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General



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Date: DEC 17 2009
Refer To: EP2009-0661

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Review of November 2009 Groundwater Data



Dear Mr. Bearzi:

The Los Alamos National Laboratory (LANL) Water Stewardship Project (LWSP) met on December 14, 2009, to review new groundwater data received in November 2009. At that time, several groundwater samples were identified with contaminant concentrations above the New Mexico or federal water quality standards.

The LWSP program manager notified the New Mexico Environment Department (NMED) Hazardous Waste Bureau about these findings by telephone on December 14, 2009, and followed up with an email on the same day.

The four instances of a contaminant above a standard for the first time (based on samples collected since June 14, 2007) are tabulated in the attached report. Samples collected at two of these locations before June 14, 2007, also contained the same contaminants at concentrations above a standard. The other two instances are as follows:

- Lead was found in an unfiltered sample collected from Water Canyon alluvial monitoring well MSC-16-06294 at 17.3 $\mu\text{g/L}$; the EPA drinking water system action level is 15 $\mu\text{g/L}$.
- Dibenz(a,h)anthracene was found in an unfiltered sample collected from regional aquifer La Mesita Spring on San Ildefonso Pueblo at 0.22 $\mu\text{g/L}$; the EPA tap water screening level is 0.029 $\mu\text{g/L}$. This compound was also found in a field blank collected at another location on the same date.

The attached report contains a large number of fluoride results that are the highest measured at each of the locations. The Laboratory discovered that the analytical laboratory had made an error in analyzing these data, and results are being corrected.



This letter is our written submission that indicates in the accompanying report and tables the chemical constituents that meet the seven screening criteria laid out in the Compliance Order on Consent, modified on May 13, 2008.

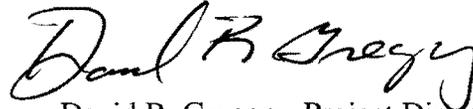
If you have questions, please contact Ardyth Simmons at (505) 665-3935 (asimmons@lanl.gov) or David Gregory at (505) 667-5808 (dgregory@doeal.gov).

Sincerely,



Michael J. Graham, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,



David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

MG/DG/PH/AS/DR:sm

Enclosure: Two hard copies with electronic files – Summary of New Los Alamos National Laboratory Groundwater Data Loaded in November 2009 (LA-UR-09-8072)

Cy: (w/enc.)

Neil Weber, San Ildefonso Pueblo
Hai Shen, DOE-LASO, MS A316
Steve Paris, EP-CAP, MS M992
RPF, MS M707 (with two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD only)

Laurie King, EPA Region 6, Dallas, TX
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Pete Padilla, Los Alamos County Utility Department
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Tom Skibitski, NMED-OB, Santa Fe, NM
Michael J. Graham, ADEP, MS M991
David Rogers, EP-LWSP, MS M992
Mei Ding, EES-6, MS J514
IRM-RMMSO, MS A150 (date-stamped letter emailed)

SUMMARY OF NEW LOS ALAMOS NATIONAL LABORATORY GROUNDWATER DATA LOADED IN NOVEMBER 2009

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. This report contains results for chemical constituents that meet the seven screening criteria laid out in the Compliance Order on Consent (Consent Order), modified May 13, 2008. 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 11-09 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 are often similar to data gathered before June 14, 2007. Over time, the data that exceed the reference data have decreased substantially.

This table includes additional comments on the significance of the results for those that appear to be exceptional or are first-time occurrences of results based on considering monitoring data acquired before June 14, 2007 (using statistics described below).

The table contains supplemental information summarizing monitoring results obtained before June 14, 2007.

The table includes sampling date, the name of the well or spring, the location of the well or spring, the depth of the screened interval, the 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. The definitions for abbreviations in the table may be found at <http://www.lanl.gov/environment/all/racer.shtml>.

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). In the table, the EPA Regional Screening Levels for tap water are identified as being for cancer (10^{-5} excess) or noncancer risk values. The data were screened using 10 times the EPA's 10^{-6} excess cancer risk values, as indicated in Section VIII.A.1 of the Consent Order.

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

DESCRIPTION OF TABLE

The table is divided into separate categories that correspond to the seven screening criteria in the Consent Order: these are labeled (in the first column) C1 through C6 for the numbered criteria and CA for cases where the concentration of a constituent in a well screen or spring has not previously exceeded either the New Mexico Water Quality Control Commission (NMWQCC) standard or the federal MCLs.

Some data meet more than one criterion and appear in the table multiple times. The criteria are as follows:

- CA. The Respondents shall notify the Department orally within one business day after review of the analytical data if such data show detection of a contaminant in a well screen interval or spring at a concentration that exceeds either the NMWQCC water quality standard or the federal MCL if that contaminant has not previously exceeded such water quality standard or maximum contaminant level in such well screen interval or spring.
- 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 over a longer time frame than samples collected after June 14, 2007. The columns provide summary statistics on 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 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

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

Start Date—sample date

Fld QC Type Code—identifies samples that are field duplicates (definitions for these and other abbreviations may be found at <http://www.lanl.gov/environment/all/racer.shtml>)

Fld Prep—identifies whether samples are filtered or unfiltered

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

Anyl Suite—gives 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—the analytical result in standard measurement units

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

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

Screen Level—the value of the LVL Type/Risk Code

Exceedance Ratio—the ratio of Std Result to LVL Type/Risk Code, divided by the basis for comparison in the criterion. For example, for a criterion (such as C3) that compares the value to 1/2 the standard, a value equal to a standard has an exceedance ratio of 2.

