Final
Third Quarterly Groundwater Monitoring Report

La Bajada Mine
Santa Fe National Forest, New Mexico

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

°C	degrees Centigrade
°F	degrees Fahrenheit
µS/cm	micro Siemens per centimeter
amsl	above mean sea level
AOC	analytes of concern
bgs	below ground surface
COC	chain-of-custody
DO	dissolved oxygen
DTW	depth-to-water
EPA	United States Environmental Protection Agency
GPS	Global Positioning System
MDL	method detection limit
mg/L	milligram per liter
MS	matrix spike
MSD	matrix spike duplicate
mV	millivolt
NDA	no data available
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NTU	Nephelometric Turbidity Unit
ORP	oxidation-reduction potential
pCi/g	pico Curies per gram
QC	quality control
RL	Reporting Limit
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TOC	top-of-casing
USFS	United States Department of Agriculture Forest Service
USGS	United States Department of the Interior Geological Survey
WESTON	Weston Solutions, Inc.
WRCC	Western Regional Climate Center
WQS	Water Quality Standard
WWTP	Wastewater Treatment Plant

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1.0 INTRODUCTION

Weston Solutions, Inc. (WESTON®) has been contracted by the United States Department of Agriculture Forest Service (USFS) under contract AG-8371-D-14-0048, to conduct a groundwater investigation for the La Bajada Mine Site (the "Site") located within the Santa Fe National Forest, New Mexico (Figure 1 and Figure 2). This Monitoring Report summarizes the first three of four quarterly groundwater monitoring events occurring in the third quarter of calendar year 2015 and the first and second quarter of 2016. WESTON representatives conducted fieldwork on September 21-23, 2015, January 12-13, 2016, and May 23-24, 2016.

1.1 SITE NAME AND SAMPLING LOCATION

The project area is located 15 miles southwest of the City of Santa Fe within the Espanola Ranger District of the Santa Fe National Forest in the Northwest ¼ of Section 9, Township 15 North, Range 7 East, Santa Fe County, New Mexico. The geographical coordinates for the historical mine location, which is central to the site, are 35°32'56.82"N 106°12'29.20"W (Figure 1).

The Site can be accessed from Albuquerque by taking Interstate 25 north toward Santa Fe to Highway 16. Take Highway 16 west for approximately 3.5 miles to the intersection with the road for Tetilla Park Recreation Area. Turn right and follow the double-lane paved road for approximately 1 mile to an intersection with a gravel road to La Bajada Village. Turn right onto this road and drive approximately 2 miles to the Site area. The road will cross the Santa Fe River several times before the final destination; therefore, a four wheel drive, high-clearance vehicle is necessary.

1.2 RESPONSIBLE AGENCY

Each of the groundwater monitoring wells included in this groundwater investigation is located on USFS lands and therefore falls under the jurisdiction of the USFS.

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2.0 SITE BACKGROUND

The La Bajada Mine is an abandoned uranium mine site located in the Santa Fe River Canyon in Santa Fe County, New Mexico. The following sections provide a description of Site history, current conditions, previous investigations/remedial actions, and physical characteristics.

2.1 SITE HISTORY

La Bajada first operated as a copper mine beginning in approximately 1915. Most of the production was by the La Bajada Copper Mining Company starting in the 1920s (Chenoweth, 1979). In 1928-1929, the mine consisted of two shafts (Whitworth, 1996). Uranium was discovered at the mine in 1950. The underground workings of the mine were declared unsafe in 1957 and subsequent uranium mining was by open pit developed in the early 1960s between the two shafts. Mining continued intermittently through 1964 with the final shipment from stockpiled ore occurring in 1966 (Chenoweth, 1979). The pit filled with water once mining operations ceased.

2.2 PREVIOUS INVESTIGATIONS/REMEDIAL ACTIONS

The USFS, under a joint powers agreement with New Mexico Environment Department (NMED), performed a mine reclamation at the Site in 1996. Mine waste material was regraded and capped with a minimum of 1 foot of clean soil. The pit lake was also backfilled with clean soil. Ephemeral stream channels were armored with rock to prevent erosion of mine waste into the Santa Fe River. Available information indicates seven groundwater monitoring wells were installed for post-removal compliance sampling to ensure compliance with New Mexico Water Quality Standards (WQSs). One additional well was discovered during a site reconnaissance conducted to kick off this project. The USFS and NMED have periodically monitored the wells and submitted groundwater samples for laboratory analysis. Available data, provided by NMED, is in Appendix A.

2.3 PHYSICAL CHARACTERISTICS

2.3.1 Geologic Setting

The La Bajada ore body is found in sedimentary and volcaniclastic sedimentary deposits consisting of the Espinaso Volcanics formed during the Oligocene time (Chenoweth, 1979). Thin veins of uranium mineralization occur in a dark basaltic dike that is north-trending. The deposit consists of various sulfide-mineral veins including pyrite, sphalerite, marcasite, colusite, chalcopyrite, and bornite. The uranium mineralogy of the deposit is not known but brannerite was identified in a single sample examined by the Colorado School of Mines Research Foundation as referenced by Chenoweth (1979). The majority of uranium is thought to occur in organic material in the vein. At the Hiser-Moore claims, located southwest of La Bajada, yellow uranium minerals occur on joint surfaces near the top of the basaltic dike flow. Evidence of previous erosion of uranium deposits into the Santa Fe River prior to development of the La Bajada mine was documented by Whitworth (1996). Whitworth indicated that “significant

amounts of radioactive elements present in fluvial deposits of the Santa Fe River downstream from the mine may be naturally emplaced and may not be the result of mining operations at La Bajada."

2.3.2 Hydrogeologic Setting

The La Bajada Mine Site is in the eastern border of the Middle Rio Grande Basin. Groundwater beneath the Site is part of the Santa Fe Group aquifer system and groundwater flow downstream of the mine is generally westward and approximately parallel to the course of the Santa Fe River (Whitworth, 1996). Depth-to-water (DTW) at the Site, based on data collected by NMED in 2010, ranges from approximately 13 to 33 feet below ground surface (bgs).

Groundwater data quality reported by Bartolino and Cole (2002) for the northeast basin margin of the Middle Rio Grande Basin indicates sulfate levels are 400 milligrams per liter (mg/L), which exceeds the United States Environmental Protection Agency (EPA) secondary water quality standards but is less than the New Mexico WQS of 600 mg/L.

2.3.3 Hydrologic Setting

The Site is located on the north side of the Santa Fe River, which flows from east to west. After leaving the Santa Fe River Canyon, the river turns and flows approximately northwest into the lower reservoir of the Cochiti Lake, which is a reservoir located at the confluence of the Rio Grande River and the Santa Fe River. The Rio Grande arm and the Santa Fe River arm are connected by a conveyance channel. According to Whitworth (1996), flow between the arms is dependent on water levels. "When the water level in the Rio Grande arm is above 5,355 feet, water flows from the Rio Grande arm through the conveyance channel into the Santa Fe arm. When the water level in the Rio Grande arm is below 5,355 feet, water flows into the Rio Grande arm from the Santa Fe arm."

The City of Santa Fe Wastewater Treatment Plant (WWTP) is located upstream of the Site on the Santa Fe River. The WWTP discharges its treated effluent to the Santa Fe River. The Santa Fe River is a perennial stream for approximately 3 miles in the Santa Fe arm (Whitworth, 1996). In general, the river is considered perennial, though many reaches are periodically dry and most of its flow is treated effluent from the Santa Fe WWTP (Bartolino and Cole, 2002). The NMED has identified the section of the Santa Fe River from the Cochiti Pueblo boundary to Paseo del Canon (upstream of the Site) impaired for cool water aquatic life. Causes of impairment include nutrient/eutrophication biological indicators and sedimentation/siltation.

Uranium content in surface water of the Santa Fe River reported by Whitworth (1996) indicates upstream concentrations seem to be slightly higher than uranium concentrations downstream of the La Bajada Mine Site. The La Majada mine prospect is located approximately 3 miles upstream of La Bajada, contributing to naturally occurring uranium concentrations.

2.3.4 Regional Climate

There is a meteorological data station (#291982) at the Cochiti Dam and monthly climate data is available from February 1, 1975 through January 20, 2015. The Cochiti Dam is approximately 8 miles northwest of the Site. Average low temperatures range from 20.6 degrees Fahrenheit (°F) to 61 °F and average high temperatures range from 46.9 °F to 91.3 °F. The coolest month is January and the warmest is July. Average annual precipitation is 12.09 inches with greatest rainfall occurring in July through September. The average snowfall is 9.6 inches mostly occurring in December through February (Western Regional Climate Center [WRCC], 2015).

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3.0 SCOPE OF OBJECTIVES

In conformance with WESTON's combined Project Work Plan and Sampling and Analysis Plan (SAP) (WESTON, 2015a), groundwater monitoring/sampling and laboratory analysis is being conducted for a 1-year period on a quarterly basis beginning in September 2015. The project objectives are to determine concentrations of analytes of concern (AOCs), monitor the potential change of DTW, and determine concentration of AOCs, if present, in onsite surface water. The following general tasks will be performed during each of the four monitoring events:

1. Collect DTW measurements at each well, measured from top of casing (TOC).

2. Purge each well using low-flow purging methods.

3. Monitor purged water for physical water quality parameters such as conductivity, pH, temperature, oxidation-reduction potential (ORP), dissolved oxygen (DO), and turbidity.

4. Collect groundwater samples for laboratory analysis relative to AOCs.

5. Collect surface water samples upstream and downstream of the mine site for laboratory analysis relative to AOCs.

3.1 GROUNDWATER MONITORING OBJECTIVES

The USFS, under a joint powers agreement with NMED, performed mine reclamation at the Site in 1996. The action included capping the mine waste and implementing periodic compliance groundwater monitoring. Seven groundwater monitoring wells were installed at the time to monitor compliance of New Mexico's groundwater quality standards. The wells have not been monitored or sampled since 2010 and new groundwater quality data is needed from each of the wells to determine if concentrations of contaminants in the wells will permit formal closure of the Site.

3.2 SURFACE WATER MONITORING OBJECTIVES

Samples collected from the Santa Fe River will identify upstream and downstream concentrations of AOCs to evaluate potential effects of surface water quality from the site compared to potential upstream sources.

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4.0 FIELD ACTIVITIES

On September 22 and 23, 2015; January 12 and 16, 2016; and May 23 and 24, 2016 groundwater level measurements were collected from all eight onsite wells. Six of the wells were sampled using the EPA standard low flow technique. Two of the wells were dry and unable to be sampled.

4.1 GROUNDWATER LEVEL MEASUREMENTS

Monitor well-specific data obtained from existing reports for well depths, screen interval depths, screen slot size, and well diameter is shown in Table 1. Water level measurements were obtained at each monitor well to determine groundwater depths beneath the Site and to determine well sample pump intake setting depths. Depth-to-water measurements collected at each well were measured from the north side of the TOC using an electronic water level indicator. Measurements collected during each sampling event are presented in Table 2 and were recorded to 100th of a foot for accuracy.

Survey data for TOC elevations are not available. Water depth measurements obtained were converted to elevation depths above mean sea level (amsl) based on estimated elevation measurements provided by a handheld global positioning system (GPS) unit. Although the elevations from handheld GPS units are typically inaccurate, the resulting estimated elevation of groundwater helps to show change over the four quarters. Estimated groundwater elevations and DTW measurements are presented in Figure 3.

Table 1 Monitor Well Construction Data

Well	Well Depth (feet bgs)	Screen Intervals (feet bgs)	TOC Elevation (feet amsl) [a]	Diameter (inch)	Slot Size (inch)
MW-0	4.82	NDA	5624.347	3	NDA
MW-1	34.71	NDA	5644.475	4	NDA
MW-2	50.13	NDA	5620.036	4	NDA
MW-3	51.04	NDA	5609.798	4	NDA
MW-4	54.63	NDA	5604.988	4	NDA
MW-5	27.35	NDA	5586.418	3	NDA
MW-6	27.72	NDA	5577.459	4	NDA
MW-7	53.30	NDA	5541.436	4	NDA

amsl: above mean sea level
bgs: below ground surface
NDA: No data available
TOC: Top-of-Casing
MW: Monitor Well

Table 2 Current Monitor Well Water Level Data

Well	September 2015		January 2016		May 2016	
	Depth-to-Water [a] (feet below TOC)	Water Level Elevation (feet amsl) [b]	Depth-to-Water [a] (feet below TOC)	Water Level Elevation (feet amsl) [b]	Depth-to-Water [a] (feet below TOC)	Water Level Elevation (feet amsl) [b]
MW-0	Dry	Dry	Dry	Dry	Dry	Dry
MW-1	19.17	5625.305	18.59	5625.885	18.77	5625.705
MW-2	20.03	5600.006	18.15	5601.886	18.63	5601.406
MW-3	21.23	5588.568	20.62	5589.178	20.78	5589.018
MW-4	35.87	5569.118	35.09	5569.898	35.37	5569.618
MW-5	25.92	5560.498	25.56	5560.858	25.65	5560.768
MW-6	Dry	Dry	Dry	Dry	Dry	Dry
MW-7	13.43	5528.006	13.12	5528.316	13.23	5528.206

a Depth-to-water measured from the north side of the top of each well casing.
b Elevation data collected with non-survey grade handheld GPS unit.

amsl: above mean sea level
bgs: below ground surface
TOC: Top-of-Casing
MW: Monitor Well

4.2 SURFACE WATER SAMPLING

Surface water samples were collected at upstream and downstream locations relative to the mine site in accordance with the SAP. Water quality parameters (conductivity, pH, temperature, ORP, and DO) were measured using a water quality meter.

4.3 GROUNDWATER SAMPLING

For all monitoring events, groundwater samples were collected from each monitor well located at the Site except for the two dry wells (MW-0 and MW-6). Samples were collected using low-flow purging technology to minimize disturbance of the well. Physical water quality indicators were measured during purging to assess groundwater stability. Groundwater samples were collected in conformance with EPA guidance for "Standard Operating Procedure for Low-Stress/Minimal Drawdown Groundwater Sample Collection" to the best extent practical.

4.3.1 Monitor Well Purging

Purging at each monitor well was accomplished by using low-flow pumping methods where emphasis is placed on minimal drawdown within the well allowing sample collection at ambient flow conditions. Each well was purged and sampled with either a variable speed peristaltic pump or a variable speed pneumatic-operated bladder pump. Wetted parts of the peristaltic pump consisted of only disposable polyethylene and silicone tubing. Wetted parts of the bladder pump consisted of stainless steel or disposable polyethylene components. The internal wetted bladder pump components consisted of a disposable bladder along with disposable supply air and discharge tubing. Disposable bladders and tubing components consisted of new polyethylene materials. The following procedures were used to implement site purging and sampling methods.

1. The DTW was measured from the north side of the TOC using an electronic water level indicator. Measurements were recorded to 100th of a foot. The water level indicator was

cleaned with an Alconox detergent solution and rinsed with distilled water between each well.

2. Unless noted otherwise, the pump was lowered into the well upon recording well DTW measurements and set at approximately 5 to 10 feet below the ground water interface.

3. At low-flow withdrawal, groundwater was purged from the well until physical water quality parameters stabilized according to the criteria listed below. Water quality parameters (conductivity, pH, temperature, ORP, and DO) were measured using a flow-through cell in combination with a water quality meter. Water quality measurements were recorded at 5-minute intervals.

    a. Conductivity to within 3% of average over three consecutive readings
    b. pH ± 0.1 pH units
    c. Temperature ± 0.5°C
    d. ORP ± 10% millivolts (mV)
    e. DO ± 10% mg/L
    f. Turbidity ± 10% Nephelometric Turbidity Units (NTUs)

4. An independent turbidity meter was used to record turbidity measurements.

5. Sample collection containers were filled directly from the dedicated well pump tubing.

4.3.2 Groundwater Sampling

Groundwater samples were collected at each well location for AOCs after water quality stabilization parameters were satisfied. Groundwater samples were submitted under chain of custody (COC) record to Accutest Laboratories (Accutest) in San Jose, CA for laboratory analysis using the analytical methods prescribed.

At each well location, groundwater samples for all analyses were transferred directly from the dedicated pump tubing into the appropriate sample containers. Sample volume collected for metals analyses was filtered using a 0.45-micron filter. Sample containers were furnished by the laboratory and were pre-preserved.

Sample containers were processed for shipment to the laboratory under COC record. Samples were submitted under standard turnaround times. One duplicate sample was collected from MW-3 for all three sampling events completed to-date. One equipment blank sample was collected. Samples were analyzed by Accutest for select dissolved metals, combined radium-226 and radium-228, anions (chloride, sulfate, nitrate-nitrite), Total Kjeldahl Nitrogen (TKN), total dissolved solids (TDS), and total alkalinity. Select metals include: aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, magnesium, manganese, molybdenum, nickel, potassium, silver, sodium, strontium, thallium, uranium, vanadium, and zinc.

4.4 DECONTAMINATION PROCEDURES

Decontamination procedures were completed in accordance with EPA guidance, and sampling equipment was decontaminated consistently to assure the quality of groundwater samples

collected. Sampling equipment was decontaminated after samples were collected from each monitor well. Equipment was also decontaminated if contact was made with potentially contaminated water or surfaces.

Decontamination procedures used included a preliminary wash consisting of phosphate-free detergent (Alconox®), a distilled water rinse followed by a nitric acid rinse (10% concentration), and secondary distilled water rinse. Equipment was allowed to air dry after each rinse event. Disposable equipment intended for one-time use was not decontaminated, but was packaged for appropriate disposal.

4.5 DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

The SAP instructed using the variable speed pneumatic bladder pump to sample all of the groundwater monitoring wells. During the course of the first sampling event (September 2015), the field team was unable to drive onto the Site and had to hike in all of the equipment. The peristaltic pump was used to sample as many wells as possible because it requires less equipment to operate. Monitoring wells MW-1, MW-2, MW-3, and MW-7 were purged and sampled with the peristaltic pump. Monitoring wells MW-4 and MW-5 were purged and sampled with the bladder pump due to inadequate head pressure for the peristaltic pump to work properly. To maintain consistency, each well was sampled using the same pump type between the first quarter, second quarter, and third quarter sampling events.

For all three sampling events discussed in this report, monitor well gauging revealed that MW-0 and MW-6 were dry; therefore, groundwater samples were not collected from these wells. It was also noticed that the well casing for MW-0 may be broken approximately 1.5 feet below TOC.

During the May 2016 sampling event the bladder pump did not function correctly resulting in a deviation from the SAP and previous events. Monitoring wells MW-4 and MW-5 were sampled using a disposable bailer.

5.0 SAMPLING RESULTS

A total of two surface water samples, six groundwater samples, with one field duplicate and one equipment blank were collected during each sampling effort. Samples were analyzed as described in Section 4.2.2. Physical water quality stabilization parameters of conductivity, DO, water temperature, ORP, pH, and turbidity were measured in the field prior to surface water sample collection and during well purging activities.

Table A-1 (Appendix A) provides a summary of surface water laboratory analytical results. Table A-2 provides groundwater results; surface water and groundwater quality measurements are presented in Table A-3; and average groundwater quality measurements are shown in Table A-4 (Appendix A). Figures 4, 5, and 6 show select analytical results (key results), by location for each quarterly event. Laboratory analytical reports for the current sampling event, including COC records, are provided in Appendix B. Laboratory analytical reports for the first and second quarterly sampling events (September 2015 and January 2016) were provided in the First Quarterly Monitoring Report (WESTON, 2015b) and Second Quarterly Monitoring Report (WESTON, 2015c). Field notes from the current sampling event are included in Appendix C and photographs from sampling activities are presented in the photograph log contained in Appendix D. Laboratory analytical results for samples were compared to applicable New Mexico WQSs.

5.1 PHYSICAL WATER QUALITY MEASUREMENTS

Physical water quality measurements were collected prior to surface water sample collection and during groundwater well purging operations (Table A-3, Appendix A). Averaged physical water quality values for each sampling event are summarized in Table A-4 (Appendix A). Measurements recorded included parameters such as temperature, specific conductivity, DO, ORP, pH, and turbidity. These measurements are used to provide a general indication of groundwater stability within the saturated zone formation.

A brief summary of each water quality parameter measured along with the average result recorded at each well is provided below.

5.1.1 Temperature

The temperature of groundwater is fairly constant and is less than the mean air temperature above ground surface. Surface water temperature, as would be expected is more closely aligned with ambient temperature.

At higher temperatures minerals tend to dissolve more readily. An increase in temperature by 1°C can potentially increase specific conductance by approximately 2% (Todd, 1980). A summary of temperature results for the three quarterly events are provided below.

- September 2015 – average temperature across all wells was18.17 °C (64.71°F); the range of average temperature readings among each well was 17.18 °C (62.92°F [MW-1]) to 20.27°C (68.49°F [MW-3]). The temperature readings of the surface water collection points were 18.77 °C (65.79 °F [SW-1]) and 19.24 °C (66.63 °F [SW-2]). The high

ambient temperature reported by the National Weather Service (NWS) for the Santa Fe area on September 22-23 was 77 °F and 74 °F, respectively.

- January 2016 – average temperature across all wells was 14.00 °C (57.20°F); and the range of average temperature readings among each well was 13.49 °C (56.28°F [MW-7]) to 15.41°C (59.74°F [MW-3]). The temperature readings of the surface water collection points were -0.58 °C (30.96 °F [SW-1]) and -0.72 °C (30.70 °F [SW-2]). The high ambient temperature reported by the NWS for the Santa Fe area on January 12-13 was 43°F and 45°F, respectively.

- May 2016 – average temperature across all wells was 18.86 °C (65.95 °F) and the range of average temperature readings among each well was 15.64 °C (60.15 °F [MW-7]) to 27.05 °C (80.69 °F [MW-5]). The temperature readings of the surface water collection points were 19.80 °C (67.64 °F [SW-1]) and 18.47 °C (65.25 °F [SW-2]). The high ambient temperature reported by the NWS for the Santa Fe area on May 23-24 was 79°F.

The wider range of temperature measurements in the wells during the May 2016 event is likely a result of the altered sampling procedure. As discussed in Section 4.5, grab samples were taken with a bailer at MW-4 and MW-5. Because temperature readings were collected from the sample once it was brought to the surface, rather than within a flow-through cell, the water temperature was closer to ambient air temperatures. The maximum temperature in the wells purged using the peristaltic or bladder pump was 16.65 °C (61.97 °F [MW-1]).

5.1.2 pH

An indicator of hydrogen ion potential, pH is used to determine the acidity or alkaline condition of groundwater. The pH scale ranges from 0 to 14, with 7 being neutral. A pH unit of less than 7 is indicative of acidic water and a pH greater than 7 is indicative of alkaline or basic water. The pH of water can be affected by the dissociation of water molecules and of acids and bases dissolved in water contributing to disruption of mineral deposits. Results during each quarterly event are as follows:

- September 2015 – the average pH across all wells was 6.60 and the pH range representative of average measurements recorded at each well was between 6.29 (MW-3) and 6.91 (MW-2). The pH of the surface water collection points was 8.52 (SW-1) and 8.46 (SW-2).

- January 2016 – the average pH across all wells was 7.29 and the pH range representative of the average measurements recorded at each well was between 6.96 (MW-4) and 7.52 (MW-1). The pH of the surface water collection points was 9.31 (SW-1) and 7.95 (SW-2).

- May 2016 – the average pH across all wells was 7.47 and the pH range representative of the average measurements recorded at each well was between 7.11 (MW-3) and 7.94 (MW-5). The pH of the surface water collection points was 9.19 (SW-1) and 9.10 (SW-2).

5.1.3 Specific Conductivity

Specific conductivity measures the ability of water to carry an electric current. This ability depends on the presence of ions; on their total concentration, mobility, and valence; and on the temperature of measurement (AWWA, 2003). The larger the conductance, the more mineralized the water. Most substances dissolved in water dissociate into ions that can conduct electrical current so the conductivity of water serves as an indicator of the amount of material dissolved in the water. Specific conductivity measurements during each sampling event are described below.

- September 2015 – the average conductivity across all wells was determined to be 799 micro Siemens per centimeter (µS/cm); the conductivity range representative of average measurements recorded at each well was between 538 µS/cm (MW-2) and 1,576 µS/cm (MW-3). The specific conductivity of the surface water collection points was 449 µS/cm (SW-1) and 464 µS/cm (SW-2).

- January 2016 – the average conductivity across all wells was determined to be 1,303 µS/cm; the conductivity range representative of average measurements recorded at each well was between 1,048 µS/cm (MW-5) and 2,153 µS/cm (MW-3). The specific conductivity of the surface water collection points was 759 µS/cm (SW-1) and 773 µS/cm (SW-2).

- May 2016 – the average conductivity across all wells was determined to be 944 µS/cm; the conductivity range representative of average measurements recorded at each well was between 106 µS/cm (MW-4) and 2,131 µS/cm (MW-3). The specific conductivity of the surface water collection points was 691 µS/cm (SW-1) and 667 µS/cm (SW-2).

5.1.4 Total Dissolved Solids

Total dissolved solids concentrations were not measured in the field, but rather analyzed at the laboratory. As a comparison of estimated values of TDS at the Site, TDS concentration of palatable waters should not exceed 500 mg/L and waters containing more than 4,000 mg/L of TDS are considered unfit for human consumption (AWWA, 2003). The United States Geological Survey (USGS) classifies water based on dissolved solids as the following:

- Less than 1,000 mg/L: Fresh
- 1,000 – 3,000 mg/L: Slightly saline
- 3,000 – 10,000 mg/L: Moderately saline
- 10,000 – 35,000 mg/L: Very saline
- More than 35,000 mg/L: Briny

The lowest TDS concentrations during the three sampling events have consistently occurred at MW-5, and the highest concentrations have been consistently observed at MW-3. Average concentrations and specific minimum and maximum concentrations per event are described below.

