ESHID-601046

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DEC 15 2015
NMED
Hazardous Waste Bureau

*Environmental Management*
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*Date*: DEC 15 2015
*Refer To*: ADESH-15-180
*LAUR*: 15-29389
*Locates Action No.*: N/A

John Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

**Subject: Monthly Notification of Groundwater Data Reviewed in December 2015**

Dear Mr. Kieling:

This letter is Los Alamos National Laboratory's (LANL's) written submission that meets notification requirements presented in Section IV.A.3.g, Notification, of the Compliance Order on Consent (Consent Order). Members of LANL's Environmental Programs met on December 3, 2015, to review new groundwater data received in November 2015. This report was prepared by comparing the data against groundwater cleanup levels, as defined in Section VIII.A.1 of the Consent Order. For comparison with U.S. Environmental Protection Agency (EPA) tap water standards, the carcinogenic risk was adjusted to $1 \times 10^{-5}$, as specified in the Consent Order.

This report also includes analytical data from samples collected in San Ildefonso Pueblo, which are subject to reporting at this time. These data have been reviewed by San Ildefonso Pueblo. This review is required under the Memorandum of Agreement dated May 28, 2014, between the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office, and San Ildefonso Pueblo.

**1-Day Notification**

There were no instances of a contaminant detected at a concentration that exceeded the New Mexico Water Quality Control Commission standard or federal maximum contaminant level at locations where contaminants have not been previously detected above the respective standard (based on samples collected since June 14, 2007).

Notification was not required because there were no cases of a contaminant detected in a well screen interval or spring at a concentration that exceeded a water quality standard for the first time.

**15-Day Notification**

The required information for the contaminants and other chemical parameters that meet the six reporting criteria requiring written notification within 15 days is given in the accompanying report and table.

If you have questions, please contact Steve Paris at (505) 606-0915 (smparis@lanl.gov) or Hai Shen at (505) 665-5046 (hai.shen@em.doe.gov).

Sincerely,

Bruce Robinson, Program Director
Environmental Remediation Program
Los Alamos National Laboratory

Sincerely,

David S. Rhodes, Supervisor
Environmental Management
Los Alamos Field Office

BR/DR/SP:sm

Enclosure: Two hard copies with electronic files – Summary of Groundwater Data Reviewed in December 2015 That Meet Notification Requirements (EP2015-0209)

Cy: (w/enc.)
Steve Paris, ADEP ER Program, MS M992
emla.docs@em.doe.gov
Public Reading Room (EPRR)
ADESH Records

Cy: (Letter and CD and/or DVD)
Laurie King, EPA Region 6, Dallas, TX
Michelle Hunter, NMED-GWQB
Steve Yanicak, NMED-DOE-OB, MS M894
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
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Alison Dorries, ADESH-ENV-DO
Michael Brandt, ADESH
Amy De Palma, PADOPS
Craig Leasure, PADOPS

**SUMMARY OF GROUNDWATER DATA REVIEWED IN DECEMBER 2015 THAT MEET NOTIFICATION REQUIREMENTS**

## INTRODUCTION

This report provides preliminary information to the New Mexico Environment Department (NMED) concerning recent groundwater monitoring data obtained by the Los Alamos National Laboratory (the Laboratory) under its interim monitoring plan and contains results for chemical constituents that meet the six screening criteria laid out in the Compliance Order on Consent (Consent Order). The report covers groundwater samples taken from wells or springs (listed in the accompanying table) that provide surveillance of the groundwater zones indicated in the table.

The report includes one table, *Table 1: NMED 11-15 Groundwater Report*. This table contains some values that are reported when they are detected for the first time since June 14, 2007, or are greater than other data collected since that time (as specified in the Consent Order). These reported data may be similar to data gathered before June 14, 2007.

This table includes the following:

- Additional comments on results that appear to be exceptional or based on consideration of monitoring data acquired before the current result (using statistics described below)
- Supplemental information summarizing monitoring results obtained before the current result
- 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.

In accordance with the Consent Order, the screening levels used include the U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs), the New Mexico groundwater standards, and the EPA regional screening levels for tap water (for compounds having no other regulatory standard). The EPA regional screening levels for tap water are either for cancer ($10^{-6}$ excess risk) or noncancer risk values. The data were screened using 10 times the EPA's $10^{-6}$ excess cancer risk values, to achieve $10^{-5}$ excess cancer risk as indicated in Section VIII.A.1 of the Consent Order.