- C1, C2, and CA refer to a screening value so the exceedance ratio compares the result directly to the screening value.
- C3, C4, and C6 refer to 1/2 of a screening value so the exceedance ratio compares the result to 1/2 the screening value.
- C5 refers to 2 times a screening value so the exceedance ratio compares the result to 2 times the screening value.

Std Mdl—the method detection limit in standard measurement units

Std UOM—the standard units of measurement

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

Lab Qual Code—the analytical laboratory qualifiers indicating analytical quality of the sample

Concat Flag Code—concatenated secondary validation qualifiers produced by an independent contractor who reviews data packages, verifying, for example, that holding times were met, that all documentation is present, and that analytical laboratory quality control measures were applied, documented, and kept within contract requirements

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

Anyl Meth Code—analytical method number

Lab Code—analytical laboratory name

Comment—a comment on the analytical result

Table 1: NMED 11-09 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C1	7	11	06/24/02	0.262	0.262	0.262	1	Lower Los Alamos Canyon (San Ildefonso Pueblo)	Water Supply	LA-5	440	07/13/09		UF	CS	VOA	Dichloroethane[1,2-]	107-06-2		0.262	1.00	EPA MCL	5	0.1	0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	3	5	04/01/09	0.342	0.342	0.342	1	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-41	965.3	09/01/09	FD	UF	CS	VOA	Chloromethane	74-87-3		0.342	1.00	EPA TAP SCRNLVL N	190	0.0	0.3	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	14	14	06/20/05	0.436	0.475	0.456	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Kieling Spring	0	09/15/09		UF	CS	HEXP	TATB	3058-38-6		0.436	0.96				0.39	ug/L	2	J	J	J_LAB	SW-846:8321A_MOD	GELC	
C1	12	12	09/09/04	0.302	0.302	0.302	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Kieling Spring	0	09/15/09		UF	CS	VOA	Chloromethane	74-87-3		0.302	1.00	EPA TAP SCRNLVL N	190	0.0	0.3	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	3	3	01/28/09	0.00000919	0.00000919	0.00000919	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate	R-40	649.7	08/31/09		UF	CS	DIOX/FUR	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	35822-46-9		0.00000919	1.00				0.00000919	ug/L	1	J	J	J_LAB	SW-846:8290	ALTC	
C1	3	3	01/28/09	0.0000235	0.0000235	0.0000235	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate	R-40	649.7	08/31/09		UF	CS	DIOX/FUR	Heptachlorodibenzodioxins (Total)	37871-00-4		0.0000235	1.00				0.0000235	ug/L	1	B	J	DF4a	SW-846:8290	ALTC	
C1	11	11	04/06/01	0.0102	0.0102	0.0102	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-19	1412.9	09/16/09		UF	CS	PEST/PCB	BHC[gamma-]	58-89-9		0.0102	1.00	EPA MCL	0.2	0.1	0.0064	ug/L	1	J	J	P9	SW-846:8081A	GELC	
C1	3	4	02/26/09	0.00000706	0.00000706	0.00000706	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-32	867.5	08/31/09		UF	CS	DIOX/FUR	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	35822-46-9		0.00000706	1.00				0.00000706	ug/L	1	J	J	J_LAB	SW-846:8290	ALTC	
C1	3	4	02/26/09	0.0000186	0.0000186	0.0000186	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-32	867.5	08/31/09		UF	CS	DIOX/FUR	Heptachlorodibenzodioxins (Total)	37871-00-4		0.0000186	1.00				0.0000186	ug/L	1	B	J	DF4a	SW-846:8290	ALTC	
C1	8	8	11/15/00	0.38	0.417	0.4	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25	891.8	10/16/09		UF	CS	VOA	Tetrachloroethene	127-18-4		0.417	1.04	EPA MCL	5	0.1	0.3	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	previous detects in 02,03
C1	1	1	10/16/09	0.418	0.418	0.418	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25	891.8	10/16/09		UF	CS	VOA	Methyl tert-Butyl Ether	1634-04-4		0.418	1.00	EPA TAP SCRNLVL C-5	120	0.0	0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	first detect, detected in every sample collected from any intermediate R-25 port; only one of many in regional
C1	8	8	11/15/00	0.39	1.2	0.46	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25	891.8	10/16/09		UF	CS	VOA	Trichloroethene	79-01-6		0.526	1.14	EPA MCL	5	0.1	0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	previous detects in 02,03
C1	7	12	07/01/06	2.62	4	3.7	5	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Regional	R-27	852	10/07/09		UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7		4	1.08	EPA MCL	6	0.7	2.3	ug/L	1	J	J	J_LAB	SW-846:8270C	GELC	detected 4 times previously at similar levels