- September 2015 – the average results for TDS analysis across all wells was 767.8 mg/L; the range of results was between 475 mg/L (MW-5) and 1,790 mg/L (MW-3). The TDS for the surface water collection points was 413 mg/L (SW-1) and 392 mg/L (SW-2).

- January 2016 – the average results for TDS analysis across all wells was 962.3 mg/L; the range of results was between 496 mg/L (MW-5) and 1970 mg/L (MW-3). The TDS for the surface water collection points was 426 mg/L (SW-1) and 450 mg/L (SW-2).

- May 2016 – the average results for TDS analysis across all wells was 806.6 mg/L; the range of results was between 470 mg/L (MW-5) and 1,830 mg/L (MW-3). The TDS for the surface water collection points was 426 mg/L (SW-1) and 411 (SW-2).

5.1.5 Dissolved Oxygen

Dissolved oxygen is a measure of oxygen in water in the form of a dissolved gas that is available for chemical reactions, and sustaining micro-organisms and/or aquatic organisms. Dissolved oxygen is a function of water temperature and salinity where low concentrations are representative of anaerobic conditions. The water temperature affects the amount of DO in water where colder water can absorb more oxygen, producing higher DO values, while warmer water produces lower values. Dissolved oxygen in shallow groundwater is typically less than 10 mg/L and in deeper waters can be virtually absent (AWWA, 2003). The oxygen content of groundwater in depths greater than 100 to 150 feet bgs is generally considered low (Driscoll, 1989). Dissolved oxygen typically decreases in concentration and/or is consumed due to oxidation of organic materials and/or micro-organisms present in the vadose zone as water percolates to the groundwater table and subsequent saturated zone.

In surface water, DO concentrations can vary in daily and seasonal patterns due to fluctuations in temperature and salinity. Dissolved oxygen comes from the atmosphere and from photosynthesis by aquatic plants and is depleted through chemical oxidation and respiration by aquatic animals and microorganisms. Average, minimum, and maximum DO concentrations per event are shown below.

- September 2015 – the average DO level across all wells was 3.44 mg/L; the range representative of average measurements recorded at each well was between 1.49 mg/L (MW-4) and 6.53 mg/L (MW-2). The DO of the surface water collection points was 11.48 mg/L (SW-1) and 11.11 mg/L (SW-2).

- January 2016 – the average DO level across all wells was 1.84 mg/L; the range representative of the average measurements recorded at each well was between 1.20 mg/L (MW-3) and 2.58 (MW-4). The DO of the surface water collection points was 4.19 mg/L (SW-1) and 10.11 mg/L (SW-2).

- May 2016 – the average DO level across all wells was 5.09 mg/L; the range representative of the average measurements recorded at each well was between 3.94 mg/L (MW-2) and 7.12 (MW-5). The DO of the surface water collection points was 15.45 mg/L (SW-1) and 14.05 mg/L (SW-2).

5.1.6 Oxidation-Reduction Potential

Oxidation-reduction Potential can be used as a qualitative indicator of aerobic versus anaerobic conditions. Typical ORP of groundwater ranges from -400 to 800 mV (Wiedemeier, 1999). Groundwater with high electron acceptors has a higher electrical potential and is considered

oxidizing whereas water with a low electrical potential (ORP values of less than 50 mV) is considered a reducing environment (Whitlock and Kelly, 2010). Results obtained during each sampling event are summarized below.

- September 2015 – the average ORP level across all wells was 153.4 mV; the ORP range representative of average measurements recorded at each well was between 34.9 mV (MW-5) and 232.1 mV (MW-1). The ORP of the surface water collection points was 152.6 mV (SW-1) and 175.2 mV (SW-2).

- January 2016 – the average ORP level across all wells was 1.6 mV; the ORP range representative of average measurements recorded at each well was between -85.4 mV (MW-3) and 108.0 mV (MW-4). The ORP of the surface water collection points was -27.7 mV (SW-1) and 28.5 (SW-2).

- May 2016 – the average ORP level across all wells was 149.1 mV; the ORP range representative of average measurements recorded at each well was between 35.7 mV (MW-7) and 352.5 mV (MW-1). The ORP of the surface water collection points was 84.0 mV (SW-1) and 148.4 mV (SW-2).

5.1.7 Turbidity

Turbidity is an optical property caused by suspended particles in water. Turbidity measurements provide an indication of water clarity and can be influenced by well construction, well purging practices, and formation matter. Turbidity levels can often affect accurate determination of dissolved concentrations of organic and inorganic analytes. Natural turbidity levels in groundwater may exceed 10 NTUs (YSI, 2005). Average readings obtained, and minimum/maximum values are listed below. Turbidity readings were not collected for the surface water sample locations.

- September 2015 – the average turbidity level measured across all wells was 9.51 NTUs, and the turbidity range representative of average measurements recorded at each well was between 3.18 NTUs (MW-1) and 22.76 NTUs (MW-5).

- January 2016 – the average turbidity level measured across all wells was 17.16 NTUs, and the turbidity range representative of the average measurements recorded at each well was between 1.26 NTUs (MW-7) and 53.92 (MW-1).

- May 2016 – the average turbidity level measured across all wells was 19.09 NTUs, and the turbidity range representative of the average measurements recorded at each well was between 2.24 NTUs (MW-3) and 86.80 NTUs (MW-5).

5.2 LABORATORY ANALYTICAL RESULTS

5.2.1 Surface Water – General Water Quality Parameters

Additional water quality parameters including total alkalinity (hydroxide alkalinity, carbonate alkalinity, and bicarbonate alkalinity), ions (chloride and sulfate), TDS, nitrate-nitrite, and TKN were analyzed.

Alkalinity

Alkalinity is a measure of the buffering capacity of water (i.e., its ability to resist sudden changes in pH). Generally it is desirable to have alkalinity concentrations that range from 20 to 200 mg/L $CaCO_3$. Total alkalinity, predominantly occurring as bicarbonate alkalinity, did not vary appreciably between sample locations or between sample events. Minimum and maximum results are listed below.

- September 2015 – 172 mg/L $CaCO_3$ (SW-2) and 175 mg/L $CaCO_3$ (SW-1).
- January 2016 – 176 mg/L $CaCO_3$ (SW-1) and 186 mg/L $CaCO_3$ (SW-2).
- May 2016 – 208 mg/L $CaCO_3$ (SW-1) and 212 mg/L $CaCO_3$ (SW-2).

Chloride, Sulfate, and TDS

The source of chloride in natural surface waters is generally due to dissolution of minerals. It is a contributor to TDS and conductivity. Chloride concentrations between the upstream and downstream sample locations were consistent with the maximum variation between the two measurements occurring during the January 2016 event. Concentrations do not vary appreciably over time. A summary of chloride results is provided below.

- September 2015 – 59.9 mg/L (SW-1) and 60.7 mg/L (SW-2).
- January 2016 – 59.2 mg/L (SW-2) and 64.7 mg/L (SW-1).
- May 2016 – 58.3 mg/L (SW-1) and 58.9 mg/L (SW-2).

Sulfate is derived from dissolution of sulfur-bearing minerals and contributes to acidity in water. There are no New Mexico surface water quality standards for chloride or sulfate and the concentrations of both ions detected are typical of other natural waters. There does not appear to be a significant difference in upstream versus downstream sulfate concentrations detected during a single event.

- September 2015 – 46.9 mg/L (SW-2) and 47.7 mg/L (SW-1).
- January 2016 – 57.4 mg/L (SW-1) and 59.2 mg/L (SW-2).
- May 2016 – 57.4 mg/L (SW-1) and 59.4 mg/L (SW-2).

Total dissolved solids concentrations have not varied significantly between the three sampling events. During the September 2015 sampling event TDS was consistent in both samples at 413 mg/L (SW-1) and 392 mg/L (SW-2). Results were consistent during the January 2016 sampling event TDS at 426 mg/L (SW-1) and 450 mg/L (SW-2). Results were consistent during the May 2016 sampling event with TDS at 426 mg/L (SW-1) and 411 mg/L (SW-2).

Nitrate-Nitrite and Total Kjeldahl Nitrogen

Nitrate-nitrite was not detected above the laboratory reporting limit (RL) in either of the samples collected during the September 2015 sampling event but estimated results of 0.067 and 0.064 mg/L were reported. The results are considered estimated because the detections are between the method detection limit (MDL) and the RL. During the January 2016 sampling event, nitrate-nitrite was detected in both samples at 1.8 mg/L (SW-1) and 1.5 mg/L (SW-2). During the May 2016 sampling event nitrate-nitrite was detected at 0.11 mg/L at SW-1, and an estimated value of 0.089 mg/L was reported at SW-2.

Total Kjeldahl Nitrogen represents the sum of organic nitrogen, ammonia, and ammonium and is usually analyzed at WWTPs. The TKN goal for treated effluent from WWTPs is <10 mg/L (NMED, 2007). During all three sampling events, TKN was either not detected above the MDL or estimated values ("J" flagged) that fell between the laboratory MDL and the RL were reported as listed below.

- September 2015 – TKN was detected at 0.63 mg/L at SW-1 and an estimated result of 0.14 mg/L was reported at SW-2.
- January 2016 – TKN was not detected at SW-1 (<0.18 mg/L) but an estimated concentration of 0.18 mg/L was reported at SW-2.
- May 2016 – TKN was reported for sample SW-1 as an estimated concentration of 0.15 mg/L; TKN in SW-2 was not detected (<0.10 mg/L).

5.2.2 Surface Water – Metals and Radionuclides

During the September 2015 sampling event, dissolved metals detected above RLs for surface water samples collected were reported for boron, calcium, magnesium, nickel, potassium, sodium, strontium, uranium, and zinc (Table A-1, Appendix A). Arsenic, barium, chromium, cobalt, copper, manganese, molybdenum, and vanadium were detected above the MDL but below the RL. These metals were reported at estimated concentrations ("J" flagged).

In January 2016, dissolved metals detected above RLs in surface water were reported for arsenic (SW-1 only), boron, calcium, magnesium, manganese, potassium, sodium, strontium, uranium, and zinc (Table A-1, Appendix A). Barium, cobalt, copper, molybdenum, nickel, and vanadium were detected above the MDL but below the RL. These metals were reported at estimated concentrations ("J" flagged).

In May 2016, dissolved metals detected above RLs in surface water were reported for boron, calcium, magnesium, manganese, potassium, sodium, strontium, and uranium (Table A-1, Appendix A). Arsenic, barium, cobalt, copper, molybdenum, nickel, vanadium, and zinc were reported as estimated concentrations.

None of the detections exceeded any of the New Mexico WQSs. Combined radium-226 and radium-228 was not detected above the laboratory RL during the September 2015 and January 2016 events. During the May 2016 sampling event radium-228 was detected at 3.28 mg/L (SW-1). The NM WQS for combined radium-226 and radium-228 is 5 mg/L.

5.2.3 Groundwater – General Water Quality Parameters

General water quality parameters were also analyzed in collected groundwater samples. Results are described below.

Alkalinity

Total alkalinity results, predominantly occurring as bicarbonate alkalinity, did not vary appreciably between sample locations or between sample events. The ranges of each event is within 20% of each other as shown below.

- September 2015 – 300 mg/L $CaCO_3$ (MW-5) to 559 mg/L $CaCO_3$ (MW-3).
- January 2016 – 250 mg/L $CaCO_3$ (MW-5) to 570 mg/L $CaCO_3$ (MW-7).
- May 2016 – 265 mg/L $CaCO_3$ (MW-7) to 568 $CaCO_3$ (MW-3).

Chloride, Sulfate, and TDS

Chloride was detected in all samples above the laboratory RL, and results varied minimally between the sampling events.

- September 2015 – 15.7 mg/L (MW-2) to 104 (MW-5).
- January 2016 – 35.9 mg/L (MW-3) to 70.6 mg/L (MW-1).
- May 2016 – 35.4 mg/L (MW-3) to 69.8 mg/L (MW-1).

Sulfate was detected during all three events in all samples above the laboratory RL. The range of detected concentrations has been within 10% between each event. The NM Groundwater Standard is 600 mg/L, which has been exceeded in MW-3 during each event. The detected range of concentrations from each event is shown below.

- September 2015 – 69.0 mg/L (MW-7) to 768 mg/L (MW-3).
- January 2016 – 71.4 mg/L (MW-5) to 826 (MW-3).
- May 2016 – 71.4 mg/L (MW-5) to 799 mg/L (MW-3).

Total dissolved solids have been detected in all samples above the laboratory RL. TDS concentrations have varied minimally between events, with their ranges differing by approximately 10% over the three sampling events. The NM Groundwater Standard for TDS is 1,000 mg/L, which was exceeded in MW-3 and the duplicate taken from MW-3 in all three sampling events. The minimum and maximum detected concentrations from each event are shown below.

- September 2015 – 475 mg/L (MW-5) to 1,790 mg/L (MW-3).
- January 2016 – 496 mg/L (MW-5) to 1,970 mg/L (MW-3).
- May 2016 – 470 mg/L (MW-5) to 1,830 mg/L (MW-3).

Nitrate-Nitrite and Total Kjeldahl Nitrogen

Nitrate-nitrate has been detected in approximately 75% of the samples, with some concentrations below the laboratory RL and therefore reported as estimated. All samples are below the NM

Groundwater Standard for nitrate of 10 mg/L. Ranges for the three sampling events are shown below.

- September 2015 – <0.041 mg/L (MW-3 and MW-5) to 0.14 mg/L (MW-2).
- January 2016 – 0<0.041 mg/L (MW-3) to 0.60 mg/L (MW-4).
- May 2016 – <0.041 mg/L (MW-1) to 0.29 mg/L (MW-4).

Total Kjeldahl Nitrogen has been detected in less than 40% of the samples collected during the three sampling events with the majority of the detections less than the RL and thus reported as estimated values. A summary of the detections is shown below.

- September 2015 – <0.020 (MW-1 and MW3); five detections ranging from 0.039 mg/L (MW-7) to 0.23 mg/L (MW-5).

- January 2016 – <0.18 mg/L (all wells except MW-2); 0.18 (MW-2).

- May 2016 – <0.10 mg/L (MW-1, MW-3, MW-4, and MW-7); 0.12J mg/L (MW-5) and 0.17J mg/L (MW-2).

5.2.4 Groundwater – Metals and Radionuclides

During the September 2015 sampling event, dissolved metals detected above laboratory RLs in collected groundwater samples were reported for arsenic (MW-2 only), boron, calcium, magnesium, manganese (MW-3 and MW-5 only), molybdenum (MW-2 only), nickel (MW-1, MW-3, MW-4, MW-5), potassium, sodium, strontium, thallium (MW-3 and MW-5 only), uranium, and zinc (MW-1 only). As shown in Table A-2 (Appendix A) several of these metals were also detected between the RL and MDL and reported as estimated concentrations in various wells. Barium, cadmium, chromium, copper, and vanadium were reported at estimated concentrations in one or more samples.

The January 2016 sampling event showed a similar list of dissolved metals detected above laboratory RLs and include boron, calcium, cobalt (MW-3 only), magnesium, manganese (MW-3 and MW-5 only), nickel, potassium, sodium, strontium, uranium, and zinc (MW-1 and MW-4 only). Arsenic, barium, cadmium, copper, molybdenum, thallium, and vanadium were detected above the MDL but below the RL and reported as estimated concentrations.

The May 2016 sampling event showed a similar list of dissolved metals detected above laboratory RLs including arsenic (MW-2 only), boron, calcium, cobalt (MW-3 only), magnesium, manganese (MW-3 and MW-5 only), nickel, potassium, sodium, strontium, and uranium. Barium, chromium, copper, molybdenum, vanadium, and zinc were detected above the MDL but below the RL in various wells. For all sampling events, the only dissolved metal concentrations that exceed the NM Groundwater Standards are manganese and uranium, as described further below.

Manganese has been detected in all samples; although only MW-3 and MW-5 have concentrations that exceed the NM Groundwater Standard of 0.2 mg/L. All other results are less than the RL and reported as estimated values. The concentrations from MW-3 and MW-5 from each sampling event were relatively consistent and were within 60% of each other.

- September 2015 – 0.886 mg/L and 0.889 mg/L (MW-3 and MW-3 duplicate); 0.887 mg/L (MW-5).
- January 2016 – 1.16 mg/L and 1.23 mg/L (MW-3 and MW-3 duplicate); 0.408 mg/L (MW-5).
- May 2016 – 0.398 mg/L and 0.385 mg/L (MW-3 and MW-3 duplicate); 0.554 mg/L (MW-5).

During all three sampling events, uranium was detected in all of the wells; however, only MW-3 and MW-4 exceed the NM Groundwater Standard of 0.03 mg/L. The concentrations from MW-3 and MW-4 did not vary appreciably between sample events as indicated below. The concentrations from MW-3 and MW-4 did not vary appreciably between sample events as indicated below.

- September 2015 – 0.334 mg/L and 0.332 mg/L (MW-3 and MW-3 duplicate); 0.0960 mg/L (MW-4).
- January 2016 – 0.363 mg/L and 0.352 mg/L (MW-3 and MW-3 duplicate); 0.0765 mg/L (MW-4).
- May 2016 – 0.358 mg/L and 0.348 mg/L (MW-3 and MW-3 duplicate); 0.0658 mg/L (MW-4).

All groundwater samples were analyzed for radium-226 and radium-228. Very few samples yielded positive detections and the detected results did not occur in consistent well samples over the three events. Only radium-228 was detected in a single sample during the September 2015 event. The field duplicate sample for MW-3 contained radium-228 at a concentration of 1.16 pCi/L±0.71. Neither radionuclide was detected during the January 2016 event. In May 2016, radium-228 was detected in MW-1 at 1.48 pCi/L±0.66; and in MW-5, radium-226 was detected in MW-5 at 2.05 pCi/L±0.25 and radium-228 was detected at 4.15 pCi/L±0.96. All detected results were very close to the RL of 1.00 pCi/L and none exceeded the NM Groundwater Standard for combined radium-226 and radium-228 at 30 pCi/L.

5.3 FIELD QUALITY CONTROL SAMPLES

Field Quality Control (QC) samples are intended to evaluate conditions resulting from field activities and serve to accomplish two primary goals: identification of potential field contamination and determination of sampling variability.

5.3.1 Equipment Blanks

A single equipment blank (EB-1) was collected during each sampling event following the methods identified in the approved SAP. The equipment blank was analyzed for the same list of metals using identical analytical methods as the primary groundwater samples. Laboratory analytical results reported for the equipment blank sample showed no analytes were detected above the laboratory RL during the September 2015 and January 2016 sampling events. Only

dedicated disposable equipment was used to sample during the May 2016 sampling event; therefore, an equipment blank sample was not collected.

5.3.2 Field Duplicate Samples

Field duplicate samples are collected to evaluate the precision of laboratory analyses by calculation of the relative percent difference (RPD) between the original and duplicate samples as described in Section 4.3 of the approved SAP. During each sampling event, a field duplicate was collected at MW-3 and analyzed for total metals, general water quality parameters, and radionuclides consistent with the primary sample analyses. The calculated RPDs of results obtained during each sampling event were compared to the acceptance criterion of 20% stated in the approved SAP.

The overall range of calculated RPDs is 0% to 44.4%. All parent-field duplicate analytical results were within the acceptance criterion of 20% except for the chromium results obtained during the May 2016 sampling event. Chromium results during the May 2016 event were 0.0011J mg/kg and 0.0007J mg/kg. Both results were reported as estimated values due to the result falling between the MDL and RL. Although the calculated RPD of 44.4% for this parent-field duplicate pair is not within the acceptance criterion of 20%, the quality of the data is not affected. The results are an order of magnitude or more below the New Mexico Groundwater standard of 0.05 mg/L and as stated previously, both results are estimated concentrations.

5.4 LABORATORY QUALITY CONTROL SAMPLES

Laboratory QC samples are analyzed by Accutest as part of the standard laboratory QC protocols to monitor the precision and accuracy of the results of its analytical procedures. In part, laboratory QC samples consist of matrix spike and matrix spike duplicates (MS/MSD) for inorganic analysis. During all sampling events, WESTON requested that the sample collected at MW-7 be used for MS/MSD analyses. MS/MSD results were within acceptable percent recovery and RPD criteria for each sampling event.

5.5 DATA REVIEW AND VALIDATION

WESTON conducted a verification evaluation of each laboratory analytical data package in accordance with the approved SAP to evaluate quality and usability of the data set. After review it appears that all collected data should be considered useable and acceptable. The following conditions were identified during the laboratory data verification process:

- Requested analyses and all pertinent information were recorded on the COC form and the laboratory data package included an accurate copy of the COC.
- The laboratory data package did not include a case narrative; however, footnotes were included on data sheets to present additional information. No non-conformances were noted.
- Several results were flagged J to indicate results were between the laboratory RL and the MDL.

- During the September 2015 sampling event, the serial dilution indicated possible matrix interference for strontium. All strontium results are greater than the laboratory RL and did not require dilution. Data quality should not be affected.

- No additional data quality issues were present during the January 2016 sampling event.

- The MS/MSD % recoveries were not within acceptance criteria (high) for chloride and sulfate during the May 2016 sampling event; however, the spike amount was low relative to the sample concentration. The laboratory control spike was within the acceptance criteria; therefore, the data quality is not affected and the data is considered sufficient to satisfy project Data Quality Objectives.

6.0 SUMMARY

The data collected in September 2015, January 2016, and May 2016 was compared to applicable New Mexico WQS and historical concentrations (Tables A-1 and A-2, Appendix A). Exceedances of applicable standards from the three quarterly sampling events and historical sampling events are summarized below.

Concentrations of AOCs in the upstream and downstream surface water samples collected from the Santa Fe River did not exceed any New Mexico Surface Water Standard during the three quarterly sampling events with the exception of concentrations of nitrate-nitrite during the January 2016 event. Concentrations of nitrate-nitrite were of 1.8 mg/L (upstream sample) and 1.5 mg/L (downstream sample) compared to the New Mexico Surface Water Standard for livestock watering of 0.132 mg/L. Historically, the river was only sampled on two other occasions (August 2002 and April 2003). In April 2003, the upstream and downstream surface water samples also exceeded the livestock watering standard for nitrate-nitrite with concentrations of 0.92 mg/L and 0.96 mg/L, respectively. No other AOCs were detected at concentrations exceeding standards in historically-collected samples.

The only metals exceeding their respective New Mexico Groundwater Standards are manganese and uranium. During the current and historical sampling events, manganese consistently exceeded the groundwater standard of 0.2 mg/L at MW-3 and MW-5. Concentrations of manganese have remained relatively static in each well over time. A single exceedance occurred at MW-1 in 2003.

Concentrations of uranium have consistently exceeded the groundwater standard of 0.03 mg/L at MW-3 and MW-4 currently and historically. The current concentration of uranium at MW-3 (0.348 mg/L) has decreased by nearly half since its maximum detection in 1999 (0.65 mg/L). Although decreasing uranium concentrations are also evident at MW-4 the difference is not quite as great. The maximum historical concentration (0.2 mg/L) was detected in March 1998 with concentrations decreasing to 0.12 mg/L to 0.16 mg/L in September 1998 to August 2002. Current concentrations (0.0658 mg/L to 0.0969 mg/L) have been holding steady since April 2003.

In 1998 and 1999, uranium was also detected in MW-5 and MW-6 at concentrations greater than the New Mexico groundwater standard. MW-6 has been dry during the last three sampling events and therefore not sampled; however, uranium was detected at 0.018 mg/L during the last sample collected from the well in 2010. Uranium concentrations in MW-5 have been less than the standard since June 1999.

Sulfate and TDS in MW-3 are the only other AOCs exceeding their respective New Mexico groundwater standard. Both constituents have exceeded the standard in every sampling event since March 1998; however, current concentrations of both constituents show and overall decreasing pattern when compared to pre-2010 results. Current sulfate concentrations range from 728 mg/L to 826 mg/L compared to 1998 to 2003 concentrations of 1,170 mg/L to 1,430 mg/L. Current TDS concentrations range from 1,740 mg/L to 1,970 mg/L compared to 1998 to 2003 concentrations of 2,360 mg/L to 2,740 mg/L.

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7.0 REFERENCES

AWWA, 2003. Manual of Water Supply Practices, M21 AWWA 3rd Edition.

Bartolino, James R. and Cole, James C., 2002. *Ground-Water Resources of the Middle Rio Grande Basin, New Mexico.* U.S. Geological Survey, Circular 1222, 2002.

Chenoweth, William L., 1979. *Uranium in the Santa Fe Area, New Mexico.* New Mexico Geologic Society Guidebook, 30th Field Conference, Santa Fe County, 1979.

Driscoll, Fletcher G. 1989. Groundwater and Wells, Second Edition, 1989.

New Mexico Environment Department (NMED), 2007. *New Mexico Wastewater Systems Operator Certification Study Manual.* Prepared by the Water Utilities Technical Assistance Program for the Utility Operators Certification Program, NMED Surface Water Quality Board. Dated November 2007.

Todd, D.K., 1980. *Groundwater Hydrology* 2nd edition, John Wiley & Sons, New York, 280 pp.

Western Regional Climate Center (WRCC), 2015. Period of Record Monthly Climate Summary Cochiti Dam, New Mexico. http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm1982. Accessed June 24, 2015.

Weston Solutions, Inc. (WESTON), 2015a. *Final Sampling and Analysis Plan, Groundwater Investigation, La Bajada Mine Site, Santa Fe National Forest, New Mexico.* Dated July 2015.

_____, 2015b. *Final First Quarterly Groundwater Monitoring Report, La Bajada Mine, Santa Fe National Forest, New Mexico.* Dated December 2015.

