EMID-701771

DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-2022-BF016-02-001

November 23, 2021

Mr. Rick Shean
Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Subject: Monthly Notification of Groundwater Data Reviewed in November 2021

Dear Mr. Shean:

This letter is the U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) written submission in accordance with Section XXVI.D of the 2016 Compliance Order on Consent (2016 Consent Order). Members of EM-LA and N3B met on November 10, 2021, to review groundwater data loaded or released in the Environmental Information Management (EIM) system during the previous calendar month. The enclosed report was prepared by comparing the data against groundwater notification criteria as defined in Section IX of the 2016 Consent Order. These criteria consider New Mexico Water Quality Control Commission (NMWQCC) groundwater standards, U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs), New Mexico Environment Department (NMED) screening levels for tap water, EPA regional screening levels for tap water, and NMED-approved background values for hydrogeological zones as set forth in the "Groundwater Background Investigation Report, Revision 5." The EPA tap water standard's carcinogenic risk values were adjusted to 1×10^{-5}, as specified in the 2016 Consent Order.

The enclosed report was prepared using the May 2021 EPA regional screening levels for tap water; the NMWQCC groundwater standards published December 21, 2018; and the June 2019 Table A-1 of "Risk Assessment Guidance for Site Investigations and Remediation" for NMED tap water screening levels.

1-Day Notification

There was one instance of a constituent detected at a concentration that exceeded the NMWQCC groundwater standard or EPA MCL at a location where that constituent has not previously been detected above the respective standard as defined in the 2016 Consent Order (based on samples collected since June 14, 2007).

EM-LA notified NMED orally within one business day of the review of the analytical data showed detection of this contaminant, on November 10, 2021 (per Section XXVI.C of the Consent Order).

An unfiltered sample collected on September 14, 2021, from Bulldog Spring resulted in the measurement of a contaminant that exceeded its corresponding screening level. Royal Demolition Explosive (RDX) was measured at 11.8 µg/L, exceeding the 9.66-µg/L Table A-1 NMED tap water screening levels.

15-Day Notification
The information required for constituents that meet the five reporting criteria requiring written notification within 15 days is provided in the enclosed report and tables.

If you have questions, please contact Steve Veenis at (505) 309-1362 (steve.veenis@em-la.doe.gov) or Hai Shen at (505) 709-7600 (hai.shen@em.doe.gov).

Sincerely,

ARTURO DURAN
Digitally signed by ARTURO DURAN
Date: 2021.11.16 16:02:22 -07'00'

Arturo Q. Duran
Compliance and Permitting Manager
Environmental Management
Los Alamos Field Office

Enclosure(s):
1. Summary of Groundwater Data Reviewed in November 2021 that Meet Notification Requirements (EM2021-0785)

cc (letter with CD/DVD enclosure[s]):
Steven Lynne, Los Alamos County, Los Alamos, NM (2 copies)

cc (letter and enclosure[s] emailed):
Laurie King, EPA Region 6, Dallas, TX
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
David Gomez, Los Alamos County, Los Alamos, NM
Chris Catechis, NMED-DOE-OB/-RPD
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PRS website

SUMMARY OF GROUNDWATER DATA REVIEWED IN NOVEMBER 2021
THAT MEET NOTIFICATION REQUIREMENTS

INTRODUCTION

This report provides information to the New Mexico Environment Department (NMED) concerning recent groundwater monitoring data obtained by Newport News Nuclear BWXT-Los Alamos, LLC (N3B) under the annual "Interim Facility-Wide Groundwater Monitoring Plan" for the 2021 monitoring year and contains results for contaminants and other chemical constituents that meet the five screening criteria described in Section XXVI of the 2016 Compliance Order on Consent, modified February 2017 (2016 Consent Order). The report covers groundwater samples collected from wells or springs (listed in the accompanying tables) that provide surveillance of the hydrogeological zones at Los Alamos National Laboratory, as indicated in the tables.

The report includes two tables. Table 1, NMED 10-21 Groundwater Report, presents categorical results since June 14, 2007, that met the five reporting criteria as specified in the 2016 Consent Order. Table 2, NMED 10-21 Groundwater Report Addendum, presents results that exceed the 95th percentile of those results in the data set defined in the "Groundwater Background Investigation Report, Revision 5." Only the contaminants and other chemical constituents that lack a calculated groundwater background value (i.e., the frequency of detections was too low to calculate a background value at the 95% upper tolerance level) are listed in this table. Table 2 is a voluntary submission by N3B to NMED that identifies the potential risk resulting from contaminants and other chemical constituents that are without defined background values.

These tables include the following:

- Comments on results that appear to be exceptional based on consideration of monitoring data acquired from previous analyses (using statistics described below);
- Supplemental information summarizing monitoring results obtained from previous analyses; and
- Sampling date, name of the well or spring, location of the well or spring, depth of the screened interval, groundwater zone sampled, analytical result, detection limit, values for regulatory standards or screening levels, and analytical and secondary validation qualifiers.

Additional information describing the locations and analytical data is also included. All data have been through secondary validation.

This report was prepared by comparing the data against groundwater notification criteria as defined in Section IX of the 2016 Consent Order. These criteria consider New Mexico Water Quality Control Commission (NMWQCC) groundwater standards, U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs), NMED screening levels for tap water, EPA regional screening levels for tap water, and NMED-approved background values for hydrogeological zones as set forth in the "Groundwater Background Investigation Report, Revision 5." The EPA tap water standard's carcinogenic risk values were adjusted to 1×10^{-5}, as specified in the 2016 Consent Order. This report was prepared using the May 2021 EPA regional screening levels for tap water; the NMWQCC groundwater standards published December 21, 2018; and the NMED tap water screening levels specified in the June 2019 Table A-1 of "Risk Assessment Guidance for Site Investigations and Remediation."

Background values applied in Table 1 notification criterion C4 are the background values for hydrogeological zones as set forth in the NMED-approved "Groundwater Background Investigation Report, Revision 5."

Screening values applied in Table 2 criteria XC2scr and XC4scr are the 95th percentile of the data set used to establish background as defined in the "Groundwater Background Investigation Report, Revision 5."

