	Tritium	-29	±	110	360	U	EPA:906.0
AVN-1 17-May-16 (Duplicate)	Actinium-228	17	±	5.7	21	U	EPA:901.1
	Americium-241	0.37	±	33	110	U	EPA:901.1
	Beryllium-7	-5.5	±	11	39	U	EPA:901.1
	Bismuth-212	31	±	13	42	U	EPA:901.1
	Bismuth-214	9.2	±	7.3	24	U	EPA:901.1
	Cesium-134	-5.1	±	1.4	5	U	EPA:901.1
	Cesium-137	-0.17	±	1.3	4.5	U	EPA:901.1
	Cobalt-60	-0.38	±	1.4	4.7	U	EPA:901.1
	Gross alpha	3.3	±	0.49	1.1		EPA:900
	Gross beta	2.8	±	0.59	1.7		EPA:900
	Iodine-131	-1.1	±	3.9	13	U	EPA:901.1
	Lead-212	8.3	±	2.4	7.5		EPA:901.1
	Lead-214	4.5	±	5.3	17	U	EPA:901.1
	Potassium-40	19	±	35	120	U	EPA:901.1
	Protactinium-234m	-46	±	220	750	U	EPA:901.1
	Sodium-22	0.6	±	1.2	4.1	U	EPA:901.1
	Thallium-208	2.1	±	2.8	9.2	U	EPA:901.1
	Thorium-234	-24	±	59	200	U	EPA:901.1
	Tritium	-6.9	±	110	360	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
LWDS-MW1 23-May-16	Actinium-228	-2.1	±	10	34	U	EPA:901.1
	Americium-241	-8.9	±	11	39	U	EPA:901.1
	Beryllium-7	-22	±	13	46	U	EPA:901.1
	Bismuth-212	6.7	±	22	73	U	EPA:901.1
	Bismuth-214	9.2	±	7.3	24	U	EPA:901.1
	Cesium-134	-1.1	±	2	6.8	U	EPA:901.1
	Cesium-137	-3.9	±	1.4	5	U	EPA:901.1
	Cobalt-60	-2.3	±	1.5	5.3	U	EPA:901.1
	Gross alpha	2.6	±	0.43	1.1		EPA:900
	Gross beta	3.9	±	0.49	1.1		EPA:900
	Iodine-131	12	±	9.9	33	U	EPA:901.1
	Lead-212	5.9	±	2.2	7	U	EPA:901.1
	Lead-214	4.5	±	2.9	9.5	U	EPA:901.1
	Potassium-40	70	±	44	140	U	EPA:901.1
	Protactinium-234m	-130	±	230	810	U	EPA:901.1
	Sodium-22	-1.8	±	1.5	5.3	U	EPA:901.1
	Thallium-208	4.8	±	1.5	4.7		EPA:901.1
	Thorium-234	23	±	42	140	U	EPA:901.1
	Tritium	21	±	110	360	U	EPA:906.0
LWDS-MW2 16-May-16	Actinium-228	-6.4	±	9.5	32	U	EPA:901.1
	Americium-241	-0.34	±	1.2	4	U	EPA:901.1
	Beryllium-7	-18	±	8.6	30	U	EPA:901.1
	Bismuth-212	-17	±	26	89	U	EPA:901.1
	Bismuth-214	11	±	5.2	17	U	EPA:901.1
	Cesium-134	-2.7	±	1.1	3.8	U	EPA:901.1
	Cesium-137	0.61	±	1	3.5	U	EPA:901.1
	Cobalt-60	0.14	±	1.2	4.2	U	EPA:901.1
	Gross alpha	1.9	±	0.44	1.2		EPA:900
	Gross beta	1.1	±	0.56	1.8	U	EPA:900
	Iodine-131	-1.7	±	3.3	11	U	EPA:901.1
	Lead-212	-4.3	±	3.4	11	U	EPA:901.1
	Lead-214	1.5	±	4.3	14	U	EPA:901.1
	Potassium-40	6.3	±	31	100	U	EPA:901.1
	Protactinium-234m	-63	±	190	660	U	EPA:901.1
	Sodium-22	-1.2	±	1.1	4	U	EPA:901.1