_____, 2015c. *Final Second Quarterly Groundwater Monitoring Report, La Bajada Mine, Santa Fe National Forest, New Mexico.* Dated March 2015.

Whitlock and Kelly, 2010. Groundwater monitoring and remediation, Relationship between subsurface gas and Arsenic Mobilization in groundwater; Whitlock and Kelly; 30 No. 2 Spring 2010, pages 86-96.

Whitworth, T.M., 1996. Potential environmental impact of the abandoned La Bajada uranium mine near Cochiti Lake, Santa Fe and Sandoval Counties, New Mexico. *New Mexico Geology,* August 1996.

Wiedemeier, Todd H., 1999. *Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface.* John Wiley & Sons, Inc., New York, 175 pp.

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FIGURES

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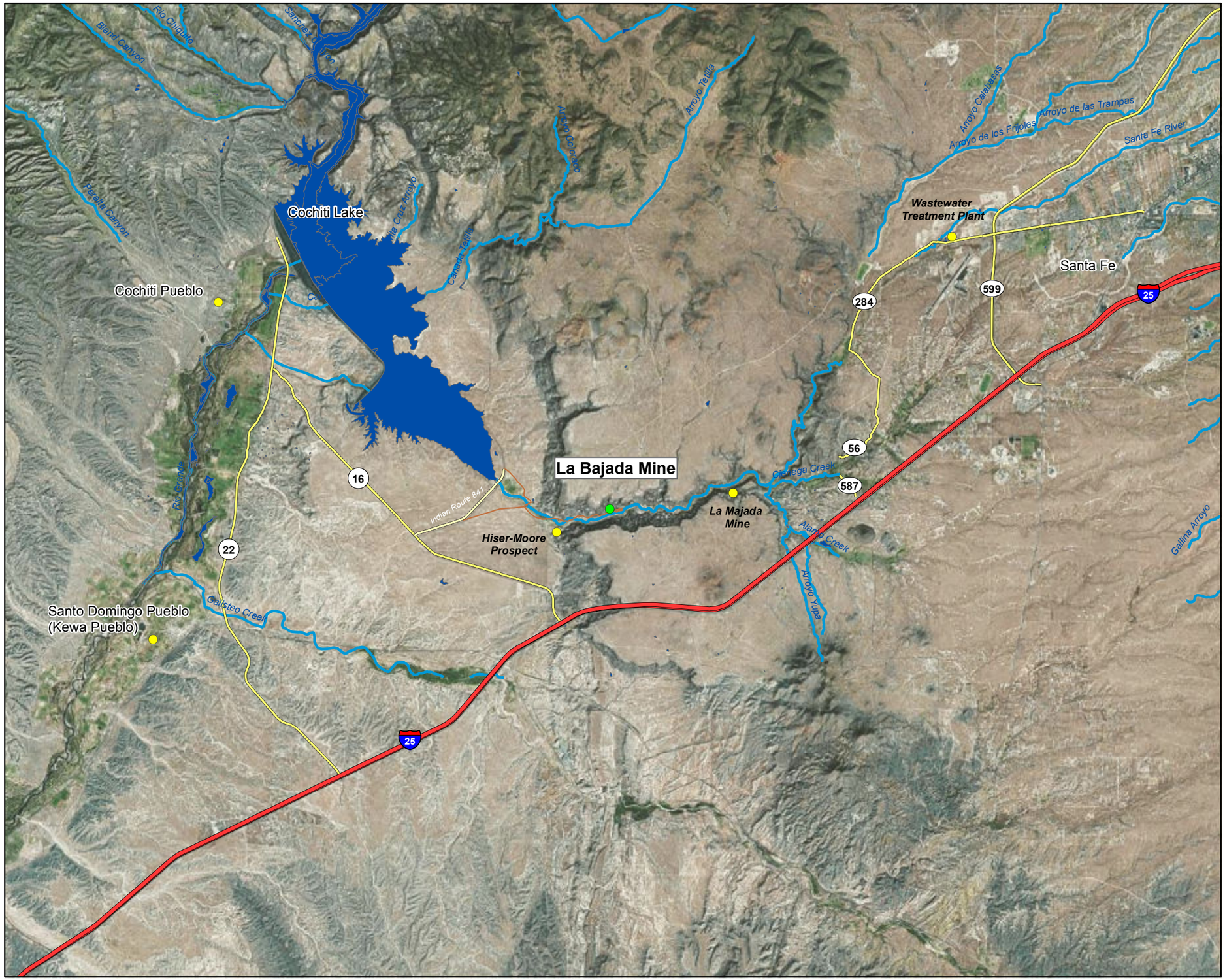


La Bajada Mine, NM

Legend

- Points of Interest
- La Bajada Mine
- Dirt Road
- Indian Route
- State Route
- Interstate
- Rivers and Streams
- Lake

Baselayer Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Baselayer Date: 2011

Figure 1
Site Vicinity Map
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

0 2 4
Approximate scale in miles

N

960 W. Elliot Road, Suite 101
Tempe, AZ 85284

La Bajada Mine, NM

Legend

- Surface Water Sample Location
- Monitoring Well
- Dirt Road
- River

Baselayer Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Baselayer Date: 2011
Coordinates: UTM NAD83 13N

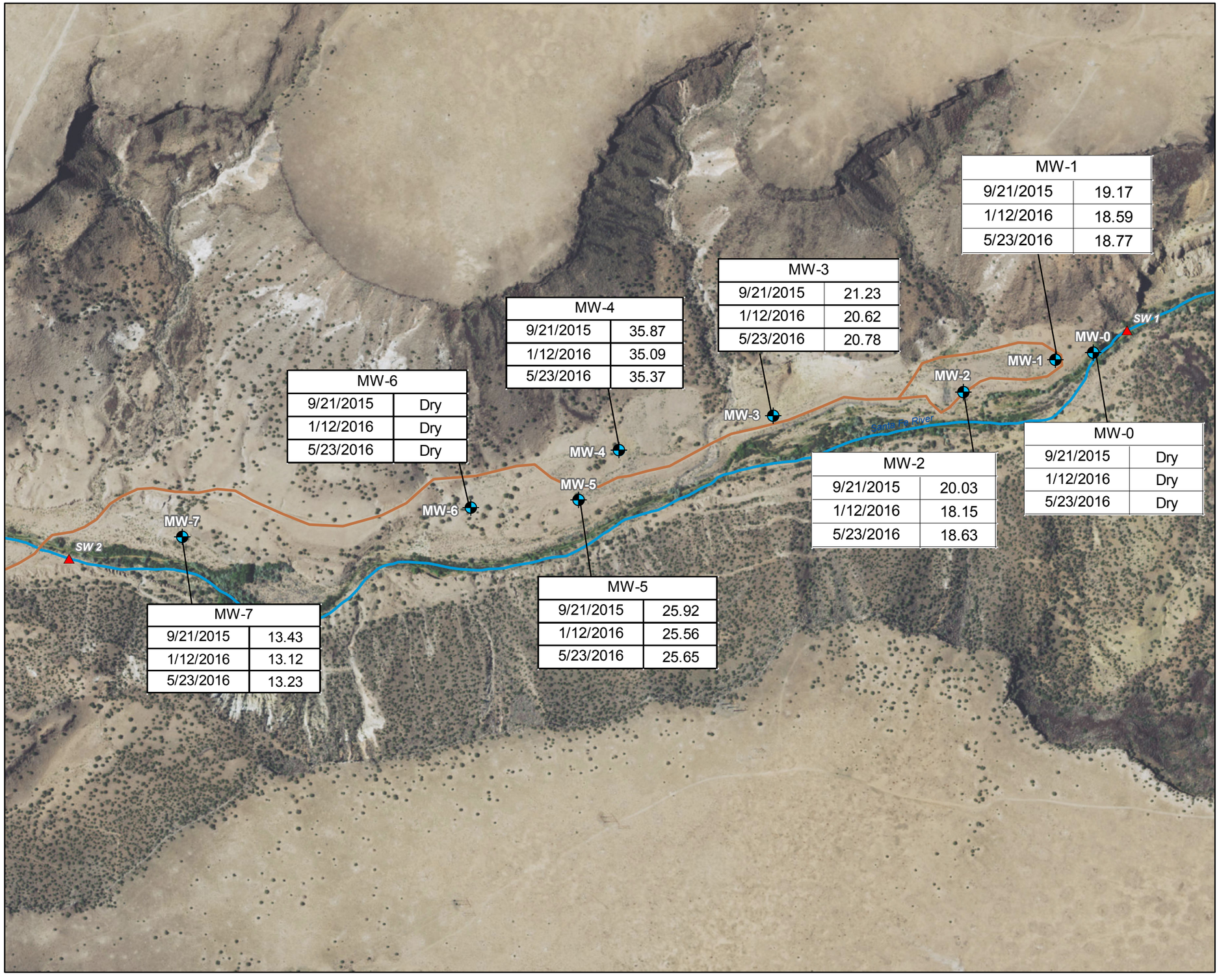
Figure 2
Well Location Map
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

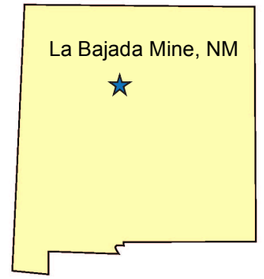
0 500 1,000
Approximate scale in feet

N

FOREST SERVICE
USDA
DEPARTMENT OF AGRICULTURE

WESTON SOLUTIONS
960 W. Elliot Road, Suite 101
Tempe, AZ 85284





Legend

- Surface Water Sample Location
- Monitoring Well
- Dirt Road
- River

Note:
Depth-to-water measured from the north side of the top of each well casing.

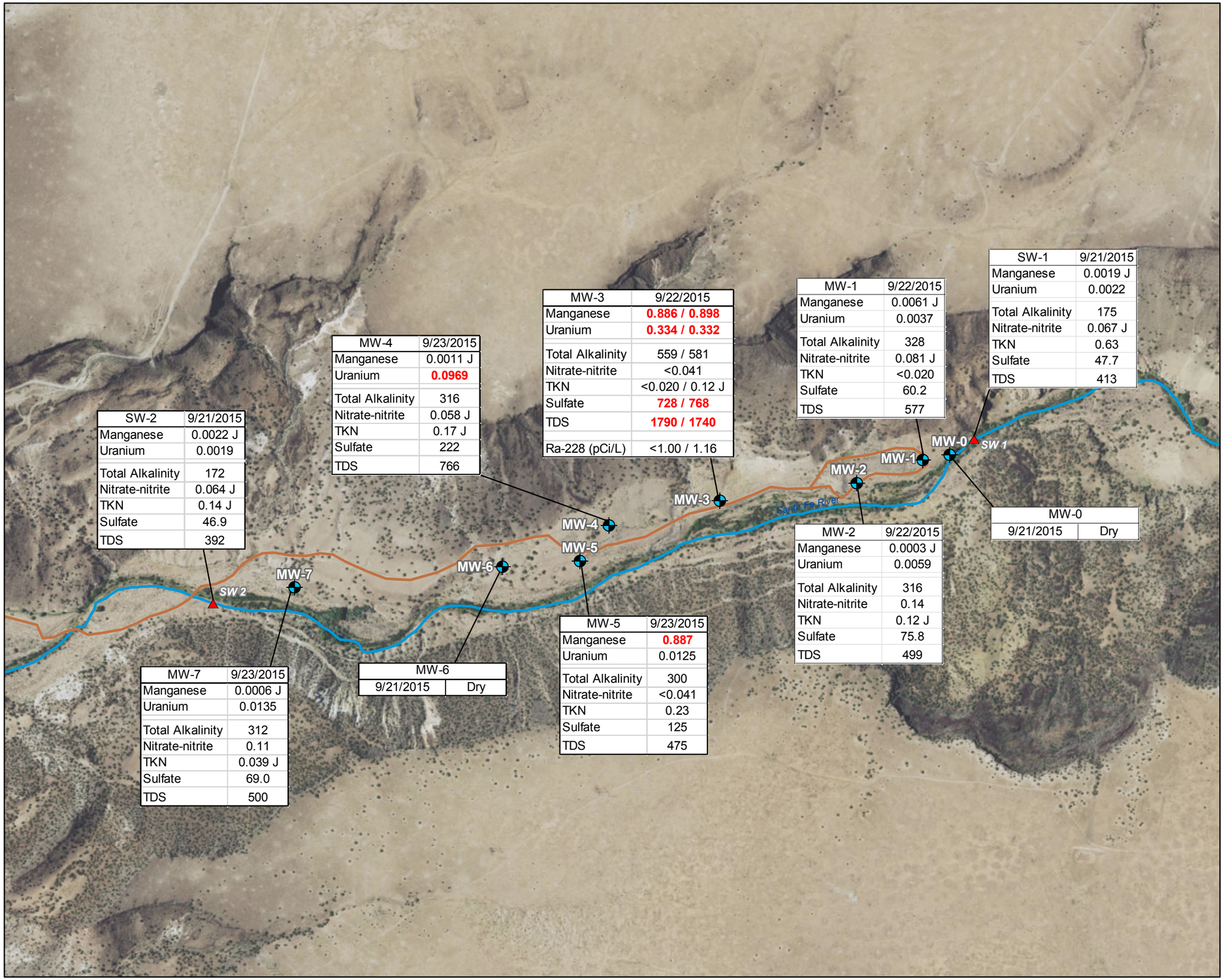
Baselayer Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Baselayer Date: 2011
Coordinates: UTM NAD83 13N

Figure 3
Depth-to-Water Measurements
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

0 500 1,000
Approximate scale in feet

N

960 W. Elliot Road, Suite 101
Tempe, AZ 85284



SW-2	9/21/2015
Manganese	0.0022 J
Uranium	0.0019
Total Alkalinity	172
Nitrate-nitrite	0.064 J
TKN	0.14 J
Sulfate	46.9
TDS	392

MW-4	9/23/2015
Manganese	0.0011 J
Uranium	**0.0969**
Total Alkalinity	316
Nitrate-nitrite	0.058 J
TKN	0.17 J
Sulfate	222
TDS	766

MW-3	9/22/2015
Manganese	**0.886 / 0.898**
Uranium	**0.334 / 0.332**
Total Alkalinity	559 / 581
Nitrate-nitrite	<0.041
TKN	<0.020 / 0.12 J
Sulfate	**728 / 768**
TDS	**1790 / 1740**
Ra-228 (pCi/L)	<1.00 / 1.16

MW-1	9/22/2015
Manganese	0.0061 J
Uranium	0.0037
Total Alkalinity	328
Nitrate-nitrite	0.081 J
TKN	<0.020
Sulfate	60.2
TDS	577

SW-1	9/21/2015
Manganese	0.0019 J
Uranium	0.0022
Total Alkalinity	175
Nitrate-nitrite	0.067 J
TKN	0.63
Sulfate	47.7
TDS	413

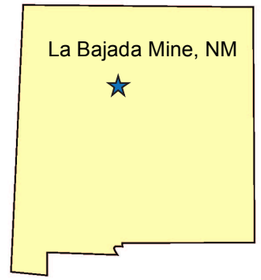
MW-0	
9/21/2015	Dry

MW-2	9/22/2015
Manganese	0.0003 J
Uranium	0.0059
Total Alkalinity	316
Nitrate-nitrite	0.14
TKN	0.12 J
Sulfate	75.8
TDS	499

MW-5	9/23/2015
Manganese	**0.887**
Uranium	0.0125
Total Alkalinity	300
Nitrate-nitrite	<0.041
TKN	0.23
Sulfate	125
TDS	475

MW-6	
9/21/2015	Dry

MW-7	9/23/2015
Manganese	0.0006 J
Uranium	0.0135
Total Alkalinity	312
Nitrate-nitrite	0.11
TKN	0.039 J
Sulfate	69.0
TDS	500



Legend

- Surface Water Sample Location
- Monitoring Well
- Dirt Road
- River

Note:
Results are in milligrams per liter (mg/L).
Only results above the laboratory reporting limit are shown.
Red Text: Result exceeds NM Water Quality Standard

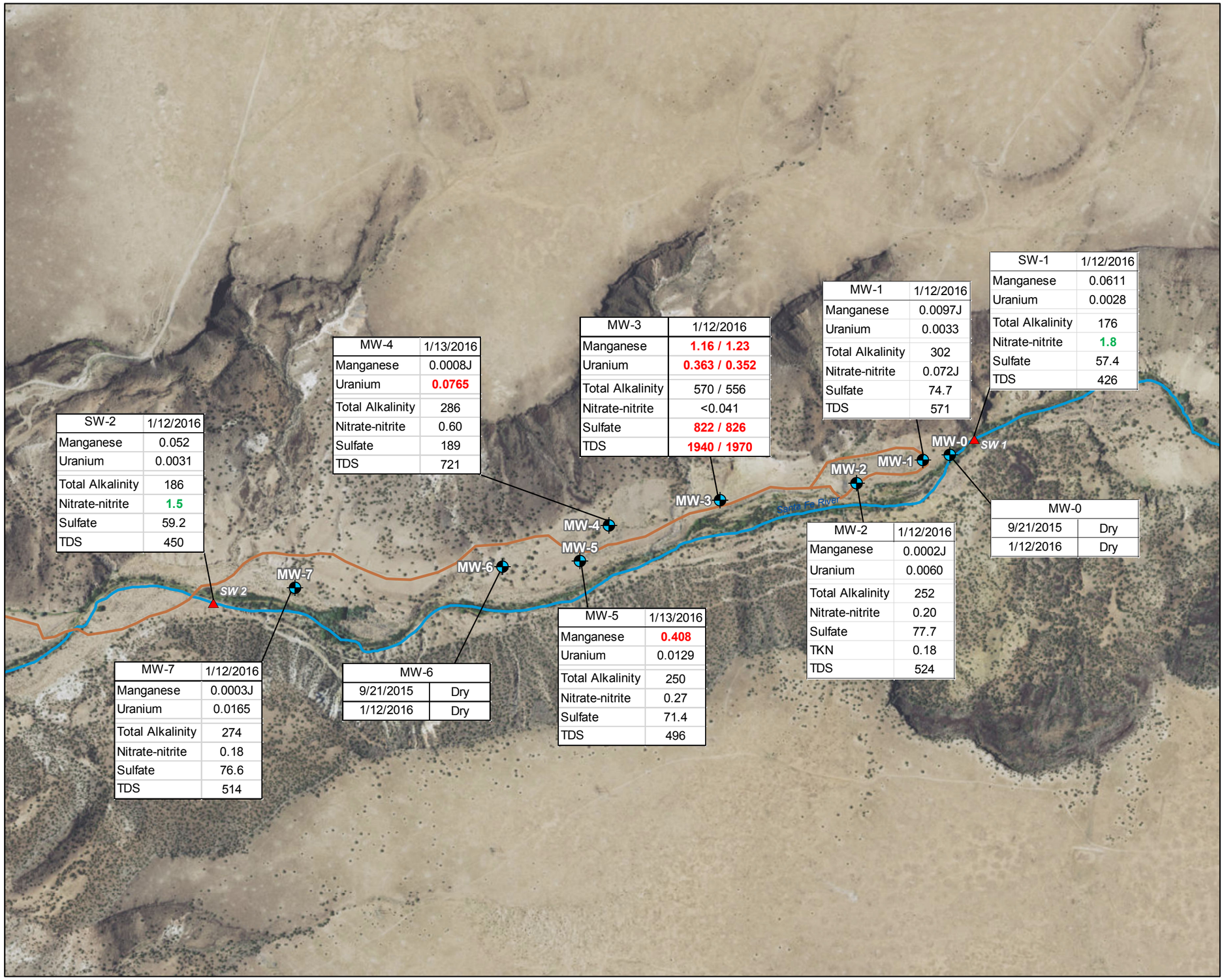
Baselayer Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Baselayer Date: 2011
Coordinates: UTM NAD83 13N

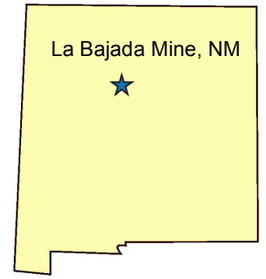
Figure 4
Select Analytical Results - September 2015
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

0 700 1,400
Approximate scale in feet

N

960 W. Elliot Road, Suite 101
Tempe, AZ 85284





Legend

- Surface Water Sample Location
- Monitoring Well
- Dirt Road
- River

Note:
Results are in milligrams per liter (mg/L).
Only results above the laboratory reporting limit are shown.
Green Text: Result that exceeds NM Water Quality Ecological Standard
Red Text: Result exceeds NM Water Quality Human Health Standard

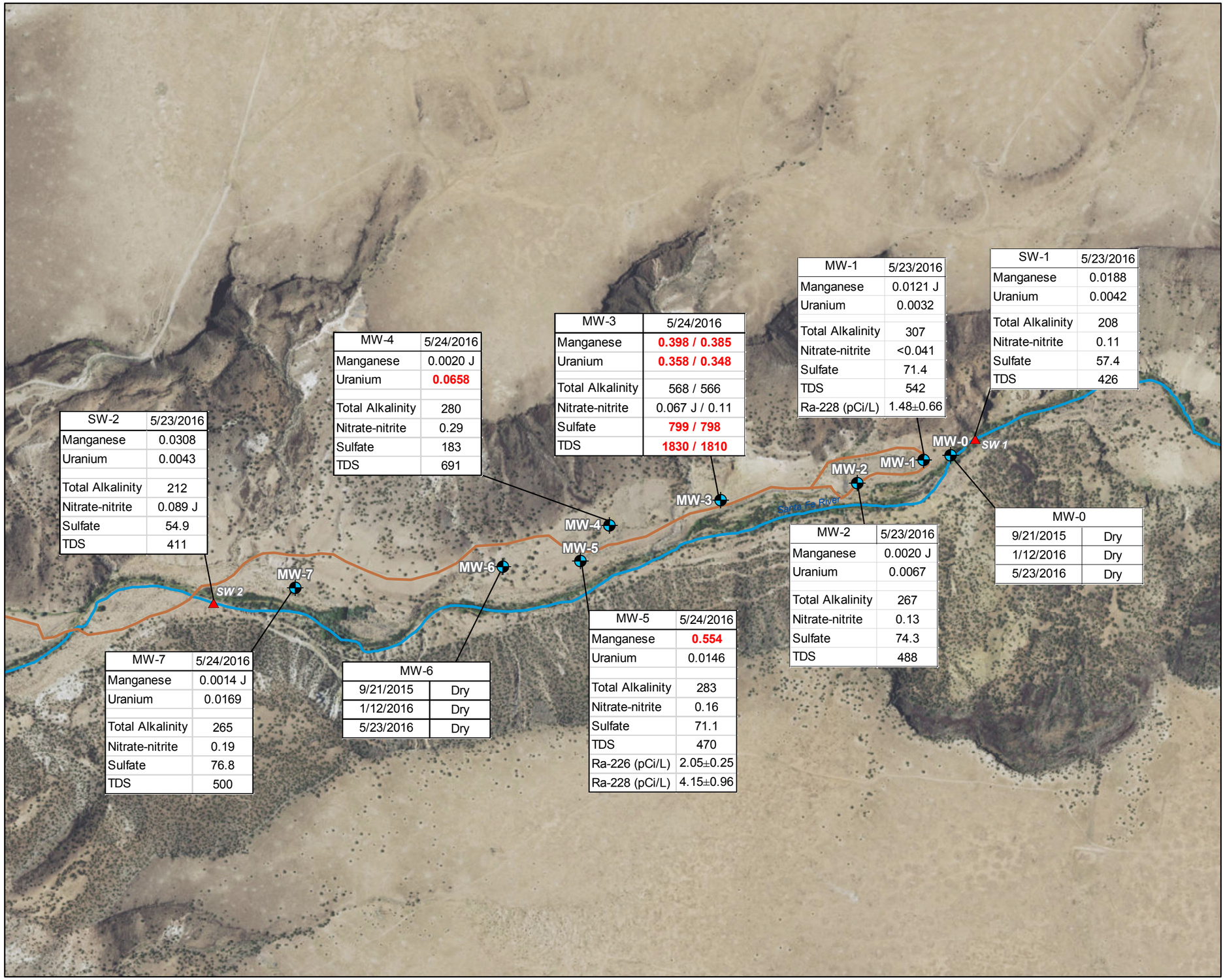
Baselayer Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Baselayer Date: 2011
Coordinates: UTM NAD83 13N

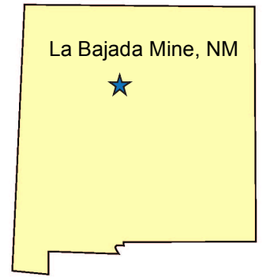
Figure 5
Select Analytical Results - January 2016
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

0 700 1,400
Approximate scale in feet

N

960 W. Elliot Road, Suite 101
Tempe, AZ 85284





Legend

- Surface Water Sample Location
- Monitoring Well
- Dirt Road
- River

Note:
Results are in milligrams per liter (mg/L) unless otherwise noted.
Only results above the laboratory reporting limit are shown.
Red Text: Result exceeds NM Water Quality Standard

Baselayer Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Baselayer Date: 2011
Coordinates: UTM NAD83 13N

Figure 6
Select Analytical Results - May 2016
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

0 700 1,400
Approximate scale in feet

N

960 W. Elliot Road, Suite 101
Tempe, AZ 85284

APPENDIX A

Data Summary Tables

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Table A-1
Summary of Surface Water Analytical Results
La Bajada Mine Site, Santa Fe National Forest, NM