DESCRIPTION OF TABLES

1-Day Notification Requirement

The CA value is used in the Criteria Code column of Table 1. The CA value indicates detection of a contaminant in a well screen interval or spring at a concentration that exceeds either the NMWQCC water quality standard or the EPA MCL if that contaminant has not previously exceeded such a water quality standard at that location. N3B, under the U.S. Department of Energy Environmental Management Los Alamos Field Office, notifies NMED orally within 1 business day after review of such analytical data and also includes the data in the 15-day notification table.

15-Day Notification Requirement

Table 1 is divided into separate categories that correspond to the five screening criteria in Section XXVI of the 2016 Consent Order. In several cases, data met more than one of the notification criteria and therefore appear in the table multiple times.

The criteria codes (the "C" stands for criterion) and their definitions are as follows:

C1. Detection of a contaminant that is an organic compound in a spring or screened interval of a well if that contaminant has not previously been detected in the spring or screened interval

C2. Detection of a contaminant that is a metal or other inorganic compound at a concentration above the background level in a spring or screened interval of a well if that contaminant has not previously exceeded the background level in the spring or screened interval

C3. Detection of a contaminant in a spring or screened interval of a well at a concentration that (1) exceeds the lower of either one-half the NMWQCC water quality standard or one-half the federal MCL; or, if there is no such standard for the contaminant, (2) exceeds one-half the tap water screening levels in Table A-1 of NMED's "Risk Assessment Guidance for Site Investigations and Remediation" (June 2019); or, if there is no NMED tap water screening level available for a contaminant, (3) exceeds one-half the EPA regional human health medium-specific screening level for tap water if that contaminant has not previously exceeded one-half such standard or screening level in the spring or screened interval

C4. Detection of a contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that exceeds 2 times the background level for the third consecutive sampling of the spring or screened interval

C5. Detection of a contaminant in a spring or screened interval of a well at a concentration that exceeds either one-half the NMWQCC water quality standard or one-half the federal MCL and which has increased for the third consecutive sampling of that spring or screened interval

Table 2 is divided into two categories that correspond to two screening criteria. They mirror criteria C2 and C4 in Table 1, respectively.

The two criteria are as follows:

XC2scr Detection of a contaminant that is a metal or other inorganic compound at a concentration above the 95th percentile in a spring or screened interval of a well if that contaminant has not previously exceeded the 95th percentile of the data set used to establish background in the spring or screened interval as defined in the “Groundwater Background Investigation Report, Revision 5”

XC4scr Detection of a contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that for the third consecutive sampling exceeds 2 times the 95th percentile of the data set used to establish background as defined in the “Groundwater Background Investigation Report, Revision 5”

Columns 2 through 8 in both tables provide summary statistics for metals or organic/inorganic compounds by field preparation code (e.g., filtered aluminum) for samples collected since January 1, 2000, including the currently reported data. The statistics include the date of the first sampling event; the number of sampling events and samples analyzed; the number of detections; and the minimum, maximum, and median concentration for detections. This information indicates whether the new result is consistent with the range of earlier data.

The subsequent columns contain location and sampling information as follows:

Canyon—canyon where monitoring location is found

Zone—hydrogeological zone from which the groundwater sample was collected (e.g., alluvial spring)

Location—monitoring location name

Screen Depth—depth of top of well screen in feet (0 for springs, –1 if unknown)

Start Date—date the sample was collected

Fld QC Type Code—identifies regular samples (REG) or field duplicates (FD)

Fld Prep Code—identifies whether samples are filtered (F) or unfiltered (UF)

Lab Sample Type Code—indicates whether result is a primary sample (INIT) or reanalysis (RE)

Analy Suite Code—analytical suite (such as volatile organic compounds) for analyzed compound

Analyte Desc—name of analyte

Analyte—chemical symbol for analyte or CAS (Chemical Abstracts Service) number for organic compounds

Std Result—analytical result in standard measurement units

Result/Median—ratio of the Std Result to the median of all detections since 2000

LVL Type/Risk Code—type of regulatory standard, screening level, or background value (indicating groundwater zone) used for comparison

Screen Level—value of the LVL Type/Risk Code

Exceedance Ratio—ratio of Std Result to LVL Type/Risk Code. In earlier versions of this report, the ratio was divided by the basis for comparison in the criterion, but that is no longer the case. For example, for a criterion (such as C3) that compares the value with one-half the standard, a value equal to a standard previously had an exceedance ratio of 2. The current report shows this ratio as 1.

Std MDL—method detection limit in standard measurement units

Std UOM—standard units of measurement

Dilution Factor—amount by which the sample was diluted to measure the concentration

Lab Qualifier—analytical laboratory qualifier indicating analytical quality of the sample data

Validation Qualifier—the qualifier that indicates the effects of all processes associated with the sample (i.e., sample collection, additional quality control samples such as field duplicates, etc.) on the quality of the sample data

Validation Reason Code—an explanation of the reason for validation of the qualifiers

Analy Meth Code—analytical method number

Lab Code—analytical laboratory name

Comment—N3B comment regarding the analytical result

Acronyms and Abbreviations

The tables may include the following acronyms, abbreviations, and analytical laboratory codes and qualifiers:

DOECAP—Department of Energy Consolidated Audit Program

DNX—hexahydro-1,3-dinitro-5-nitro-1,3,5-triazine

EPA MCL—U.S. Environmental Protection Agency maximum contaminant level

GENINORG—General inorganic

HEXP—high explosive

HMX—octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine

HRGC/HRMS—High-resolution gas chromatography/High-resolution mass spectrometry

ICP-AES—inductively coupled plasma atomic emission spectroscopy

ICP-MS—inductively coupled plasma mass spectrometry

LANL Int BG LV—Los Alamos National Laboratory intermediate background level

LANL Reg BG LV—Los Alamos National Laboratory regional background level

LCMS/MS—liquid chromatography mass spectrometry/mass spectrometry

LCS—laboratory control sample

MDL—method detection limit

MNX—hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine

MS—matrix spike

MSD—matrix spike duplicate

n/a—not applicable

NM GW STD—New Mexico Water Quality Control Commission groundwater standard

NMED A1 TAP SCRN LVL—New Mexico Environment Department screening level for tap water

NTU—nephelometric turbidity unit

PETN—pentaerythritol tetranitrate

PFAS—per- and polyfluoroalkyl substances

PQL—practical quantitation limit

RDX—Royal Demolition Explosive (hexahydro-1,3,5-trinitro-1,3,5-triazine)

SIM—selected ion monitoring

SVOC—semivolatile organic compound

TDS—total dissolved solids

TNX—2,4,6-trinitroxylene

UAL—upper acceptance limit

UOM—unit of measurement

VOC—volatile organic compound

Analytical Laboratory Codes and Qualifiers

∗ (lab qualifier) - (inorganic)—Duplicate analysis (relative percent difference) is not within control limits.