Background levels applied in Criteria 2 and 5 are the NMED-approved 95% upper tolerance limits for background for each groundwater zone as set forth in the "Groundwater Background Investigation Report, Revision 3," prepared under Section IV.A.3.d of the Consent Order.

## DESCRIPTION OF TABLE

### 15-Day Notification Requirement

The table is divided into separate categories that correspond to the six screening criteria in the Consent Order. Some data meet more than one of the criteria and appear in the table multiple times. The table also presents only the instances where the results exceed criteria; therefore, all six criteria may not appear in the table.

The criteria 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 exceeds either one-half the New Mexico water quality standard or one-half the federal maximum contaminant level, or if there is no such standard for the contaminant, one-half the EPA Region 6 human health medium-specific screening level for tap water (now the EPA regional screening levels 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 perchlorate in a spring or screened interval of a well at a concentration of 2 µg/L or greater if perchlorate at such concentration has not previously been detected in the spring or screened interval.

C5. 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.

C6. Detection of a contaminant in a spring or screened interval of a well at a concentration that exceeds either one-half the New Mexico water quality standard or one-half the federal MCL, and that has increased for the third consecutive sampling of that spring or screened interval.

The next seven columns of the table give information on monitoring results obtained prior to the current result. The columns provide summary statistics for the samples collected since January 1, 2000, for the same analyte and field preparation (for example, filtered samples). The information includes the date of the first sampling event included in the statistics, the numbers 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:

Hdr 1—canyon where monitoring location is found

Zone—groundwater zone sampled by monitoring location (such as alluvial spring)

Location—monitoring location name

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

Start Date—sample date

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

Fld Prep Code—identifies whether samples are filtered or unfiltered

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

Anyl 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 to 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 Qual Code—analytical laboratory qualifiers indicating analytical quality of the sample

Validation Flag—secondary validation qualifier

Validation Reason Code—concatenated secondary validation codes explaining assignment of qualifiers

Anyl Meth Code—analytical method number

Lab Code—analytical laboratory name

Comment—comment on the analytical result

**Table 1: NMED 11-15 Groundwater Report**

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Hdr 1 | Zone | Location | Screen Depth | Start Date | Fld QC Type Code | Fld Prep Code | Lab Sample Type Code | Anyl Suite Code | Analyte Desc | Analyte | Std Result | Result/Median | LVL Type/Risk Code | Screen Level | Exceedance Ratio | Std Mdl | Std Uom | Dilution Factor | Lab Qual Code | Validation Flag | Validation Reason Code | Anyl Meth Code | Lab Code | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 20 | 23 | 07/07/06 | 2.95 | 2.95 | 2.95 | 1 | Mortandad Canyon (includes Ten Site Canyon and Canada del Buey) | Regional | R-21 | 888.8 | 10/20/15 | REG | UF | INIT | SVOC | Dioxane[1,4-] | 123-91-1 | 2.95 | 1 | EPA TAP SCRN LVL | 4.6 | 0.6 | 1.53 | ug/L | 1 | J | J | J_LAB | SW-846:8270D | GELC | Continued monitoring of R-21 for Dioxane [1,4-] per the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) will assist in the proper assessment of this first-time detection. |
| C1 | 17 | 22 | 09/24/01 | 0.36 | 0.36 | 0.36 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | UF | INIT | VOC | Butylbenzene[n-] | 104-51-8 | 0.36 | 1 | EPA TAP SCRN LVL | 1000 | 0 | 0.3 | ug/L | 1 | HJ | J- | V9 | SW-846:8260B | GELC | |
| C1 | 18 | 24 | 09/25/00 | 0.31 | 0.31 | 0.31 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | UF | INIT | VOC | Dichlorobenzene[1,2-] | 95-50-1 | 0.31 | 1 | EPA MCL | 600 | 0 | 0.3 | ug/L | 1 | HJ | J- | V9 | SW-846:8260B | GELC | The MDL for the result reported in this table was much lower than the MDLs for previous analyses which were all NDs. |
| C1 | 17 | 25 | 09/24/01 | 0.0722 | 0.0722 | 0.0722 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | UF | RE | SVOC | Dichlorobenzidine[3,3'-] | 91-94-1 | 0.0722 | 1 | EPA TAP SCRN LVL | 1.2 | 0.1 | 0.0402 | ug/L | 1 | BJ | J | J_LAB | SW-846:8270DGCMS_SIM | GELC | Analysis of the initial sample was ND. The value reported in this table is the re-analysis result. The same analytical method was used for both the INIT analysis and the re-analysis. |
| C1 | 17 | 22 | 09/24/01 | 0.78 | 0.78 | 0.78 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | UF | INIT | VOC | Naphthalene | 91-20-3 | 0.78 | 1 | NM GW STD | 30 | 0 | 0.4 | ug/L | 1 | HJ | J- | V9 | SW-846:8260B | GELC | In addition to the result reported in this table, two other regular (REG) samples collected during the same sampling event were ND. One of these two other samples were analyzed using the low-MDL analytical method. |
| C1 | 14 | 17 | 09/26/05 | 0.92 | 0.92 | 0.92 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | UF | INIT | VOC | Trichlorobenzene[1,2,3-] | 87-61-6 | 0.92 | 1 | EPA TAP SCRN LVL | 7 | 0.1 | 0.3 | ug/L | 1 | HJ | J- | V9 | SW-846:8260B | GELC | |
| C1 | 14 | 17 | 09/26/05 | 0.73 | 0.73 | 0.73 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | UF | INIT | VOC | Trichlorobenzene[1,2,4-] | 120-82-1 | 0.73 | 1 | EPA MCL | 70 | 0 | 0.3 | ug/L | 1 | HJ | J- | V9 | SW-846:8260B | GELC | The MDL for the result reported in this table was much lower than the MDLs for previous analyses which were all NDs. |
| C1 | 9 | 9 | 09/25/01 | 1.78 | 1.78 | 1.78 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 9 | 0 | 10/06/15 | REG | UF | INIT | SVOC | Di-n-butylphthalate | 84-74-2 | 1.78 | 1 | EPA TAP SCRN LVL | 900 | 0 | 1.63 | ug/L | 1 | J | J | J_LAB | SW-846:8270D | GELC | |