C1	7	10	10/23/01	0.281	0.56	0.327	3	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.327	1.00				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	7	10	10/23/01	0.281	0.56	0.327	3	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.281	0.86				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	7	10	10/23/01	4.15	4.74	4.45	2	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		UF	CS	VOA	Acetone	67-64-1		4.15	0.93	EPA TAP SCRNLVL N	22000	0.0	3.5	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	7	10	10/23/01	4.15	4.74	4.45	2	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	UF	CS	VOA	Acetone	67-64-1		4.74	1.07	EPA TAP SCRNLVL N	22000	0.0	3.5	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	7	7	10/23/01	1.63	1.63	1.63	1	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		UF	CS	SVOA	Dibenz(a,h)anthracene	53-70-3		1.63	1.00	EPA TAP SCRNLVL C-5	0.029	56.2	0.22	ug/L	1		J	SV7c	SW-846:8270C	GELC	found in field blank for other locations on this date
C1	7	7	10/23/01	0.324	0.324	0.324	1	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.324	1.00				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	5	5	09/25/01	0.375	0.375	0.375	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 6A	0	09/29/09		UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.375	1.00				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	5	5	09/25/01	0.279	0.279	0.279	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 9	0	09/29/09		UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.279	1.00				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	5	5	09/27/00	0.513	0.513	0.513	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 9A	0	09/30/09		UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.513	1.00				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	5	5	09/27/00	0.375	0.375	0.375	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 9A	0	09/30/09		UF	CS	VOA	Chloromethane	74-87-3		0.375	1.00	EPA TAP SCRNLVL N	190	0.0	0.3	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	2	2	04/23/08	0.533	0.533	0.533	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 9B	0	09/30/09		UF	CS	VOA	Toluene	108-88-3		0.533	1.00	NM GW STD	750	0.0	0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	2	2	04/23/08	0.316	0.316	0.316	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 9B	0	09/30/09		UF	CS	VOA	Dichlorobenzene[1,3-]	541-73-1		0.316	1.00				0.25	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Flt QC Type Code	Flt Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C1	8	10	06/25/02	0.525	0.525	0.525	1	White Rock Canyon and Rio Grande	Water Supply	J. Martinez House Well	-1	07/14/09		UF	CS	VOA	Chloromethane	74-87-3		0.525	1.00	EPA TAP SCR N LVL	190	0.0	0.3	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C2	5	5	06/28/05	0.119	0.323	0.216	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	GENINORG	Fluoride	F(-1)		0.323	1.50	LANL Avl BG LVL	0.27	1.2	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	5	5	06/28/05	160	24400	2230	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Aluminum	Al		24400	10.94	LANL Avl BG LVL	15670	1.6	68	ug/L	1				SW-846:6010B	GELC	turbidity was 108 NTU
C2	5	5	06/28/05	1.2	11.6	6.4	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Chromium	Cr		11.6	1.81	LANL Avl BG LVL	1	11.6	2.5	ug/L	1				SW-846:6020	GELC	
C2	5	5	06/28/05	68.3	14100	1240	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Iron	Fe		14100	11.37	LANL Avl BG LVL	8240	1.7	30	ug/L	1				SW-846:6010B	GELC	turbidity was 108 NTU
C2	5	5	06/28/05	1.1	3.18	2.15	4	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Molybdenum	Mo		3.18	1.48	LANL Avl BG LVL	2	1.6	0.1	ug/L	1				SW-846:6020	GELC	
C2	3	3	12/11/08	21.7	117	24.4	3	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Silicon Dioxide	SiO2		117	4.80	LANL Avl BG LVL	64.21	1.8	0.27	mg/L	5				SW-846:6010B	GELC	
C2	5	5	06/28/05	2.5	19.6	5.7	3	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Vanadium	V		19.6	3.44	LANL Avl BG LVL	1	19.6	1	ug/L	1				SW-846:6010B	GELC	
C2	14	26	09/09/04	0.079	0.256	0.101	26	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Homestead Spring	0	09/16/09	FD	F	CS	GENINORG	Fluoride	F(-1)		0.256	2.53	LANL Int BG LVL	0.23	1.1	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	14	15	09/10/04	0.086	0.277	0.118	14	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Starmer Spring	0	09/16/09		F	CS	GENINORG	Fluoride	F(-1)		0.277	2.35	LANL Int BG LVL	0.23	1.2	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	14	14	09/09/04	0.123	0.278	0.14	14	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Kieling Spring	0	09/15/09		F	CS	GENINORG	Fluoride	F(-1)		0.278	1.99	LANL Int BG LVL	0.23	1.2	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	6	6	06/22/08	0.67	1.48	0.74	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/17/09		F	CS	METALS	Nickel	Ni		1.48	2.00	LANL Avl BG LVL	1	1.5	0.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC	