CFA—Cape Fear Analytical, LLC

BJ (lab qualifier)—Analyte is present in the blank, and the associated numerical value is an estimated quantity.

F—filtered

FD—field duplicate

GELC—GEL Laboratories, LLC, Division of the GEL Group, Charleston, SC

GENINORG—general inorganic

H (lab qualifier)—The required extraction or analysis holding time for this result was exceeded.

HE1a (validation reason code)—The quantitating internal standard area count was below the lower acceptance limit.

HE12a (validation reason code)—The LCS %recovery was less than the lower acceptance limit but greater than 10%.

HJ (lab qualifier)—The required extraction or analysis holding time for this result was exceeded. The associated numerical value is an estimated quantity.

HR12a—The laboratory control sample or ongoing precision and recovery sample percent recovery was < the lower acceptance limit and ≥ the rejection limit.

HR12e—The matrix spike percent recovery was < the lower control limit.

I4a (validation reason code)—The affected analyte is considered estimated and biased high because this analyte was identified in the method blank but was greater than 5 times the concentration of the affected analyte in the sample.

I4g (validation reason code)—Result less than a multiple of some secondary higher value found in field, trip, or rinsate blank.

I6a (validation reason code)— MS/MSD recovery below lower limit.

I6b (validation reason code)— The associated matrix spike percent recovery is > the upper acceptance limit.

I9b (validation reason code)—The affected analytes are regarded as rejected because the analytical holding time was exceeded.

I9c—The non-aqueous mercury, chromium(VI), or general chemistry sample temperature was greater than 10°C upon receipt at the laboratory.

I10a—The sample and the duplicate sample results are greater than or equal to 5 times the reporting limit and the duplicate sample relative percent difference is greater than 20% for water samples and greater than 35% for soil samples, or outside of the laboratory’s limits.

INIT—primary sample

J (lab qualifier)—The associated numerical value is an estimated quantity.

J (validation qualifier)—The analyte is classified as detected, but the reported concentration value is expected to be more uncertain than usual.

J- (validation qualifier)—The analyte is classified as detected, but the reported concentration value is expected to be more uncertain than usual with a potential negative bias.

J+ (validation qualifier)—The analyte is classified as detected, but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.

J_LAB (validation reason code)—The analytical laboratory qualified the detected result as estimated (J) because the result was less than the PQL but greater than the MDL.

N (lab qualifier)—Spiked sample recovery is not within control limits.

NQ (validation qualifier)—No validation qualifier flag is associated with this result, and the analyte is classified as detected.

NQ (validation reason code)—The analytical laboratory did not qualify the analyte as not detected and/or with any other standard qualifier. The analyte is detected in the sample.

PE12e (validation reason code)—The MS/MSD percent recovery was greater than 10% but less than 75%.

RE—reanalysis

RL—reporting limit

RPD—relative percent difference

REG—regular sample

SV7c (validation reason code)—The percent drift was above acceptance limits in the initial calibration verification (ICV) or continuing calibration verification (CCV).

SV9—The holding time was greater 1x and less than 2x the applicable holding time requirement.

SV7b—The initial or continuing calibration verification relative response factor < the laboratory's lower limit.

SwRI—Southwest Research Institute

UF—unfiltered

V7b (validation reason code)—The initial or CCV relative response factor was less than the laboratory's lower limit.

V7k (validation reason code)—Level 3 data validation identified calibration issues affecting data usability.

V9b (validation reason code)—The preserved sample was analyzed outside the 14-day holding time or the unpreserved sample was analyzed outside the 7-day holding time.

