



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

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EMLA-23-BF209-2-1

April 27, 2023

Mr. Rick Shean
Acting 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 April 2023

Dear Mr. Shean:

This letter is the written submission of the U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) in accordance with Section XXVI.D of the 2016 Compliance Order on Consent modified February 2017 (Consent Order). Members of EM-LA and N3B met on April 13, 2023, to review groundwater data loaded or released in the Environmental Information Management System (EIMS) 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 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's tap water standard for carcinogenic risk values was adjusted to 1×10^{-5} , as specified in the Consent Order.

The enclosed report was prepared using the November 2022 EPA regional screening levels for tap water; the NMWQCC groundwater standards published December 21, 2018; and the June 2022 Table A-1 of "Risk Assessment Guidance for Site Investigations and Remediation" for NMED tap water screening levels.

1-Day Notification

Six instances occurred where a constituent was detected at a concentration that exceeded a NMWQCC groundwater standard or EPA MCL at a location where the constituent had 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 on April 14, 2023, which was within one business day of the review of the analytical data that showed detection of the contaminant, (according to Section XXVI.C of the Consent Order).

Analysis of an unfiltered water sample collected from R-23i screen 1 on February 23, 2023, resulted in the measurement of one constituent at a value exceeding its screening level value. Dioxane[1,4-] was measured at 5.85 µg/L, exceeding the 4.59-µg/L NMWQCC groundwater standard.

Analysis of an unfiltered water sample collected from R-23i screen 2 on February 23, 2023, resulted in the measurement of five constituents at values exceeding respective screening level values:

- Benzo(a)anthracene was measured at 0.389 µg/L, exceeding the 0.12-µg/L NMWQCC groundwater standard.
- Benzo(a)pyrene was measured at 0.471 µg/L, exceeding the 0.2-µg/L NMWQCC groundwater standard.
- Benzo(b)fluoranthene was measured at 0.441 µg/L, exceeding the 0.343-µg/L NMWQCC groundwater standard.
- Dibenz(a,h)anthracene was measured at 0.646 µg/L, exceeding the 0.0343-µg/L NMWQCC groundwater standard.
- Indeno(1,2,3-cd)pyrene was measured at 0.584 µg/L, exceeding the 0.343-µg/L NMWQCC groundwater standard.

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 Amanda White at (505) 309-1366 (amanda.white@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: 2023.04.26
09:28:27 -06'00'

Arturo Q. Duran
Compliance and Permitting Manager
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Enclosure(s):

1. Summary of Groundwater Data Reviewed in April 2023 that Meet Notification Requirements (EM2023-0316)

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

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SUMMARY OF GROUNDWATER DATA REVIEWED IN APRIL 2023 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, Revision 1” (IFGMP) for the 2023 monitoring year (N3B 2022, 702346). The report contains results for contaminants and other chemical constituents that meet the five screening criteria described in Section XXVI.D of the 2016 Compliance Order on Consent, modified February 2017 (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 (LANL), as indicated in the tables.

The report includes two tables. Table 1, NMED 3-23 Groundwater Report, presents categorical results since June 14, 2007, that met the five reporting criteria as specified in the Consent Order. Table 2, NMED 3-23 Groundwater Report Addendum, presents results that exceed the 95th percentile of the results in the data set defined in the “Groundwater Background Investigation Report, Revision 5” (GBIR) (LANL 2016, 601920). 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 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 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 GBIR. The EPA’s tap water standard carcinogenic risk values were adjusted to 1×10^{-5} , as specified in the Consent Order. This report was prepared using the November 2022 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 2022 Table A-1 of “Risk Assessment Guidance for Site Investigations and Remediation” (Risk Assessment Guidance) (NMED 2022, 702141, Table A-1).

Background values applied in Table 1 notification criterion C4 are the background values for hydrogeological zones as set forth in the GBIR.

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 GBIR.

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.D of the Consent Order. In several cases, data met more than one of the notification criteria and, therefore, appear in the table multiple times.

The criterion (C) codes 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, 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 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 GBIR

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 GBIR

Columns 2 through 8 in both tables provide summary statistics for metals or organic/inorganic compounds by field preparation code (e.g., filtered [F] 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)

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

Analyte Description—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 (e.g., sample collection, additional quality control samples such as field duplicates) on the quality of the sample data

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

Analytical Method 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:

CFA—Cape Fear Analytical, LLC

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

F—filtered

FD—field duplicate

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

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

IFGMP—Interim Facility-Wide Groundwater Monitoring Plan

INIT—primary sample

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 SCRNLVL—New Mexico Environment Department Table A-1 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)

RE—reanalysis

REG—regular sample

RC—probable reducing condition. A near-well condition likely affects some sample water quality parameter values from those of upgradient ambient water.