C2	6	6	06/25/08	0.103	0.103	0.103	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	METALS	Mercury	Hg		0.103	1.00	LANL Avl BG LVL	0.06	1.7	0.066	ug/L	1	J	J	J_LAB	EPA:245.2	GELC	
C2	7	9	01/23/07	0.155	0.37	0.194	9	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	CDV-16-02656	3	10/09/09	FD	F	CS	GENINORG	Fluoride	F(-1)		0.37	1.91	LANL Avl BG LVL	0.27	1.4	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	7	9	01/23/07	0.155	0.37	0.194	9	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	CDV-16-02656	3	10/09/09		F	CS	GENINORG	Fluoride	F(-1)		0.275	1.42	LANL Avl BG LVL	0.27	1.0	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	5	5	01/24/07	0.614	0.614	0.614	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	GENINORG	Perchlorate	ClO4		0.614	1.00	LANL Avl BG LVL	0.05	12.3	0.05	ug/L	1				SW-846:6850	GELC	
C2	18	18	11/14/00	2.1	6.61	3.6	6	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Copper	Cu		6.61	1.84	LANL Avl BG LVL	3	2.2	3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	2	2	04/03/08	39.2	71.4	55.3	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Silicon Dioxide	SiO2		71.4	1.29	LANL Avl BG LVL	64.21	1.1	0.053	mg/L	1				SW-846:6010B	GELC	
C2	6	6	05/10/07	0.143	0.295	0.187	6	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	SWSC Spring	0	10/15/09		F	CS	GENINORG	Fluoride	F(-1)		0.295	1.58	LANL Int BG LVL	0.23	1.3	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	3	4	01/05/09	0.224	0.4	0.226	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	GENINORG	Fluoride	F(-1)		0.4	1.77	LANL Int BG LVL	0.23	1.7	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	3	4	01/05/09	1.94	5.37	3.66	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	METALS	Arsenic	As		5.37	1.47	LANL Int BG LVL	4.32	1.2	1.5	ug/L	1				SW-846:6020	GELC	3 results; rising concentrations
C2	2	2	08/03/05	0.0649	0.138	0.1015	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25	891.8	10/16/09		F	CS	GENINORG	Perchlorate	ClO4		0.0649	0.64	LANL Int BG LVL	0.05	1.3	0.05	ug/L	1	J	J	J_LAB	SW-846:6850	GELC	
C2	7	11	10/23/01	168	196	182	2	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	F	CS	METALS	Aluminum	Al		168	0.92	LANL Reg BG LVL	68	2.5	68	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Flt QC Type Code	Flt Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C2	7	11	10/23/01	168	196	182	2	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		F	CS	METALS	Aluminum	Al		196	1.08	LANL Reg BG LVL	68	2.9	68	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	7	11	10/23/01	4.43	5.52	4.98	2	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	F	CS	METALS	Zinc	Zn		4.43	0.89	LANL Reg BG LVL	3.89	1.1	3.3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	7	11	10/23/01	4.43	5.52	4.98	2	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		F	CS	METALS	Zinc	Zn		5.52	1.11	LANL Reg BG LVL	3.89	1.4	3.3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	5	5	07/12/05	0.092	0.163	0.126	3	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		F	CS	GENINORG	Bromide	Br(-1)		0.126	1.00	LANL Reg BG LVL	0.1	1.3	0.066	mg/L	1	J	J	J_LAB	EPA:300.0	GELC	
C2	8	9	10/23/01	0.303	3.23	0.823	3	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		F	CS	METALS	Manganese	Mn		3.23	3.92	LANL Reg BG LVL	2.94	1.1	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	8	9	10/23/01	3.03	18.4	5.07	3	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		F	CS	METALS	Zinc	Zn		5.07	1.00	LANL Reg BG LVL	3.89	1.3	3.3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	10	11	09/24/01	3.47	5.89	4.1	7	White Rock Canyon and Rio Grande	Regional Spring	Spring 3	0	09/28/09		F	CS	METALS	Chromium	Cr		5.89	1.44	LANL Reg BG LVL	5.75	1.0	2.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC	value is estimated
C2	11	12	09/25/00	0.371	0.632	0.475	11	White Rock Canyon and Rio Grande	Regional Spring	Spring 4	0	09/28/09		F	CS	GENINORG	Fluoride	F(-1)		0.632	1.33	LANL Reg BG LVL	0.57	1.1	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	8	9	09/27/05	0.445	0.617	0.478	9	White Rock Canyon and Rio Grande	Regional Spring	Spring 4C	0	09/28/09		F	CS	GENINORG	Fluoride	F(-1)		0.617	1.29	LANL Reg BG LVL	0.57	1.1	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	7	7	09/26/05	0.428	0.622	0.476	6	White Rock Canyon and Rio Grande	Regional Spring	Spring 4B	0	09/28/09		F	CS	GENINORG	Fluoride	F(-1)		0.622	1.31	LANL Reg BG LVL	0.57	1.1	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	8	9	09/27/05	0.48	0.689	0.507	9	White Rock Canyon and Rio Grande	Regional Spring	Spring 4AA	0	09/28/09		F	CS	GENINORG	Fluoride	F(-1)		0.689	1.36	LANL Reg BG LVL	0.57	1.2	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	14	16	09/25/00	0.294	0.685	0.473	14	White Rock Canyon and Rio Grande	Regional Spring	Spring 4A	0	09/28/09		F	CS	GENINORG	Fluoride	F(-1)		0.685	1.45	LANL Reg BG LVL	0.57	1.2	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	14	19	09/25/00	138	192	170	19	White Rock Canyon and Rio Grande	Regional Spring	Spring 4A	0	09/28/09		F	CS	GENINORG	Total Dissolved Solids	TDS		192	1.13	LANL Reg BG LVL	191.68	1.0	2.4	mg/L	1				EPA:160.1	GELC	