Table 1: NMED 10-21 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
C1	12	15	03/20/2017	8.73	8.73	8.73	1	Water Canyon	Regional Top	R-68	1340.0	09/22/2021	REG	UF	RE	SVOC	Benzoic Acid	65-85-0	8.73	1.0	EPA TAP SCRN LVL	75000	0.0	6.04	µg/L	1.00	J	J	SV9,SV7b	SW-846:8270D	GELC	
C1	7	8	01/31/2019	9.25	9.25	9.25	1	Water Canyon	Regional Top	R-69 S1	1310	09/21/2021	REG	UF	RE	SVOC	Benzoic Acid	65-85-0	9.25	1.0	EPA TAP SCRN LVL	75000	0.0	5.88	µg/L	1.00	J	J	SV9,SV7b	SW-846:8270D	GELC	
C1	7	8	02/13/2019	8.32	8.32	8.32	1	Water Canyon	Regional Deep	R-69 S2	1375.5	09/21/2021	REG	UF	RE	SVOC	Benzoic Acid	65-85-0	8.32	1.0	EPA TAP SCRN LVL	75000	0.0	5.96	µg/L	1.00	J	J	SV9,SV7b	SW-846:8270D	GELC	
C1	1	1	08/10/2021	0.000552	0.000552	0.000552	1	Pueblo Canyon	Intermediate	R-5 S2	372.800	08/10/2021	REG	UF	INIT	HRGC/ HRMS	Nitrosodimethylamine [N-]	62-75-9	0.000552	1.0	NMED A1 TAP SCRN LVL	0.00491	0.1	0.00042	µg/L	1	J	J-	HR12e	Nitrosamines: HRMS	SwRI	
C1	1	2	08/24/2021	0.000463	0.000463	0.000463	1	Upper Los Alamos Canyon	Intermediate Perched	R-9i S1	189.100	08/24/2021	FD	UF	INIT	HRGC/ HRMS	Nitrosodiethylamine [N-]	55-18-5	0.000463	1.0	NMED A1 TAP SCRN LVL	0.00167	0.3	0.00033	µg/L	1	JQ	J-	HR12a, HR12e	Nitrosamines: HRMS	SwRI	
C1	33	40	03/16/2012	0.12	0.12	0.12	1	Water Canyon	Intermediate Perched	CDV-16-4ip S1	815.600	09/20/2021	REG	UF	INIT	HEXP	Nitrotoluene[2-]	88-72-2	0.120	1.0	NMED A1 TAP SCRN LVL	3.14	0.0	0.0820	µg/L	2.00	J	J	J_LAB	SW-846:8330B	GELC	
C2	7	8	01/31/2019	116	177	133	8	Water Canyon	Regional Top	R-69 S1	1310	09/21/2021	REG	F	INIT	Geninorg	Total Dissolved Solids	TDS	177	1.3	LANL Reg BG LVL	161	1.1	3.40	mg/L	1.00		J	I10a	EPA:160.1	GELC	
C3	21	26	05/09/2006	2	103	4.8	23	Upper Los Alamos Canyon	Intermediate Perched	LAOI-7	240.000	08/11/2021	REG	F	RE	Metals	Manganese	Mn	103	21.5	NM GW STD	200	0.5	2.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	This reanalysis result closely resembles the value of 101 µg/L of the initial GELC analysis that was reported in the previous monthly notification.
C4	14	15	08/04/2020	14.8	19.3	17.2	15	Mortandad Canyon	Regional Deep	R-70 S2	1048.0	09/17/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	14.8	0.9	LANL Reg BG LVL	2.7	5.5	0.134	mg/L	2.00		J+	I6b	EPA:300.0	GELC	
C4	14	15	08/04/2020	178	272	235	15	Mortandad Canyon	Regional Deep	R-70 S2	1048.0	09/17/2021	REG	F	INIT	Metals	Chromium	Cr	207	0.9	LANL Reg BG LVL	7.48	27.7	3.00	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	14	15	08/04/2020	3.57	4.06	3.76	15	Mortandad Canyon	Regional Deep	R-70 S2	1048.0	09/17/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	3.59	1.0	LANL Reg BG LVL	0.769	4.7	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
C4	14	15	08/04/2020	23.5	32.6	30.2	15	Mortandad Canyon	Regional Deep	R-70 S2	1048.0	09/17/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	23.5	0.8	LANL Reg BG LVL	4.59	5.1	0.266	mg/L	2.00		NQ	NQ	EPA:300.0	GELC	
C4	15	20	05/21/2015	9.11	66.5	12.75	20	Water Canyon	Intermediate Perched	CDV-9-1(i) S1	937.4	09/16/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	13.8	1.1	LANL Int BG LVL	3.11	4.4	0.134	mg/L	2.00		J+	I6b	EPA:300.0	GELC	
C4	15	20	05/21/2015	0.905	2.63	1.065	20	Water Canyon	Intermediate Perched	CDV-9-1(i) S1	937.4	09/16/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	1.18	1.1	LANL Int BG LVL	0.459	2.6	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
C4	14	15	08/04/2020	2.39	2.92	2.57	15	Mortandad Canyon	Regional Top	R-70 S1	963.0	09/16/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.40	0.9	LANL Reg BG LVL	0.769	3.1	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
C4	87	105	05/17/2005	2.27	7.43	5.45	105	Sandia Canyon	Regional Top	R-11	855.000	09/14/2021	FD	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	5.77	1.1	LANL Reg BG LVL	0.769	7.5	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
C4	87	105	05/17/2005	2.27	7.43	5.45	105	Sandia Canyon	Regional Top	R-11	855.000	09/14/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	5.76	1.1	LANL Reg BG LVL	0.769	7.5	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
C4	75	85	08/30/2007	68	408	347	85	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Metals	Barium	Ba	354	1.0	LANL Reg BG LVL	38.1	9.3	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	

Table 1: NMED 10-21 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
C4	74	85	08/30/2007	5.97	7.31	6.56	85	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	6.55	1.0	LANL Reg BG LVL	2.7	2.4	0.0670	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
C4	75	85	08/30/2007	1.2	22.2	7.765	84	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Metals	Nickel	Ni	8.85	1.1	LANL Reg BG LVL	2.9	3.1	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	75	81	02/28/2009	3	19.6	5.3	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Chloride	Cl(-1)	17.9	3.4	LANL Reg BG LVL	2.7	6.6	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	75	81	02/28/2009	3	19.6	5.3	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	18.3	3.5	LANL Reg BG LVL	2.7	6.8	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	75	81	02/28/2009	0.535	8.13	1.09	66	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Metals	Nickel	Ni	7.80	7.2	LANL Reg BG LVL	2.9	2.7	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	75	81	02/28/2009	0.535	8.13	1.09	66	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Metals	Nickel	Ni	8.13	7.5	LANL Reg BG LVL	2.9	2.8	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	75	81	02/28/2009	0.256	3.47	2.8	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.98	1.1	LANL Reg BG LVL	0.769	3.9	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
C4	75	81	02/28/2009	0.256	3.47	2.8	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.74	1.0	LANL Reg BG LVL	0.769	3.6	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
C4	75	81	02/28/2009	4.1	20	8.08	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Sulfate	SO4(-2)	18.9	2.3	LANL Reg BG LVL	4.59	4.1	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	75	81	02/28/2009	4.1	20	8.08	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	19.3	2.4	LANL Reg BG LVL	4.59	4.2	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	74	78	03/05/2009	2.74	7.11	4.65	78	Mortandad Canyon	Regional Deep	R-45 S2	974.900	09/09/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	6.70	1.4	LANL Reg BG LVL	2.7	2.5	0.0670	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
C4	74	83	03/05/2009	6.1	57.7	27.65	82	Mortandad Canyon	Regional Deep	R-45 S2	974.900	09/09/2021	REG	F	INIT	Metals	Chromium	Cr	50.4	1.8	LANL Reg BG LVL	7.48	6.7	3.00	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	61	70	05/20/2011	2.03	43.9	21.7	69	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	INIT	Metals	Chromium	Cr	35.6	1.6	LANL Reg BG LVL	7.48	4.8	3.00	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	61	70	05/20/2011	0.427	2.95	2.22	70	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.53	1.1	LANL Reg BG LVL	0.769	3.3	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
C4	60	69	05/20/2011	2.96	16.2	12.1	69	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	DL	LCMS/MS	Perchlorate	ClO4	12.0	1.0	LANL Reg BG LVL	0.414	29.0	0.100	µg/L	2.00		NQ	NQ	SW-846:6850	GELC	
C4	76	84	03/06/2010	4.68	21.9	9.79	84	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	21.3	2.2	LANL Reg BG LVL	2.7	7.9	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	77	85	03/06/2010	1.51	14.6	5.41	85	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Metals	Nickel	Ni	7.50	1.4	LANL Reg BG LVL	2.9	2.6	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	77	86	03/06/2010	0.398	2.97	2.1	86	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.89	1.4	LANL Reg BG LVL	0.769	3.8	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
C4	76	84	03/06/2010	7.22	21.1	14.4	84	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	20.4	1.4	LANL Reg BG LVL	4.59	4.4	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	77	81	02/17/2009	1.99	21	2.62	81	Mortandad Canyon	Regional Top	R-44 S1	895.000	09/08/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	19.9	7.6	LANL Reg BG LVL	2.7	7.4	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	77	81	02/17/2009	0.536	109	26.6	54	Mortandad Canyon	Regional Top	R-44 S1	895.000	09/08/2021	REG	F	INIT	Metals	Nickel	Ni	44.4	1.7	LANL Reg BG LVL	2.9	15.3	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
C4	77	81	02/17/2009	0.123	3.86	1.275	80	Mortandad Canyon	Regional Top	R-44 S1	895.000	09/08/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	3.86	3.0	LANL Reg BG LVL	0.769	5.0	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	