RL—reporting limit

RPD—relative percent difference

SIM—selected ion monitoring

SVOC—semivolatile organic compound

SwRI—Southwest Research Institute

RI—Reissue

TDS—total dissolved solids

TNX—2,4,6-trinitroxylyene

UAL—upper acceptance limit

UF—unfiltered

UOM—unit of measurement

VOC—volatile organic compound

Analytical Laboratory Codes and Qualifiers

** (lab qualifier)—A quality control analyte recovery is outside of specified acceptance criteria.

B (lab qualifier)—Target analyte was detected in the associated blank.

H (lab qualifier)—Analytical holding time was exceeded.

HE1a (validation reason code)—The quantitating internal standard area count is less than the rejection limit of the expected value.

HE4f (validation reason code)—There is evidence of cross-contamination.

HE7c (validation reason code)—The initial or continuing calibration verification recovery is outside the appropriate limits.

HE12a (validation reason code)—The laboratory control sample (LCS) percent recovery was less than the lower acceptance limit and greater than or equal to the rejection limit.

HR4g (validation reason code)—The detected sample result is greater than or equal to 5 times and less than 100 times the detected concentration of the same analyte in the associated blank.

HR12a (validation reason code)—The LCS or ongoing precision and recovery sample percent recovery was less than the lower acceptance limit and greater than or equal to the rejection limit.

HR12e (validation reason code)—The matrix spike (MS) percent recovery was less than the lower control limit.

I4a (validation reason code)—The detected sample result is greater than or equal to 5 times and less than 100 times the concentration of the same analyte in the method blank.

I4g (validation reason code)—The detected sample result is greater than or equal to 5 times and less than 100 times the concentration of the same analyte in the associated blank.

I6a (validation reason code)—The associated MS percent recovery is less than the lower acceptance limit.

I6b (validation reason code)—The associated MS percent recovery is greater than the upper acceptance limit (UAL).

I7h (validation reason code)—The initial or continuing calibration blank result is greater than method detection limit, and the detected sample result is greater than or equal to 5 times and less than 100 times the blank result.

I9 (validation reason code)—The extraction or analytical holding time was exceeded but was less than or equal to 2 times the appropriate holding time.

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

I10a (validation reason code)—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.

I10ea (validation reason code)—The sample or laboratory duplicate result is <5 times the reporting limit and the absolute difference between sample and duplicate result exceeds the limits.

I10er (validation reason code)—The sample and laboratory duplicate results are ≥ 5 times the reporting limit and the relative percent difference exceeds the limits.

I10fa (validation reason code)—The sample or field duplicate result is <5 times the reporting limit, and the absolute difference between sample and duplicate result exceeds the limits.

I10k (validation reason code)—Level 3 data validation identified duplicate sample issues affecting data usability.

I19 (validation reason code)—The data validator identified quality deficiencies in the reported data that require further qualification. The best value flag of the original result is also changed to N.

J (lab qualifier)—Value is estimated.

J (validation qualifier)—The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J- (validation qualifier)—The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample but likely to have a low bias.

J+ (validation qualifier)—The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample but likely to have a high bias.

J_LAB (validation reason code)—The analytical laboratory qualified the detected result as estimated (J) because the result was less than the PQL (practical quantitation limit) 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.

PE9—The holding time was greater than the applicable holding-time requirement and was ≤ 2 times the applicable holding-time requirement.

PE9c (validation reason code)—The sample temperature was greater than 6°C, or the sample preservation criteria was not met, upon receipt at the laboratory.

PE12e (validation reason code)—The MS or MSD percent recovery was less than the lower acceptance limit.

SV7b (validation reason code)—The initial or continuing calibration verification relative response factor is less than the laboratory's lower limit.

SV7c (validation reason code)—The initial and/or continuing calibration verification recoveries are outside the appropriate limits.

SV8 (validation reason code)—The affected analyte is considered not detected because mass spectrum did not meet specifications.

SV9 (validation reason code)—The holding time was greater than 1 time and less than 2 times the applicable holding-time requirement.

SV12a—The laboratory control sample percent recovery is less than the lower acceptance limit and greater than or equal to the rejection limit.

SV12e—The MS percent recovery is less than the lower acceptance limit.

V7b (validation reason code)—The initial or continuing calibration verification 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.

REFERENCES

LANL (Los Alamos National Laboratory), October 27, 2016. "Groundwater Background Investigation Report, Revision 5," Los Alamos National Laboratory document LA-UR-16-27907, Los Alamos, New Mexico. (LANL 2016, 601920)

N3B (Newport News Nuclear BWXT-Los Alamos, LLC), September 2022. "Interim Facility-Wide Groundwater Monitoring Plan for the 2023 Monitoring Year, October 2022–September 2023, Revision 1," Newport News Nuclear BWXT-Los Alamos, LLC, document EM2022-0656, Los Alamos, New Mexico. (N3B 2022, 702346)

NMED (New Mexico Environment Department), June 2022. "Risk Assessment Guidance for Site Investigations and Remediation, Volume 1, Soil Screening Guidance for Human Health Risk Assessments," Hazardous Waste Bureau and Ground Water Quality Bureau, Santa Fe, New Mexico. (NMED 2022, 702141)