C2	10	10	09/25/01	0.323	0.592	0.42	9	White Rock Canyon and Rio Grande	Regional Spring	Spring 5	0	09/29/09		F	CS	GENINORG	Fluoride	F(-1)		0.592	1.41	LANL Reg BG LVL	0.57	1.0	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	4	4	07/26/00	0.367	0.642	0.436	4	White Rock Canyon and Rio Grande	Regional Spring	Spring 5B	0	09/29/09		F	CS	GENINORG	Fluoride	F(-1)		0.642	1.47	LANL Reg BG LVL	0.57	1.1	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	2	2	09/25/07	0.37	0.37	0.37	1	White Rock Canyon and Rio Grande	Regional Spring	Spring 5B	0	09/29/09		UF	CS	GENINORG	Total Organic Carbon	TOC		0.37	1.00	LANL Reg BG LVL	0.33	1.1	0.33	mg/L	1	J	J	J_LAB	SW-846:9060	GELC	
C2	9	10	09/26/00	0.307	0.57	0.327	9	White Rock Canyon and Rio Grande	Regional Spring	Ancho Spring	0	09/29/09		F	CS	GENINORG	Fluoride	F(-1)		0.57	1.74	LANL Reg BG LVL	0.57	1.0	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	8	8	09/25/01	0.259	0.602	0.382	7	White Rock Canyon and Rio Grande	Regional Spring	Spring 6A	0	09/29/09		F	CS	GENINORG	Fluoride	F(-1)		0.602	1.58	LANL Reg BG LVL	0.57	1.1	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	8	8	09/27/00	0.383	0.575	0.479	7	White Rock Canyon and Rio Grande	Regional Spring	Spring 9A	0	09/30/09		F	CS	GENINORG	Fluoride	F(-1)		0.575	1.20	LANL Reg BG LVL	0.57	1.0	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C2	3	3	04/23/08	0.429	0.688	0.504	3	White Rock Canyon and Rio Grande	Regional Spring	Spring 9B	0	09/30/09		F	CS	GENINORG	Fluoride	F(-1)		0.688	1.37	LANL Reg BG LVL	0.57	1.2	0.033	mg/L	1				EPA:300.0	GELC	highest values suggest lab bias
C3	5	5	06/28/05	160	24400	2230	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Aluminum	Al		24400	10.94	NM GW STD	5000	9.8	68	ug/L	1				SW-846:6010B	GELC	turbidity was 108 NTU
C3	5	5	06/28/05	0.73	9.12	1.33	4	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Lead	Pb		9.12	6.86	EPA MCL	15	1.2	0.5	ug/L	1				SW-846:6020	GELC	turbidity was 108 NTU
C3	6	6	06/22/08	27.4	147	54	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/17/09		F	CS	GENINORG	Chloride	Cl(-1)		147	2.72	NM GW STD	250	1.2	0.66	mg/L	10				EPA:300.0	GELC	due to road salt
C3	19	19	11/14/00	0.28	2.38	0.78	8	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		UF	CS	METALS	Beryllium	Be		2.38	3.05	EPA MCL	4	1.2	1	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	Highest UF result, turbidity was 311 NTU
C3	19	19	11/14/00	0.72	17.3	3.6	13	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		UF	CS	METALS	Lead	Pb		17.3	4.81	EPA MCL	15	2.3	0.5	ug/L	1				SW-846:6020	GELC	turbidity was 311 NTU
C3	3	4	01/05/09	1.94	5.37	3.66	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	METALS	Arsenic	As		5.37	1.47	EPA MCL	10	1.1	1.5	ug/L	1				SW-846:6020	GELC	3 results: rising concentrations
C3	7	12	07/01/06	2.62	4	3.7	5	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Regional	R-27	852	10/07/09		UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7		4	1.08	EPA MCL	6	1.3	2.3	ug/L	1	J	J	J_LAB	SW-846:8270C	GELC	detected 4 times previously at similar levels
C3	7	7	10/23/01	1.63	1.63	1.63	1	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		UF	CS	SVOA	Dibenz(a,h)anthracene	53-70-3		1.63	1.00	EPA TAP SCR N LVL C-5	0.029	112.4	0.22	ug/L	1		J	SV7c	SW-846:8270C	GELC	found in field blank for other locations on this date
C5	6	7	05/25/04	0.321	0.458	0.409	7	Lower Los Alamos Canyon (San Ildefonso Pueblo)	Water Supply	LA-5	440	07/13/09		UF	CS	GENINORG	Perchlorate	ClO4		0.393	0.96	LANL Reg BG LVL	0.05	3.9	0.05	ug/L	1				SW-846:6850	GELC	
C5	5	5	06/28/05	37.2	90.5	68.1	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	GENINORG	Sodium	Na		56.3	0.83	LANL Avl BG LVL	15.54	1.8	0.1	mg/L	1				SW-846:6010B	GELC	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Flt QC Type Code	Flt Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C5	5	5	06/28/05	11.7	374	39.4	4	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Zinc	Zn		62.9	1.60	LANL Avl BG LVL	2	15.7	3.3	ug/L	1				SW-846:6010B	GELC	
C5	12	12	06/21/05	0.262	0.474	0.312	12	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	PC Spring	0	09/17/09		F	CS	GENINORG	Perchlorate	ClO4		0.271	0.87	LANL Int BG LVL	0.05	2.7	0.05	ug/L	1				SW-846:6850	GELC	