Table 1: NMED 10-21 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
C4	77	81	02/17/2009	2.76	21.1	3.75	81	Mortandad Canyon	Regional Top	R-44 S1	895.000	09/08/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	20.1	5.4	LANL Reg BG LVL	4.59	4.4	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	78	93	01/10/2000	145	1110	190	87	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Metals	Barium	Ba	857	4.5	LANL Int BG LVL	13.5	63.5	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	30	35	01/29/2007	13.6	42	19.5	35	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	27.1	1.4	LANL Int BG LVL	3.11	8.7	0.335	mg/L	5.00		J+	I6b	EPA:300.0	GELC	
C4	38	46	08/26/2005	49.5	107	66.25	46	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Geninorg	Hardness	Hardness	77.3	1.2	LANL Int BG LVL	37.8	2.0	0.453	mg/L	1.00		NQ	NQ	SM:A2340B	GELC	
C4	30	35	01/29/2007	0.319	2.16	1.105	34	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.02	1.8	LANL Int BG LVL	0.459	4.4	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
C4	28	32	05/15/2007	0.385	0.941	0.59	32	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	LCMS/MS	Perchlorate	ClO4	0.592	1.0	LANL Int BG LVL	0.27	2.2	0.0500	µg/L	1.00		NQ	NQ	SW-846:6850	GELC	
C4	38	46	08/26/2005	87.5	183	116.5	46	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Metals	Strontium	Sr	138	1.2	LANL Int BG LVL	59.6	2.3	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	12	12	04/15/2009	2.49	123	32.75	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Barium	Ba	43.2	1.3	LANL Int BG LVL	13.5	3.2	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	12	12	04/15/2009	22.4	50.9	25	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Calcium	Ca	27.7	1.1	LANL Int BG LVL	10.7	2.6	0.05	mg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	12	12	04/15/2009	79.1	189	88.35	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Geninorg	Hardness	Hardness	99.0	1.1	LANL Int BG LVL	37.8	2.6	0.453	mg/L	1.00		NQ	NQ	SM:A2340B	GELC	
C4	12	12	04/15/2009	125	351	154	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Strontium	Sr	176	1.1	LANL Int BG LVL	59.6	3.0	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	27	33	04/20/2010	21.7	160	52.5	33	Water Canyon	Intermediate Perched	16-26644	129.00	09/23/2021	REG	F	INIT	Metals	Barium	Ba	42.4	0.8	LANL Int BG LVL	13.5	3.1	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	24	29	04/20/2010	15.2	57.8	20.6	29	Water Canyon	Intermediate Perched	16-26644	129.00	09/23/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	25.2	1.2	LANL Int BG LVL	3.11	8.1	0.335	mg/L	5.00		J+	I6b	EPA:300.0	GELC	
C4	30	36	06/01/2005	5.78	8.91	7.095	36	Water Canyon	Intermediate Perched	CdV-16-1(i)	624.000	09/15/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	8.35	1.2	LANL Int BG LVL	3.11	2.7	0.0670	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
C4	23	25	09/22/2000	0.409	0.849	0.567	25	Pajarito Canyon	Intermediate Perched	R-19 S2	893.300	09/28/2021	FD	F	INIT	Geninorg	Fluoride	F(-1)	0.839	1.5	LANL Int BG LVL	0.234	3.6	0.0330	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
C4	23	25	09/22/2000	0.409	0.849	0.567	25	Pajarito Canyon	Intermediate Perched	R-19 S2	893.300	09/28/2021	REG	F	INIT	Geninorg	Fluoride	F(-1)	0.831	1.5	LANL Int BG LVL	0.234	3.6	0.0330	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
C4	35	40	09/09/2004	53.1	91.6	69.6	40	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Metals	Barium	Ba	91.6	1.3	LANL Int BG LVL	13.5	6.8	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	35	40	09/09/2004	14.9	27.9	19.45	40	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Metals	Calcium	Ca	26.6	1.4	LANL Int BG LVL	10.7	2.5	0.05	mg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	34	39	09/09/2004	12.1	45.9	19.1	39	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	30.9	1.6	LANL Int BG LVL	3.11	9.9	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C4	35	40	09/09/2004	53.6	100	70.35	40	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Geninorg	Hardness	HARDNESS	95.8	1.4	LANL Int BG LVL	37.8	2.5	0.453	mg/L	1.00		NQ	NQ	SM:A2340B	GELC	
C4	35	40	09/09/2004	3.96	7.42	5.25	40	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Metals	Magnesium	Mg	7.13	1.4	LANL Int BG LVL	3.14	2.3	0.11	mg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	33	38	09/09/2004	0.208	1.58	0.926	38	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	0.926	1.0	LANL Int BG LVL	0.459	2.0	0.0170	mg/L	1.00		NQ	NQ	EPA:353.2	GELC	