Table 1: NMED 3-23 Groundwater Report

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Canyon | Zone | Location | Screen Depth | Start Date | Fid QC Type Code | Fid 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 |
|---------------|--------|---------|-------------|------------|------------|---------------|------------|------------------|--------------|-----------------------|--------------|------------|------------------|---------------|----------------------|-----------------------|------------------------|----------|--------------------|---------------|---------------------|--------------|------------------|---------|---------|-----------------|---------------|----------------------|------------------------|------------------|----------|---------|
| CA | 4 | 5 | 10/22/2019 | 2.59 | 5.85 | 4.46 | 5 | Pajarito Canyon | Intermediate | R-23i S1 ^a | 400.3 | 2/23/2023 | REG | UF | INIT | Low-level 1,4-dioxane | Dioxane[1,4-] | 123-91-1 | 5.85 | 1.3 | NMED A1 TAP SCRNLVL | 4.59 | 1.3 | 0.0400 | µg/L | 1.00 | | NQ | NQ | SW-846:8270E_SIM | GELC | |
| CA | 20 | 24 | 10/03/2006 | 0.389 | 0.389 | 0.389 | 1 | Pajarito Canyon | Intermediate | R-23i S2 ^b | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(a)anthracene | 56-55-3 | 0.389 ^c | 1 | NMED A1 TAP SCRNLVL | 0.12 | 3.2 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| CA | 21 | 25 | 10/03/2006 | 0.471 | 0.471 | 0.471 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(a)pyrene | 50-32-8 | 0.471 ^c | 1 | NM GW STD | 0.2 | 2.4 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| CA | 21 | 25 | 10/03/2006 | 0.441 | 0.441 | 0.441 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(b)fluoranthene | 205-99-2 | 0.441 ^c | 1 | NMED A1 TAP SCRNLVL | 0.343 | 1.3 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| CA | 21 | 25 | 10/03/2006 | 0.646 | 0.646 | 0.646 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Dibenz(a,h)anthracene | 53-70-3 | 0.646 ^c | 1 | NMED A1 TAP SCRNLVL | 0.0343 | 18.8 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| CA | 21 | 25 | 10/03/2006 | 0.584 | 0.584 | 0.584 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Indeno(1,2,3-cd)pyrene | 193-39-5 | 0.584 ^c | 1 | NMED A1 TAP SCRNLVL | 0.343 | 1.7 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 20 | 24 | 10/03/2006 | 0.389 | 0.389 | 0.389 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(a)anthracene | 56-55-3 | 0.389 ^c | 1 | NMED A1 TAP SCRNLVL | 0.12 | 3.2 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 25 | 10/03/2006 | 0.471 | 0.471 | 0.471 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(a)pyrene | 50-32-8 | 0.471 ^c | 1 | NM GW STD | 0.2 | 2.4 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 25 | 10/03/2006 | 0.441 | 0.441 | 0.441 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(b)fluoranthene | 205-99-2 | 0.441 ^c | 1 | NMED A1 TAP SCRNLVL | 0.343 | 1.3 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 25 | 10/03/2006 | 0.615 | 0.615 | 0.615 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(g,h,i)perylene | 191-24-2 | 0.615 ^c | 1 | | | | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 25 | 10/03/2006 | 0.564 | 0.564 | 0.564 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(k)fluoranthene | 207-08-9 | 0.564 ^c | 1 | NMED A1 TAP SCRNLVL | 3.43 | 0.2 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 20 | 24 | 10/03/2006 | 0.482 | 0.482 | 0.482 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Chrysene | 218-01-9 | 0.482 ^c | 1 | NMED A1 TAP SCRNLVL | 34.3 | 0 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 23 | 10/03/2006 | 0.635 | 0.635 | 0.635 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Di-n-octylphthalate | 117-84-0 | 0.635 ^c | 1 | EPA TAP SCRNLVL | 200 | 0 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 25 | 10/03/2006 | 0.646 | 0.646 | 0.646 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Dibenz(a,h)anthracene | 53-70-3 | 0.646 ^c | 1 | NMED A1 TAP SCRNLVL | 0.0343 | 18.8 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 21 | 25 | 10/03/2006 | 0.584 | 0.584 | 0.584 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Indeno(1,2,3-cd)pyrene | 193-39-5 | 0.584 ^c | 1 | NMED A1 TAP SCRNLVL | 0.343 | 1.7 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 20 | 24 | 10/03/2006 | 0.441 | 0.441 | 0.441 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Methylnaphthalene[1-] | 90-12-0 | 0.441 ^c | 1 | NMED A1 TAP SCRNLVL | 11.4 | 0 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 20 | 24 | 10/03/2006 | 0.871 | 0.871 | 0.871 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Methylnaphthalene[2-] | 91-57-6 | 0.871 ^c | 1 | NMED A1 TAP SCRNLVL | 35.1 | 0 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 18 | 21 | 04/24/2007 | 0.318 | 0.318 | 0.318 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Naphthalene | 91-20-3 | 0.318 ^c | 1 | NMED A1 TAP SCRNLVL | 1.17 | 0.3 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C1 | 27 | 30 | 03/01/2004 | 15.8 | 15.8 | 15.8 | 1 | Pajarito Canyon | Regional | R-32 S1 | 867.5 | 02/23/2023 | REG | UF | INIT | SVOC | Benzoic Acid | 65-85-0 | 15.8 | 1 | EPA TAP SCRNLVL | 75000 | 0 | 6.38 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C2 | 18 | 19 | 05/02/2010 | 0.22 | 0.387 | 0.26 | 19 | Mortandad Canyon | Regional | R-52 S1 | 1035.2 | 02/10/2023 | REG | F | INIT | Geninorg | Fluoride | F(-1) | 0.387 | 1.5 | LANL Reg BG LVL | 0.377 | 1 | 0.0330 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C3 | 20 | 24 | 10/03/2006 | 0.389 | 0.389 | 0.389 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(a)anthracene | 56-55-3 | 0.389 ^c | 1 | NMED A1 TAP SCRNLVL | 0.12 | 3.2 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C3 | 21 | 25 | 10/03/2006 | 0.471 | 0.471 | 0.471 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(a)pyrene | 50-32-8 | 0.471 ^c | 1 | NM GW STD | 0.2 | 2.4 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C3 | 21 | 25 | 10/03/2006 | 0.441 | 0.441 | 0.441 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Benzo(b)fluoranthene | 205-99-2 | 0.441 ^c | 1 | NMED A1 TAP SCRNLVL | 0.343 | 1.3 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C3 | 21 | 25 | 10/03/2006 | 0.646 | 0.646 | 0.646 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Dibenz(a,h)anthracene | 53-70-3 | 0.646 ^c | 1 | NMED A1 TAP SCRNLVL | 0.0343 | 18.8 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |
| C3 | 21 | 25 | 10/03/2006 | 0.584 | 0.584 | 0.584 | 1 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | UF | INIT | SVOC | Indeno(1,2,3-cd)pyrene | 193-39-5 | 0.584 ^c | 1 | NMED A1 TAP SCRNLVL | 0.343 | 1.7 | 0.307 | µg/L | 1.00 | J | J | J_LAB | SW-846:8270E | GELC | |