Sample Location	Date Sample Collected	Potassium	Sodium	Hardness (Ca Mg)	Calcium	Magnesium	Alk (CO3 & HCO3)	Alkalinity, Total as CaCO3	Hydroxide Alkalinity	Carbonate	Bicarbonate	Chloride	Sulfate	TDS	Nitrate-nitrite	Ammonia	TKN	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Iron	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Uranium	Vanadium	Zinc	Ra-226 (pCi/L)	Ra-228 (pCi/L)
SW-1	23-May-16	11.7	75.1	--	52.0	9.17	--	208	<5.0	35.6	172	58.3	57.4	426	0.11	--	0.15 J	0.0722 J	<0.0012	0.0069 J	0.0736 J	<0.00060	0.175	<0.00030	<0.00060	0.00090 J	0.0033 J	--	--	0.0188	--	0.0019 J	0.0040 J	--	--	<0.0015	0.344	<0.0048	--	0.0042	0.0049 J	0.0132 J	<1.00	3.28±0.93
SW-1	12-Jan-16	12.5	68.5	--	52.6	8.64	--	176	<5.0	<5.0	176	64.7	57.4	426	**1.8**	--	<0.18	<0.027	<0.0012	0.0025	0.0996 J	<0.0060	0.181	<0.0030	<0.00060	0.0011 J	0.0030 J	--	--	0.0611	--	0.0027 J	0.0032 J	--	--	<0.0015	0.332	<0.0048	--	0.0028	0.0017 J	0.0592	<1.00	<1.00
SW-1	21-Sep-15	14.8	73.4	--	55.0	8.35	--	175	<5.0	7.8	167	59.9	47.7	413	0.067 J	--	0.63	<0.027	<0.0012	0.0052 J	0.0975 J	<0.0006	0.221	<0.0003	0.0007 J	0.0018 J	0.0028 J	--	--	0.0019 J	--	0.0068 J	0.0061	--	--	<0.0015	0.343	<0.0048	--	0.0022	0.0062 J	0.0357	<1.00	<1.00
LBM Upstream	15-Apr-03	12.5	99.2	176	55.9	8.87	270	--	--	10.1	319	44.7	46.2	532	**0.92**	<0.1	0.78	<0.1	--	--	0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	10	<0.1	0.6	--	<0.1	0.008	<0.1	<0.1	--	--
LBM Upstream	20-Aug-02	13.1	106	168	54.1	7.99	273	--	--	35.3	297	66.9	36.7	478	--	--	--	<0.1	--	--	0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	13	<0.1	0.5	--	<0.1	0.013	<0.1	<0.1	--	--
LBM Midstream	15-Apr-03	12.7	106	184	58.9	8.92	279	--	--	20.6	320	46.8	47.9	566	**0.96**	<0.1	0.806	<0.1	--	--	0.1	<0.05	0.2	<0.1	<0.1	<0.05	<0.05	--	<0.1	<0.05	--	<0.1	<0.1	--	10	<0.1	0.6	--	<0.1	0.008	<0.1	<0.1	--	--
LBM Midstream	20-Aug-02	13.2	107	167	53.6	7.99	277	--	--	35.8	302	63.5	36.7	516	--	--	--	<0.1	--	--	0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	13	<0.1	0.4	--	<0.1	0.012	<0.1	<0.1	--	--
SW-2	23-May-16	10.9	70.4	--	54.7	9.63	--	212	<5.0	20.2	192	58.9	54.9	411	0.089 J	--	<0.10	0.270	<0.0012	0.0065 J	0.0804 J	<0.00060	0.166	<0.00030	<0.00060	0.0014 J	0.0034 J	--	--	0.0308	--	0.0014 J	0.0048 J	--	--	<0.0015	0.363	<0.0048	--	0.0043	0.0052 J	0.0129 J	<1.00	<1.00
SW-2	12-Jan-16	12.0	68.9	--	55.9	9.09	--	186	<5.0	<5.0	186	64.5	59.2	450	**1.5**	--	0.18 J	<0.027	<0.0012	0.0027 J	0.102 J	<0.00060	0.18	<0.00030	<0.00060	0.0010 J	0.0026 J	--	--	0.052	--	0.0031 J	0.0033 J	--	--	<0.0015	0.347	<0.0048	--	0.0031	0.0021 J	0.0489	<1.00	<1.00
SW-2	21-Sep-15	13.9	68.3	--	55.3	8.29	--	172	<5.0	12.1	160	60.7	46.9	392	0.064 J	--	0.14 J	<0.027	<0.0012	0.0032 J	0.0963 J	<0.00060	0.203	<0.0003	0.0006 J	0.0019 J	0.0026 J	--	--	0.0022 J	--	0.0062 J	0.0047 J	--	--	<0.0015	0.337	<0.0048	--	0.0019	0.0052 J	0.023	<1.00	<1.00
LBM Downstream	15-Apr-03	11.9	100	177	56.9	8.49	270	--	--	16.8	313	45.3	47.4	566	**0.9**	<0.1	0.917	<0.1	--	--	0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	11	<0.1	0.5	--	<0.1	0.008	<0.1	<0.1	--	--
LBM Downstream	20-Aug-02	12.9	105	163	52.4	7.92	259	--	--	36	279	67.2	36.2	538	--	--	--	<0.1	--	--	0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	12	<0.1	0.4	--	<0.1	0.011	<0.1	<0.1	--	--
Surface Water - Drinking Water Source [NMAC 20.6.4.900(J)]		--	--	--	--	--	--			--	--	--	--	--	--	--	--	0.006	--	0.01	2.0	0.004	--	0.005	0.1	--	1.3	0.015	--	--	0.002[d]	--	0.7	0.05	--	--	--	0.002	--	0.03	--	--	5	
Surface Water - Irrigation [a] [NMAC 20.6.4.900(J)]		--	--	--	--	--	--			--	--	--	--	--	--	--	--	5.0	--	0.100	--	--	0.75	0.01	0.1	0.05	0.2	5	--	--	--	1.0[d]	--	0.13 0.25[a]	--	--	--	--	--	--	0.1	--	--	
Surface Water - Livestock Watering [NMAC 20.6.4.900(J)]		--	--	--	--	--	--			--	--	--	--	--	0.132	--	--	--	--	0.200	--	--	5,000	0.05	1	1	0.5	0.1	--	--	0.01[d]	--	--	0.05	--	--	--	--	--	--	0.1	--	0.03	
Surface Water - Wildlife Habitat [NMAC 20.6.4.900(J)]		--	--	--	--	--	--			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.77[d]	--	--	0.005[d]	--	--	--	--	--	--	--	--	--	
Surface Water - Aquatic Life (acute) [NMAC 20.6.4.900(I,J)]		--	--	--	--	--	--			--	--	--	--	--	--	1.84	--	0.512[b, c]	--	0.340	--	--	--	0.00098	0.345	--	0.0075	0.033	--	2.444	1.4[d]	7.92[d]	0.28	0.02[d]	--	0.001	--	--	--	--	0.093	--	
Surface Water - Aquatic Life (chronic) [NMAC 20.6.4.900(I,J)]		--	--	--	--	--	--			--	--	--	--	--	--	0.277	--	0.205[b,c]	--	0.150	--	--	--	0.00029	0.045	--	0.0055	0.001	--	1.35	0.77[d]	1.85[d]	0.031	0.005[d]	--	0.001	--	--	--	--	0.07	--	

Historical data provided by New Mexico Environment Department. Metals criteria are for dissolved metals unless otherwise noted.
All results in milligrams per liter (mg/L) except radium-226 and -228, which are in pico Curies per liter (pCi/L).

a Dissolved selenium in presence of >500 mg/L Sulfate is 0.25 mg/L.
b Hardness dependent surface water criteria based on average hardness in available surface water samples of 55.3 mg/L.
c Aquatic life acute and chronic criteria for aluminum are based on total recoverable concentrations. All other metals are based on dissolved concentrations.
d Drinking water source, livestock watering, and wildlife habitat criteria based on total mercury. Aquatic life acute and chronic are based on dissolved mercury. Irrigation criterion for molybdenum based on dissolved metal; aquatic life acute and chronic molybdenum based on dissolved concentrations. Aquatic life and wildlife habitat criteria for selenium based on total recoverable concentrations.
e Ammonia presented as mg/L N. Criteria based on pH and whether salmonids are present. The average pH of available surface water results (8.8) used.
Red text indicates result exceeds a human health standard. **Green** text indicates result exceeds an ecological standard.

Table A-2
Summary of Groundwater Analytical Results
La Bajada Mine Site, Santa Fe National Forest, NM

Sample Location	Date Sample Collected	Potassium	Sodium	Hardness (Ca Mg)	Calcium	Magnesium	Alk (CO3 & HCO3)	Alkalinity, Total as CaCO3	Hydroxide Alkalinity	Carbonate	Bicarbonate	Chloride	Sulfate	TDS	Nitrate-nitrite	Ammonia	TKN	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Iron	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Uranium	Vanadium	Zinc	Ra-226 (pCi/L)	Ra-228 (pCi/L)
MW-0	12-Jan-16	Dry - Not Sampled																																									
MW-0	22-Sep-15	Dry - Not Sampled																																									
MW-0	23-May-16	Dry - Not Sampled																																									
MW-1	23-May-16	6.55 J	101	--	68.3	13.7	--	307	<5.0	<5.0	307	69.8	71.4	542	<0.041	--	<0.10	<0.027	<0.0012	0.0084 J	0.0594 J	<0.00060	0.232	<0.00030	<0.00060	0.0013 J	0.0077 J	--	--	0.0121 J	--	0.0034 J	0.0065	--	--	<0.0015	0.559	<0.0048	--	0.0032	0.0057 J	0.0040 J	<1.00	1.48±0.66
MW-1	12-Jan-16	6.98 J	99.9	--	74.1	14.5	--	302	<5.0	<5.0	302	70.6	74.7	571	0.072 J	--	<0.18	<0.027	<0.0012	0.0058 J	0.0568 J	<0.00060	0.254	0.00030 J	<0.00060	0.0020 J	0.0098 J	--	--	0.0097 J	--	0.0029 J	0.0075	--	--	<0.0015	0.578	<0.0048	--	0.0033	0.0062 J	<0.0031	<1.00	<1.00
MW-1	22-Sep-15	7.36 J	109	257	77.5	15.3	--	328	<5.0	<5.0	328	68.1	60.2	577	0.081 J	--	<0.020	<0.027	<0.0012	0.0058 J	0.0626 J	<0.00060	0.261	<0.00030	<0.00060	0.0017 J	0.0071 J	--	--	0.0061 J	--	0.0024 J	0.0064	--	--	<0.0015	0.631	<0.0048	--	0.0037	0.0060 J	0.0268	<1.00	<1.00
MW-1	16-Jun-10	7.05	113	260	76.7	16.7	297	--	--	0	363	71.5	65	564	0.28	--	<0.1	0.01	<0.001	0.007	<0.1	<0.001	0.2	<0.001	<0.001	0.002	<0.01	<0.001	--	0.004	--	0.004	<0.01	--	--	<0.001		<0.001		0.005	0.008	<0.01	--	--
MW-1	15-Apr-03	7.55	84.6	244	74	14.5	285	--	--	0	348	46	51.4	560	<0.1	<0.1	0.613	0.4	--	--	<0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	0.3	**0.21**	--	<0.1	<0.1	--	21	<0.1	0.5	--	<0.1	0.006	<0.1	<0.1	--	--
MW-2[c]	20-Aug-02	7.38	93.5	258	78.3	15.1	277	--	--	0	338	63.6	61.7	576	--	--	--	<0.1	--	--	<0.1	<0.05	0.2	<0.1	--	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	21	<0.1	0.6	--	<0.1	0.004	<0.1	<0.1	--	--
MW-1	22-Jun-99	5.92	70.7	222	67.6	13	280	--	--	0	342	53.6	60.5	534	<0.1	<0.1	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005	--	--	--	--
MW-1	25-Mar-99	6.23	75.2	229	69.1	13.6	250	--	--	0	305	55.7	62.8	520	<0.1	<0.1	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.007	--	--	--	--
MW-1	11-Sep-98	5.69	70.5	252	77.2	14.3	254	--	--	0	310	50	63.3	552	<0.1	<0.1	0.232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.004	--	--	--	--
MW-1	26-Mar-98	6.22	75.1	243	74.4	13.8	254	--	--	0	310	52.1	68.2	482	--	--	--	--	<0.001	0.012	0.1	<0.001	--	<0.001	<0.001	--	--	--	--	--	--	--	0.01	<0.005	--	--	--	<0.001	--	0.004	--	--	-0.01	0.2
MW-1	16-Oct-96	--	--	--	74	14	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	0.012	<0.1	<0.001	--	<0.001	<0.001	--	--	--	--	--	<0.0002	--	<0.01	<0.005	--	--	--	<0.001	--	0.0046	--	--	0.04	0.4
MW-1	2-Apr-96	--	--	--	71	14	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	<0.1	<0.1	--	<0.001	<0.001	--	--	--	--	--	--	--	<0.1	<0.005	--	--	--	--	--	--	--	--	--	--
MW-1	27-Mar-96	7	73	229	68	15	--			3.8	310	46	53	462	0.1	<0.1	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003	--	--	0.09	1
MW-2	23-May-16	11.1	84.4	--	64.9	12.9	--	267	<5.0	<5.0	267	47.3	74.3	488	0.13	--	0.17 J	<0.027	<0.0012	0.0176	0.0774 J	<0.00060	0.181	<0.00030	<0.00060	0.0050 J	0.0049 J	--	--	0.0020 J	--	0.0095 J	0.0036 J	--	--	<0.0015	0.600	<0.0048	--	0.0067	0.0064 J	0.0059 J	<1.00	<1.00
MW-2	12-Jan-16	9.88 J	78.4	--	74.8	13.1	--	252	<5.0	<5.0	252	67.9	77.7	524	0.20	--	0.18	<0.027	<0.0012	0.0071 J	0.104 J	<0.00060	0.151	<0.00030	<0.00060	0.0010 J	0.0037 J	--	--	0.00020 J	--	0.0039 J	0.0052	--	--	<0.0015	0.626	<0.0048	--	0.0060	0.0073 J	0.0102 J	<1.00	<1.00
MW-2	22-Sep-15	19.7	94.1	192	52.3	15.0	--	316	<5.0	<5.0	316	15.7	75.8	499	0.14	--	0.12 J	<0.027	<0.0012	0.0417	0.0446 J	<0.0006	0.168	<0.0003	0.0007 J	<0.0004	0.0041 J	--	--	0.0003 J	--	0.0357	0.001 J	--	--	<0.0015	0.627	<0.0048	--	0.0059	0.0089 J	0.0104 J	<1.00	<1.00
MW-2	16-Jun-10	8	84.9	161	48.3	9.67	240	--	--	0	293	33.4	38.9	398	0.21	--	<0.1	<0.01	<0.001	0.007	<0.1	<0.001	0.2	<0.001	<0.001	0.001	<0.01	<0.001	--	0.005	--	0.004	<0.01	--		<0.001		<0.001		0.005	0.012	<0.01	--	--
MW-2	15-Apr-03	9.06	92.6	201	62.9	10.7	280	--	--	11	330	41.7	46.5	550	<0.1	<0.1	0.243	0.3	--	--	<0.1	<0.05	0.2	<0.1	<0.1	<0.05	<0.05	--	0.2	**0.47**	--	<0.1	<0.1	--	11	<0.1	0.5	--	<0.1	0.012	<0.1	<0.1	--	--
MW-3[c]	20-Aug-02	10.9	105	195	61.5	10.2	265	--	--	0	324	65.2	48	450				<0.1	--	--	<0.1	<0.05	0.3	<0.1	--	<0.05	<0.1	--	<0.1	**0.68**	--	<0.1	<0.1	--	16	<0.1	0.5	--	<0.1	0.006	<0.1	<0.1	--	--
MW-2	22-Jun-99	8.56	83.6	167	52.4	8.9	279	--	--	0	341	51.7	36.7	510	<0.1	<0.1	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.007	--	--	--	--
MW-2	25-Mar-99	6.62	84.2	163	50.4	9.08	247	--	--	3.12	298	51.2	34.9	464	<0.1	<0.1	0.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.009	--	--	--	--
MW-2	11-Sep-98	7.87	78.7	183	57.2	9.7	233	--	--	0	284	51.9	36.8	498	<0.1	0.138	0.375	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.006	--	--	--	--
MW-2	26-Mar-98	6.11	91.4	166	50.8	9.63	256	--	--	4.8	308	44.8	43.2	416	--	--	--	--	<0.001	0.011	<0.1	<0.001	--	<0.001	<0.001	--	--	--	--	--	<0.0002	--	0.01	<0.005	--	--	--	<0.001	--	0.016	--	--	0.08	0.31
MW-2	16-Oct-96	--	--	--	74	14	--	--	--	--	--	--	--	--	--	--	--	<0.02	<0.001	0.012	<0.1	<0.05	0.2	<0.01	<0.1	<0.05	<0.1	<0.001	<0.1	<0.05	<0.0002	<0.01	<0.1	<0.005	19	<0.1	0.6	<0.001	<0.1	0.004	<0.1	--	0.04	0.4
MW-2	2-Apr-96	--	--	--	71	14	--	--	--	--	--	--	--	--	--	--	--	<0.1	--	0.01	<0.1	<0.1	0.2	0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.05	--	<0.1	<0.1	<0.005	19	<0.1	0.4	--	<0.1	0.003	<0.1	--	--	--
MW-2	27-Mar-96	--	--	--	--	--	--			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	24-May-16	16.8	146	--	240	114	--	568	<5.0	<5.0	568	35.4	**799**	**1,830**	0.067 J	--	<0.10	<0.027	<0.0012	0.0053 J	0.0414 J	<0.00060	0.274	<0.00030	0.0011 J	0.0272	0.0045 J	--	--	**0.398**	--	0.0071 J	0.0623	--	--	<0.0015	1.84	<0.0048	--	**0.358**	<0.00060	0.0052 J	<1.00	<1.00
MW-3 (D)	24-May-16	16.7	145	--	236	112	--	566	<5.0	<5.0	566	35.4	**798**	**1,810**	0.11	--	<0.10	<0.027	<0.0012	0.0049 J	0.0409 J	<0.00060	0.273	0.00030 J	0.00070 J	0.0265	0.0050 J	--	--	**0.385**	--	0.0075 J	0.0606	--	--	<0.0015	1.82	<0.0048	--	**0.348**	<0.00060	0.0072 J	<1.00	<1.00
MW-3	12-Jan-16	17.7	148	--	252	121	--	570	<5.0	<5.0	570	36.1	**822**	**1,940**	<0.041	--	<0.18	<0.027	<0.0012	<0.0025	0.0458 J	<0.00060	0.290	<0.00030	<0.00060	0.0428	0.0023 J	--	--	**1.16**	--	0.0108 J	0.0983	--	--	<0.0015	1.91	0.0053 J	--	**0.363**	<0.00060	<0.0031	<1.00	<1.00
MW-3 (D)	12-Jan-16	17.9	149	--	249	121	--	556	<5.0	<5.0	556	35.9	**826**	**1,970**	<0.041	--	<0.18	<0.027	<0.0012	0.0044 J	0.0464 J	<0.00060	0.296	<0.00030	<0.0060	0.0400	0.0023 J	--	--	**1.23**	--	0.0107 J	0.0976	--	--	<0.0015	1.92	<0.0048	--	**0.352**	<0.00060	0.0032 J	<1.00	<1.00
MW-3	22-Sep-15	18.8	150	1,123	252	120	--	559	<5.0	<5.0	559	33.4	**728**	**1,790**	<0.041	--	<0.020	<0.027	<0.0012	<0.0025	0.0458 J	<0.0006	0.319	0.0003 J	0.0006 J	0.0289	<0.0018	--	--	**0.886**	--	0.0115 J	0.0789	--	--	<0.0015	2.02	0.0048	--	**0.334**	<0.0006	0.0055 J	<1.00	<1.00
MW-3 (D)	22-Sep-15	18.8	150	1,128	254	120	--	581	<5.0	<5.0	581	35.4	**768**	**1,740**	<0.041	--	0.11 J	<0.027	<0.0012	0.0029 J	0.046 J	<0.0006	0.317	0.0003 J	<0.0006	0.0298	<0.0018	--	--	**0.898**	--	0.0112 J	0.0796	--	--	<0.0015	2.02	<0.0048	--	**0.332**	<0.0006	0.0066 J	<1.00	1.16±0.71
MW-3	16-Jun-10	21.4	176	1,240	236	158	495	--	--	0	604	33.6	**948**	**2,140**	<0.1	--	<0.1	<0.01	<0.001	0.008	<0.1	<0.001	0.2	<0.001	0.001	<0.001	<0.01	<0.001	--	<0.001	--	0.007	<0.01	--	--	<0.001	--	<0.001	--	**0.049**	0.009	<0.01	--	--
MW-3	15-Apr-03	19.5	164	1,370	256	176	473	--	--	0	578	39.1	**1,170**	**2,500**	<0.1	0.362	0.414	<0.01	--	--	<0.1	<0.05	0.2	<0.1	<0.1	0.4	<0.1	--	<0.1	**7.1**	--	<0.1	0.3	--	15	<0.1	2.3	--	<0.1	**0.54**	<0.1	<0.1	--	--
MW-4[c]	20-Aug-02	24.9	168	1,630	360	177	614	--	--	0	749	38.2	**1,240**	**2,390**	--	--	--	0.2	--	--	<0.1	<0.05	0.2	<0.1	<0.1	0.3	<0.1		0.1	**7**	--	<01	**0.3**	--	15	<0.1	2.4	--	0.2	**0.49**	<01	<0.1	--	--
MW-3	22-Jun-99	16.9	164	1,340	261	168	630	--	--	0	768	35.2	**1,190**	**2,570**	<0.1	0.442	0.56		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**	--	--	--	--
MW-3	25-Mar-99	18.4	158	1,780	391	195	598	--	--	0	729	41.9	**1,430**	**2,740**	<0.1	0.439	0.69		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.65**	--	--	--	--
MW-3	11-Sep-98	17.7	156	1,360	234	18	521	--	--	0	635	37.3	**1,360**	**2,640**	<0.1	0.55	0.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.56**	--	--	--	--
MW-3	26-Mar-98	21.6	171	1,450	325	155	512	--	--	0	624	78.8	**1,370**	**2,360**	--	--	--	--	<0.002	0.018	<0.2	<0.002		<0.002	<0.002	--	--	--	--	--	<0.0002		0.19	<0.005	--	--	--	<0.002	--	**0.62**	--	--	0.43	0.6
MW-3	16-Oct-96	--	--	--	110	24	--	--	--	--	--	--	--	--	--	--	--	0.01	<0.001	0.015	<0.1	<0.05	0.2	<0.1	<0.1	<0.05	<0.1	0	<0.1	**0.37**	<0.0002	<0.1	<0.1	<0.005	14	<0.1	0.8	<0.001	<0.1	**0.048**	<0.1	--	0.06	0.8
MW-3	2-Apr-96	--	--	--	140	31	--	--	--	--	--	--	--	--	--	--	--	<0.01	--	0.007	<0.1	<0.1	0.2	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	**0.25**	--	<0.1	<0.1	<0.005	12	<0.1	0.8		<0.1	0.029	<0.1	--	--	--
MW-3	27-Mar-96	12	123	379	109	26	--	--	--	0	289	52	387	932	1	0.1	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.7
MW-4	24-May-16	8.55 J	89.7	--	89.4	28.1	--	280	<5.0	<5.0	280	60.4	183	691	0.29	--	<0.10	<0.027	<0.0012	0.0089 J	0.0765 J	<0.00060	0.187	<0.00030	0.00070 J	0.00050 J	0.0056 J	--	--	0.0020 J	--	0.0046 J	0.0048 J	--	--	<0.0015	0.672	<0.0048	--	**0.0658**	0.0073 J	0.0050 J	<1.00	<1.00
MW-4	13-Jan-16	8.88 J	91.6	--	97.8	31.2	--	286	<5.0	<5.0	286	68.0	189	721	0.60	--	<0.18	<0.027	<0.0012	0.0076 J	0.0832 J	<0.00060	0.223	<0.00030	<0.00060	0.0014 J	0.0032 J	--	--	0.00080 J	--	0.0057 J	0.0061	--	--	<0.0015	0.728	<0.0048	--	**0.0765**	0.0068 J	0.0688	<1.00	<1.00
MW-4	23-Sep-15	9.56 J	99.8	420	111	34.7	--	316	<5.0	<5.0	316	53.7	222	766	0.058 J	--	0.17 J	<0.027	<0.0012	0.0076 J	0.0904 J	<0.00060	0.212	<0.00030	<0.0006	0.0012 J	0.0037 J	--	--	0.0011 J	--	0.0062 J	0.0053	--	--	<0.0015	0.828	<0.0048	--	**0.0969**	0.0074 J	0.0098 J	<1.00	<1.00
MW-4	16-Jun-10	8.78	96.8	313	78.1	28.8	273	--	--	0	333	40.4	145	586	0.42	--	0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	15-Apr-03	8.26	101	372	96.7	31.6	307	--	--	0	375	38.1	176	762	0.7	<0.1	0.282	<0.1	--	--	<0.1	<0.05	0.2	<0.1	<0.1	<0.05	<0.1		<0.1	<0.05	--	<0.1	<0.1	--	15	<0.1	0.6	--	<0.1	**0.081**	<0.1	<0.1	--	--
MW-5[c]	20-Aug-02	8.69	106	312	69.4	33.7	330	--	--	0	402	60.6	208	742	--	--	--	<0.1	--	--	<0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1	--	14	<0.1	0.7	--	<0.1	**0.12**	<0.1	<0.1	--	--
MW-4	22-Jun-99	6.86	90.3	351	94.2	28.1	296	--	--	0	361	49.5	215	730	0.219	<0.1	0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.12**	--	--	--	--
MW-4	25-Mar-99	7.41	96.4	394	104	32.5	297	--	--	0	363	52.8	248	756	0.678	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.13**	--	--	--	--
MW-4	11-Sep-98	6.63	92	358	96	28.7	248	--	--	0	302	48	212	710	0.127	<0.1	0.411	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.16**	--	--	--	--
MW-4	26-Mar-98	6.79	87.9	340	90.5	27.7	270	--	--	0	329	48.5	177	598	--	--	--	--	<0.001	0.009	0.1	<0.001	--	<0.001	<0.001	--	--	--	--	--	<0.0002	--	0.01	<0.005	--	--	--	<0.001	--	**0.2**	--	--	0	0.15
MW-4	16-Oct-96	--	--	--	120	24	--	--	--	--	--	--	--	--	--	--	--	<0.1	<0.001	0.015	0.1	<0.05	0.2	<0.1	<0.1	<0.05	<0.1	0	<0.1	<0.05	<0.0002	<0.1	<0.1	<0.005	13	<0.1	1	<0.001	<0.1	0.028	<0.1	--	0.07	1
MW-4	2-Apr-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	27-Mar-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Groundwater Standards [NMAC 20.6.2.3103]	--	--	--	--	--	--	--	--	--	--	250	600	1,000	--	--	--	5[b]	--	0.1	1.0	--	0.75	0.01	0.05	0.05[b]	1.0	0.05	1.0	0.2	0.002	1[b]	0.2[b]	0.05	--	0.05	--	--	--	0.03	--	10.0	30	

Historical data provided by New Mexico Environment Department. Metals criteria are for dissolved metals unless otherwise noted.
All results in milligrams per liter (mg/L) except radium-226 and -228, which are in pico Curies per liter (pCi/L).
a Ammonia presented as mg/L N.
b Identified standards are for irrigation use.
c Wells were inaccurately identified during the August 2002 sampling event (e.g., identified MW-2 was actually MW-1). Data has been included with the correct well's dataset for comparison; the identifier was not corrected to maintain traceability with reported results.
(D) indicates sample is a field duplicate for MW-3.
Red text indicates result exceeds a standard.