C5	13	24	06/20/05	0.113	0.405	0.244	24	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Homestead Spring	0	09/16/09	FD	F	CS	GENINORG	Perchlorate	ClO4		0.114	0.47	LANL Int BG LVL	0.05	1.1	0.05	ug/L	1	J	J	J_LAB	SW-846:6850	GELC	
C5	13	24	06/20/05	0.113	0.405	0.244	24	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Homestead Spring	0	09/16/09		F	CS	GENINORG	Perchlorate	ClO4		0.113	0.46	LANL Int BG LVL	0.05	1.1	0.05	ug/L	1	J	J	J_LAB	SW-846:6850	GELC	
C5	13	13	06/21/05	0.173	0.457	0.262	13	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Starmer Spring	0	09/16/09		F	CS	GENINORG	Perchlorate	ClO4		0.173	0.66	LANL Int BG LVL	0.05	1.7	0.05	ug/L	1	J	J	J_LAB	SW-846:6850	GELC	
C5	12	12	08/22/06	0.324	0.633	0.399	12	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Anderson Spring	0	09/15/09		F	CS	GENINORG	Perchlorate	ClO4		0.374	0.94	LANL Int BG LVL	0.05	3.7	0.05	ug/L	1				SW-846:6850	GELC	
C5	14	14	09/09/04	6.91	34.8	18.45	14	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Kieling Spring	0	09/15/09		F	CS	GENINORG	Chloride	Cl(-1)		17.6	0.95	LANL Int BG LVL	7.78	1.1	0.33	mg/L	5				EPA:300.0	GELC	
C5	13	13	06/20/05	0.377	0.804	0.474	13	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Kieling Spring	0	09/15/09		F	CS	GENINORG	Perchlorate	ClO4		0.474	1.00	LANL Int BG LVL	0.05	4.7	0.05	ug/L	1				SW-846:6850	GELC	
C5	12	14	08/31/06	0.11	0.148	0.135	7	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Charlie's Spring	0	09/16/09		F	CS	GENINORG	Bromide	Br(-1)		0.147	1.09	LANL Int BG LVL	0.03	2.5	0.066	mg/L	1	J	J	J_LAB	EPA:300.0	GELC	
C5	12	14	08/31/06	3.56	35.7	26.6	14	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Charlie's Spring	0	09/16/09		F	CS	GENINORG	Chloride	Cl(-1)		32.6	1.23	LANL Int BG LVL	7.78	2.1	0.33	mg/L	5				EPA:300.0	GELC	
C5	12	14	08/31/06	0.213	0.447	0.293	14	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Charlie's Spring	0	09/16/09		F	CS	GENINORG	Perchlorate	ClO4		0.259	0.88	LANL Int BG LVL	0.05	2.6	0.05	ug/L	1				SW-846:6850	GELC	
C5	14	14	09/09/04	12.1	27.5	17	14	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	09/15/09		F	CS	GENINORG	Chloride	Cl(-1)		19.8	1.16	LANL Int BG LVL	7.78	1.3	0.066	mg/L	1				EPA:300.0	GELC	
C5	13	13	06/22/05	0.606	0.947	0.701	13	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	09/15/09		F	CS	GENINORG	Perchlorate	ClO4		0.846	1.21	LANL Int BG LVL	0.05	8.5	0.05	ug/L	1				SW-846:6850	GELC	
C5	6	6	06/22/08	0.251	0.308	0.278	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/17/09		F	CS	GENINORG	Perchlorate	ClO4		0.308	1.11	LANL Avl BG LVL	0.05	3.1	0.05	ug/L	1				SW-846:6850	GELC	
C5	6	6	06/22/08	0.765	3.61	1.335	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/17/09		F	CS	GENINORG	Nitrate-Nitrite as Nitrogen	NO3+NO2-N		3.61	2.70	LANL Avl BG LVL	0.57	3.2	0.1	mg/L	10				EPA:353.2	GELC	may be related to high chloride
C5	6	6	06/22/08	88.9	286	138	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/17/09		F	CS	METALS	Barium	Ba		286	2.07	LANL Avl BG LVL	68.57	2.1	1	ug/L	1				SW-846:6010B	GELC	may be related to high chloride
C5	6	6	06/25/08	18.9	257	105.5	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Calcium	Ca		187	1.77	LANL Avl BG LVL	26.36	3.6	0.05	mg/L	1				SW-846:6010B	GELC	
C5	6	6	06/25/08	61.6	994	336.4	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Chloride	Cl(-1)		764	2.27	LANL Avl BG LVL	69.76	5.5	6.6	mg/L	100				EPA:300.0	GELC	above standard
C5	6	6	06/25/08	0.204	0.279	0.241	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Perchlorate	ClO4		0.279	1.16	LANL Avl BG LVL	0.05	2.8	0.05	ug/L	1				SW-846:6850	GELC	
C5	6	6	06/25/08	4.54	17.5	9.37	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Potassium	K		15.8	1.69	LANL Avl BG LVL	5.21	1.5	0.05	mg/L	1				SW-846:6010B	GELC	
C5	6	6	06/25/08	5.06	71.5	30.27	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Magnesium	Mg		56	1.85	LANL Avl BG LVL	7.78	3.6	0.085	mg/L	1				SW-846:6010B	GELC	
C5	6	6	06/25/08	0.96	4.69	2.18	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Nitrate-Nitrite as Nitrogen	NO3+NO2-N		4.13	1.89	LANL Avl BG LVL	0.57	3.6	0.1	mg/L	10				EPA:353.2	GELC	may be related to high chloride
C5	6	6	06/25/08	39.5	298	93	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Sodium	Na		211	2.27	LANL Avl BG LVL	15.54	6.8	0.1	mg/L	1				SW-846:6010B	GELC	
C5	6	6	06/25/08	235	2140	815	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	GENINORG	Total Dissolved Solids	TDS		1690	2.07	LANL Avl BG LVL	139	6.1	2.4	mg/L	1				EPA:160.1	GELC	related to high chloride
C5	6	6	06/25/08	140	2580	707	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	METALS	Barium	Ba		1740	2.46	LANL Avl BG LVL	68.57	12.7	1	ug/L	1				SW-846:6010B	GELC	may be related to high chloride