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Hdr 1 | Zone | Location | Screen Depth | Start Date | Fld QC Type Code | Fld Prep Code | Lab Sample Type Code | Anyl Suite Code | Analyte Desc | Analyte | Std Result | Result/Median | LVL Type/Risk Code | Screen Level | Exceedance Ratio | Std Mdl | Std Uom | Dilution Factor | Lab Qual Code | Validation Flag | Validation Reason Code | Anyl Meth Code | Lab Code | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 15 | 16 | 06/14/10 | 12.2 | 12.2 | 12.2 | 1 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-49 S1 | 845 | 10/22/15 | FD | UF | INIT | VOC | Acetonitrile | 75-05-8 | 12.2 | 1 | EPA TAP SCRN LVL | 130 | 0.1 | 8 | ug/L | 1 | BHJ | J- | V9 | SW-846:8260B | GELC | The field duplicate (FD), field blank (FB) and field trip blank (FTB) quality control samples all showed detections of acetonitrile. The REG sample was ND. The REG and FD samples were analyzed using the same analytical method. |
| C1 | 15 | 20 | 06/23/09 | 0.0619 | 0.0619 | 0.0619 | 1 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-49 S1 | 845 | 10/22/15 | REG | UF | INIT | SVOC | Benzo(k)fluoranthene | 207-08-9 | 0.0619 | 1 | EPA TAP SCRN LVL | 3.4 | 0 | 0.0309 | ug/L | 1 | J | J | J_LAB | SW-846:8270DGCMS_SIM | GELC | Examination of the chromatogram integration suggests that the reported result may be an overestimate. The FD sample was ND using the same method. |
| C1 | 15 | 20 | 06/23/09 | 0.0515 | 0.0515 | 0.0515 | 1 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-49 S1 | 845 | 10/22/15 | REG | UF | INIT | SVOC | Dibenz(a,h)anthracene | 53-70-3 | 0.0515 | 1 | EPA TAP SCRN LVL | 0.034 | 1.5 | 0.0309 | ug/L | 1 | J | J | J_LAB | SW-846:8270DGCMS_SIM | GELC | This sampling event included the collection of two samples: a regular sample and a field duplicate sample. Each of these samples were split for analysis by the EPA standard and low-MDL analytical methods, 8270D and 8270DGCMS_SIM, respectively. Of the four analyses, there were three NDs and one detect (reported in this table). Continued monitoring of R-49 S1 for Dibenz(a,h)anthracene per the IFGMP will assist in the proper assessment of this first-time detection. |
| C1 | 16 | 18 | 06/18/09 | 13.7 | 13.7 | 13.7 | 1 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-49 S2 | 905.6 | 10/22/15 | REG | UF | INIT | VOC | Acetonitrile | 75-05-8 | 13.7 | 1 | EPA TAP SCRN LVL | 130 | 0.1 | 8 | ug/L | 1 | BHJ | J- | V9 | SW-846:8260B | GELC | |
| C2 | 25 | 28 | 10/03/06 | 5.23 | 6.37 | 5.745 | 28 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S2 | 470.2 | 10/26/15 | FD | F | INIT | GENINORG | Magnesium | Mg | 6.2 | 1.1 | LANL Int BG LVL | 6.12 | 1 | 0.11 | mg/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C2 | 25 | 28 | 10/03/06 | 5.23 | 6.37 | 5.745 | 28 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S2 | 470.2 | 10/26/15 | REG | F | INIT | GENINORG | Magnesium | Mg | 6.23 | 1.1 | LANL Int BG LVL | 6.12 | 1 | 0.11 | mg/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Hdr 1 | Zone | Location | Screen Depth | Start Date | Fld QC Type Code | Fld Prep Code | Lab Sample Type Code | Anyl Suite Code | Analyte Desc | Analyte | Std Result | Result/Median | LVL Type/Risk Code | Screen Level | Exceedance Ratio | Std Mdl | Std Uom | Dilution Factor | Lab Qual Code | Validation Flag | Validation Reason Code | Anyl Meth Code | Lab Code | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C2 | 22 | 24 | 10/12/06 | 124 | 197 | 153.5 | 24 | Sandia Canyon | Regional | R-10 S1 | 874 | 09/02/15 | REG | F | INIT | GENINORG | Total Dissolved Solids | TDS | 197 | 1.3 | LANL Reg BG LVL | 191.7 | 1 | 3.4 | mg/L | 1 | | NQ | NQ | EPA:160.1 | GELC | |