	Thallium-208	-0.48	±	2.6	8.6	U	EPA:901.1
	Thorium-234	26	±	16	65	U	EPA:901.1
	Tritium	-92	±	100	350	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
TAV-MW2 11-May-16	Actinium-228	2	±	11	36	U	EPA:901.1
	Americium-241	19	±	7.8	25	U	EPA:901.1
	Beryllium-7	-12	±	13	43	U	EPA:901.1
	Bismuth-212	21	±	19	63	U	EPA:901.1
	Bismuth-214	1.4	±	6.4	21	U	EPA:901.1
	Cesium-134	0.33	±	1.9	6.4	U	EPA:901.1
	Cesium-137	-1.2	±	1.4	5	U	EPA:901.1
	Cobalt-60	1.2	±	1.7	5.5	U	EPA:901.1
	Gross alpha	6.5	±	0.74	1.2		EPA:900
	Gross beta	3.6	±	0.67	1.9		EPA:900
	Iodine-131	-13	±	7.7	26	U	EPA:901.1
	Lead-212	4.7	±	3.9	13	U	EPA:901.1
	Lead-214	4.3	±	5.7	19	U	EPA:901.1
	Potassium-40	39	±	38	120	U	EPA:901.1
	Protactinium-234m	-67	±	450	1500	U	EPA:901.1
	Sodium-22	1.1	±	1.6	5.5	U	EPA:901.1
	Thallium-208	4.9	±	1.4	4.5		EPA:901.1
	Thorium-234	-14	±	38	130	U	EPA:901.1
	Tritium	-290	±	100	350	U	EPA:906.0
TAV-MW3 4-May-16	Actinium-228	15	±	6.1	19	U	EPA:901.1
	Americium-241	-16	±	31	100	U	EPA:901.1
	Beryllium-7	-17	±	11	38	U	EPA:901.1
	Bismuth-212	43	±	21	68	U	EPA:901.1
	Bismuth-214	16	±	5.5	18	U	EPA:901.1
	Cesium-134	-2	±	1.4	4.8	U	EPA:901.1
	Cesium-137	0.18	±	1.3	4.6	U	EPA:901.1
	Cobalt-60	0.38	±	1.4	4.8	U	EPA:901.1
	Gross alpha	5.6	±	0.6	0.85		EPA:900
	Gross beta	6.2	±	0.64	1.2		EPA:900
	Iodine-131	-1.4	±	2.8	9.5	U	EPA:901.1
	Lead-212	2	±	4.2	14	U	EPA:901.1
	Lead-214	15	±	4.6	19	U	EPA:901.1
	Potassium-40	-16	±	48	160	U	EPA:901.1
	Protactinium-234m	72	±	230	780	U	EPA:901.1
	Sodium-22	2.1	±	1.5	4.8	U	EPA:901.1
	Thallium-208	5.1	±	1.4	4.5		EPA:901.1
	Thorium-234	64	±	20	64		EPA:901.1
	Tritium	-33	±	100	340	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
TAV-MW4 10-May-16	Actinium-228	16	±	4.1	15		EPA:901.1
	Americium-241	46	±	47	160	U	EPA:901.1
	Beryllium-7	1.8	±	11	36	U	EPA:901.1
	Bismuth-212	-34	±	18	62	U	EPA:901.1
	Bismuth-214	-1	±	5.5	18	U	EPA:901.1
	Cesium-134	-1.3	±	1.2	4.3	U	EPA:901.1
	Cesium-137	-3	±	1.3	4.4	U	EPA:901.1
	Cobalt-60	-1	±	1.3	4.5	U	EPA:901.1
	Gross alpha	4	±	0.47	0.83		EPA:900
	Gross beta	3.8	±	0.47	1.1		EPA:900
	Iodine-131	-4	±	7.7	26	U	EPA:901.1
	Lead-212	0.36	±	3.8	13	U	EPA:901.1
	Lead-214	-1.1	±	4.5	15	U	EPA:901.1
	Potassium-40	-1.7	±	40	130	U	EPA:901.1
	Protactinium-234m	280	±	210	690	U	EPA:901.1