Table 1: NMED 3-23 Groundwater Report

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Canyon | Zone | Location | Screen Depth | Start Date | Fid QC Type Code | Fid 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 | 30 | 32 | 08/04/2020 | 11.1 | 19.3 | 14.8 | 32 | Mortandad Canyon | Regional | R-70 S2 ^d | 1048.0 | 02/01/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 11.3 | 0.8 | LANL Reg BG LVL | 2.7 | 4.2 | 0.134 | mg/L | 2.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 30 | 32 | 08/04/2020 | 131 | 272 | 189 | 32 | Mortandad Canyon | Regional | R-70 S2 ^d | 1048.0 | 02/01/2023 | REG | F | INIT | Metals | Chromium | Cr | 148 | 0.8 | LANL Reg BG LVL | 7.48 | 19.8 | 3.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 30 | 32 | 08/04/2020 | 2.59 | 4.06 | 3.53 | 32 | Mortandad Canyon | Regional | R-70 S2 ^d | 1048.0 | 02/01/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 2.91 | 0.8 | LANL Reg BG LVL | 0.769 | 3.8 | 0.0850 | mg/L | 5.00 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 31 | 34 | 08/04/2020 | 2.07 | 2.92 | 2.435 | 34 | Mortandad Canyon | Regional | R-70 S1 ^d | 963.0 | 02/01/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 2.07 | 0.9 | LANL Reg BG LVL | 0.769 | 2.7 | 0.0850 | mg/L | 5.00 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 30 | 32 | 08/04/2020 | 17.5 | 32.6 | 23.55 | 32 | Mortandad Canyon | Regional | R-70 S2 ^d | 1048.0 | 02/01/2023 | REG | F | INIT | Geninorg | Sulfate | SO4(-2) | 17.6 | 0.7 | LANL Reg BG LVL | 4.59 | 3.8 | 0.133 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 104 | 126 | 05/17/2005 | 2.27 | 9.25 | 5.6 | 126 | Sandia Canyon | Regional | R-11 | 855.0 | 02/03/2023 | FD | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 8.20 | 1.5 | LANL Reg BG LVL | 0.769 | 10.7 | 0.850 | mg/L | 50.0 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 104 | 126 | 05/17/2005 | 2.27 | 9.25 | 5.6 | 126 | Sandia Canyon | Regional | R-11 | 855.0 | 02/03/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 8.30 | 1.5 | LANL Reg BG LVL | 0.769 | 10.8 | 0.850 | mg/L | 50.0 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 104 | 126 | 05/17/2005 | 5.95 | 20.2 | 9.725 | 126 | Sandia Canyon | Regional | R-11 | 855.0 | 02/03/2023 | FD | F | INIT | Geninorg | Sulfate | SO4(-2) | 10.7 | 1.1 | LANL Reg BG LVL | 4.59 | 2.3 | 0.133 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 104 | 126 | 05/17/2005 | 5.95 | 20.2 | 9.725 | 126 | Sandia Canyon | Regional | R-11 | 855.0 | 02/03/2023 | REG | F | INIT | Geninorg | Sulfate | SO4(-2) | 10.7 | 1.1 | LANL Reg BG LVL | 4.59 | 2.3 | 0.133 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 92 | 107 | 08/30/2007 | 68 | 408 | 348 | 107 | Sandia Canyon | Regional | R-35a | 1013.1 | 02/10/2023 | REG | F | INIT | Metals | Barium | Ba | 342 | 1 | LANL Reg BG LVL | 38.1 | 9 | 1.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 91 | 107 | 08/30/2007 | 5.97 | 7.31 | 6.58 | 107 | Sandia Canyon | Regional | R-35a | 1013.1 | 02/10/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 6.59 | 1 | LANL Reg BG LVL | 2.7 | 2.4 | 0.0670 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 92 | 107 | 08/30/2007 | 1.2 | 28.4 | 8.48 | 106 | Sandia Canyon | Regional | R-35a | 1013.1 | 02/10/2023 | REG | F | INIT | Metals | Nickel | Ni | 9.76 | 1.2 | LANL Reg BG LVL | 2.9 | 3.4 | 0.600 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 92 | 99 | 02/28/2009 | 3 | 21.5 | 5.73 | 99 | Mortandad Canyon | Regional | R-45 S1 | 880.0 | 02/02/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 20.2 | 3.5 | LANL Reg BG LVL | 2.7 | 7.5 | 0.335 | mg/L | 5.