| C2 | 24 | 24 | 06/29/06 | 2.24 | 2.24 | 2.24 | 1 | Sandia Canyon | Regional | R-10 S2 | 1042 | 09/02/15 | REG | F | INIT | METALS | Antimony | Sb | 2.24 | 1 | LANL Reg BG LVL | 1 | 2.2 | 1 | ug/L | 1 | J | J | J_LAB | SW-846:6020 | GELC | |
| C2 | 24 | 24 | 06/29/06 | 2.71 | 3.74 | 3.145 | 24 | Sandia Canyon | Regional | R-10 S2 | 1042 | 09/02/15 | REG | F | INIT | GENINORG | Chloride | Cl(-1) | 3.74 | 1.2 | LANL Reg BG LVL | 3.57 | 1 | 0.067 | mg/L | 1 | | NQ | NQ | EPA:300.0 | GELC | |
| C2 | 15 | 20 | 09/25/00 | 3.84 | 3.84 | 3.84 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 3A | 0 | 10/08/15 | REG | F | INIT | METALS | Tin | Sn | 3.84 | 1 | LANL Reg BG LVL | 3.26 | 1.2 | 2.5 | ug/L | 1 | J | J | J_LAB | SW-846:6010C | GELC | |
| C2 | 16 | 18 | 09/25/00 | 136 | 239 | 167 | 18 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4 | 0 | 10/13/15 | REG | F | INIT | GENINORG | Total Dissolved Solids | TDS | 239 | 1.4 | LANL Reg BG LVL | 191.7 | 1.2 | 3.4 | mg/L | 1 | | NQ | NQ | EPA:160.1 | GELC | |
| C2 | 12 | 12 | 09/26/05 | 151 | 261 | 177.5 | 12 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4B | 0 | 10/15/15 | REG | F | INIT | GENINORG | Total Dissolved Solids | TDS | 261 | 1.5 | LANL Reg BG LVL | 191.7 | 1.4 | 3.4 | mg/L | 1 | | NQ | NQ | EPA:160.1 | GELC | |
| C2 | 11 | 12 | 09/18/06 | 11.8 | 11.8 | 11.8 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4AA | 0 | 10/13/15 | REG | F | INIT | METALS | Tin | Sn | 11.8 | 1 | LANL Reg BG LVL | 3.26 | 3.6 | 2.5 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C2 | 14 | 14 | 09/26/00 | 2.1 | 4.46 | 3.28 | 2 | White Rock Canyon and Rio Grande | Regional Spring | Ancho Spring | 0 | 10/05/15 | REG | F | INIT | METALS | Zinc | Zn | 4.46 | 1.4 | LANL Reg BG LVL | 3.89 | 1.1 | 3.3 | ug/L | 1 | J | J | J_LAB | SW-846:6010C | GELC | |
| C2 | 13 | 17 | 09/26/00 | 27.1 | 27.1 | 27.1 | 1 | White Rock Canyon and Rio Grande | Regional Spring | Spring 6 | 0 | 10/05/15 | REG | F | INIT | METALS | Tin | Sn | 27.1 | 1 | LANL Reg BG LVL | 3.26 | 8.3 | 2.5 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C2 | 15 | 18 | 01/15/09 | 0.0169 | 0.0752 | 0.046 | 3 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-40 S2 | 849.27 | 10/30/15 | REG | F | INIT | GENINORG | Ammonia as Nitrogen | NH3-N | 0.0752 | 1.6 | LANL Reg BG LVL | 0.05 | 1.5 | 0.017 | mg/L | 1 | | NQ | NQ | EPA:350.1 | GELC | |
| C2 | 8 | 9 | 06/25/10 | 233 | 233 | 233 | 1 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-57 S2 | 971.5 | 10/30/15 | REG | F | INIT | METALS | Aluminum | Al | 233 | 1 | LANL Reg BG LVL | 68 | 3.4 | 68 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C2 | 17 | 19 | 02/19/09 | 0.016 | 0.117 | 0.031 | 4 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-39 | 859 | 10/29/15 | REG | F | INIT | GENINORG | Ammonia as Nitrogen | NH3-N | 0.117 | 3.8 | LANL Reg BG LVL | 0.05 | 2.3 | 0.017 | mg/L | 1 | | NQ | NQ | EPA:350.1 | GELC | |