Table 1: NMED 10-21 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
C4	29	34	03/26/2007	0.514	1.11	0.749	34	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	LCMS/MS	Perchlorate	ClO4	1.10	1.5	LANL Int BG LVL	0.27	4.1	0.0500	µg/L	1.00		NQ	NQ	SW-846:6850	GELC	
C4	35	40	09/09/2004	88.1	159	114.5	40	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Metals	Strontium	Sr	156	1.4	LANL Int BG LVL	59.6	2.6	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
C4	34	39	09/09/2004	8.48	20.1	11.7	39	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	19.7	1.7	LANL Int BG LVL	7.1	2.8	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
C5	41	52	12/04/2003	4.59	51.3	18.05	52	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	UF	DL	HEXP	RDX	121-82-4	20.2	1.1	NMED A1 TAP SCRN LVL	9.66	2.1	0.213	µg/L	5.00		NQ	NQ	SW-846:8330B	GELC	
C5	31	36	06/22/2005	1.06	11.8	3.82	36	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	UF	DL	HEXP	RDX	121-82-4	11.8	3.1	NMED A1 TAP SCRN LVL	9.66	1.2	0.209	µg/L	5.00		NQ	NQ	SW-846:8330B	GELC	
CA	31	36	06/22/2005	1.06	11.8	3.82	36	Pajarito Canyon	Intermediate Spring	Bulldog Spring	0	09/14/2021	REG	UF	DL	HEXP	RDX	121-82-4	11.8	3.1	NMED A1 TAP SCRN LVL	9.66	1.2	0.209	µg/L	5.00		NQ	NQ	SW-846:8330B	GELC	

Table 2: NMED 10-21 Groundwater Report Addendum

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
XC2scr	38	46	08/26/2005	2.73	16.9	4.29	6	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Metals	Tin	Sn	16.9	3.9	Int-Scr_95	13	1.3	2.50	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC2scr	24	26	09/22/2000	3	87	5.93	16	Pajarito Canyon	Intermediate Perched	R-19 S2	893.300	09/28/2021	REG	F	INIT	Metals	Zinc	Zn	20.9	3.5	Int-Scr_95	17.4	1.2	3.30	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC2scr	51	58	01/03/2001	1.71	2.95	2.305	10	Water Canyon	Regional	CdV-R-15-3 S4	1235.100	09/14/2021	REG	F	INIT	Metals	Arsenic	As	2.95	1.3	Reg-Scr_95	2.7	1.1	2.00	µg/L	1.00	J	J	J_LAB	SW-846:6020B	GELC	
XC2scr	21	28	05/10/2010	1.74	3.14	2.2	5	Water Canyon	Regional Top	R-29	1170.000	09/10/2021	REG	F	INIT	Metals	Arsenic	As	3.14	1.4	Reg-Scr_95	2.7	1.2	2.00	µg/L	1.00	J	J	J_LAB	SW-846:6020B	GELC	
XC2scr	21	28	05/10/2010	1.74	3.14	2.2	5	Water Canyon	Regional Top	R-29	1170.000	09/10/2021	FD	F	INIT	Metals	Arsenic	As	3.06	1.4	Reg-Scr_95	2.7	1.1	2.00	µg/L	1.00	J	J	J_LAB	SW-846:6020B	GELC	
XC2scr	20	28	05/19/2010	1.74	2.93	2.115	10	Water Canyon	Regional Top	R-30	1140.000	09/10/2021	REG	F	INIT	Metals	Arsenic	As	2.93	1.4	Reg-Scr_95	2.7	1.1	2.00	µg/L	1.00	J	J	J_LAB	SW-846:6020B	GELC	
XC4scr	15	20	05/21/2015	9.11	66.5	12.75	20	Water Canyon	Intermediate Perched	CDV-9-1(i) S1	937.4	09/16/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	13.8	1.1	Int-Scr_95	2.78	5.0	0.134	mg/L	2.00		J+	I6b	EPA:300.0	GELC	
XC4scr	15	20	05/21/2015	0.905	2.63	1.065	20	Water Canyon	Intermediate Perched	CDV-9-1(i) S1	937.4	09/16/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	1.18	1.1	Int-Scr_95	0.424	2.8	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
XC4scr	87	105	05/17/2005	2.27	7.43	5.45	105	Sandia Canyon	Regional Top	R-11	855.000	09/14/2021	FD	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	5.77	1.1	Reg-Scr_95	0.748	7.7	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
XC4scr	87	105	05/17/2005	2.27	7.43	5.45	105	Sandia Canyon	Regional Top	R-11	855.000	09/14/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	5.76	1.1	Reg-Scr_95	0.748	7.7	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
XC4scr	87	105	05/17/2005	5.95	20.2	9.97	105	Sandia Canyon	Regional Top	R-11	855.000	09/14/2021	FD	F	INIT	Geninorg	Sulfate	SO4(-2)	9.07	0.9	Reg-Scr_95	4.51	2.0	0.133	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	87	105	05/17/2005	5.95	20.2	9.97	105	Sandia Canyon	Regional Top	R-11	855.000	09/14/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	9.07	0.9	Reg-Scr_95	4.51	2.0	0.133	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	75	85	08/30/2007	68	408	347	85	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Metals	Barium	Ba	354	1.0	Reg-Scr_95	37.4	9.5	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	75	85	08/30/2007	20.6	54.5	39.5	79	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Metals	Boron	B	40.6	1.0	Reg-Scr_95	18.7	2.2	15.0	µg/L	1.00	J	J	J_LAB	SW-846:6010C	GELC	
XC4scr	74	85	08/30/2007	5.97	7.31	6.56	85	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	6.55	1.0	Reg-Scr_95	2.61	2.5	0.0670	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	75	85	08/30/2007	1.2	22.2	7.765	84	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Metals	Nickel	Ni	8.85	1.1	Reg-Scr_95	2.75	3.2	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
XC4scr	75	85	08/30/2007	137	199	168	85	Sandia Canyon	Regional Deep	R-35a	1013.100	09/15/2021	REG	F	INIT	Metals	Strontium	Sr	169	1.0	Reg-Scr_95	74.4	2.3	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	8	10	12/16/2000	250	4170	685	10	Ancho Canyon	Regional	R-31 S3	666.300	09/20/2021	FD	F	INIT	Metals	Iron	Fe	525	0.8	Reg-Scr_95	53.8	9.8	30.0	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	8	10	12/16/2000	250	4170	685	10	Ancho Canyon	Regional	R-31 S3	666.300	09/20/2021	REG	F	INIT	Metals	Iron	Fe	493	0.7	Reg-Scr_95	53.8	9.2	30.0	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	8	10	12/16/2000	87.5	3500	108	10	Ancho Canyon	Regional	R-31 S3	666.300	09/20/2021	FD	F	INIT	Metals	Manganese	Mn	88.7	0.8	Reg-Scr_95	12.1	7.3	2.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	8	10	12/16/2000	87.5	3500	108	10	Ancho Canyon	Regional	R-31 S3	666.300	09/20/2021	REG	F	INIT	Metals	Manganese	Mn	87.5	0.8	Reg-Scr_95	12.1	7.2	2.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	8	10	12/16/2000	3.2	46.2	33.1	8	Ancho Canyon	Regional	R-31 S3	666.300	09/20/2021	FD	F	INIT	Metals	Zinc	Zn	29.9	0.9	Reg-Scr_95	14.4	2.1	3.30	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	8	10	12/16/2000	3.2	46.2	33.1	8	Ancho Canyon	Regional	R-31 S3	666.300	09/20/2021	REG	F	INIT	Metals	Zinc	Zn	33.3	1.0	Reg-Scr_95	14.4	2.3	3.30	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	21	26	05/09/2006	20.7	29.7	23.8	26	Upper Los Alamos Canyon	Intermediate Perched	LAOI-7	240.000	08/11/2021	REG	F	RE	Metals	Barium	Ba	25.4	1.1	Int-Scr_95	11.96	2.1	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	75	81	02/28/2009	0.0667	0.637	0.08535	40	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Bromide	Br(-1)	0.162	1.9	Reg-Scr_95	0.067	2.4	0.0670	mg/L	1.00	J	J	J_LAB	EPA:300.0	GELC	
XC4scr	75	81	02/28/2009	0.0667	0.637	0.08535	40	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Bromide	Br(-1)	0.170	2.0	Reg-Scr_95	0.067	2.5	0.0670	mg/L	1.00	J	J	J_LAB	EPA:300.0	GELC	