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 92 | 99 | 02/28/2009 | 0.535 | 13.8 | 1.355 | 84 | Mortandad Canyon | Regional | R-45 S1 | 880.0 | 02/02/2023 | REG | F | INIT | Metals | Nickel | Ni | 7.70 | 5.7 | LANL Reg BG LVL | 2.9 | 2.7 | 0.600 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 92 | 99 | 02/28/2009 | 0.256 | 4.1 | 2.87 | 99 | Mortandad Canyon | Regional | R-45 S1 | 880.0 | 02/02/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 3.02 | 1.1 | LANL Reg BG LVL | 0.769 | 3.9 | 0.170 | mg/L | 10.0 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 92 | 99 | 02/28/2009 | 4.1 | 21.4 | 8.77 | 99 | Mortandad Canyon | Regional | R-45 S1 | 880.0 | 02/02/2023 | REG | F | INIT | Geninorg | Sulfate | SO4(-2) | 19.5 | 2.2 | LANL Reg BG LVL | 4.59 | 4.2 | 0.665 | mg/L | 5.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 91 | 98 | 03/05/2009 | 2.74 | 8.15 | 5.035 | 98 | Mortandad Canyon | Regional | R-45 S2 | 974.9 | 02/02/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 6.46 | 1.3 | LANL Reg BG LVL | 2.7 | 2.4 | 0.0670 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 91 | 103 | 03/05/2009 | 6.1 | 69.1 | 31.4 | 102 | Mortandad Canyon | Regional | R-45 S2 | 974.9 | 02/02/2023 | REG | F | INIT | Metals | Chromium | Cr | 49.1 | 1.6 | LANL Reg BG LVL | 7.48 | 6.6 | 3.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 78 | 89 | 05/20/2011 | 2.03 | 51 | 28.55 | 88 | Mortandad Canyon | Regional | R-61 S1 | 1125.0 | 02/03/2023 | REG | F | INIT | Metals | Chromium | Cr | 47.6 | 1.7 | LANL Reg BG LVL | 7.48 | 6.4 | 3.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 78 | 89 | 05/20/2011 | 0.427 | 3.3 | 2.33 | 89 | Mortandad Canyon | Regional | R-61 S1 | 1125.0 | 02/03/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 2.46 | 1.1 | LANL Reg BG LVL | 0.769 | 3.2 | 0.170 | mg/L | 10.0 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 77 | 88 | 05/20/2011 | 2.96 | 17 | 12.1 | 88 | Mortandad Canyon | Regional | R-61 S1 | 1125.0 | 02/03/2023 | REG | F | INIT | LCMS/MS | Perchlorate | ClO4 | 11.4 | 0.9 | LANL Reg BG LVL | 0.414 | 27.5 | 0.100 | µg/L | 2.00 | | NQ | NQ | SW-846:6850 | GELC | |
| C4 | 93 | 102 | 03/06/2010 | 4.68 | 22.4 | 14.25 | 102 | Mortandad Canyon | Regional | R-50 S1 | 1077.0 | 01/31/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 21.7 | 1.5 | LANL Reg BG LVL | 2.7 | 8 | 0.335 | mg/L | 5.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 94 | 103 | 03/06/2010 | 1.51 | 25.6 | 6.55 | 103 | Mortandad Canyon | Regional | R-50 S1 | 1077.0 | 01/31/2023 | REG | F | INIT | Metals | Nickel | Ni | 10.3 | 1.6 | LANL Reg BG LVL | 2.9 | 3.6 | 0.600 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 94 | 104 | 03/06/2010 | 0.398 | 3.21 | 2.29 | 104 | Mortandad Canyon | Regional | R-50 S1 | 1077.0 | 01/31/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 3.05 | 1.3 | LANL Reg BG LVL | 0.769 | 4 | 0.170 | mg/L | 10.0 | | NQ | NQ | EPA:353.2 | GELC | |
| C4 | 93 | 102 | 03/06/2010 | 7.22 | 21.5 | 16.65 | 102 | Mortandad Canyon | Regional | R-50 S1 | 1077.0 | 01/31/2023 | REG | F | INIT | Geninorg | Sulfate | SO4(-2) | 19.8 | 1.2 | LANL Reg BG LVL | 4.59 | 4.3 | 0.665 | mg/L | 5.00 | | NQ | NQ | EPA:300.0 | GELC | |