	Sodium-22	-2.2	±	1.2	4.4	U	EPA:901.1
	Thallium-208	0.84	±	3.4	11	U	EPA:901.1
	Thorium-234	42	±	69	230	U	EPA:901.1
	Tritium	-130	±	100	340	U	EPA:906.0
TAV-MW6 25-May-16	Actinium-228	14	±	7.5	24	U	EPA:901.1
	Americium-241	-14	±	19	64	U	EPA:901.1
	Beryllium-7	-17	±	17	58	U	EPA:901.1
	Bismuth-212	21	±	27	91	U	EPA:901.1
	Bismuth-214	3.9	±	9.2	30	U	EPA:901.1
	Cesium-134	-2.9	±	3	10	U	EPA:901.1
	Cesium-137	-2.9	±	1.9	6.6	U	EPA:901.1
	Cobalt-60	-0.65	±	2.5	8.6	U	EPA:901.1
	Gross alpha	3.9	±	0.62	1.5		EPA:900
	Gross beta	4.7	±	0.6	1.5		EPA:900
	Iodine-131	1.7	±	9.3	31	U	EPA:901.1
	Lead-212	3.6	±	4.1	14	U	EPA:901.1
	Lead-214	10	±	3.4	11	U	EPA:901.1
	Potassium-40	86	±	44	140	U	EPA:901.1
	Protactinium-234m	470	±	360	1200	U	EPA:901.1
	Sodium-22	-3.6	±	2.5	8.7	U	EPA:901.1
	Thallium-208	6.9	±	2	6.2		EPA:901.1
	Thorium-234	16	±	44	140	U	EPA:901.1
	Tritium	-140	±	100	340	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
TAV-MW7 9-May-16	Actinium-228	6.7	±	19	63	U	EPA:901.1
	Americium-241	20	±	10	33	U	EPA:901.1
	Beryllium-7	29	±	17	55	U	EPA:901.1
	Bismuth-212	38	±	27	88	U	EPA:901.1
	Bismuth-214	0.53	±	7.2	24	U	EPA:901.1
	Cesium-134	3	±	2.7	9.3	U	EPA:901.1
	Cesium-137	-3.4	±	1.9	6.7	U	EPA:901.1
	Cobalt-60	2.9	±	2.4	7.9	U	EPA:901.1
	Gross alpha	6.7	±	0.68	0.84		EPA:900
	Gross beta	3.4	±	0.46	1.1		EPA:900
	Iodine-131	5.5	±	11	36	U	EPA:901.1
	Lead-212	-1	±	4.1	14	U	EPA:901.1
	Lead-214	-1	±	6.2	21	U	EPA:901.1
	Potassium-40	90	±	48	160	U	EPA:901.1
	Protactinium-234m	130	±	370	1200	U	EPA:901.1
	Sodium-22	0.91	±	2.3	7.8	U	EPA:901.1
	Thallium-208	-1.3	±	3.9	13	U	EPA:901.1
	Thorium-234	26	±	43	140	U	EPA:901.1
	Tritium	-190	±	100	350	U	EPA:906.0
TAV-MW8 12-May-16	Actinium-228	12	±	5.2	19	U	EPA:901.1
	Americium-241	1	±	7.8	26	U	EPA:901.1
	Beryllium-7	6.3	±	12	39	U	EPA:901.1
	Bismuth-212	20	±	19	63	U	EPA:901.1
	Bismuth-214	5.5	±	6.1	20	U	EPA:901.1
	Cesium-134	-3.4	±	1.3	4.5	U	EPA:901.1
	Cesium-137	-2.3	±	1.2	4.3	U	EPA:901.1
	Cobalt-60	-0.26	±	1.6	5.3	U	EPA:901.1
	Gross alpha	3.5	±	0.56	1.3		EPA:900
	Gross beta	4.9	±	0.58	1.3		EPA:900
	Iodine-131	1.3	±	5.6	19	U	EPA:901.1
	Lead-212	-1.6	±	3.9	13	U	EPA:901.1
	Lead-214	2.9	±	5	16	U	EPA:901.1
	Potassium-40	-2.9	±	38	130	U	EPA:901.1