Table 2: NMED 10-21 Groundwater Report Addendum

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
XC4scr	75	81	02/28/2009	3	19.6	5.3	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Chloride	Cl(-1)	17.9	3.4	Reg-Scr_95	2.61	6.9	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	75	81	02/28/2009	3	19.6	5.3	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	18.3	3.5	Reg-Scr_95	2.61	7.0	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	75	81	02/28/2009	0.535	8.13	1.09	66	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Metals	Nickel	Ni	7.80	7.2	Reg-Scr_95	2.75	2.8	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
XC4scr	75	81	02/28/2009	0.535	8.13	1.09	66	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Metals	Nickel	Ni	8.13	7.5	Reg-Scr_95	2.75	3.0	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
XC4scr	75	81	02/28/2009	0.256	3.47	2.8	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.98	1.1	Reg-Scr_95	0.748	4.0	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
XC4scr	75	81	02/28/2009	0.256	3.47	2.8	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.74	1.0	Reg-Scr_95	0.748	3.7	0.170	mg/L	10.0		NQ	NQ	EPA:353.2	GELC	
XC4scr	75	81	02/28/2009	4.1	20	8.08	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	FD	F	INIT	Geninorg	Sulfate	SO4(-2)	18.9	2.3	Reg-Scr_95	4.51	4.2	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	75	81	02/28/2009	4.1	20	8.08	81	Mortandad Canyon	Regional Top	R-45 S1	880.000	09/09/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	19.3	2.4	Reg-Scr_95	4.51	4.3	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	74	78	03/05/2009	2.74	7.11	4.65	78	Mortandad Canyon	Regional Deep	R-45 S2	974.900	09/09/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	6.70	1.4	Reg-Scr_95	2.61	2.6	0.0670	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	74	83	03/05/2009	6.1	57.7	27.65	82	Mortandad Canyon	Regional Deep	R-45 S2	974.900	09/09/2021	REG	F	INIT	Metals	Chromium	Cr	50.4	1.8	Reg-Scr_95	6.6	7.6	3.00	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
XC4scr	61	70	05/20/2011	2.03	43.9	21.7	69	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	INIT	Metals	Chromium	Cr	35.6	1.6	Reg-Scr_95	6.6	5.4	3.00	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
XC4scr	61	70	05/20/2011	0.427	2.95	2.22	70	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.53	1.1	Reg-Scr_95	0.748	3.4	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
XC4scr	60	69	05/20/2011	2.96	16.2	12.1	69	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	DL	LCMS/MS	Perchlorate	ClO4	12.0	1.0	Reg-Scr_95	0.412	29.1	0.100	µg/L	2.00		NQ	NQ	SW-846:6850	GELC	
XC4scr	61	70	05/20/2011	0.0531	11.8	0.447	66	Mortandad Canyon	Regional Top	R-61 S1	1125.000	09/22/2021	REG	F	INIT	Geninorg	Total Phosphate as Phosphorus	PO4-P	0.244	0.5	Reg-Scr_95	0.0822	3.0	0.0200	mg/L	1.00		J+	I4a	EPA:365.4	GELC	
XC4scr	76	84	03/06/2010	0.0691	0.271	0.119	64	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Bromide	Br(-1)	0.158	1.3	Reg-Scr_95	0.067	2.4	0.0670	mg/L	1.00	J	J	J_LAB	EPA:300.0	GELC	
XC4scr	76	84	03/06/2010	4.68	21.9	9.79	84	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	21.3	2.2	Reg-Scr_95	2.61	8.2	0.335	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	77	85	03/06/2010	1.51	14.6	5.41	85	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Metals	Nickel	Ni	7.50	1.4	Reg-Scr_95	2.75	2.7	0.600	µg/L	1.00		NQ	NQ	SW-846:6020B	GELC	
XC4scr	77	86	03/06/2010	0.398	2.97	2.1	86	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.89	1.4	Reg-Scr_95	0.748	3.9	0.0850	mg/L	5.00		NQ	NQ	EPA:353.2	GELC	
XC4scr	76	84	03/06/2010	7.22	21.1	14.4	84	Mortandad Canyon	Regional Top	R-50 S1	1077.000	09/20/2021	REG	F	INIT	Geninorg	Sulfate	SO4(-2)	20.4	1.4	Reg-Scr_95	4.51	4.5	0.665	mg/L	5.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	77	81	02/17/2009	0.0757	0.165	0.1455	36	Mortandad Canyon	Regional Top	R-44 S1	895.000	09/08/2021	REG	F	INIT	Geninorg	Bromide	Br(-1)	0.158	1.1	Reg-Scr_95	0.067	2.4	0.0670	mg/L	1.00	J	J+	I6b	EPA:300.0	GELC	
XC4scr	78	93	01/10/2000	3.6	8.51	5.48	89	Water Canyon	Intermediate Spring	Burning Ground Spring	0	09/18/2021	REG	F	INIT	Metals	Magnesium	Mg	6.11	1.1	Int-Scr_95	3	2.0	0.11	mg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	12	12	04/15/2009	2.49	123	32.75	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Barium	Ba	43.2	1.3	Int-Scr_95	11.96	3.6	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	12	12	04/15/2009	22.4	50.9	25	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Calcium	Ca	27.7	1.1	Int-Scr_95	10.5	2.6	0.05	mg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	12	12	04/15/2009	2.15	95	7.175	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Cobalt	Co	7.05	1.0	Int-Scr_95	1	7.0	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	12	12	04/15/2009	79.1	189	88.35	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Geninorg	Hardness	Hardness	99.0	1.1	Int-Scr_95	36.7	2.7	0.453	mg/L	1.00		NQ	NQ	SM:A2340B	GELC	
XC4scr	12	12	04/15/2009	5.64	15.1	6.325	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Magnesium	Mg	7.23	1.1	Int-Scr_95	3	2.4	0.11	mg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	12	12	04/15/2009	12	1380	47.9	11	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Manganese	Mn	47.9	1.0	Int-Scr_95	8.39	5.7	2.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	12	12	04/15/2009	125	351	154	12	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Strontium	Sr	176	1.1	Int-Scr_95	57.1	3.1	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	