Table 1: NMED 3-23 Groundwater Report

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Canyon | Zone | Location | Screen Depth | Start Date | Fid QC Type Code | Fid 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 | 23 | 27 | 07/13/2009 | 21.2 | 26.2 | 24.6 | 27 | Mortandad Canyon | Intermediate | R-37 S1 | 929.3 | 02/16/2023 | REG | F | INIT | Metals | Calcium | Ca | 23.8 | 1 | LANL Int BG LVL | 10.7 | 2.2 | 0.0500 | mg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 23 | 27 | 07/13/2009 | 0.232 | 0.735 | 0.545 | 27 | Mortandad Canyon | Intermediate | R-37 S1 | 929.3 | 02/16/2023 | REG | F | INIT | Geninorg | Fluoride | F(-1) | 0.562 | 1 | LANL Int BG LVL | 0.234 | 2.4 | 0.0330 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 23 | 27 | 07/13/2009 | 73.1 | 89.4 | 84.8 | 27 | Mortandad Canyon | Intermediate | R-37 S1 | 929.3 | 02/16/2023 | REG | F | INIT | Geninorg | Hardness | Hardness | 85.3 | 1 | LANL Int BG LVL | 37.8 | 2.3 | 0.453 | mg/L | 1.00 | | NQ | NQ | SM:A2340B | GELC | |
| C4 | 14 | 15 | 01/28/2009 | 64.5 | 93 | 84 | 15 | Pajarito Canyon | Intermediate | R-40 Si | 649.67 | 02/21/2023 | REG | F | INIT | Geninorg | Hardness | Hardness | 77.7 | 0.9 | LANL Int BG LVL | 37.8 | 2.1 | 0.453 | mg/L | 1.00 | | NQ | NQ | SM:A2340B | GELC | |
| C4 | 14 | 15 | 01/28/2009 | 6.32 | 9.84 | 8.59 | 15 | Pajarito Canyon | Intermediate | R-40 Si | 649.67 | 02/21/2023 | REG | F | INIT | Metals | Magnesium | Mg | 8.32 | 1 | LANL Int BG LVL | 3.14 | 2.6 | 0.11 | mg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 14 | 15 | 01/28/2009 | 9.7 | 22 | 14.8 | 15 | Pajarito Canyon | Intermediate | R-40 Si | 649.67 | 02/21/2023 | REG | F | INIT | Metals | Molybdenum | Mo | 12.1 | 0.8 | LANL Int BG LVL | 2.9 | 4.2 | 0.200 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| C4 | 14 | 15 | 01/28/2009 | 1.18 | 25.6 | 3.89 | 15 | Pajarito Canyon | Intermediate | R-40 Si | 649.67 | 02/21/2023 | REG | F | INIT | Geninorg | Sulfate | SO4(-2) | 14.3 | 3.7 | LANL Int BG LVL | 7.1 | 2 | 0.133 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 8.2 | 77.6 | 55.75 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Metals | Barium | Ba | 77.3 | 1.4 | LANL Int BG LVL | 13.5 | 5.7 | 1.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 21 | 39.9 | 28.25 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Metals | Calcium | Ca | 38.3 | 1.4 | LANL Int BG LVL | 10.7 | 3.6 | 0.0500 | mg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 3.66 | 66.2 | 24.3 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 66.2 | 2.7 | LANL Int BG LVL | 3.11 | 21.3 | 0.670 | mg/L | 10.0 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 76.4 | 156 | 111.5 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Geninorg | Hardness | Hardness | 153 | 1.4 | LANL Int BG LVL | 37.8 | 4 | 0.453 | mg/L | 1.00 | | NQ | NQ | SM:A2340B | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 5.8 | 13.9 | 9.95 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Metals | Magnesium | Mg | 13.9 | 1.4 | LANL Int BG LVL | 3.14 | 4.4 | 0.11 | mg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 95.5 | 254 | 168.5 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Metals | Strontium | Sr | 241 | 1.4 | LANL Int BG LVL | 59.6 | 4 | 1.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| C4 | 27 | 30 | 09/06/2007 | 4.82 | 27.5 | 15.1 | 30 | Pajarito Canyon | Intermediate | R-23i S1 | 400.3 | 02/23/2023 | REG | F | INIT | Geninorg | Sulfate | SO4(-2) | 21.8 | 1.4 | LANL Int BG LVL | 7.1 | 3.1 | 1.33 | mg/L | 10.0 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 32 | 35 | 10/03/2006 | 6.44 | 9.52 | 8 | 35 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | F | INIT | Geninorg | Chloride | Cl(-1) | 9.52 | 1.2 | LANL Int BG LVL | 3.11 | 3.1 | 0.0670 | mg/L | 1.00 | | NQ | NQ | EPA:300.0 | GELC | |
| C4 | 31 | 34 | 03/10/2004 | 113 | 253 | 187.5 | 34 | Pajarito Canyon | Regional | R-20 S2 | 1147.1 | 02/07/2023 | REG | F | INIT | Metals | Barium | Ba | 231 | 1.2 | LANL Reg BG LVL | 38.1 | 6.1 | 1.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |