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Hdr 1 | Zone | Location | Screen Depth | Start Date | Fld QC Type Code | Fld Prep Code | Lab Sample Type Code | Anyl Suite Code | Analyte Desc | Analyte | Std Result | Result/Median | LVL Type/Risk Code | Screen Level | Exceedance Ratio | Std Mdl | Std Uom | Dilution Factor | Lab Qual Code | Validation Flag | Validation Reason Code | Anyl Meth Code | Lab Code | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C3 | 15 | 20 | 06/23/09 | 0.0515 | 0.0515 | 0.0515 | 1 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-49 S1 | 845 | 10/22/15 | REG | UF | INIT | SVOC | Dibenz(a,h)anthracene | 53-70-3 | 0.0515 | 1 | EPA TAP SCRN LVL | 0.034 | 1.5 | 0.0309 | ug/L | 1 | J | J | J_LAB | SW-846:8270DGCMS_SIM | GELC | This sampling event included the collection of two samples: a regular sample and a field duplicate sample. Each of these samples were split for analysis by the EPA standard and low-MDL analytical methods, 8270D and 8270DGCMS_SIM, respectively. Of the four analyses, there were three NDs and one detect (reported in this table). Continued monitoring of R-49 S1 for Dibenz(a,h)anthracene per the IFGMP will assist in the proper assessment of this first-time detection. |
| C5 | 15 | 16 | 07/13/09 | 0.427 | 0.615 | 0.5085 | 16 | Mortandad Canyon (includes Ten Site Canyon and Canada del Buey) | Intermediate | R-37 S1 | 929.3 | 10/21/15 | REG | F | INIT | GENINORG | Perchlorate | ClO4 | 0.427 | 0.8 | LANL Int BG LVL | 0.05 | 8.5 | 0.05 | ug/L | 1 | | NQ | NQ | SW-846:6850 | GELC | |
| C5 | 16 | 17 | 07/13/09 | 1.32 | 1.84 | 1.55 | 17 | Mortandad Canyon (includes Ten Site Canyon and Canada del Buey) | Intermediate | R-37 S1 | 929.3 | 10/21/15 | REG | F | INIT | GENINORG | Uranium | U | 1.5 | 1 | LANL Int BG LVL | 0.72 | 2.1 | 0.067 | ug/L | 1 | | NQ | NQ | SW-846:6020 | GELC | |
| C5 | 16 | 24 | 02/06/09 | 4.9 | 69 | 9.93 | 23 | Mortandad Canyon (includes Ten Site Canyon and Canada del Buey) | Regional | R-38 | 821.2 | 10/19/15 | FD | F | INIT | METALS | Zinc | Zn | 8.59 | 0.9 | LANL Reg BG LVL | 3.89 | 2.2 | 3.3 | ug/L | 1 | J | J | J_LAB | SW-846:6010C | GELC | |
| C5 | 16 | 24 | 02/06/09 | 4.9 | 69 | 9.93 | 23 | Mortandad Canyon (includes Ten Site Canyon and Canada del Buey) | Regional | R-38 | 821.2 | 10/19/15 | REG | F | INIT | METALS | Zinc | Zn | 8.07 | 0.8 | LANL Reg BG LVL | 3.89 | 2.1 | 3.3 | ug/L | 1 | J | J | J_LAB | SW-846:6010C | GELC | |
| C5 | 31 | 42 | 06/23/06 | 12.4 | 77.6 | 40.9 | 37 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | 03-B-13 | 21.5 | 10/19/15 | REG | F | INIT | METALS | Boron | B | 42.1 | 1 | LANL Int BG LVL | 15.12 | 2.8 | 15 | ug/L | 1 | J | J | J_LAB | SW-846:6010C | GELC | |