Table 2: NMED 10-21 Groundwater Report Addendum

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Canyon	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Analy Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDL	Std UOM	Dilution Factor	Lab Qualifier	Validation Qualifier	Validation Reason Code	Analy Meth Code	Lab Code	Comment
XC4scr	12	12	04/15/2009	4.08	189	8.61	10	Water Canyon	Intermediate	R-26 PZ-2	150	09/08/2021	REG	F	INIT	Metals	Zinc	Zn	189	22.0	Int-Scr_95	17.4	10.9	3.30	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	27	33	04/20/2010	21.7	160	52.5	33	Water Canyon	Intermediate Perched	16-26644	129.00	09/23/2021	REG	F	INIT	Metals	Barium	Ba	42.4	0.8	Int-Scr_95	11.96	3.5	1.00	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	24	29	04/20/2010	15.2	57.8	20.6	29	Water Canyon	Intermediate Perched	16-26644	129.00	09/23/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	25.2	1.2	Int-Scr_95	2.78	9.1	0.335	mg/L	5.00		J+	I6b	EPA:300.0	GELC	
XC4scr	33	39	06/01/2005	33	92.3	61.7	39	Water Canyon	Intermediate Perched	CdV-16-1(i)	624.000	09/15/2021	REG	F	INIT	Metals	Boron	B	85.5	1.4	Int-Scr_95	16.2	5.3	15.0	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	30	36	06/01/2005	5.78	8.91	7.095	36	Water Canyon	Intermediate Perched	CdV-16-1(i)	624.000	09/15/2021	REG	F	INIT	Geninorg	Chloride	Cl(-1)	8.35	1.2	Int-Scr_95	2.78	3.0	0.0670	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	33	39	06/01/2005	3.4	24.8	10.4	37	Water Canyon	Intermediate Perched	CdV-16-1(i)	624.000	09/15/2021	REG	F	INIT	Metals	Copper	Cu	13.2	1.3	Int-Scr_95	3	4.4	3.00	µg/L	1.00	J	J	J_LAB	SW-846:6010C	GELC	
XC4scr	33	39	06/01/2005	4.9	70.7	30.4	35	Water Canyon	Intermediate Perched	CdV-16-1(i)	624.000	09/15/2021	REG	F	INIT	Metals	Zinc	Zn	42.0	1.4	Int-Scr_95	17.4	2.4	3.30	µg/L	1.00		J+	I4g	SW-846:6010C	GELC	
XC4scr	28	34	08/31/2010	22.9	115	63.55	34	Water Canyon	Intermediate Perched	CDV-16-4ip S1	815.600	09/20/2021	REG	F	INIT	Metals	Boron	B	61.6	1.0	Int-Scr_95	16.2	3.8	15.0	µg/L	1.00		NQ	NQ	SW-846:6010C	GELC	
XC4scr	28	34	08/31/2010	0.661	1.58	0.8925	34	Water Canyon	Intermediate Perched	CDV-16-4ip S1	815.600	09/20/2021	REG	F	INIT	Geninorg	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	0.899	1.0	Int-Scr_95	0.424	2.1	0.0170	mg/L	1.00		NQ	NQ	EPA:353.2	GELC	
XC4scr	33	42	12/15/2005	15.4	38.5	24.6	39	Water Canyon	Intermediate Perched	CdV-16-2(i)r	850.000	09/20/2021	FD	F	INIT	Metals	Boron	B	33.5	1.4	Int-Scr_95	16.2	2.1	15.0	µg/L	1.00	J	J	J_LAB	SW-846:6010C	GELC	
XC4scr	33	42	12/15/2005	15.4	38.5	24.6	39	Water Canyon	Intermediate Perched	CdV-16-2(i)r	850.000	09/20/2021	REG	F	INIT	Metals	Boron	B	33.7	1.4	Int-Scr_95	16.2	2.1	15.0	µg/L	1.00	J	J	J_LAB	SW-846:6010C	GELC	
XC4scr	23	25	09/22/2000	0.409	0.849	0.567	25	Pajarito Canyon	Intermediate Perched	R-19 S2	893.300	09/28/2021	FD	F	INIT	Geninorg	Fluoride	F(-1)	0.839	1.5	Int-Scr_95	0.217	3.9	0.0330	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	
XC4scr	23	25	09/22/2000	0.409	0.849	0.567	25	Pajarito Canyon	Intermediate Perched	R-19 S2	893.300	09/28/2021	REG	F	INIT	Geninorg	Fluoride	F(-1)	0.831	1.5	Int-Scr_95	0.217	3.8	0.0330	mg/L	1.00		NQ	NQ	EPA:300.0	GELC	