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Flt QC Type Code	Flt Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C5	6	6	06/25/08	6.8	609	12.9	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	METALS	Manganese	Mn		15.7	1.22	LANL Avl BG LVL	2	3.9	2	ug/L	1				SW-846:6010B	GELC	
C5	6	6	06/25/08	1.8	5.2	2.9	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	METALS	Nickel	Ni		3.92	1.35	LANL Avl BG LVL	1	2.0	0.5	ug/L	1				SW-846:6020	GELC	
C5	6	6	06/25/08	145	2240	816	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	METALS	Strontium	Sr		1670	2.05	LANL Avl BG LVL	120	7.0	1	ug/L	1				SW-846:6010B	GELC	
C5	6	6	06/25/08	26.6	872	140	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7b2	10	09/15/09		F	CS	METALS	Zinc	Zn		137	0.98	LANL Avl BG LVL	2	34.3	3.3	ug/L	1				SW-846:6010B	GELC	
C5	7	9	01/23/07	0.158	0.419	0.391	9	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	CDV-16-02656	3	10/09/09	FD	F	CS	GENINORG	Perchlorate	ClO4		0.407	1.04	LANL Avl BG LVL	0.05	4.1	0.05	ug/L	1				SW-846:6850	GELC	
C5	7	9	01/23/07	0.158	0.419	0.391	9	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	CDV-16-02656	3	10/09/09		F	CS	GENINORG	Perchlorate	ClO4		0.419	1.07	LANL Avl BG LVL	0.05	4.2	0.05	ug/L	1				SW-846:6850	GELC	
C5	33	37	03/23/00	2030	5150	3100	36	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	CDV-16-02656	3	10/09/09		F	CS	METALS	Barium	Ba		3210	1.04	LANL Avl BG LVL	68.57	23.4	1	ug/L	1				SW-846:6010B	GELC	
C5	33	37	03/23/00	2030	5150	3100	36	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	CDV-16-02656	3	10/09/09	FD	F	CS	METALS	Barium	Ba		3180	1.03	LANL Avl BG LVL	68.57	23.2	1	ug/L	1				SW-846:6010B	GELC	
C5	14	14	11/14/00	149	502	303	14	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Boron	B		170	0.56	LANL Avl BG LVL	51.89	1.6	15	ug/L	1				SW-846:6010B	GELC	
C5	18	18	11/14/00	29.4	1300	293	18	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Manganese	Mn		36.8	0.13	LANL Avl BG LVL	2	9.2	2	ug/L	1				SW-846:6010B	GELC	
C5	18	18	11/14/00	2.6	7.5	4.2	13	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Nickel	Ni		3.53	0.84	LANL Avl BG LVL	1	1.8	0.5	ug/L	1				SW-846:6020	GELC	
C5	18	18	11/14/00	5.7	36.8	17.6	14	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Zinc	Zn		19.2	1.09	LANL Avl BG LVL	2	4.8	3.3	ug/L	1				SW-846:6010B	GELC	
C5	6	6	05/10/07	13.4	24	18.6	6	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	SWSC Spring	0	10/15/09		F	CS	GENINORG	Chloride	Cl(-1)		19.1	1.03	LANL Int BG LVL	7.78	1.2	0.066	mg/L	1		J+	l6b	EPA:300.0	GELC	
C5	6	6	05/10/07	0.511	0.721	0.599	6	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	SWSC Spring	0	10/15/09		F	CS	GENINORG	Perchlorate	ClO4		0.721	1.20	LANL Int BG LVL	0.05	7.2	0.05	ug/L	1				SW-846:6850	GELC	
C5	28	28	01/10/00	209	371	273	27	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	SWSC Spring	0	10/15/09		F	CS	METALS	Barium	Ba		273	1.00	LANL Int BG LVL	71.83	1.9	1	ug/L	1				SW-846:6010B	GELC	
C5	7	12	01/29/07	13.9	24.7	21.3	12	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Burning Ground Spring	0	10/15/09	FD	F	CS	GENINORG	Chloride	Cl(-1)		19.5	0.92	LANL Int BG LVL	7.78	1.3	0.066	mg/L	1		J+	l6b	EPA:300.0	GELC	
C5	7	12	01/29/07	13.9	24.7	21.3	12	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Burning Ground Spring	0	10/15/09		F	CS	GENINORG	Chloride	Cl(-1)		19.5	0.92	LANL Int BG LVL	7.78	1.3	0.066	mg/L	1		J+	l6b	EPA:300.0	GELC	
C5	7	12	01/29/07	0.518	0.715	0.586	12	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Burning Ground Spring	0	10/15/09		F	CS	GENINORG	Perchlorate	ClO4		0.715	1.22	LANL Int BG LVL	0.05	7.2	0.05	ug/L	1				SW-846:6850	GELC	
C5	7	12	01/29/07	0.518	0.715	0.586	12	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Burning Ground Spring	0	10/15/09	FD	F	CS	GENINORG	Perchlorate	ClO4		0.697	1.19	LANL Int BG LVL	0.05	7.0	0.05	ug/L	1				SW-846:6850	GELC	
C5	51	65	01/10/00	146	256	180	59	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Burning Ground Spring	0	10/15/09		F	CS	METALS	Barium	Ba		165	0.92	LANL Int BG LVL	71.83	1.2	1	ug/L	1				SW-846:6010B	GELC	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Flt QC Type Code	Flt Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C5	51	65	01/10/00	146	256	180	59	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Burning Ground Spring	0	10/15/09	FD	F	CS	METALS	Barium	Ba		167	0.93	LANL Int BG LVL	71.83	1.2	1	ug/L	1				SW-846:6010B	GELC	