^a S1 = Screen 1.

^b S2 = Screen 2.

^c This first-time detection may have been prompted by fumes from nearby vehicles passing through the Pajarito Road vehicle access point.

^d Data pertaining to a well drilled at a target angle from the vertical. Depth value represents linear feet along (down) the borehole.

Table 2: NMED 3-23 Groundwater Report Addendum

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Canyon | Zone | Location | Screen Depth | Start Date | Fid QC Type Code | Fid Prep Code | Lab Sample Type Code | Analytical Suite Code | Analyte Description | 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 | Analytical Method Code | Lab Code | Comment |
|---------------|--------|---------|-------------|------------|------------|---------------|------------|------------------|--------------|-----------------------|--------------|------------|------------------|---------------|----------------------|-----------------------|-----------------------------|-----------|------------|---------------|--------------------|--------------|------------------|---------|---------|-----------------|---------------|----------------------|------------------------|------------------------|----------|---------|
| XC2scr | 11 | 13 | 12/16/2000 | 0.0682 | 0.0682 | 0.0682 | 1 | Ancho Canyon | Regional | R-31 S3 ^a | 666.3 | 02/13/2023 | REG | F | INIT | Geninorg | Bromide | Br(-1) | 0.0682 | 1 | Reg-Scr_95 | 0.067 | 1 | 0.0670 | mg/L | 1.00 | J | J | J_LAB | EPA:300.0 | GELC | |
| XC2scr | 11 | 13 | 12/16/2000 | 1 | 1.01 | 1.005 | 2 | Ancho Canyon | Regional | R-31 S3 | 666.3 | 02/13/2023 | REG | F | INIT | Metals | Cobalt | Co | 1.01 | 1 | Reg-Scr_95 | 1 | 1 | 1.00 | µg/L | 1.00 | J | J | J_LAB | SW-846:6010D | GELC | |
| XC2scr | 18 | 19 | 05/02/2010 | 1.76 | 2.83 | 2.595 | 8 | Mortandad Canyon | Regional | R-52 S1 ^b | 1035.2 | 02/10/2023 | REG | F | INIT | Metals | Arsenic | As | 2.83 | 1.1 | Reg-Scr_95 | 2.7 | 1 | 2.00 | µg/L | 1.00 | J | J | J_LAB | SW-846:6020B | GELC | |
| XC2scr | 18 | 19 | 05/02/2010 | 15 | 25.9 | 16.5 | 8 | Mortandad Canyon | Regional | R-52 S1 | 1035.2 | 02/10/2023 | REG | F | INIT | Metals | Boron | B | 25.9 | 1.6 | Reg-Scr_95 | 18.7 | 1.4 | 15.0 | µg/L | 1.00 | J | J | J_LAB | SW-846:6010D | GELC | |
| XC2scr | 18 | 19 | 05/02/2010 | 3.52 | 3.52 | 3.52 | 1 | Mortandad Canyon | Regional | R-52 S1 | 1035.2 | 02/10/2023 | REG | F | INIT | Metals | Copper | Cu | 3.52 | 1 | Reg-Scr_95 | 3 | 1.2 | 3.00 | µg/L | 1.00 | J | J | J_LAB | SW-846:6010D | GELC | |
| XC4scr | 92 | 107 | 08/30/2007 | 20.6 | 54.5 | 40.5 | 101 | Sandia Canyon | Regional | R-35a | 1013.1 | 02/10/2023 | REG | F | INIT | Metals | Boron | B | 49.0 | 1.2 | Reg-Scr_95 | 18.7 | 2.6 | 15.0 | µg/L | 1.00 | J | J | J_LAB | SW-846:6010D | GELC | |