Table A-2 (continued)
Summary of Groundwater Analytical Results
La Bajada Mine Site, Santa Fe National Forest, NM

Sample Location	Date Sample Collected	Potassium	Sodium	Hardness (Ca Mg)	Calcium	Magnesium	Alk (CO3 & HCO3)	Alkalinity, Total as CaCO3	Hydroxide Alkalinity	Carbonate	Bicarbonate	Chloride	Sulfate	TDS	Nitrate-nitrite	Ammonia	TKN	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Iron	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Uranium	Vanadium	Zinc	Ra-226 (pCi/L)	Ra-228 (pCi/L)
MW-5	24-May-16	7.52 J	80.2	--	64.0	14.9	--	283	<5.0	<5.0	283	60.4	71.1	470	0.16	--	0.12 J	<0.027	<0.0012	0.0098 J	0.0502 J	<0.00060	0.171	<0.00030	0.00070 J	0.0025 J	0.0034 J	--	--	**0.554**	--	0.0093 J	0.0074	--	--	<0.0015	0.531	<0.0048		0.0146	0.0029 J	0.0040 J	2.05±0.25	4.15±0.96
MW-5	13-Jan-16	8.09 J	80.3	--	66.4	15.3	--	250	<5.0	<5.0	250	62.9	71.4	496	0.27	--	<0.18	<0.027	<0.0012	0.0063 J	0.0606 J	<0.00060	0.198	<0.00030	<0.00060	0.0020 J	0.0026 J	--	--	**0.408**	--	0.0084 J	0.0060	--	--	<0.0015	0.550	<0.0048	--	0.0129	0.0040 J	<0.0031	<1.00	<1.00
MW-5	23-Sep-15	8.05 J	85.2	245	70.5	16.7	--	300	<5.0	<5.0	300	104	125	475	<0.041	--	0.23	<0.027	<0.0012	0.0084 J	0.0307 J	<0.0006	0.227	<0.0003	0.0007 J	0.0011 J	<0.0018	--	--	**0.887**	--	0.0107 J	0.0055	--	--	<0.0015	0.595	0.0048	--	0.0125	0.00070 J	0.0043 J	<1.00	<1.00
MW-5	16-Jun-10	6.71	86.3	189	52	14.4	251	--	--	6.38	299	35.4	58.7	434	0.15		<0.1	0.06	<0.001	0.007	<0.1	<0.001	0.2	<0.001	<0.001	0.003	<0.01	<0.001	--	**0.40**	--	0.016	<0.01	--	--	<0.001	--	<0.001	--	0.017	0.004	<0.01	--	--
MW-5	15-Apr-03	8.4	93.1	213	61.9	14.1	273	--	--	0	333	41.2	52.9	510	0.18	<0.1	0.244	0.02	--	--	<0.1	<0.05	0.2	<0.1	<0.001	<0.05	<0.1	--	<0.1	**0.36**	--	<0.1	<0.1	--	14	<0.1	0.5	--	<0.1	0.026	<0.1	--	--	--
MW-6[c]	20-Aug-02	7.96	96.2	144	33.6	14.5	275	--	--	0	335	62.5	60	516	--	--	--	<0.1	--	--	<0.1	<0.05	0.3	<0.1	<0.1	<0.05	<0.1	--	<0.1	**0.57**	--	<0.1	<0.1	--	14	<0.1	0.5	--	<0.1	0.022	<0.1	<0.1	--	--
MW-5	22-Jun-99	6.36	84.1	182	52.5	12.3	260	--	--	0	317	50.8	57.1	498	0.117	<0.1	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.024	--	--	--	--
MW-5	25-Mar-99	6.34	85.5	201	57.4	14.1	247	--	--	0	301	53.7	68.7	478	0.522	<0.1	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.036**	--	--	--	--
MW-5	11-Sep-98	6.83	86	191	55.3	12.8	220	--	--	0	268	49.4	55.8	492	0.16	<0.1	0.805	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.026	--	--	--	--
MW-5	26-Mar-98	5.61	87.9	198	57.1	13.6	257	--	--	0	314	47.5	56	436	--	--	--	--	<0.001	0.011	0.2	<0.001	--	<0.001	<0.001	--	--	--	--	--	<0.0002	--	0.01	<0.005	--	--	--	<0.001	--	**0.066**	--	--	-0.01	-0.03
MW-5	16-Oct-96	--	--	--	110	24	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	0.015	<0.1	<0.001	--	<0.1	<0.1	--	--	--	--	--	<0.0002	--	<0.1	<0.005	--	--	--	<0.001	--	0.05	--	--	0.06	0.8
MW-5	2-Apr-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	27-Mar-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	24-May-16	Dry - Not Sampled																																										
MW-6	12-Jan-16	Dry - Not Sampled																																										
MW-6	23-Sep-15	Dry - Not Sampled																																										
MW-6	16-Jun-10	7.57	89.2	194	54.5	14	234	--	--	5.09	281	37.7	56.8	414	0.27	--	<0.1	<0.01	<0.001	0.008	<0.1	<0.001	0.2	<0.001	<0.001	0.002	<0.01	<0.001	--	<0.001	--	0.007	<0.01	--	--	<0.001	--	<0.001	--	0.018	0.010	<0.01	--	--
MW-6	15-Apr-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7[c]	20-Aug-02	7.19	88.9	210	62.1	13.3	249	--	--	0	304	59.4	54.5	412	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	22-Jun-99	6.46	78.9	184	54.2	11.9	255	--	--	0	311	57.6	60.2	496	0.211	<0.1	0.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.037**	--	--	--	--
MW-6	25-Mar-99	6.24	81.7	191	55.4	12.8	245	--	--	0	299	53.6	64.2	474	0.634	<0.1	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.041**	--	--	--	--
MW-6	11-Sep-98	6.05	86.6	198	58.3	12.6	218	--	--	0	266	48.6	58.9	460	0.157	<0.1	0.672	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.04**	--	--	--	--
MW-6	26-Mar-98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	16-Oct-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	0.015	0.1	<0.001	--	<0.1	<0.1	--	--	--	--	--	<0.0002	--	<0.1	<0.005	--	--	--	<0.001	--	0.029	--	--	0.07	1
MW-6	2-Apr-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	27-Mar-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	24-May-16	5.52 J	84.3	--	69.7	15.6	--	265	<5.0	<5.0	265	60.4	76.8	500	0.19	--	<0.10	<0.027	<0.0012	0.0104	0.0443 J	<0.00060	0.187	0.00030 J	<0.00060	<0.00040	0.0033 J	--	--	0.0014 J	--	0.0044 J	0.005	--	--	0.0016 J	0.544	<0.0048	--	0.0169	0.0078 J	0.0034 J	<1.00	<1.00
MW-7	12-Jan-16	5.76 J	83.1	--	70.8	15.8	--	274	<5.0	<5.0	274	60.9	76.6	514	0.18	--	<0.18	<0.027	<0.0012	0.0069 J	0.0459 J	<0.0060	0.185	0.00030 U	<0.00060	0.0010 J	0.0040 J	--	--	0.00030 J	--	0.0055 J	0.0045 J	--	--	<0.0015	0.541	<0.0048	--	0.0165	0.0077 J	<0.0031	<1.00	<1.00
MW-7	23-Sep-15	6.50 J	90.5	241	71.0	15.4	--	312	<5.0	<5.0	312	56.8	69.0	500	0.11	--	0.039 J	<0.027	<0.0012	0.0073 J	0.0486 J	<0.0006	0.223	<0.0003	<0.0006	0.0011 J	0.0032 J	--	--	0.0006 J	--	0.0057 J	0.0042 J	--	--	<0.0015	0.557	<0.0048	--	0.0135	0.0099 J	0.0166 J	<1.00	<1.00
MW-7	16-Jun-10	6.9	120	318	90.6	22.3	308	--	--	12.9	363	80.5	98.3	632	<0.1	--	<0.1	<0.01	<0.001	0.007	<0.1	<0.001	0.3	<0.001	<0.001	<0.001	<0.01	<0.001	--	<0.001	--	0.005	<0.01	--	--	<0.001		<0.001	--	0.025	0.009	<0.01	--	--
MW-7	15-Apr-03	5.99	83	240	71.6	14.9	273	--	--	0	333	41.4	58	568	0.17	<0.1	0.288	<0.1	--	--	<0.1	--	0.2	<0.1	<0.1	<0.05	<0.1	--	<0.1	<0.05	--	<0.1	<0.1		15	<0.1	0.5	--	<0.1	0.019	<0.1	<0.1	--	--
MW-7	20-Aug-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	22-Jun-99	5.12	74.8	227	68.2	13.8	280	--	--	0	341	51.6	66.5	526	<0.1	<0.1	0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.011	--	--	--	--
MW-7	25-Mar-99	<5	72.2	228	66.8	14.8	254	--	--	1.44	308	53	70	502	<0.1	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.012	--	--	--	--
MW-7	11-Sep-98	5.49	80.7	254	77.4	14.9	253	--	--	0	309	48.6	67.8	530	<0.1	<0.1	0.455	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.009	--	--	--	--
MW-7	26-Mar-98	<5	78	241	71.7	15	247	--	--	0	301	48.3	79.8	468	--	--	--	--	<0.002	0.011	<0.2	<0.002	--	<0.002	<0.002	--	--	--	--	--	<0.0002	--	<0.02	<0.005	--	--	--	<0.002	--	0.01	--	--	0.02	0
MW-7	16-Oct-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	2-Apr-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	27-Mar-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Groundwater Standards [NMAC 20.6.2.3103]		--	--	--	--	--	--	--	--	--	--	250	600	1,000	--	--	--	5[b]	--	0.1	1.0	--	0.75	0.01	0.05	0.05[b]	1.0	0.05	1.0	0.2	0.002	1[b]	0.2[b]	0.05	--	0.05	--	--	--	0.03	--	10.0	30	

Historical data provided by New Mexico Environment Department. Metals criteria are for dissolved metals unless otherwise noted.
All results in milligrams per liter (mg/L) except radium-226 and -228, which are in pico Curies per liter (pCi/L).
a Ammonia presented as mg/L N.
b Identified standards are for irrigation use.
c Wells were inaccurately identified during the August 2002 sampling event (e.g., identified MW-2 was actually MW-1). Data has been included with the correct well's dataset for comparison; the identifier was not corrected to maintain traceability with reported results.
Red text indicates result exceeds a standard.

Table A-3
Surface and Groundwater Quality Measurements
La Bajada Mine Site, Santa Fe National Forest, NM

Location	Date	Time	pH	Temperature (°C)	Specific Conductivity (µS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
September 2015								
SW-1	9/21/2015	1540	8.52	18.77	449	152.6	11.48	NC
SW-2	9/21/2015	1510	8.46	19.24	464	175.2	11.11	NC
MW-1	9/22/2015	1000	6.64	17.18	666	209.4	7.03	4.94
		1005	6.57	17.29	663	225.8	9.59	4.06
		1010	6.57	16.89	662	232.6	5.31	3.49
		1015	6.62	16.83	661	237.5	7.32	2.41
		1020	6.66	16.77	658	238.6	7.44	2.95
		1025	6.66	17.11	657	240.2	3.80	2.38
		1030	6.73	18.20	656	240.6	5.01	2.02
MW-2	9/22/2015	1135	7.55	19.79	570	79.9	9.26	19.60
		1140	6.75	16.89	536	142.6	6.87	5.35
		1145	6.76	16.95	533	161.1	6.35	3.96
		1150	6.79	16.68	534	171.2	5.67	3.41
		1155	6.83	17.09	533	179.3	5.62	4.14
		1200	6.84	17.22	533	188.3	5.99	6.62
		1205	6.88	17.13	530	194.6	5.98	5.01
MW-3	9/22/2015	1315	6.66	18.94	1582	104.2	3.09	7.73
		1320	6.39	20.08	1570	129.0	3.15	7.44
		1325	6.34	20.07	1575	139.5	3.12	8.37
		1330	6.28	20.40	1574	145.9	1.89	8.26
		1335	6.17	20.88	1576	163.0	1.88	8.69
		1340	6.13	20.40	1575	177.4	1.03	7.92
		1345	6.04	21.09	1580	189.6	0.71	8.02
MW-4	9/23/2015	1423	6.71	17.80	815	95.7	1.70	24.50
		1428	6.54	17.76	807	124.2	1.47	17.4
		1433	6.54	18.35	808	138.5	1.48	15.1
		1604	6.34	18.34	812	128.3	1.56	10.9
		1609	6.37	18.01	810	163.2	1.45	8.81
		1614	6.16	17.23	807	191.1	1.34	7.17
		1619	6.22	16.89	807	199.7	1.40	6.97
MW-5	9/23/2015	1212	7.06	16.52	678	74.5	2.91	31.10
		1217	6.72	18.05	574	78.5	1.87	27.7
		1222	6.72	19.10	575	51.1	1.91	22.8
		1227	6.87	19.99	575	21.7	1.64	21.9
		1232	6.80	20.43	575	14.5	1.61	20.50
		1237	6.79	20.89	577	3.1	1.56	18
		1242	6.80	21.55	577	0.9	1.52	17.3
MW-7	9/23/2015	1023	6.81	15.77	636	134.0	2.80	5.40
		1028	6.52	16.91	622	174.3	2.01	3.91
		1033	6.50	16.97	619	185.6	1.98	2.09
		1038	6.49	17.12	617	201.4	1.97	2.87
		1043	6.47	17.31	611	216.3	2.10	2.61
		1048	6.47	17.05	613	223.9	2.01	3.08
		1053	6.47	17.32	607	233.1	2.23	2.38

Table A-3 (continued)
Groundwater Quality Measurements
La Bajada Mine Site, Santa Fe National Forest, NM

Location	Date	Time	pH	Temperature (°C)	Specific Conductivity (µS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
January 2016								
SW-1	1/12/2016	900	9.31	-0.58	759	-27.7	4.19	NC
SW-2	1/12/2016	800	7.95	-0.72	773	28.5	10.11	NC
MW-1	1/12/2016	950	8.09	8.25	1089	-40.3	3.99	0.95
		955	7.49	14.10	1112	-65.9	1.32	49.0
		1000	7.52	14.32	1126	-71.7	1.27	49.0
		1005	7.53	14.29	1129	-63.8	1.34	63.2
		1010	7.53	14.36	1129	-66.0	16.12	57.5
		1015	7.53	14.15	1129	-65.0	1.69	54.8
		1020	7.51	14.08	1128	-69.1	1.42	50.0
MW-2	1/12/2016	1110	7.49	13.25	1057	-10.3	2.77	7.81
		1115	7.40	14.73	1052	-19.0	1.59	1.83
		1120	7.40	15.03	1052	-13.0	1.26	1.47
		1125	7.40	15.19	1050	-14.8	1.18	0.89
		1130	7.40	15.13	1051	-10.9	1.13	0.78
		1135	7.41	15.08	1050	-10.4	1.17	0.73
		1140	7.43	15.01	1049	-8.1	1.13	0.65
MW-3	1/12/2016	1225	7.23	15.69	2622	-163.5	1.55	16.6
		1230	7.14	15.59	2592	-126.1	1.41	7.74
		1235	7.10	15.40	2549	-91.0	1.18	5.66
		1240	7.10	15.30	2554	-58.6	1.05	4.05
		1245	7.08	15.20	2575	-45.6	1.03	5.51
		1250	7.07	15.27	26.2	-27.4	0.97	3.29
MW-4	1/12/2016	1100	6.99	13.26	1361	105.9	4.18	22.9
		1105	6.95	14.01	1382	110.2	2.54	21.4
		1110	6.96	14.15	1380	107.7	2.34	21.5
		1115	6.96	14.13	1385	107.5	2.29	13.2
		1120	6.96	14.19	1384	107.9	2.14	8.86
		1125	6.96	14.18	1383	108.8	2.01	9.21
MW-5	1/13/2016	910	7.43	10.52	1085	27.3	2.43	43
		915	7.40	11.23	1054	-12.8	1.52	36.9
		920	7.39	11.82	1047	-20.3	1.27	29.5
		925	7.35	12.96	1043	-30.6	1.20	19.6
		930	7.33	12.32	1041	-28.5	1.25	12.8
		935	7.30	12.84	1033	-34.7	1.24	9.07
		940	7.28	13.08	1031	-38.4	1.29	6.32
MW-7	1/13/2016	1420	7.42	13.16	1092	84.6	3.74	2.92
		1425	7.34	13.77	1060	84.6	2.40	1.64
		1430	7.34	13.57	1056	86.0	2.21	0.70
		1435	7.34	13.69	1047	87.0	2.08	0.31
		1440	7.35	13.24	1052	87.0	1.98	0.73

Table A-3 (continued)
Groundwater Quality Measurements
La Bajada Mine Site, Santa Fe National Forest, NM

Location	Date	Time	pH	Temperature (°C)	Specific Conductivity (µS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
May 2016								
SW-1	5/23/2016	1409	9.19	19.80	691	84.0	15.45	NC
SW-2	5/23/2016	1300	9.10	18.47	667	148.4	14.05	NC
MW-1	5/23/2016	1452	7.67	17.47	929	129.3	10.62	2.94
		1457	6.65	16.43	895	111.7	5.90	2.77
		1502	7.62	16.40	893	1067.0	5.62	2.79
		1507	7.62	16.29	895	102.0	5.22	2.32
MW-2	5/23/2016	1555	7.54	17.64	786	110.4	7.11	6.95
		1600	7.64	15.39	766	58.4	3.24	3.60
		1605	7.58	15.29	778	56.3	3.10	2.99
		1610	7.58	15.45	779	58.6	2.99	2.29
		1615	7.57	15.36	781	57.7	3.03	2.18
MW-3	5/24/2016	753	7.03	15.03	2214	225.3	6.55	2.32
		758	7.07	15.93	2109	231.2	4.44	2.51
		803	7.07	16.02	2107	225.9	3.57	2.23
		808	7.07	16.19	2112	213.0	3.57	1.97
		813	7.07	16.35	2113	210.2	3.61	2.18
MW-4	5/24/2016	1404	7.09	22.07	106	103.7	3.96	4.54
MW-5	5/24/2016	1341	7.09	27.05	896	113.4	7.12	86.8
MW-7	5/24/2016	1113	7.32	16.62	884	62.3	7.10	2.42
		1118	7.24	15.67	849	39.2	3.71	1.65
		1123	7.21	15.41	839	29.3	3.64	2.42
		1128	7.22	15.22	833	24.9	3.65	1.98
		1133	7.27	15.29	830	22.6	3.62	1.83

°C: Degrees Celsius
µS/cm: micro Siemens per centimeter
DO: Dissolved Oxygen
mg/L: milligrams per liter
NC: Not collected
NTU: Nephelometric Turbidity Units
ORP: Oxidation Reduction Potential

Table A-4
Average Groundwater Quality Measurements
La Bajada Mine Site, Santa Fe National Forest, NM

Well	Average Results					
	pH	Temperature (°C)	Specific Conductivity (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)
September 2015						
MW-1	6.64	17.18	660	232.1	6.50	3.18
MW-2	6.91	17.39	538	159.6	6.53	6.87
MW-3	6.29	20.27	1,576	149.8	2.12	8.06
MW-4	6.41	17.77	809	148.7	1.49	12.98
MW-5	6.82	19.50	590	34.9	1.86	22.76
MW-7	6.53	16.92	618	195.5	2.16	3.19
Site Average:	6.60	18.17	799	153.4	3.44	9.51
January 2016						
MW-1	7.52	14.22	1,126	-66.9	1.84	53.92
MW-2	7.42	14.77	1,052	-12.4	1.46	2.02
MW-3	7.12	15.41	2,153	-85.4	1.20	7.14
MW-4	6.96	13.99	1,379	108.0	2.58	16.18
MW-5	7.35	12.11	1,048	-19.7	1.46	22.46
MW-7	7.36	13.49	1,061	85.8	2.48	1.26
Site Average:	7.29	14.00	1,303	1.6	1.84	17.16
May 2016						
MW-1	7.39	16.65	903	352.5	6.84	2.71
MW-2	7.58	15.83	778	68.3	3.94	3.60
MW-3	7.11	15.90	2,131	221.1	4.35	2.24
MW-4	7.35	22.07	106	103.7	3.96	4.54
MW-5	7.94	27.05	896	113.4	7.12	86.80
MW-7	7.42	15.64	847	35.7	4.34	14.66
Site Average:	7.47	18.86	944	149.1	5.09	19.09

DO: Dissolved Oxygen
ORP: Oxidation Reduction Potential
NTU: Nephelometric Turbidity Units

°C: Degrees Celsius
µS/cm: micro Siemens/centimeter
mg/L: milligrams per liter

APPENDIX B

Laboratory Analytical Reports

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e-Hardcopy 2.0
Automated Report

Technical Report for

Weston Solutions, Inc.

La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

12767.201.001.0020

SGS Accutest Job Number: C45945

Sampling Date: 05/23/16

Report to:

Weston Solutions, Inc.
960 West Elliot Road Suite 101
Tempe, AZ 85284
b.wethington@westonsolutions.com

ATTN: Barbara Wethington

Total number of pages in report: 64

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Sample Summary

Weston Solutions, Inc.

Job No: C45945

La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Project No: 12767.201.001.0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C45945-1	05/23/16	15:10	GR	05/25/16	AQ	Ground Water	LB-MW1-052316
C45945-1F	05/23/16	15:10	GR	05/25/16	AQ	Groundwater Filtered	LB-MW1-052316
C45945-2	05/23/16	16:15	GR	05/25/16	AQ	Ground Water	LB-MW2-052316
C45945-2F	05/23/16	16:15	GR	05/25/16	AQ	Groundwater Filtered	LB-MW2-052316
C45945-3	05/23/16	14:09	GR	05/25/16	AQ	Ground Water	LB-SW1-052316
C45945-3F	05/23/16	14:09	GR	05/25/16	AQ	Groundwater Filtered	LB-SW1-052316
C45945-4	05/23/16	13:00	GR	05/25/16	AQ	Ground Water	LB-SW2-052316
C45945-4F	05/23/16	13:00	GR	05/25/16	AQ	Groundwater Filtered	LB-SW2-052316
C45945-5	05/23/16	13:30	GR	05/25/16	AQ	Ground Water	LB-MW5-052416
C45945-5F	05/23/16	13:30	GR	05/25/16	AQ	Groundwater Filtered	LB-MW5-052416
C45945-6	05/23/16	14:00	GR	05/25/16	AQ	Ground Water	LB-MW4-052416
C45945-6F	05/23/16	14:00	GR	05/25/16	AQ	Groundwater Filtered	LB-MW4-052416
C45945-7	05/23/16	11:33	GR	05/25/16	AQ	Ground Water	LB-MW7-052416

Sample Summary
(continued)

Weston Solutions, Inc.