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Hdr 1 | Zone | Location | Screen Depth | Start Date | Fld QC Type Code | Fld Prep Code | Lab Sample Type Code | Anyl Suite Code | Analyte Desc | Analyte | Std Result | Result/Median | LVL Type/Risk Code | Screen Level | Exceedance Ratio | Std Mdl | Std Uom | Dilution Factor | Lab Qual Code | Validation Flag | Validation Reason Code | Anyl Meth Code | Lab Code | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C5 | 31 | 42 | 06/23/06 | 13.8 | 610 | 91 | 42 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | 03-B-13 | 21.5 | 10/19/15 | REG | F | INIT | GENINORG | Chloride | Cl(-1) | 73.4 | 0.8 | LANL Int BG LVL | 7.78 | 9.4 | 1.34 | mg/L | 20 | | NQ | NQ | EPA:300.0 | GELC | |
| C5 | 31 | 42 | 06/23/06 | 3.1 | 681 | 19.4 | 42 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | 03-B-13 | 21.5 | 10/19/15 | REG | F | INIT | METALS | Manganese | Mn | 25.4 | 1.3 | LANL Int BG LVL | 2 | 12.7 | 2 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C5 | 31 | 42 | 06/23/06 | 23.6 | 347 | 73.15 | 42 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | 03-B-13 | 21.5 | 10/19/15 | REG | F | INIT | GENINORG | Sodium | Na | 48.9 | 0.7 | LANL Int BG LVL | 12.19 | 4 | 0.1 | mg/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C5 | 12 | 13 | 01/28/09 | 60.2 | 132 | 115 | 13 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-40 Si | 649.67 | 10/29/15 | REG | F | INIT | GENINORG | Alkalinity-CO3+HCO3 | ALK-CO3+HCO3 | 107 | 0.9 | LANL Int BG LVL | 52 | 2.1 | 0.725 | mg/L | 1 | | NQ | NQ | EPA:310.1 | GELC | |
| C5 | 12 | 13 | 01/28/09 | 106 | 398 | 276 | 13 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-40 Si | 649.67 | 10/29/15 | REG | F | INIT | METALS | Manganese | Mn | 263 | 1 | LANL Int BG LVL | 2 | 131.5 | 2 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C5 | 12 | 13 | 01/28/09 | 9.7 | 22 | 14.8 | 13 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-40 Si | 649.67 | 10/29/15 | REG | F | INIT | METALS | Molybdenum | Mo | 19.2 | 1.3 | LANL Int BG LVL | 2 | 9.6 | 0.165 | ug/L | 1 | | NQ | NQ | SW-846:6020 | GELC | |
| C5 | 20 | 22 | 09/06/07 | 0.086 | 0.151 | 0.108 | 16 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S1 | 400.3 | 10/26/15 | REG | F | INIT | GENINORG | Bromide | Br(-1) | 0.0992 | 0.9 | LANL Int BG LVL | 0.03 | 3.3 | 0.067 | mg/L | 1 | J | J | J_LAB | EPA:300.0 | GELC | |
| C5 | 20 | 22 | 09/06/07 | 3.66 | 36.8 | 21 | 22 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S1 | 400.3 | 10/26/15 | REG | F | INIT | GENINORG | Chloride | Cl(-1) | 20.9 | 1 | LANL Int BG LVL | 7.78 | 2.7 | 0.268 | mg/L | 4 | | NQ | NQ | EPA:300.0 | GELC | |
| C5 | 19 | 20 | 09/06/07 | 0.11 | 0.333 | 0.274 | 19 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S1 | 400.3 | 10/26/15 | REG | F | INIT | GENINORG | Perchlorate | ClO4 | 0.305 | 1.1 | LANL Int BG LVL | 0.05 | 6.1 | 0.05 | ug/L | 1 | | NQ | NQ | SW-846:6850 | GELC | |