	Protactinium-234m	-25	±	230	780	U	EPA:901.1
	Sodium-22	-1	±	1.5	5.4	U	EPA:901.1
	Thallium-208	-0.79	±	2.8	9.5	U	EPA:901.1
	Thorium-234	-74	±	38	130	U	EPA:901.1
	Tritium	-220	±	98	340	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
TAV-MW9 5-May-16	Actinium-228	3.3	±	9.5	32	U	EPA:901.1
	Americium-241	3.5	±	32	110	U	EPA:901.1
	Beryllium-7	2.3	±	10	34	U	EPA:901.1
	Bismuth-212	31	±	17	56	U	EPA:901.1
	Bismuth-214	29	±	5.1	21		EPA:901.1
	Cesium-134	9.8	±	7.3	24	U	EPA:901.1
	Cesium-137	-1.5	±	1.4	4.7	U	EPA:901.1
	Cobalt-60	0.04	±	1.3	4.5	U	EPA:901.1
	Gross alpha	6.1	±	0.66	1		EPA:900
	Gross beta	5.6	±	0.58	1.1		EPA:900
	Iodine-131	3.9	±	2.2	7.1	U	EPA:901.1
	Lead-212	-1.9	±	4.3	14	U	EPA:901.1
	Lead-214	25	±	5	17		EPA:901.1
	Potassium-40	-54	±	37	120	U	EPA:901.1
	Protactinium-234m	400	±	210	690	U	EPA:901.1
	Sodium-22	0.33	±	1.2	4.3	U	EPA:901.1
	Thallium-208	-0.59	±	3.3	11	U	EPA:901.1
	Thorium-234	7	±	65	220	U	EPA:901.1
	Tritium	58	±	100	350	U	EPA:906.0
TAV-MW10 31-May-16	Actinium-228	7.1	±	11	36	U	EPA:901.1
	Americium-241	-6.2	±	11	38	U	EPA:901.1
	Beryllium-7	-25	±	12	41	U	EPA:901.1
	Bismuth-212	37	±	19	62	U	EPA:901.1
	Bismuth-214	3.4	±	7.1	24	U	EPA:901.1
	Cesium-134	-1.5	±	1.4	4.9	U	EPA:901.1
	Cesium-137	-2.5	±	1.5	5.1	U	EPA:901.1
	Cobalt-60	-0.1	±	1.7	5.7	U	EPA:901.1
	Gross alpha	3.5	±	0.58	1.3		EPA:900
	Gross beta	4.4	±	0.71	1.9		EPA:900
	Iodine-131	-7.6	±	4.6	16	U	EPA:901.1
	Lead-212	-1.7	±	4.1	14	U	EPA:901.1
	Lead-214	2	±	6.3	21	U	EPA:901.1
	Potassium-40	-2.6	±	42	140	U	EPA:901.1
	Protactinium-234m	21	±	240	820	U	EPA:901.1
	Sodium-22	0.52	±	1.7	5.6	U	EPA:901.1
	Thallium-208	4.8	±	3.3	12	U	EPA:901.1
	Thorium-234	-8.3	±	39	130	U	EPA:901.1
	Tritium	110	±	110	370	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
TAV-MW11 18-May-16	Actinium-228	14	±	4.7	15	U	EPA:901.1
	Americium-241	-0.022	±	1.2	3.9	U	EPA:901.1
	Beryllium-7	-11	±	10	35	U	EPA:901.1
	Bismuth-212	21	±	17	55	U	EPA:901.1
	Bismuth-214	-1.9	±	5.5	18	U	EPA:901.1
	Cesium-134	-0.79	±	1.1	3.8	U	EPA:901.1
	Cesium-137	-0.31	±	1.1	3.7	U	EPA:901.1
	Cobalt-60	-0.75	±	1.2	4.3	U	EPA:901.1
	Gross alpha	3.4	±	0.58	1.4		EPA:900
	Gross beta	14	±	1.3	2		EPA:900
	Iodine-131	7	±	8.7	29	U	EPA:901.1
	Lead-212	1.5	±	3.1	10	U	EPA:901.1