Job No: C45945

La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Project No: 12767.201.001.0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C45945-7D	05/23/16	11:33	GR	05/25/16	AQ	Water Dup/MSD	LB-MW7-052416
C45945-7F	05/23/16	11:33	GR	05/25/16	AQ	Groundwater Filtered	LB-MW7-052416
C45945-7FD	05/23/16	11:33	GR	05/25/16	AQ	Ground Water	LB-MW7-052416
C45945-7FS	05/23/16	11:33	GR	05/25/16	AQ	Ground Water	LB-MW7-052416
C45945-7S	05/23/16	11:33	GR	05/25/16	AQ	Water Matrix Spike	LB-MW7-052416
C45945-8	05/23/16	08:13	GR	05/25/16	AQ	Ground Water	LB-MW3-052416
C45945-8F	05/23/16	08:13	GR	05/25/16	AQ	Groundwater Filtered	LB-MW3-052416
C45945-9	05/23/16	08:13	GR	05/25/16	AQ	Ground Water	LB-MW3-052416-D
C45945-9F	05/23/16	08:13	GR	05/25/16	AQ	Groundwater Filtered	LB-MW3-052416-D

Summary of Hits

Job Number: C45945
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 05/23/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C45945-1	**LB-MW1-052316**					
Alkalinity, Bicarbonate		307	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		307	5.0	1.5	mg/l	SM2320 B-97
Chloride		69.8	5.0	0.98	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved		542	10	5.3	mg/l	SM2540 C-97
Sulfate		71.4	5.0	1.0	mg/l	EPA 300/SW846 9056A
C45945-1F	**LB-MW1-052316**					
Arsenic		0.0084 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0594 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.232	0.10	0.0032	mg/l	EPA 200.7
Calcium		68.3	5.0	0.069	mg/l	EPA 200.7
Cobalt		0.0013 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0077 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		13.7	5.0	0.023	mg/l	EPA 200.7
Manganese		0.0121 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0034 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0065	0.0050	0.00060	mg/l	EPA 200.7
Potassium		6.55 J	10	0.035	mg/l	EPA 200.7
Sodium		101	10	0.025	mg/l	EPA 200.7
Strontium		0.559	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0032	0.0010	0.00010	mg/l	EPA 200.8
Vanadium		0.0057 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0040 J	0.020	0.0031	mg/l	EPA 200.7
C45945-2	**LB-MW2-052316**					
Alkalinity, Bicarbonate		267	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		267	5.0	1.5	mg/l	SM2320 B-97
Chloride		47.3	5.0	0.98	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.13	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]		0.17 J	0.20	0.10	mg/l	EPA 351.2
Solids, Total Dissolved		488	10	5.3	mg/l	SM2540 C-97
Sulfate		74.3	5.0	1.0	mg/l	EPA 300/SW846 9056A
C45945-2F	**LB-MW2-052316**					
Arsenic		0.0176	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0774 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.181	0.10	0.0032	mg/l	EPA 200.7
Calcium		64.9	5.0	0.069	mg/l	EPA 200.7
Cobalt		0.00050 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0049 J	0.010	0.0018	mg/l	EPA 200.7

Summary of Hits

Job Number: C45945
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 05/23/16

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Magnesium	12.9	5.0	0.023	mg/l	EPA 200.7
Manganese	0.0020 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0095 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0036 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium	11.1	10	0.035	mg/l	EPA 200.7
Sodium	84.4	10	0.025	mg/l	EPA 200.7
Strontium	0.600	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.0067	0.0010	0.00010	mg/l	EPA 200.8
Vanadium	0.0064 J	0.010	0.00060	mg/l	EPA 200.7
Zinc	0.0059 J	0.020	0.0031	mg/l	EPA 200.7
C45945-3 LB-SW1-052316					
Alkalinity, Bicarbonate	172	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Carbonate	35.6	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	208	5.0	1.5	mg/l	SM2320 B-97
Chloride	58.3	5.0	0.98	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite	0.11	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.15 J	0.20	0.10	mg/l	EPA 351.2
Solids, Total Dissolved	426	10	5.3	mg/l	SM2540 C-97
Sulfate	57.4	5.0	1.0	mg/l	EPA 300/SW846 9056A
C45945-3F LB-SW1-052316					
Aluminum	0.0722 J	0.20	0.027	mg/l	EPA 200.7
Arsenic	0.0069 J	0.010	0.0025	mg/l	EPA 200.7
Barium	0.0736 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.175	0.10	0.0032	mg/l	EPA 200.7
Calcium	52.0	5.0	0.069	mg/l	EPA 200.7
Cobalt	0.00090 J	0.0050	0.00040	mg/l	EPA 200.7
Copper	0.0033 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium	9.17	5.0	0.023	mg/l	EPA 200.7
Manganese	0.0188	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0019 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0040 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium	11.7	10	0.035	mg/l	EPA 200.7
Sodium	75.1	10	0.025	mg/l	EPA 200.7
Strontium	0.344	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.0042	0.0010	0.00010	mg/l	EPA 200.8
Vanadium	0.0049 J	0.010	0.00060	mg/l	EPA 200.7
Zinc	0.0132 J	0.020	0.0031	mg/l	EPA 200.7
C45945-4 LB-SW2-052316					
Alkalinity, Bicarbonate	192	5.0	5.0	mg/l	SM2320 B-97

Summary of Hits

Job Number: C45945
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 05/23/16

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Alkalinity, Carbonate	20.2	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	212	5.0	1.5	mg/l	SM2320 B-97
Chloride	58.9	5.0	0.98	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite	0.089 J	0.10	0.041	mg/l	SM4500-NO3 E-00
Solids, Total Dissolved	411	10	5.3	mg/l	SM2540 C-97
Sulfate	54.9	5.0	1.0	mg/l	EPA 300/SW846 9056A
C45945-4F LB-SW2-052316					
Aluminum	0.270	0.20	0.027	mg/l	EPA 200.7
Arsenic	0.0065 J	0.010	0.0025	mg/l	EPA 200.7
Barium	0.0804 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.166	0.10	0.0032	mg/l	EPA 200.7
Calcium	54.7	5.0	0.069	mg/l	EPA 200.7
Cobalt	0.0014 J	0.0050	0.00040	mg/l	EPA 200.7
Copper	0.0034 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium	9.63	5.0	0.023	mg/l	EPA 200.7
Manganese	0.0308	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0014 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0048 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium	10.9	10	0.035	mg/l	EPA 200.7
Sodium	70.4	10	0.025	mg/l	EPA 200.7
Strontium	0.363	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.0043	0.0010	0.00010	mg/l	EPA 200.8
Vanadium	0.0052 J	0.010	0.00060	mg/l	EPA 200.7
Zinc	0.0129 J	0.020	0.0031	mg/l	EPA 200.7
C45945-5 LB-MW5-052416					
Alkalinity, Bicarbonate	283	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	283	5.0	1.5	mg/l	SM2320 B-97
Chloride	60.4	5.0	0.98	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite	0.16	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.12 J	0.20	0.10	mg/l	EPA 351.2
Solids, Total Dissolved	470	10	5.3	mg/l	SM2540 C-97
Sulfate	71.1	5.0	1.0	mg/l	EPA 300/SW846 9056A
C45945-5F LB-MW5-052416					
Arsenic	0.0098 J	0.010	0.0025	mg/l	EPA 200.7
Barium	0.0502 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.171	0.10	0.0032	mg/l	EPA 200.7
Calcium	64.0	5.0	0.069	mg/l	EPA 200.7
Chromium	0.00070 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt	0.0025 J	0.0050	0.00040	mg/l	EPA 200.7

Summary of Hits

Job Number: C45945
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 05/23/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Copper		0.0034 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		14.9	5.0	0.023	mg/l	EPA 200.7
Manganese		0.554	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0093 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0074	0.0050	0.00060	mg/l	EPA 200.7
Potassium		7.52 J	10	0.035	mg/l	EPA 200.7
Sodium		80.2	10	0.025	mg/l	EPA 200.7
Strontium		0.531	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0146	0.0010	0.00010	mg/l	EPA 200.8
Vanadium		0.0029 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0040 J	0.020	0.0031	mg/l	EPA 200.7
C45945-6	**LB-MW4-052416**					
Alkalinity, Bicarbonate		280	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		280	5.0	1.5	mg/l	SM2320 B-97
Chloride		60.4	10	2.0	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.29	0.10	0.041	mg/l	SM4500-NO3 E-00
Solids, Total Dissolved		691	10	5.3	mg/l	SM2540 C-97
Sulfate		183	10	2.1	mg/l	EPA 300/SW846 9056A
C45945-6F	**LB-MW4-052416**					
Arsenic		0.0089 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0765 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.187	0.10	0.0032	mg/l	EPA 200.7
Calcium		89.4	5.0	0.069	mg/l	EPA 200.7
Chromium		0.00070 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt		0.00050 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0056 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		28.1	5.0	0.023	mg/l	EPA 200.7
Manganese		0.0020 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0046 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0048 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium		8.55 J	10	0.035	mg/l	EPA 200.7
Sodium		89.7	10	0.025	mg/l	EPA 200.7
Strontium		0.672	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0658	0.0010	0.00010	mg/l	EPA 200.8
Vanadium		0.0073 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0050 J	0.020	0.0031	mg/l	EPA 200.7
C45945-7	**LB-MW7-052416**					
Alkalinity, Bicarbonate		265	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		265	5.0	1.5	mg/l	SM2320 B-97

Summary of Hits

Job Number: C45945
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 05/23/16

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Chloride	60.4	5.0	0.98	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite	0.19	0.10	0.041	mg/l	SM4500-NO3 E-00
Solids, Total Dissolved	500	10	5.3	mg/l	SM2540 C-97
Sulfate	76.8	5.0	1.0	mg/l	EPA 300/SW846 9056A
C45945-7F LB-MW7-052416					
Arsenic	0.0104	0.010	0.0025	mg/l	EPA 200.7
Barium	0.0443 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.187	0.10	0.0032	mg/l	EPA 200.7
Cadmium	0.00030 J	0.0020	0.00030	mg/l	EPA 200.7
Calcium	69.7	5.0	0.069	mg/l	EPA 200.7
Copper	0.0033 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium	15.6	5.0	0.023	mg/l	EPA 200.7
Manganese	0.0014 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0044 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0050	0.0050	0.00060	mg/l	EPA 200.7
Potassium	5.52 J	10	0.035	mg/l	EPA 200.7
Silver	0.0016 J	0.0050	0.0015	mg/l	EPA 200.7
Sodium	84.3	10	0.025	mg/l	EPA 200.7
Strontium	0.544	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.0169	0.0010	0.00010	mg/l	EPA 200.8
Vanadium	0.0078 J	0.010	0.00060	mg/l	EPA 200.7
Zinc	0.0034 J	0.020	0.0031	mg/l	EPA 200.7
C45945-8 LB-MW3-052416					
Alkalinity, Bicarbonate	568	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	568	5.0	1.5	mg/l	SM2320 B-97
Chloride	35.4	2.5	0.49	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite	0.067 J	0.10	0.041	mg/l	SM4500-NO3 E-00
Solids, Total Dissolved	1830	10	5.3	mg/l	SM2540 C-97
Sulfate	799	50	10	mg/l	EPA 300/SW846 9056A
C45945-8F LB-MW3-052416					
Arsenic	0.0053 J	0.010	0.0025	mg/l	EPA 200.7
Barium	0.0414 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.274	0.10	0.0032	mg/l	EPA 200.7
Calcium	240	5.0	0.069	mg/l	EPA 200.7
Chromium	0.0011 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt	0.0272	0.0050	0.00040	mg/l	EPA 200.7
Copper	0.0045 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium	114	5.0	0.023	mg/l	EPA 200.7
Manganese	0.398	0.015	0.00020	mg/l	EPA 200.7

Summary of Hits

Job Number: C45945
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 05/23/16

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Molybdenum	0.0071 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0623	0.0050	0.00060	mg/l	EPA 200.7
Potassium	16.8	10	0.035	mg/l	EPA 200.7
Sodium	146	10	0.025	mg/l	EPA 200.7
Strontium	1.84	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.358	0.0010	0.00010	mg/l	EPA 200.8
Zinc	0.0052 J	0.020	0.0031	mg/l	EPA 200.7
C45945-9 LB-MW3-052416-D					
Alkalinity, Bicarbonate	566	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	566	5.0	1.5	mg/l	SM2320 B-97
Chloride	35.4	2.5	0.49	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite	0.11	0.10	0.041	mg/l	SM4500-NO3 E-00
Solids, Total Dissolved	1810	10	5.3	mg/l	SM2540 C-97
Sulfate	798	50	10	mg/l	EPA 300/SW846 9056A
C45945-9F LB-MW3-052416-D					
Arsenic	0.0049 J	0.010	0.0025	mg/l	EPA 200.7
Barium	0.0409 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.273	0.10	0.0032	mg/l	EPA 200.7
Cadmium	0.00030 J	0.0020	0.00030	mg/l	EPA 200.7
Calcium	236	5.0	0.069	mg/l	EPA 200.7
Chromium	0.00070 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt	0.0265	0.0050	0.00040	mg/l	EPA 200.7
Copper	0.0050 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium	112	5.0	0.023	mg/l	EPA 200.7
Manganese	0.385	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0075 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0606	0.0050	0.00060	mg/l	EPA 200.7
Potassium	16.7	10	0.035	mg/l	EPA 200.7
Sodium	145	10	0.025	mg/l	EPA 200.7
Strontium	1.82	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.348	0.0010	0.00010	mg/l	EPA 200.8
Zinc	0.0072 J	0.020	0.0031	mg/l	EPA 200.7

(a) Analysis performed at Accutest Laboratories, Houston, TX.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	LB-MW1-052316		
Lab Sample ID:	C45945-1	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	307	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	307	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	69.8	5.0	0.98	mg/l	10	06/08/16 00:44	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.041 U	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.10 U	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	542	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	71.4	5.0	1.0	mg/l	10	06/08/16 00:44	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW1-052316
Lab Sample ID: C45945-1F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0084 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0594 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.232	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	68.3	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.0013 J	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0077 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	13.7	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.0121 J	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0034 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0065	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	6.55 J	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	101	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.559	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0032	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0057 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0040 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-MW2-052316		
Lab Sample ID:	C45945-2	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	267	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	267	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	47.3	5.0	0.98	mg/l	10	06/08/16 01:01	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.13	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.17 J	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	488	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	74.3	5.0	1.0	mg/l	10	06/08/16 01:01	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW2-052316
Lab Sample ID: C45945-2F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0176	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0774 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.181	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	64.9	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.00050 J	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0049 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	12.9	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.0020 J	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0095 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0036 J	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	11.1	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	84.4	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.600	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0067	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0064 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0059 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-SW1-052316		
Lab Sample ID:	C45945-3	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	172	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	35.6	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	208	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	58.3	5.0	0.98	mg/l	10	06/08/16 01:19	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.11	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.15 J	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	426	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	57.4	5.0	1.0	mg/l	10	06/08/16 01:19	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-SW1-052316
Lab Sample ID: C45945-3F
Matrix: AQ - Groundwater Filtered
Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.0722 J	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0069 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0736 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.175	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	52.0	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.00090 J	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0033 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	9.17	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.0188	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0019 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0040 J	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	11.7	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	75.1	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.344	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0042	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0049 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0132 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-SW2-052316		
Lab Sample ID:	C45945-4	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	192	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	20.2	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	212	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	58.9	5.0	0.98	mg/l	10	06/08/16 01:36	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.089 J	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.10 U	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	411	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	54.9	5.0	1.0	mg/l	10	06/08/16 01:36	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-SW2-052316
Lab Sample ID: C45945-4F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.270	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0065 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0804 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.166	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	54.7	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.0014 J	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0034 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	9.63	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.0308	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0014 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0048 J	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	10.9	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	70.4	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.363	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0043	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0052 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0129 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-MW5-052416		
Lab Sample ID:	C45945-5	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	283	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	283	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	60.4	5.0	0.98	mg/l	10	06/08/16 10:56	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.16	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.12 J	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	470	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	71.1	5.0	1.0	mg/l	10	06/08/16 10:56	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW5-052416
Lab Sample ID: C45945-5F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0098 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0502 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.171	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	64.0	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00070 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.0025 J	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0034 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	14.9	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.554	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0093 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0074	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	7.52 J	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	80.2	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.531	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0146	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0029 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0040 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-MW4-052416		
Lab Sample ID:	C45945-6	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	280	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	280	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	60.4	10	2.0	mg/l	20	06/08/16 11:13	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.29	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.10 U	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	691	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	183	10	2.1	mg/l	20	06/08/16 11:13	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW4-052416
Lab Sample ID: C45945-6F
Matrix: AQ - Groundwater Filtered
Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0089 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0765 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.187	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	89.4	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00070 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.00050 J	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0056 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	28.1	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.0020 J	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0046 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0048 J	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	8.55 J	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	89.7	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.672	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0658	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0073 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0050 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-MW7-052416		
Lab Sample ID:	C45945-7	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	265	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	265	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	60.4	5.0	0.98	mg/l	10	06/08/16 11:31	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.19	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.10 U	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	500	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	76.8	5.0	1.0	mg/l	10	06/08/16 11:31	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW7-052416
Lab Sample ID: C45945-7F
Matrix: AQ - Groundwater Filtered
Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0104	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0443 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.187	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 J	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	69.7	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.00040 U	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0033 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	15.6	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.0014 J	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0044 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0050	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	5.52 J	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0016 J	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	84.3	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	0.544	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.0169	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.0078 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0034 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-MW3-052416		
Lab Sample ID:	C45945-8	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	568	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	568	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	35.4	2.5	0.49	mg/l	5	06/08/16 12:05	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.067 J	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.10 U	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	1830	10	5.3	mg/l	1	05/26/16 09:50	EA	SM2540 C-97
Sulfate	799	50	10	mg/l	100	06/08/16 11:48	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW3-052416
Lab Sample ID: C45945-8F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0053 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0414 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.274	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	240	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.0011 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.0272	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0045 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	114	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.398	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0071 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0623	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	16.8	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	146	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	1.84	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.358	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0052 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	LB-MW3-052416-D		
Lab Sample ID:	C45945-9	**Date Sampled:**	05/23/16
Matrix:	AQ - Ground Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	566	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	566	5.0	1.5	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Chloride	35.4	2.5	0.49	mg/l	5	06/08/16 12:40	PH	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	06/01/16 10:00	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.11	0.10	0.041	mg/l	1	06/08/16 10:00	EB	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl [a]	0.10 U	0.20	0.10	mg/l	1	05/27/16	ATX	EPA 351.2
Solids, Total Dissolved	1810	10	5.3	mg/l	1	05/26/16 12:09	EA	SM2540 C-97
Sulfate	798	50	10	mg/l	100	06/08/16 12:23	PH	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Houston, TX.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: LB-MW3-052416-D
Lab Sample ID: C45945-9F
Matrix: AQ - Groundwater Filtered
Date Sampled: 05/23/16
Date Received: 05/25/16
Percent Solids: n/a
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.027 U	0.20	0.027	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Arsenic	0.0049 J	0.010	0.0025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Barium	0.0409 J	0.20	0.00050	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Boron	0.273	0.10	0.0032	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cadmium	0.00030 J	0.0020	0.00030	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Calcium	236	5.0	0.069	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Chromium	0.00070 J	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Cobalt	0.0265	0.0050	0.00040	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Copper	0.0050 J	0.010	0.0018	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Magnesium	112	5.0	0.023	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Manganese	0.385	0.015	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Molybdenum	0.0075 J	0.020	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Nickel	0.0606	0.0050	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Potassium	16.7	10	0.035	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Sodium	145	10	0.025	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Strontium	1.82	0.010	0.00020	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Uranium	0.348	0.0010	0.00010	mg/l	1	06/03/16	06/07/16	RS	EPA 200.8 [1]	EPA 200.8 [4]
Vanadium	0.00060 U	0.010	0.00060	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]
Zinc	0.0072 J	0.020	0.0031	mg/l	1	06/03/16	06/08/16	RS	EPA 200.7 [2]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5925
(2) Instrument QC Batch: MA5928
(3) Prep QC Batch: MP11420
(4) Prep QC Batch: MP11421

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

80853902 4883 — 1 of 5

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest NC Job #: C C45945

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 W. Elliot Rd. #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: Greg Roussos

Project Information

Project Name: LA BAJADA
Street:
City: State:
Project #:
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis: Dissolved Metals; Ra226 + Ra228; TDS; Total Alk/Carbonate/Bicarbonate/Hydroxide; Chloride/Sulfate; Nitrate + Nitrite/TKN

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved Metals	Ra226 + Ra228	TDS	Total Alk/Carbonate/Bicarbonate/Hydroxide	Chloride/Sulfate	Nitrate + Nitrite/TKN	LAB USE ONLY
1	LB-MW1-052316	5/23/16	1510	GR	GW	4			2	1	1				X	X	X	X	X	X	
2	LB-MW2-052316	5/23/16	1615	GR	GW	4			2	1	1				X	X	X	X	X	X	

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days) — Approved By / Date:
- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information
- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker
- [ ] EDD Format

Provide EDF Global ID
Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/24/16 1700	1 FEDX	2 FEDX	5/25/16 0915	2 [signature]
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #: NONE	Appropriate Bottle / Pres. Y/N; Labels match Coc? Y / N; Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice Y/N	Cooler Temp. 4.2/5.2

C45945: Chain of Custody
Page 1 of 6

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4861

A2 5/25

C45945

G45946

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest NC Job #: C

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 W. Elliot Road # 101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-
Samplers's Name: Greg Roussos

Project Information

Project Name: LA BAJADA
Street:
City: State:
Project #:
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Radium (226/228)	Dissolved metals	TDS	Total Alk/Carbonate/Bicarbonate/Hydroxide	Chloride / Sulfate	Nitrate + Nitrite	LAB USE ONLY
3	LB-SW1-052316	5/23/16	1409	GR	SW	4			2	1	1				X	X	X	X	X	X	
4	LB-SW2-052316	5/23/16	1300	GR	SW	4			2	1	1				X	X	X	X	X	X	

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker — EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

A2

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/24/16	FEDX	FEDX	5/25/16 0915	
2	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
		1700				
3	Relinquished by:	Date Time:	Received By:	Custody Seal #	Appropriate Bottle / Pres. Y / N	Headspace Y / N	On Ice Y / N	Cooler Temp
4				NONE	Labels match Coc? Y / N	Separate Receiving Check List used: Y / N		3.5/4.5
5								IR7

3 of 5

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4850

FED-EX Tracking #	Bottle Order Control # C45945
Accutest Quote #	Accutest NC Job #: C C45947

A2 5/25

Client / Reporting Information

- Company Name: Weston Solutions
- Address: 960 W. Elliot Rd #101
- City: Tempe State: AZ Zip: 85284
- Project Contact: Barb Wethington
- Phone #: (480) 477-4911
- Samplers's Name: Greg Roussos

Project Information

- Project Name: LA BAJADA
- Street:
- City: State:
- Project #:
- EMAIL: b.wethington@westonsolutions.com
- Client Purchase Order #:

Requested Analysis: Dissolved metals 200.7/200.8; R+226 + R+228; TDS; Total Alk/Carbonate/Bicarbonate/Hydroxide; Chloride/Sulfate; Nitrate + Nitrite/TKN

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals 200.7/200.8	R+226 + R+228	TDS	Total Alk/Carbonate/Bicarbonate/Hydroxide	Chloride/Sulfate	Nitrate + Nitrite/TKN	LAB USE ONLY
5 1	LB-MW5-052416	5/24/16	1330												X	X	X	X	X	Y	
6 2	LB-MW4-052416	5/24/16	1400												X	X	X	X	X	X	

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days) — Approved By / Date:
- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information
- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format____
- Provide EDF Global ID ____
- Provide EDF Logcode: ____

Comments / Remarks

A2

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/24/16 1700	1 FedX	2 FedX	5/25/16 0915	2 [signature]
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # NONE	Appropriate Bottle / Pres. Y/N; Labels match CoC? Y / N; Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice Y/N	Cooler Temp. 2.9/3.9

C45945: Chain of Custody
Page 3 of 6

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4894

FED-EX Tracking #: 8085 3902 4894
Bottle Order Control #: C45945
Accutest Quote #:
Accutest NC Job #: C C45945

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 W. Elliot Rd. #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: (480) 477-4911
Samplers's Name: Greg Boussos

Project Information

Project Name:
Street:
City: State:
Project #:
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	H2SO4	HNO3	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals	RA 226 & Ra 228	TDS	Total Alk (Carbonate/Bicarbonate/Hydroxide)	Chloride / Sulfate	Nitrate & Nitrite as N
7	LB-MW7-052416	5/24/16	1133	GR	GW	4				2	1	1			X	X	X	X	X	X
						12														

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

LAB USE ONLY

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/24/16	FEDX	FEDX	5/25/16 0945	
2	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		1700				
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Appropriate Bottle / Pres. Y / N	Headspace Y / N
5				NONE	Labels match Coc? Y / N	Separate Receiving Check List used: Y / N

On Ice Y / N

Cooler Temp: 2.7/3.7 2.7/3.7

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4872

5 of 5
AZ 5/25

FED-EX Tracking #: 8085 3902 4872
Bottle Order Control #: C45945
Accutest Quote #:
Accutest NC Job #: C C45949

Client / Reporting Information

Company Name: Weston Solutions
Address: 980 W. Elliot Rd #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Nethington
Phone #: 480-477-4911
Samplers's Name: Greg Boussos

Project Information

Project Name: LA Bajada
Street:
City: State:
Project #:
EMAIL: b.nethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals	RA226 + RA228	TPS	TDH, Alk/Carbonate/Bicarbonate/Hydroxide	Chloride/Sulfate	Nitrate-Nitrite/TKN
8	LB-MW3-052416	5/24/16	0813	GR	GW	4			2	1	1				X	X	X	X	X	X
9	LB-MW3-052416-D	5/24/16	0813	GR	GW	4			2	1	1				X	X	X	X	X	X

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-O-I
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

LAB USE ONLY

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler / by	Date Time	Received By	Relinquished By	Date Time	Received By
1		5/24/16	Fedex	Fedex	5/25/16 09:15	Ali Zeighami AZ
3		1700				
5						

Custody Seal #: NONE
Appropriate Bottle / Pres. Y / N
Labels match Coc? Y / N
Headspace Y / N
Separate Receiving Check List used: Y / N
On Ice Y / N
Cooler Temp: 5.1/6.1 °C

SGS Accutest Sample Receipt Summary

Job Number: C45945 **Client:** WESTON SOLUTIONS **Project:** LA BAJADA

Date / Time Received: 5/25/2016 9:15:00 AM **Delivery Method:** FedEx **Airbill #'s:** 808539024883