| Criteria Code | Visits | Samples | First Event | Min Detect | Max Detect | Median Detect | Num Detect | Hdr 1 | Zone | Location | Screen Depth | Start Date | Fld QC Type Code | Fld Prep Code | Lab Sample Type Code | Anyl Suite Code | Analyte Desc | Analyte | Std Result | Result/Median | LVL Type/Risk Code | Screen Level | Exceedance Ratio | Std Mdl | Std Uom | Dilution Factor | Lab Qual Code | Validation Flag | Validation Reason Code | Anyl Meth Code | Lab Code | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C5 | 25 | 28 | 10/03/06 | 0.067 | 0.123 | 0.084 | 9 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S2 | 470.2 | 10/26/15 | FD | F | INIT | GENINORG | Bromide | Br(-1) | 0.067 | 0.8 | LANL Int BG LVL | 0.03 | 2.2 | 0.067 | mg/L | 1 | J | J | J_LAB | EPA:300.0 | GELC | |
| C5 | 24 | 27 | 10/03/06 | 0.146 | 0.294 | 0.231 | 27 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S2 | 470.2 | 10/26/15 | FD | F | INIT | GENINORG | Perchlorate | ClO4 | 0.288 | 1.2 | LANL Int BG LVL | 0.05 | 5.8 | 0.05 | ug/L | 1 | | NQ | NQ | SW-846:6850 | GELC | |
| C5 | 24 | 27 | 10/03/06 | 0.146 | 0.294 | 0.231 | 27 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Intermediate | R-23i S2 | 470.2 | 10/26/15 | REG | F | INIT | GENINORG | Perchlorate | ClO4 | 0.294 | 1.3 | LANL Int BG LVL | 0.05 | 5.9 | 0.05 | ug/L | 1 | | NQ | NQ | SW-846:6850 | GELC | |
| C5 | 12 | 12 | 09/26/05 | 7.19 | 8.83 | 7.74 | 12 | White Rock Canyon and Rio Grande | Regional Spring | Spring 4B | 0 | 10/15/15 | REG | F | INIT | GENINORG | Chloride | Cl(-1) | 8.83 | 1.1 | LANL Reg BG LVL | 3.57 | 2.5 | 0.067 | mg/L | 1 | | NQ | NQ | EPA:300.0 | GELC | |
| C5 | 24 | 27 | 03/10/04 | 113 | 253 | 180 | 27 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-20 S2 | 1147.1 | 10/26/15 | REG | F | INIT | METALS | Barium | Ba | 225 | 1.3 | LANL Reg BG LVL | 56.83 | 4 | 1 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C5 | 24 | 27 | 03/10/04 | 38.5 | 382 | 72.2 | 27 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-20 S2 | 1147.1 | 10/26/15 | REG | F | INIT | METALS | Manganese | Mn | 82.1 | 1.1 | LANL Reg BG LVL | 2.94 | 27.9 | 2 | ug/L | 1 | | NQ | NQ | SW-846:6010C | GELC | |
| C5 | 22 | 27 | 03/10/04 | 1.18 | 51.7 | 2.51 | 25 | Pajarito Canyon (includes Twomile and Threemile Canyons) | Regional | R-20 S2 | 1147.1 | 10/26/15 | REG | UF | INIT | GENINORG | Total Organic Carbon | TOC | 3.06 | 1.2 | LANL Reg BG LVL | 0.33 | 9.3 | 0.33 | mg/L | 1 | | J- | I9 | SW-846:9060 | GELC | |