| XC4scr | 92 | 107 | 08/30/2007 | 137 | 199 | 169 | 107 | Sandia Canyon | Regional | R-35a | 1013.1 | 02/10/2023 | REG | F | INIT | Metals | Strontium | Sr | 181 | 1.1 | Reg-Scr_95 | 74.4 | 2.4 | 1.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 11 | 13 | 12/16/2000 | 250 | 4170 | 772 | 13 | Ancho Canyon | Regional | R-31 S3 | 666.3 | 02/13/2023 | REG | F | INIT | Metals | Iron | Fe | 1110 | 1.4 | Reg-Scr_95 | 53.8 | 20.6 | 30.0 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 11 | 13 | 12/16/2000 | 87.5 | 3500 | 102 | 13 | Ancho Canyon | Regional | R-31 S3 | 666.3 | 02/13/2023 | REG | F | INIT | Metals | Manganese | Mn | 102 | 1 | Reg-Scr_95 | 12.1 | 8.4 | 2.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 11 | 13 | 12/16/2000 | 3.2 | 46.2 | 33.3 | 11 | Ancho Canyon | Regional | R-31 S3 | 666.3 | 02/13/2023 | REG | F | INIT | Metals | Zinc | Zn | 35.5 | 1.1 | Reg-Scr_95 | 14.4 | 2.5 | 3.30 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 92 | 99 | 02/28/2009 | 0.0667 | 0.637 | 0.1235 | 58 | Mortandad Canyon | Regional | R-45 S1 | 880.0 | 02/02/2023 | REG | F | INIT | Geninorg | Bromide | Br(-1) | 0.143 | 1.2 | Reg-Scr_95 | 0.067 | 2.1 | 0.0670 | mg/L | 1.00 | J | J | J_LAB | EPA:300.0 | GELC | |
| XC4scr | 93 | 102 | 03/06/2010 | 0.0691 | 0.545 | 0.1315 | 80 | Mortandad Canyon | Regional | R-50 S1 | 1077.0 | 01/31/2023 | REG | F | INIT | Geninorg | Bromide | Br(-1) | 0.152 | 1.2 | Reg-Scr_95 | 0.067 | 2.3 | 0.0670 | mg/L | 1.00 | J | J | J_LAB | EPA:300.0 | GELC | |
| XC4scr | 23 | 27 | 07/13/2009 | 1.32 | 1.84 | 1.5 | 27 | Mortandad Canyon | Intermediate | R-37 S1 | 929.3 | 02/16/2023 | REG | F | INIT | Metals | Uranium | U | 1.45 | 1 | Int-Scr_95 | 0.614 | 2.4 | 0.0670 | µg/L | 1.00 | | NQ | NQ | SW-846:6020B | GELC | |
| XC4scr | 14 | 15 | 01/28/2009 | 154 | 1420 | 655 | 15 | Pajarito Canyon | Intermediate | R-40 Si | 649.67 | 02/21/2023 | REG | F | INIT | Metals | Iron | Fe | 305 | 0.5 | Int-Scr_95 | 54.1 | 5.6 | 30.0 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 14 | 15 | 01/28/2009 | 106 | 398 | 263 | 15 | Pajarito Canyon | Intermediate | R-40 Si | 649.67 | 02/21/2023 | REG | F | INIT | Metals | Manganese | Mn | 170 | 0.6 | Int-Scr_95 | 8.39 | 20.3 | 2.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 32 | 35 | 10/03/2006 | 70.1 | 83.3 | 75.7 | 35 | Pajarito Canyon | Intermediate | R-23i S2 ^c | 470.2 | 02/23/2023 | REG | F | INIT | Geninorg | Hardness | Hardness | 73.8 | 1 | Int-Scr_95 | 36.7 | 2 | 0.453 | mg/L | 1.00 | | NQ | NQ | SM:A2340B | GELC | |
| XC4scr | 32 | 34 | 10/03/2006 | 0.403 | 5.15 | 0.851 | 33 | Pajarito Canyon | Intermediate | R-23i S2 | 470.2 | 02/23/2023 | REG | F | INIT | Geninorg | Nitrate-Nitrite as Nitrogen | NO3+NO2-N | 0.964 | 1.1 | Int-Scr_95 | 0.424 | 2.3 | 0.0170 | mg/L | 1.00 | | NQ | NQ | EPA:353.2 | GELC | |
| XC4scr | 31 | 34 | 03/10/2004 | 38.5 | 382 | 72.45 | 34 | Pajarito Canyon | Regional | R-20 S2 | 1147.1 | 02/07/2023 | REG | F | INIT | Metals | Manganese | Mn | 73.3 | 1 | Reg-Scr_95 | 12.1 | 6.1 | 2.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |
| XC4scr | 31 | 34 | 03/10/2004 | 175 | 2070 | 211.5 | 34 | Pajarito Canyon | Regional | R-20 S2 | 1147.1 | 02/07/2023 | REG | F | INIT | Metals | Strontium | Sr | 200 | 0.9 | Reg-Scr_95 | 74.4 | 2.7 | 1.00 | µg/L | 1.00 | | NQ | NQ | SW-846:6010D | GELC | |

^a S3 = Screen 3.

^b S1 = Screen 1.

^c S2 = Screen 2.