Cooler Temps (Initial/Adjusted): #1: (4.2/5.2); #2: (4.2/5.2); #3: (3.5/4.5); #4: (2.9/3.9); #5: (2.7/3.7); #6: (5.1/6.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Therm ID:	IR3; IR3;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

C45945: Chain of Custody
Page 6 of 6

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11420
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 06/03/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	27	-9.8	<200
Antimony	6.0	1.2	1.2	-1.0	<6.0
Arsenic	10	1.6	2.5	3.4	<10
Barium	200	.2	.5	0.10	<200
Beryllium	5.0	.2	.6	0.0	<5.0
Boron	100	1.8	3.2	-0.80	<100
Cadmium	2.0	.2	.3	-0.10	<2.0
Calcium	5000	28	69	-32	<5000
Chromium	10	.4	.6	-0.10	<10
Cobalt	5.0	.3	.4	-0.10	<5.0
Copper	10	1.2	1.8	0.50	<10
Iron	200	5.3	11		
Lead	10	1	1.7		
Magnesium	5000	16	23	8.5	<5000
Manganese	15	.2	.2	0.0	<15
Molybdenum	20	.5	.6	-0.80	<20
Nickel	5.0	.4	.6	0.10	<5.0
Potassium	10000	35	35	-260	<10000
Selenium	10	1.7	3.3		
Silicon	100	2.4	2.4		
Silver	5.0	.5	1.5	-0.30	<5.0
Sodium	10000	11	25	-200	<10000
Strontium	10	.1	.2	-0.40	<10
Thallium	10	1.7	4.8	1.4	<10
Tin	50	.8	1.3		
Titanium	10	.8	.8		
Vanadium	10	.6	.6	-0.30	<10
Zinc	20	.5	3.1	2.0	<20

Associated samples MP11420: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11420
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 06/03/16

Metal	C45945-7F Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum	0.0	12300	12500	98.4	70-130
Antimony	0.0	515	500	103.0	70-130
Arsenic	10.4	532	500	104.3	70-130
Barium	44.3	549	500	100.9	70-130
Beryllium	0.0	501	500	100.2	70-130
Boron	187	709	500	104.4	70-130
Cadmium	0.30	522	500	104.3	70-130
Calcium	69700	80200	12500	84.0	70-130
Chromium	0.0	503	500	100.6	70-130
Cobalt	0.0	497	500	99.4	70-130
Copper	3.3	509	500	101.1	70-130
Iron					
Lead					
Magnesium	15600	27300	12500	93.6	70-130
Manganese	1.4	506	500	100.9	70-130
Molybdenum	4.4	482	500	95.5	70-130
Nickel	5.0	498	500	98.6	70-130
Potassium	5520	10500	5000	98.9	70-130
Selenium					
Silicon	anr				
Silver	1.6	500	500	99.7	70-130
Sodium	84300	96800	12500	100.0	70-130
Strontium	544	1040	500	99.2	-
Thallium	2.6	538	500	107.1	70-130
Tin	anr				
Titanium					
Vanadium	7.8	507	500	99.8	70-130
Zinc	3.4	509	500	101.1	70-130

Associated samples MP11420: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11420
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 06/03/16

Metal	C45945-7F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum	0.0	12400	12500	99.2	0.8	20
Antimony	0.0	504	500	100.8	2.2	20
Arsenic	10.4	524	500	102.7	1.5	20
Barium	44.3	547	500	100.5	0.4	20
Beryllium	0.0	503	500	100.6	0.4	20
Boron	187	701	500	102.8	1.1	20
Cadmium	0.30	520	500	103.9	0.4	20
Calcium	69700	81600	12500	95.2	1.7	20
Chromium	0.0	502	500	100.4	0.2	20
Cobalt	0.0	494	500	98.8	0.6	20
Copper	3.3	507	500	100.7	0.4	20
Iron						
Lead						
Magnesium	15600	27900	12500	98.4	2.2	20
Manganese	1.4	506	500	100.9	0.0	20
Molybdenum	4.4	481	500	95.3	0.2	20
Nickel	5.0	496	500	98.2	0.4	20
Potassium	5520	10700	5000	104.1	1.9	20
Selenium						
Silicon	anr					
Silver	1.6	505	500	100.7	1.0	20
Sodium	84300	99200	12500	119.2	2.4	20
Strontium	544	1060	500	103.2	1.9	
Thallium	2.6	538	500	107.1	0.0	20
Tin	anr					
Titanium						
Vanadium	7.8	505	500	99.4	0.4	20
Zinc	3.4	508	500	100.9	0.2	20

Associated samples MP11420: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11420
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 06/03/16

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum	11400	12500	91.2	85-115
Antimony	447	500	89.4	85-115
Arsenic	480	500	96.0	85-115
Barium	469	500	93.8	85-115
Beryllium	469	500	93.8	85-115
Boron	501	500	100.2	85-115
Cadmium	495	500	99.0	85-115
Calcium	11100	12500	88.8	85-115
Chromium	482	500	96.4	85-115
Cobalt	484	500	96.8	85-115
Copper	466	500	93.2	85-115
Iron				
Lead				
Magnesium	11200	12500	89.6	85-115
Manganese	486	500	97.2	85-115
Molybdenum	438	500	87.6	85-115
Nickel	461	500	92.2	85-115
Potassium	4460	5000	89.2	85-115
Selenium				
Silicon	anr			
Silver	432	500	86.4	85-115
Sodium	11700	12500	93.6	85-115
Strontium	467	500	93.4	-
Thallium	530	500	106.0	85-115
Tin	anr			
Titanium				
Vanadium	469	500	93.8	85-115
Zinc	501	500	100.2	85-115

Associated samples MP11420: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11420
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 06/03/16

Metal	C45945-7F Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	10.4	18.3	76.0 (a)	0-10
Barium	44.3	46.9	5.9	0-10
Beryllium	0.00	0.00	NC	0-10
Boron	187	181	3.4	0-10
Cadmium	0.300	0.00	100.0(a)	0-10
Calcium	69700	72600	4.1	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	3.30	0.00	100.0(a)	0-10
Iron				
Lead				
Magnesium	15600	16000	2.6	0-10
Manganese	1.40	0.00	100.0(a)	0-10
Molybdenum	4.40	3.00	31.8 (a)	0-10
Nickel	5.00	5.10	2.0	0-10
Potassium	5520	5260	4.9	0-10
Selenium				
Silicon	anr			
Silver	1.60	0.00	100.0(a)	0-10
Sodium	84300	84200	0.1	0-10
Strontium	544	559	2.8	0-
Thallium	2.60	0.00	100.0(a)	0-10
Tin	anr			
Titanium				
Vanadium	7.80	7.60	2.6	0-10
Zinc	3.40	5.30	55.9 (a)	0-10

Associated samples MP11420: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 06/03/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	6.7	13		
Antimony	0.50	.057	.11		
Arsenic	1.0	.052	.081		
Barium	1.0	.041	.059		
Beryllium	0.50	.044	.044		
Boron	5.0	.25	2		
Cadmium	0.50	.032	.043		
Calcium	500	11	99		
Chromium	4.0	.028	.11		
Cobalt	0.50	.045	.045		
Copper	4.0	.13	1.9		
Iron	50	1.4	11		
Lead	0.50	.024	.048		
Magnesium	500	1.6	28		
Manganese	1.0	.14	.14		
Molybdenum	1.0	.24	.24		
Nickel	4.0	.085	.15		
Potassium	500	10	23		
Selenium	1.0	.15	.15		
Silver	2.0	.011	.11		
Sodium	500	5.7	25		
Strontium	5.0	.082	.21		
Thallium	0.50	.031	.093		
Tin	5.0	.12	.87		
Titanium	1.0	.13	.16		
Vanadium	4.0	.51	.52		
Uranium	1.0	.0056	.1	0.0076	<1.0
Zinc	4.0	.68	1.7		

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 06/03/16

Metal	C45945-7F Original MS		Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt					
Copper	anr				
Iron					
Lead	anr				
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium					
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Uranium	16.9	548	500	106.2	70-130
Zinc	anr				

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 06/03/16

Metal	C45945-7F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Uranium	16.9	536	500	103.8	2.2	20
Zinc	anr					

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 06/03/16

Metal	C45945-9F Original MS		Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt					
Copper	anr				
Iron					
Lead	anr				
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium					
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Uranium	348	873	500	105.0	70-130
Zinc	anr				

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 06/03/16

Metal	C45945-9F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Uranium	348	868	500	104.0	0.6	20
Zinc	anr					

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 06/03/16

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Uranium	522	500	104.4	85-115
Zinc	anr			

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP11421
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 06/03/16

Metal	C45945-7F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Uranium	16.9	15.6	7.5	0-10
Zinc	anr			

Associated samples MP11421: C45945-1F, C45945-2F, C45945-3F, C45945-4F, C45945-5F, C45945-6F, C45945-7F, C45945-8F, C45945-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN19105	5.0	0.0	mg/l	250	249	99.4	75-125%
Bromide	GP9460/GN19148	0.20	0.0	mg/l	5	4.92	98.4	90-110%
Chloride	GP9460/GN19148	0.50	0.0	mg/l	5	4.84	96.8	90-110%
Fluoride	GP9460/GN19148	0.10	0.0	mg/l	5	4.88	97.6	90-110%
Nitrogen, Nitrate	GP9460/GN19148	0.10	0.0	mg/l	5	4.84	96.8	90-110%
Nitrogen, Nitrate + Nitrite	GN19140	0.10	0.0	mg/l	0.2	0.20	99.0	85-115%
Nitrogen, Nitrite	GP9460/GN19148	0.10	0.0	mg/l	5	4.84	96.8	90-110%
Solids, Total Dissolved	GN19063	10	0.0	mg/l	1000	977	97.7	80-120%
Solids, Total Dissolved	GN19064	10	0.0	mg/l	1000	980	98.0	80-120%
Sulfate	GP9460/GN19148	0.50	0.0	mg/l	5	4.93	98.6	90-110%

Associated Samples:
Batch GP9460: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
Batch GN19063: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8
Batch GN19064: C45945-9
Batch GN19105: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
Batch GN19140: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN19105	mg/l	250	255	2.4	
Bromide	GP9460/GN19148	mg/l	5	4.94	0.4	25%
Chloride	GP9460/GN19148	mg/l	5	4.89	1.0	25%
Fluoride	GP9460/GN19148	mg/l	5	4.91	0.6	25%
Nitrogen, Nitrate	GP9460/GN19148	mg/l	5	4.86	0.4	25%
Nitrogen, Nitrate + Nitrite	GN19140	mg/l	0.2	0.20	0.4	
Nitrogen, Nitrite	GP9460/GN19148	mg/l	5	4.90	1.2	25%
Solids, Total Dissolved	GN19063	mg/l	1000	972	0.5	5%
Solids, Total Dissolved	GN19064	mg/l	1000	969	1.1	5%
Sulfate	GP9460/GN19148	mg/l	5	4.90	0.6	25%

Associated Samples:
Batch GP9460: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
Batch GN19063: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8
Batch GN19064: C45945-9
Batch GN19105: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
Batch GN19140: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN19105	C45945-7	mg/l	265	269	1.2	0-25%
Solids, Total Dissolved	GN19063	C45945-7	mg/l	500	507	1.4	0-5%
Solids, Total Dissolved	GN19064	C45934-4	mg/l	1550	1510	2.1	0-5%

Associated Samples:
Batch GN19063: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8
Batch GN19064: C45945-9
Batch GN19105: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP9460/GN19148	C45945-7	mg/l	0.17	5	5.1	98.6	80-120%
Chloride	GP9460/GN19148	C45945-7	mg/l	60.4	5	86.7	526.0(a)	80-120%
Fluoride	GP9460/GN19148	C45945-7	mg/l	0.090	5	5.5	108.2	80-120%
Nitrogen, Nitrate	GP9460/GN19148	C45945-7	mg/l	0.18	5	5.0	96.4	80-120%
Nitrogen, Nitrate + Nitrite	GN19140	C45945-7	mg/l	0.19	0.2	0.38	98.3	75-125%
Nitrogen, Nitrite	GP9460/GN19148	C45945-7	mg/l	0.0076 U	5	5.0	100.0	80-120%
Sulfate	GP9460/GN19148	C45945-7	mg/l	76.8	5	95.3	370.0(a)	80-120%

Associated Samples:
Batch GP9460: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
Batch GN19140: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP9460/GN19148	C45945-7	mg/l	0.17	5	5.1	0.0	
Chloride	GP9460/GN19148	C45945-7	mg/l	60.4	5	86.6	0.1	
Fluoride	GP9460/GN19148	C45945-7	mg/l	0.090	5	5.5	0.0	
Nitrogen, Nitrate	GP9460/GN19148	C45945-7	mg/l	0.18	5	5.0	0.0	
Nitrogen, Nitrate + Nitrite	GN19140	C45945-7	mg/l	0.19	0.2	0.38	0.5	
Nitrogen, Nitrite	GP9460/GN19148	C45945-7	mg/l	0.0076 U	5	5.0	0.0	
Sulfate	GP9460/GN19148	C45945-7	mg/l	76.8	5	95.1	0.2	

Associated Samples:
Batch GP9460: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
Batch GN19140: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest Gulf Coast)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS ACCUTEST

2105 Lundy Avenue, San Jose, CA 95131
TEL. 408-588-0200 FAX: 408-588-0201
www.sgs.com

FED-EX Tracking #:
Bottle Order Control #:
SGS Accutest Quote #:
Accutest Job #: C45945

Client / Reporting Information

Company Name: SGS Accutest Laboratories
Street Address: 2105 Lundy Avenue
City: San Jose, State: CA Zip: 9513
Project Contact: maureenc E-mail: maureenc@accutest.com
Phone #: 408-588-0200 Fax #:
Sampler(s) Name(s): GR Phone:

Project Information

Project Name: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet): TKN

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	TKN
1	LB-MW1-052316		5/23/16	3:10:00 PM	GR	AQ										X
2	LB-MW2-052316		5/23/16	4:15:00 PM	GR	AQ										X
3	LB-SW1-052316		5/23/16	2:09:00 PM	GR	AQ										X
4	LB-SW2-052316		5/23/16	1:00:00 PM	GR	AQ										X
5	LB-MW5-052416		5/23/16	1:30:00 PM	GR	AQ										X
6	LB-MW4-052416		5/23/16	2:00:00 PM	GR	AQ										X
7S	LB-MW7-052416		5/23/16	11:33:00 AM	GR	AQ										X
7D	LB-MW7-052416		5/23/16	11:33:00 AM	GR	AQ										X
7	LB-MW7-052416		5/23/16	11:33:00 AM	GR	AQ										X
8	LB-MW3-052416		5/23/16	8:13:00 AM	GR	AQ										X
9	LB-MW3-052416-D		5/23/16	8:13:00 AM	GR	AQ										X

VERIFIED BY: [signature]
TAGGED BY: [signature]

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

LAB USE ONLY

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [x] other Due 6/8/2016

Approved By (SGS Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [x] State : COMMB
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SEND TO ALGC
Please RUN MS/MSD FOR LB MW7-052416

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 Ali Zeigrami	Date Time: 5/25	Received By: 1 Fedex	Relinquished By: 2 Fedex	Date Time:	Received By: 2 [signature] 940 5/26/15
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable	On Ice	Cooler Temp. 5.7

7.1

7

C45945: Chain of Custody

Page 1 of 4

SGS Accutest Gulf Coast

ACCUTEST LABORATORIES

COOLER TEMP FORM

TC# 45945

Delivered by (circle one): FedEx/UPS ALGC Driver Client

Date: 5/26/16

Client: SGS Accutest Shreveport

Cooler Number: IR9

Thermometer ID: CF; °C 0.0 Corrected Temp, °C 5.7

SAMPLES CONTAINED IN COOLER

Cust Seal #2520 Intact

ORIGIN ID:RBKA (408) 588-0200
ELVIN KUMAR
ACCUTEST NORTHERN CA
2105 LUNDY AVE
SAN JOSE, CA 95131
UNITED STATES US

SHIP DATE: 25MAY16
ACTWGT: 15.00 LB
CAD: 104695527/INET3730

BILL RECIPIENT

TO SAMPLE MANAGEMENT
ACCUTEST GULF COAST
10165 HARWIN DR STE 150
HOUSTON TX 77036
(713) 271-4700
REF: C45945
DEPT:

FedEx Express

TRK# 7763 7495 1282
0201

THU - 26 MAY 10:30A
PRIORITY OVERNIGHT

AB SGRA

77036
TX-US IAH

14

Test Custody Seal
Date 5/26

SGS

E WORLD'S LEADING INSPECTION,
FICATION COMPANY.

7.1

7

C45945: Chain of Custody
Page 2 of 4

SGS Accutest Sample Receipt Summary

Job Number: C45945 **Client:** SGS ACCUTEST **Project:** LA BAJADA

Date / Time Received: **Delivery Method:** **Airbill #'s:** 776374951282

No. Coolers: 1 **Therm ID:** IR9; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (5.7/5.7);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		

Quality Control Preservation	Y	or	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐		☐	☑	☐	☐
2. Trip Blank listed on COC:	☐		☐	☑		
3. Samples preserved properly:	☑		☐			
4. VOCs headspace free:	☐		☐	☑		

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

7.1

7

C45945: Chain of Custody
Page 3 of 4

Sample Receipt Log

Job #: C45945 **Date / Time Received:** 5/26/2016 9:40:00 AM **Initials:** ds

Client: SGS ACCUTEST

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	C45945-1	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-2	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-3	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-4	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-5	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-6	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-7	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-8	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7
1	C45945-9	250ml	1	1W	H2SO4	pH < 2	IR9	5.7	0	5.7

C45945: Chain of Custody
Page 4 of 4

General Chemistry

QC Data Summaries

(SGS Accutest Gulf Coast)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: ALNCA - Accutest Northern California, Inc.
Project: WESTAZT: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Total Kjeldahl	GP36437/GN73189	0.20	0.0	mg/l	2	2.00	100.0	90-110%

Associated Samples:
Batch GP36437: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: ALNCA - Accutest Northern California, Inc.
Project: WESTAZT: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Total Kjeldahl	GP36437/GN73189	C45945-7	mg/l	0.10 U	0.0	0.0	0-20%

Associated Samples:
Batch GP36437: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C45945
Account: ALNCA - Accutest Northern California, Inc.
Project: WESTAZT: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Total Kjeldahl	GP36437/GN73189	C45945-7	mg/l	0.10 U	2	1.9	95.0	90-110%

Associated Samples:
Batch GP36437: C45945-1, C45945-2, C45945-3, C45945-4, C45945-5, C45945-6, C45945-7, C45945-8, C45945-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

e-Hardcopy 2.0
Automated Report

Technical Report for

Weston Solutions, Inc.

La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

12767.201.001.0020

SGS Accutest Job Number: C45945X

Sampling Dates: 05/23/16 - 05/24/16

Report to:

Weston Solutions, Inc.
960 West Elliot Road Suite 101
Tempe, AZ 85284
b.wethington@westonsolutions.com

ATTN: Barbara Wethington

Total number of pages in report: **29**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

Sections: 1 2 3

Table of Contents

Sample Summary

Weston Solutions, Inc.

Job No: C45945X

La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Project No: 12767.201.001.0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C45945-1X	05/23/16	15:10	GR	05/25/16	AQ	Ground Water	LB-MW1-052316
C45945-2X	05/23/16	16:15	GR	05/25/16	AQ	Ground Water	LB-MW2-052316
C45945-3X	05/23/16	14:09	GR	05/25/16	AQ	Ground Water	LB-SW1-052316
C45945-4X	05/23/16	13:00	GR	05/25/16	AQ	Ground Water	LB-SW2-052316
C45945-5X	05/24/16	13:30	GR	05/25/16	AQ	Ground Water	LB-MW5-052416
C45945-6X	05/24/16	14:00	GR	05/25/16	AQ	Ground Water	LB-MW4-052416
C45945-7DX	05/24/16	11:33	GR	05/25/16	AQ	Water Dup/MSD	LB-MW7-052416
C45945-7SX	05/24/16	11:33	GR	05/25/16	AQ	Water Matrix Spike	LB-MW7-052416
C45945-7X	05/24/16	11:33	GR	05/25/16	AQ	Ground Water	LB-MW7-052416
C45945-8X	05/24/16	08:13	GR	05/25/16	AQ	Ground Water	LB-MW3-052416
C45945-9X	05/24/16	08:13	GR	05/25/16	AQ	Ground Water	LB-MW3-052416-D

Subcontract Lab Data

Report of Analysis

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

June 23, 2016

Maureen Coloma
Accutest Laboratories
2105 Lundy Avenue
San Jose, CA 95131
TEL:
FAX:

RE: La Bajada Mine GW sampling

Dear Maureen Coloma:

Order No.: 16051736

Summit Environmental Technologies, Inc. received 11 sample(s) on 5/25/2016 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Ana C. Slocum

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **16051736**
Date: **6/23/2016**

CLIENT: Accutest Laboratories
Project: La Bajada Mine GW sampling

This report in its entirety consists of the documents listed below. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Paginated Report including Cover Letter, Case Narrative, Analytical Results, Applicable Quality Control Summary Reports, and copies of the Chain of Custody Documents are supplied with this sample set.

Concentrations reported with a J-Flag in the Qualifier Field are values below the Limit of Quantitation (LOQ) but greater than the established Method Detection Limit (MDL).

Method numbers, unless specified as SM (Standard Methods) or ASTM, are EPA methods.

Estimated uncertainty values are available upon request.

Analysis performed by DBM, VRM, or SFG were performed at Summit Labs 2704 Eatonton Highway Haddock, GA 31033

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

This report is believed to meet all of the requirements of NELAC or the accrediting / certifying agency. Any comments or problems with the analytical events associated with this report are noted below.

Summit Environmental Technologies, In
3310 Win S
Cuyahoga Falls, Ohio 4422
TEL: (330) 253-8211 FAX: (330) 253-448
Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **16051736**
Date: **6/23/2016**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B/MB+	The analyte was detected in the associated blank.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor
DF	Dilution Factor	**RF**	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **16051736**
23-Jun-16

CLIENT: Accutest Laboratories
Project: La Bajada Mine GW sampling

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
16051736-001	LB-MW1-052316		5/23/2016 3:10:00 PM	5/25/2016 9:50:00 AM	Drinking Water
16051736-002	LB-MW2-052316		5/23/2016 4:15:00 PM	5/25/2016 9:50:00 AM	Drinking Water
16051736-003	LB-SW1-052316		5/23/2016 2:09:00 PM	5/25/2016 9:50:00 AM	Drinking Water
16051736-004	LB-SW2-052316		5/23/2016 1:00:00 PM	5/25/2016 9:50:00 AM	Drinking Water
16051736-005	LB-MW5-052416		5/24/2016 1:30:00 PM	5/25/2016 9:50:00 AM	Drinking Water
16051736-006	LB-MW4-052416		5/24/2016 2:00:00 PM	5/25/2016 9:50:00 AM	Drinking Water
16051736-007	LB-MW7-052416		5/24/2016 11:33:00 AM	5/25/2016 9:50:00 AM	Drinking Water
16051736-008	LB-MW7-052416MS		5/24/2016 11:33:00 AM	5/25/2016 9:50:00 AM	Drinking Water
16051736-009	LB-MW7-052416MSD		5/24/2016 11:33:00 AM	5/25/2016 9:50:00 AM	Drinking Water
16051736-010	LB-MW3-052416		5/24/2016 8:13:00 AM	5/25/2016 9:50:00 AM	Drinking Water
16051736-011	LB-MW3-052416-D		5/24/2016 8:13:00 AM	5/25/2016 9:50:00 AM	Drinking Water

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/23/2016 3:10:00 PM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-001 **Matrix:** DRINKING WATER

Client Sample ID LB-MW1-052316

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.07	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	1.48	1.00		pCi/L	± 0.66	1	6/21/2016 3:59:00 PM
Yield	1.00					1	6/21/2016 3:59:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/23/2016 4:15:00 PM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-002 **Matrix:** DRINKING WATER

Client Sample ID LB-MW2-052316

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.09	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	U	pCi/L	± 0.71	1	6/21/2016 3:59:00 PM
Yield	1.00					1	6/21/2016 3:59:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/23/2016 2:09:00 PM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-003 **Matrix:** DRINKING WATER

Client Sample ID LB-SW1-052316

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.1	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	3.28	1.00		pCi/L	± 0.93	1	6/21/2016 3:59:00 PM
Yield	1.00					1	6/21/2016 3:59:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

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Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/23/2016 1:00:00 PM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-004 **Matrix:** DRINKING WATER

Client Sample ID LB-SW2-052316

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.1	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.7	1	6/21/2016 3:59:00 PM
Yield	1.00					1	6/21/2016 3:59:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 1:30:00 PM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-005 **Matrix:** DRINKING WATER

Client Sample ID LB-MW5-052416

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	2.05	1.00		pCi/L	± 0.25	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	4.15	1.00		pCi/L	± 0.96	1	6/21/2016 4:07:00 PM
Yield	1.00					1	6/21/2016 4:07:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 2:00:00 PM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-006 **Matrix:** DRINKING WATER

Client Sample ID LB-MW4-052416

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.08	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00		pCi/L	± 0.73	1	6/21/2016 3:59:00 PM
Yield	1.00					1	6/21/2016 3:59:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 11:33:00 AM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-007 **Matrix:** DRINKING WATER

Client Sample ID LB-MW7-052416

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.09	1	6/22/2016 12:50:00 PM
Yield	1.00					1	6/22/2016 12:50:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	U	pCi/L	± 0.48	1	6/21/2016 4:00:00 PM
Yield	1.00					1	6/21/2016 4:00:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 11:33:00 AM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-008 **Matrix:** DRINKING WATER