	Lead-214	-0.76	±	4.1	14	U	EPA:901.1
	Potassium-40	-2.4	±	29	98	U	EPA:901.1
	Protactinium-234m	-120	±	410	1400	U	EPA:901.1
	Sodium-22	-0.37	±	1.2	4	U	EPA:901.1
	Thallium-208	4.4	±	1.2	3.6		EPA:901.1
	Thorium-234	26	±	16	66	U	EPA:901.1
	Tritium	-67	±	100	360	U	EPA:906.0
TAV-MW12 24-May-16	Actinium-228	19	±	5.1	16		EPA:901.1
	Americium-241	-50	±	33	110	U	EPA:901.1
	Beryllium-7	-2.8	±	13	43	U	EPA:901.1
	Bismuth-212	6.2	±	17	58	U	EPA:901.1
	Bismuth-214	11	±	5.2	20	U	EPA:901.1
	Cesium-134	0.077	±	2.1	7.1	U	EPA:901.1
	Cesium-137	-3.5	±	1.3	4.6	U	EPA:901.1
	Cobalt-60	0.023	±	1.4	4.7	U	EPA:901.1
	Gross alpha	5.7	±	0.7	1.3		EPA:900
	Gross beta	4.9	±	0.72	1.9		EPA:900
	Iodine-131	-0.79	±	7.4	25	U	EPA:901.1
	Lead-212	3.2	±	5.2	17	U	EPA:901.1
	Lead-214	4.1	±	4.8	16	U	EPA:901.1
	Potassium-40	29	±	37	120	U	EPA:901.1
	Protactinium-234m	-270	±	220	760	U	EPA:901.1
	Sodium-22	0.27	±	1.4	4.6	U	EPA:901.1
	Thallium-208	0.89	±	3	10	U	EPA:901.1
	Thorium-234	-17	±	57	190	U	EPA:901.1
	Tritium	-31	±	100	340	U	EPA:906.0

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

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

Table-5 NMED DOE OB FFY 2016 Q-3 Technical Area-V Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy and Tritium

Monitoring Well/ Sample Date	Analyte	Activity[a] (pCi/L)			MDA (pCi/L)	Laboratory Qualifier	Analytical Method
TAV-MW14 19-May-16	Actinium-228	19	±	4.2	14		EPA:901.1
	Americium-241	-13	±	48	160	U	EPA:901.1
	Beryllium-7	15	±	12	39	U	EPA:901.1
	Bismuth-212	4.2	±	17	59	U	EPA:901.1
	Bismuth-214	13	±	2.8	8.5		EPA:901.1
	Cesium-134	-0.19	±	1.2	4.3	U	EPA:901.1
	Cesium-137	-3.6	±	1.3	4.5	U	EPA:901.1
	Cobalt-60	0.78	±	1.4	4.6	U	EPA:901.1
	Gross alpha	3.6	±	0.65	1.7		EPA:900
	Gross beta	13	±	1.3	2.1		EPA:900
	Iodine-131	8.7	±	11	35	U	EPA:901.1
	Lead-212	-0.046	±	3.8	13	U	EPA:901.1
	Lead-214	2.2	±	4.7	16	U	EPA:901.1
	Potassium-40	54	±	39	130	U	EPA:901.1
	Protactinium-234m	370	±	210	690	U	EPA:901.1
	Sodium-22	-1.3	±	1.3	4.4	U	EPA:901.1
	Thallium-208	-0.27	±	2.8	9.4	U	EPA:901.1
	Thorium-234	-13	±	71	240	U	EPA:901.1
	Tritium	-47	±	100	340	U	EPA:906.0

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

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