C5	3	4	01/05/09	0.208	0.255	0.229	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	GENINORG	Perchlorate	ClO4		0.239	1.04	LANL Int BG LVL	0.05	2.4	0.05	ug/L	1				SW-846:6850	GELC	
C5	3	4	01/05/09	22.9	102	93.4	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	METALS	Manganese	Mn		22.9	0.25	LANL Int BG LVL	2	5.7	2	ug/L	1				SW-846:6010B	GELC	
C5	3	4	01/05/09	32.3	40.3	35.1	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	METALS	Molybdenum	Mo		40.3	1.15	LANL Int BG LVL	2	10.1	0.1	ug/L	1				SW-846:6020	GELC	
C5	3	4	01/05/09	1.6	3.12	1.82	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	METALS	Uranium	U		3.12	1.71	LANL Int BG LVL	0.72	2.2	0.05	ug/L	1				SW-846:6020	GELC	highest result, increasing trend
C5	3	4	01/05/09	24.3	1420	737.1	4	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Intermediate	R-25b	750	10/09/09		F	CS	METALS	Zinc	Zn		24.3	0.03	LANL Int BG LVL	2	6.1	3.3	ug/L	1				SW-846:6010B	GELC	
C5	4	6	09/14/06	0.772	1.95	1.26	5	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		UF	CS	GENINORG	Total Organic Carbon	TOC		0.795	0.63	LANL Reg BG LVL	0.33	1.2	0.33	mg/L	1	J	J	J_LAB	SW-846:9060	GELC	
C5	4	6	09/14/06	0.772	1.95	1.26	5	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	UF	CS	GENINORG	Total Organic Carbon	TOC		0.772	0.61	LANL Reg BG LVL	0.33	1.2	0.33	mg/L	1	J	J	J_LAB	SW-846:9060	GELC	
C5	7	11	10/23/01	36.3	221	100.1	8	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		F	CS	METALS	Iron	Fe		221	2.21	LANL Reg BG LVL	21	5.3	30	ug/L	1				SW-846:6010B	GELC	
C5	7	11	10/23/01	36.3	221	100.1	8	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	F	CS	METALS	Iron	Fe		185	1.85	LANL Reg BG LVL	21	4.4	30	ug/L	1				SW-846:6010B	GELC	
C5	7	11	10/23/01	32.8	197	192.5	8	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09		F	CS	METALS	Manganese	Mn		197	1.02	LANL Reg BG LVL	2.94	33.5	2	ug/L	1				SW-846:6010B	GELC	
C5	7	11	10/23/01	32.8	197	192.5	8	White Rock Canyon and Rio Grande	Regional Spring	Sacred Spring	0	09/22/09	FD	F	CS	METALS	Manganese	Mn		195	1.01	LANL Reg BG LVL	2.94	33.2	2	ug/L	1				SW-846:6010B	GELC	
C5	6	7	08/24/04	9.8	12.5	11.8	7	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		F	CS	METALS	Uranium	U		10.1	0.86	LANL Reg BG LVL	1.9	2.7	0.05	ug/L	1				SW-846:6020	GELC	naturally occurring
C5	7	7	09/26/05	7.19	7.9	7.61	7	White Rock Canyon and Rio Grande	Regional Spring	Spring 4B	0	09/28/09		F	CS	GENINORG	Chloride	Cl(-1)		7.77	1.02	LANL Reg BG LVL	3.57	1.1	0.066	mg/L	1				EPA:300.0	GELC	
C5	6	6	09/18/06	0.839	1.54	1.186	6	White Rock Canyon and Rio Grande	Regional Spring	Spring 4B	0	09/28/09		UF	CS	GENINORG	Total Organic Carbon	TOC		0.839	0.71	LANL Reg BG LVL	0.33	1.3	0.33	mg/L	1	J	J	J_LAB	SW-846:9060	GELC	
C5	7	8	09/18/06	0.384	1.63	0.921	8	White Rock Canyon and Rio Grande	Regional Spring	Spring 4AA	0	09/28/09		UF	CS	GENINORG	Total Organic Carbon	TOC		1.24	1.35	LANL Reg BG LVL	0.33	1.9	0.33	mg/L	1				SW-846:9060	GELC	
C5	6	6	09/19/06	0.399	1.33	0.825	5	White Rock Canyon and Rio Grande	Regional Spring	Ancho Spring	0	09/29/09		UF	CS	GENINORG	Total Organic Carbon	TOC		0.825	1.00	LANL Reg BG LVL	0.33	1.3	0.33	mg/L	1	J	J	J_LAB	SW-846:9060	GELC	
C5	6	6	05/26/04	0.292	0.372	0.337	6	White Rock Canyon and Rio Grande	Water Supply	J. Martinez House Well	-1	07/14/09		UF	CS	GENINORG	Perchlorate	ClO4		0.292	0.87	LANL Reg BG LVL	0.05	2.9	0.05	ug/L	1				SW-846:6850	GELC	
C6	6	6	06/22/08	27.4	147	54	6	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/17/09		F	CS	GENINORG	Chloride	Cl(-1)		147	2.72	NM GW STD	250	1.2	0.66	mg/L	10				EPA:300.0	GELC	due to road salt
CA	5	5	06/28/05	160	24400	2230	5	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial Spring	TW-1.72 Spring	0	09/16/09		F	CS	METALS	Aluminum	Al		24400	10.94	NM GW STD	5000	4.9	68	ug/L	1				SW-846:6010B	GELC	turbidity was 108 NTU
CA	18	18	11/14/00	103	11700	1850	18	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		F	CS	METALS	Aluminum	Al		11700	6.32	NM GW STD	5000	2.3	68	ug/L	1				SW-846:6010B	GELC	turbidity was 311 NTU
CA	19	19	11/14/00	0.72	17.3	3.6	13	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	MSC-16-06294	2.5	10/14/09		UF	CS	METALS	Lead	Pb		17.3	4.81	EPA MCL	15	1.2	0.5	ug/L	1				SW-846:6020	GELC	turbidity was 311 NTU
CA	7	7	10/23/01	1.63	1.63	1.63	1	White Rock Canyon and Rio Grande	Regional Spring	La Mesita Spring	0	09/22/09		UF	CS	SVOA	Dibenz(a,h)anthracene	53-70-3		1.63	1.00	EPA TAP SCRNL LVL C-5	0.029	56.2	0.22	ug/L	1		J	SV7c	SW-846:8270C	GELC	found in field blank for other locations on this date