Client Sample ID LB-MW7-052416MS

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.11	1	6/22/2016 12:51:00 PM
Yield	1.00					1	6/22/2016 12:51:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	U	pCi/L	± 0.53	1	6/21/2016 4:00:00 PM
Yield	1.00					1	6/21/2016 4:00:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 11:33:00 AM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-009 **Matrix:** DRINKING WATER

Client Sample ID LB-MW7-052416MSD

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.11	1	6/22/2016 12:51:00 PM
Yield	1.00					1	6/22/2016 12:51:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	1.29	1.00		pCi/L	± 0.69	1	6/21/2016 4:00:00 PM
Yield	1.00					1	6/21/2016 4:00:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 8:13:00 AM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-010 **Matrix:** DRINKING WATER

Client Sample ID LB-MW3-052416

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.09	1	6/22/2016 12:51:00 PM
Yield	1.00					1	6/22/2016 12:51:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	U	pCi/L	± 0.36	1	6/21/2016 4:52:00 PM
Yield	1.00					1	6/21/2016 4:52:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **16051736**

Date Reported: **6/23/2016**

CLIENT: Accutest Laboratories **Collection Date:** 5/24/2016 8:13:00 AM

Project: La Bajada Mine GW sampling

Lab ID: 16051736-011 **Matrix:** DRINKING WATER

Client Sample ID LB-MW3-052416-D

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW					**E903.0**		Analyst: **BRD**
RADIUM-226 (EPA 903.0)							
Radium-226	ND	1.00	U	pCi/L	± 0.1	1	6/22/2016 2:57:00 PM
Yield	1.00					1	6/22/2016 2:57:00 PM
COMBINEDRADIUM226/228-NPW					**E904.0**		Analyst: **BRD**
RADIUM-228 (EPA 904.0)							
Radium-228	ND	1.00	U	pCi/L	± 0.48	1	6/21/2016 4:52:00 PM
Yield	1.00					1	6/21/2016 4:52:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit
P	Second column confirmation exceeds	PL	Permit Limit

SGS ACCUTEST

CHAIN OF CUSTODY

2105 Lundy Avenue, San Jose, CA 95131
TEL: 408-588-0200 FAX: 408-588-0201
www.sgs.com

FED-EX Tracking #: | Bottle Order Control #:
SGS Accutest Quote #: | Accutest Job #: C45945X

Client / Reporting Information

Company Name: SGS Accutest Laboratories
Street Address: 2105 Lundy Avenue
City: San Jose, State: CA Zip: 9513
Project Contact: maureenc E-mail: maureenc@accutest.com
Phone #: 408-588-0200 Fax #:
Sampler(s) Name(s): GR Phone:

Project Information

Project Name: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State:
Attention:

1405

Requested Analysis (see TEST CODE sheet)

1734-001 011 CSL

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	COMBINED RA-226 & RA-228 *EPA 900 SERES*,	LAB USE ONLY
1X	LB-MW1-052316		5/23/16	3:10:00 PM	GR	AQ										X	
2X	LB-MW2-052316		5/23/16	4:15:00 PM	GR	AQ										X	
3X	LB-SW1-052316		5/23/16	2:09:00 PM	GR	AQ										X	
4X	LB-SW2-052316		5/23/16	1:00:00 PM	GR	AQ										X	
5X	LB-MW5-052416		5/24/16	1:30:00 PM	GR	AQ										X	
6X	LB-MW4-052416		5/24/16	2:00:00 PM	GR	AQ										X	
7X	LB-MW7-052416		5/24/16	11:33:00 AM	GR	AQ										X	
7SX	LB-MW7-052416		5/24/16	11:33:00 AM	GR	AQ										X	
7DX	LB-MW7-052416		5/24/16	11:33:00 AM	GR	AQ										X	
8X	LB-MW3-052416		5/24/16	8:13:00 AM	GR	AQ										X	
9X	LB-MW3-052416-D		5/24/16	8:13:00 AM	GR	AQ										X	

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- ☐ Std. 10 Business Days
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☒ other Due 6/8/2016

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☒ State (COMMB
- ☐ EDD Format
- ☐ Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SEND TO SUMMIT

PLEASE RUN MS/MSD FOR SAMPLE LB-MW7-052416, EXTRA VOLUME PROVIDED

-1-Gallon Container provided with Nitric Acid preservative
-Samples are from "New Mexico" Groundwater samples

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Ali Zeighami	5/25	1	2		2
3	Relinquished by Sampler:	Date Time: 5/26/16 9:50	Received By: 3	Relinquished By: 4	Date Time: 5-26-16 9:50	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not Intact	Preserved where applicable ☐ On Ice ☐ Cooler Temp.

2

Summit Environmental Technologies, Inc.
Cooler Receipt Form

Initials of person inspecting cooler and samples: SC

Client: Accutest

Order Number:

Date Received: 5-26-16 Time Received: 0550 Date cooler(s) opened and samples inspected: 5-26-16

Number of Coolers/Boxes: 4 N/A

Shipper: FED EX UPS DHL Airborne US Postal Walk-in Pickup Other:

Packaging: Peanuts Bubble Wrap Paper Foam None Other:

Tape on cooler/box:	Y	N	N/A
Custody Seals intact	Y	N	N/A
C-O-C in plastic	Y	N	N/A
Ice X Blue ice	present / absent / melted		N/A
Sample Temperature IR Gun #16020459 CF 0.0 °C	4.1 °C		N/A
Radiological Testing Instrument serial #35127 (see page 2 for scan results)	Y	N	N/A

****Use 1 sheet per sample for Radiological Testing. If sample is HOT, the Radiological Safety Officer must be notified immediately.**

C-O-C filled out properly	Y	N	N/A
Samples in separate bags	Y	N	N/A
Sample containers intact*	Y	N	N/A

*If no, list broken sample(s):

Sample label(s) complete (ID, date, etc.)	Y	N	N/A
Label(s) agree with C-O-C	Y	N	N/A
Correct containers used	Y	N	N/A
Sufficient sample received	Y	N	N/A
Samples received within holding time	Y	N	
Bubbles absent from 40 mL vials**	Y	N	N/A

** Samples with bubbles <6mm are acceptable. Indicate bubble size if >6mm.

Was client contacted about samples	Y	N
Will client send new samples	Y	N

Client contact:

Date/Time:

Logged in by:

Comments:

2

Summit Environmental Technologies, Inc.
Sample Receipt

pH and Chlorine test on samples

pH strip SET (0-14)# WC-03-0919 pH strip (2.8-4.6) SET#OES-01-0250
Total DPD packet SET#OES-02-0239 Free DPD packet SET#OES-01-0290
Disp. Pipette SET# WC-03-0510

ID	Method	pH	Chlorine (±)	Comments
1	✓	3		
2	↓	↓		
3				
4				
5				
6				
7				
8				
9				
10				
11	—	↓		

P = Permanganate interference
504.1, 508, 515.1, 525.2, 547, 548.1, 549.1, 531.2, 1613 methods checked for **Total** chlorine
552.2 checked for **Free** chlorine
531.2 pH is checked for ~3.8 (SET# OES-01-0250)
524.2 = pH and Chlorine checked at bench and not log in department

Radiological scan on sample

ID	scan	CPM
1	✓	26
2	↓	28
3		28
4		29
5		30
6		31
7		26
8		24
9		24
10		31
11	↓	33

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4883 1 of 5

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C45945

Client / Reporting Information
Company Name: Weston Solutions
Address: 960 W. Elliot Rd. #101
City: Tempe State: AZ Zip: 85284
Project Contact: Bart Wethington
Phone #: 480-477-4911
Samplers's Name: Greg Roussos

Project Information
Project Name: LA BAJADA
Street:
City: State:
Project #:
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis: Dissolved Metals; RA226 + RA228; TDS; Total Alk/Carbonate/Bicarbonate/Hydroxide; Chloride/Sulfate; Nitrate + Nitrite/TKN

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved Metals	RA226 + RA228	TDS	Total Alk/Carbonate/Bicarbonate/Hydroxide	Chloride/Sulfate	Nitrate + Nitrite/TKN	LAB USE ONLY
1	LB-MW1-052316	5/23/16	1510	GR	GW	4			2	1	1				X	X	X	X	X	X	
2	LB-MW2-052316	5/23/16	1615	GR	GW	4			2	1	1				X	X	X	X	X	X	

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days) — Approved By / Date:
- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information
- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/24/16 1700	1 FEDX	2 FEDX	5/25/16 0915	2 [signature]
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #: NONE	Appropriate Bottle / Pres. Y/N; Labels match Coc? Y / N; Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice Y/N	Cooler Temp. 4.2/5.2

C45945X: Chain of Custody
Page 1 of 6

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

2 of 5 A2 5/25

FED-EX Tracking # 8085 3902 4861

Bottle Order Control # C45945

Accutest Quote #

Accutest NC Job #: C C45945

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 W. Elliot Road # 101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wetmington
Phone #: 480-477-
Samplers's Name: Greg Roussos

Project Information

Project Name: LA BAJADA
Street:
City: State:
Project #:
EMAIL: b.wetmington@westonsolutions.com
Client Purchase Order #:

Requested Analysis

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Radium (226/228)	Dissolved metals	TDS	Total Alk/Carbonate/Bicarbonate/Hydroxide	Chloride / Sulfate	Nitrate + Nitrite	LAB USE ONLY
3	LB-SW1-052316	5/23/16	1409	GR	SW	4			2	1	1				X	X	X	X	X	X	
4	LB-SW2-052316	5/23/16	1300	GR	SW	4			2	1	1				X	X	X	X	X	X	

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI- Oil
WP- Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

A2

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/24/16	FEDX	FEDX	5/25/16 0915	
2	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
		1700				
3	Relinquished by:	Date Time:	Received By:	Custody Seal #	Appropriate Bottle / Pres. Y / N	Headspace Y / N	On Ice Y / N	Cooler Temp
4				NONE	Labels match Coc? Y / N	Separate Receiving Check List used: Y / N		3.5/4.5
5								IR7

3 of 5
A2 5/25

PHOENIX
ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4850

FED-EX Tracking #	Bottle Order Control # C45945
Accutest Quote #	Accutest NC Job #: C C45947

Client / Reporting Information

- Company Name: Weston Solutions
- Address: 960 W. Elliot Rd #101
- City: Tempe State: AZ Zip: 85284
- Project Contact: Barb Wetherington
- Phone #: (480) 477-4911
- Samplers's Name: Greg Roussos

Project Information

- Project Name: LA BAJADA
- Street:
- City: State:
- Project #:
- EMAIL: b.wethington@westonsolutions.com
- Client Purchase Order #:

Requested Analysis: Dissolved metals 200.7/200.8; R+226 + R+228; TDS; Total Alk/Carbonate/Bicarbonate/Hydroxide; Chloride/Sulfate; Nitrate + Nitrite/TKN

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals 200.7/200.8	R+226 + R+228	TDS	Total Alk/Carbonate/Bicarbonate/Hydroxide	Chloride/Sulfate	Nitrate + Nitrite/TKN	LAB USE ONLY
5 1	LB-MW5-052416	5/24/16	1330												X	X	X	X	X	X	
6 2	LB-MW4-052416	5/24/16	1400												X	X	X	X	X	X	

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days) — Approved By / Date:
- ☐ 10 Day
- ☐ 5 Day
- ☐ 3 Day
- ☐ 2 Day
- ☐ 1 Day
- ☐ Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information
- ☐ Commercial "A" - Results only
- ☐ Commercial "B" - Results with QC summaries
- ☐ Commerical "B+" - Results, QC, and chromatograms
- ☐ FULT1 - Level 4 data package
- ☐ EDF for Geotracker ☐ EDD Format ____
- Provide EDF Global ID ____
- Provide EDF Logcode: ____

Comments / Remarks

A2

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1 (Sampler) [signature]	5/24/16 1700	1 FEDX	2 FEDX	5/25/16 0915	2 [signature]
3		3	4		4
5		5	Custody Seal # NONE		

Appropriate Bottle / Pres. Y/N; Headspace Y/N; On Ice Y/N; Cooler Temp. 2.9/3.9
Labels match Coc? Y / N; Separate Receiving Check List used: Y / N

C45945X: Chain of Custody
Page 3 of 6

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4894 — 4 of 5 — AZ 5/25

FED-EX Tracking #	Bottle Order Control # C45945
Accutest Quote #	Accutest NC Job #: C C45945

Client / Reporting Information

- Company Name: Weston Solutions
- Address: 960 W. Elliot Rd. #101
- City: Tempe State: AZ Zip: 85284
- Project Contact: Barb Wethington
- Phone #: (480) 477-4911
- Samplers's Name: Greg Roussos

Project Information

- Project Name:
- Street:
- City: State:
- Project #:
- EMAIL: b.wethington@westonsolutions.com
- Client Purchase Order #:

Requested Analysis: Dissolved metals; RA226 + RA 228; TDS; Total Alk (Carbonate/Bicarbonate/Hydroxide); Chloride/Sulfate; Nitrate + Nitrite/TKN

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals	RA226 + RA 228	TDS	Total Alk (Carbonate/Bicarbonate/Hydroxide)	Chloride/Sulfate	Nitrate + Nitrite/TKN	LAB USE ONLY
7	LB-MW7-052416	5/24/16	1133	GR	GW	4 (12)			2	1	1				X	X	X	X	X	X	

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days) — Approved By / Date:

- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commercial "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format____
- Provide EDF Global ID ____
- Provide EDF Logcode: ____

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/24/16 1700	1 FEDX	2 FEDX	5/25/16 0915	2 [signature]
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # NONE	Appropriate Bottle / Pres. Y/N; Labels match CoC? Y / N; Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice (Y)/N	Cooler Temp. ~~2.7/3.5~~ 2.7/3.7

C45945X: Chain of Custody
Page 4 of 6

PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

8085 3902 4872

5 of 5
AZ 5/25

FED-EX Tracking #: 8085 3902 4872 | Bottle Order Control #: C45945
Accutest Quote #: | Accutest NC Job #: C C45945

Client / Reporting Information

Company Name: Weston Solutions
Address: 980 W. Elliot Rd #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Nethington
Phone #: 480-477-4911
Samplers's Name: Greg Boussos

Project Information

Project Name: LA Bajada
Street:
City: State:
Project #:
EMAIL: b.nethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals	RA226 + RA228	TPS	TPH AK41/Carbonate/Bicarbonate/Hydroxide	Chloride/Sulfate	Nitrate-Nitrite/TKN	LAB USE ONLY
8	LB-MW3-052416	5/24/16	0813	GR	GW	4			2	1	1				X	X	X	X	X	X	
9	LB-MW3-052416-D	5/24/16	0813	GR	GW	4			2	1	1				X	X	X	X	X	X	

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-O-I WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/24/16	Fedex	Fedex	5/25/16 09:15	Ali Zeighami AZ
2	Relinquished by:	Date Time: 1700	Received By:	Relinquished By:	Date Time:	Received By:
3						
4	Relinquished by:	Date Time:	Received By:	Custody Seal # NONE	Appropriate Bottle / Pres. Y / N	Headspace Y / N	On Ice Y N	Cooler Temp. 5.1/6.1 °C
5					Labels match Coc? Y / N	Separate Receiving Check List used: Y / N		

SGS Accutest Sample Receipt Summary

Job Number: C45945 **Client:** WESTON SOLUTIONS **Project:** LA BAJADA

Date / Time Received: 5/25/2016 9:15:00 AM **Delivery Method:** FedEx **Airbill #'s:** 808539024883

Cooler Temps (Initial/Adjusted): #1: (4.2/5.2); #2: (4.2/5.2); #3: (3.5/4.5); #4: (2.9/3.9); #5: (2.7/3.7); #6: (5.1/6.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Therm ID:	IR3; IR3;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

C45945X: Chain of Custody
Page 6 of 6

APPENDIX C

Field Notes

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Project- La Bajada GW Monitoring
Client- United States Forest Service
Date- Monday, September 21, 2015
Personnel- Debbie Kenyon & Greg Poussos
Weather- Clear, Warm, ~88°F
Scope of work- Mobilize to the La Bajada Site and begin work.

0545- Meet up at office. Grab back-packs, paperwork, and tools to pack into the suitcase.
0600- Depart office and travel by airplane to Alburquerque (ABQ)
0950- Arrive in Albuquerque and get rental vehicle. Vehicle recieved was 4x4 Jeep Cherokee
1030- Depart airport and head to the Weston ABQ office.
1050- Arrive at Weston ABQ office. Load vehicle w/ equipment and bottles sent here by the lab and equipment store.
1120- Depart office. Head to Home Depot on exit 242 to by decon supplies, buckets, battery, and other various equipment.

Scale: 1 square = _____

9/21/15

1215 - Lunch Break
1240 - Head to the site to meet up with Jesse from the Pueblo.
1312 - Arrive at meeting location and see Jesse from the Pueblo. We will follow him back to the gate and then to the site as a refresher to find the road.
1400 - Get to the third river crossing. We are unable to cross due to the soft sands on the east side of the river. Jesse barely got across in his high clearance truck and we don't want to risk getting stuck.
1410 - Pack up to go and collect the surface samples up and downstream
1420 - Calibrate YSI.
pH calibrates to 3.97, 6.99, 10.02
ORP calibrates to 238.6 mV
cond calibrates to 1,322 $\mu S/cm^3$
DO calibrates to 100% (good)
1445 - Depart vehicle and cross the river to get into Jesse's truck.
*Will stop along the way and fix road as needed.

Scale: 1 square = _____

9/21/15

1510 - Arrive at downstream location.
GPS point - #12 (0389403/3934385)
stream width - 8.0 feet
collect 500 mL at 2, 4, 6 feet in each pass. Make 5 passes
Water Quality Parameters:
DO - 11.11 mg/L
ORP - 175.2 mV
pH - 8.46
temp - 19.24 °C
cond. - 464 $\mu S/cm^3$
*Samples filtered at truck.
Photo's collected:

#	Direction	Description
815	W	collecting sample
816	W	collecting sample
817	E	upstream
818	W	downstream
819	S	surrounding area
820	N	surrounding area

1528 - Head to next location.
1540 - Arrive at upstream location
GPS point - #13 (0391029/3934745)
stream width - 8.5 feet
collect 500 mL @ 2, 4, 6 feet in each pass. Make 5 passes.

Scale: 1 square = _____

Water Quality Parameters:
DO - 11.48 mg/L
ORP - 152.6 mV
pH - 8.52
temp - 18.77°C
cond. - 449 µS/cm³
*Samples filtered at truck

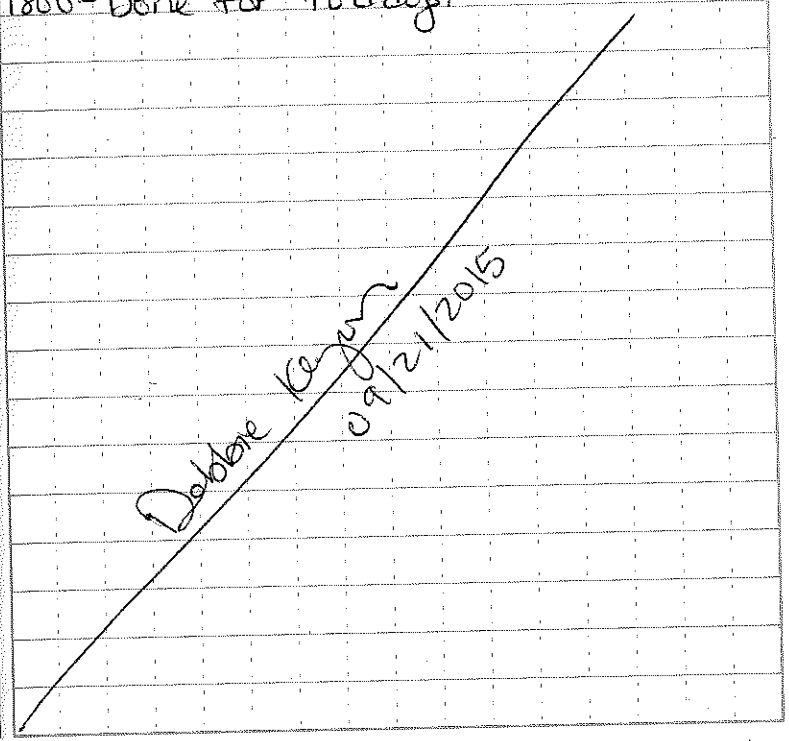
Photo's collected:

#	Direction	Description
821	W	Downstream
822	E	upstream
823	S	surrounding area

1604 - Depart Site w/ Jesse and head back to truck. We are going to head to Santa Fe and see if we can get 4x4 truck so we can drive to wells.
1640 - Depart Site. Head to Santa Fe.
1720 - Call Barb to check in and discuss site conditions. Explain we need a 4x4 high clearance truck to get back to the Site. Road is to rocky and ~~crec~~ river surroundings are soft. However, no trucks available in Santa Fe or ABQ due to a

Scale: 1 square = _____

recall of trucks by Chevy. We will have to keep vehicle. It is agreed that we will try and sample using the peristaltic pump so we don't have to carry as much ~~vehicle b~~ equipment back. We will try again on Tuesday.
1745 - Arrive at hotel. Unload the equipment.
1800 - Done for today.



Scale: 1 square = _____

Project- La Bajada GW Monitoring
Client- United States Forest Service
Date- Tuesday, September 22, 2015
Personnel- Debbie Kenyon & Greg Roussos
Weather- Cloudy to Partly Cloudy ~80°F
Scope of Work- Collect depth to water from each well and begin purge and sample activities.

0630- Depart hotel and head to Site.
0700- Arrive at gate to site and meet w/ Jesse from the Pueblo. He can not go back with us today. Gives cell phone and says to call if we get stuck.
0715- Head back to the third crossing and stop/park.
0730- Health & Safety briefing. Discuss weather, PPE, hydrations, lifting, slips/trips/falls, biological critters
0745- Calibrate YSI and turbidity meter
*Pack-up and prepare to depart vehicle for the day.
0803- Depart vehicle and head to the site wells. We will stop and gauge depth to water in each of the site wells as we head east.
0815- Arrive at MW-7.

Depth to water measurements are:

Time	Well	DTW	DTB
0818	MW-7	13.43	53.30
0852	MW-6	Dry	27.72
0905	MW-5	25.92	27.35
0910	MW-4	35.87	54.63
0919	MW-3	21.23	51.04
0932	MW-2	20.03	50.13
0937	MW-1	19.17	34.71
0943	MW-0	Dry	4.82

*Well MW-0 appears to be broken at 1.5 feet down.
*Depth to water for MW-7 is very different. Will recheck before sampling.

photo's collected:

#	Direction	Description
824	NE	Gauging well MW-0
825	NE	Gauging well MW-0.

0946- Head to well MW-1 to set-up and start well purge/sampling.
0954- Begin purging well MW-1.
*Details and water parameters

Scale: 1 square = _____

logged onto sampling sheet.
1030- Begin collecting sample. water parameters stabalized.
1110- All sample bottles full. Turn off pump and pull tubing. photo's collecting

#	Direction	Description
826	N	sampling equipment
827	N	sampling equipment
828	Down	sampling equipment

1123- Head to monitoring well MW-2.
1127- Arrive at well MW-2. Begin setting up to purge using the peristaltic pump.
1134- Begin purging well MW-1.
*Details and water parameters logged onto sampling sheet.
1205- Begin collecting sample. Water parameters stabalized.
1250- All sample bottles full. Turn off pump and pull tubing. Pack up to head to well MW-3. photo's collected

#	Direction	Description
829	NW	collecting sample
830	NE	well & equipment

Scale: 1 square = _____

9/22/15

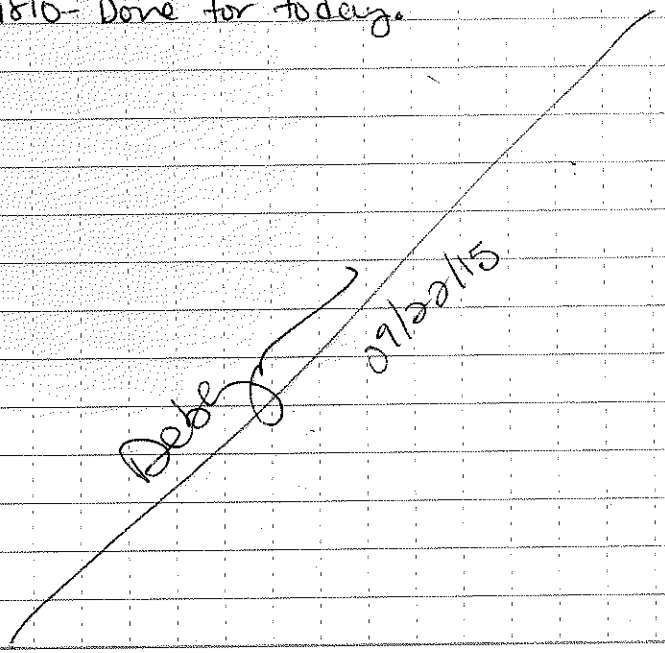
#	Direction	Description
831	N	well & Surrounding area
832	E	well & Surrounding area
833	S	well & Surrounding area
834	W	well & Surrounding area

1357 Head to well MW-3.
1305- Arrive at well MW-3. Begin setting up to purge using the Peristaltic Pump
1312- Begin purging well MW-3.
*Details and water parameters logged onto sampling sheet
-Flow is very slow
1348- Begin collecting water sample and duplicate sample. Water parameters stabalized.
1555- Done with filling water bottles. (including duplicate). Turn off pump and pull tubing. Pack-up and prepare to head back to vehicle. photo's collected

#	Direction	Description
835	N	well & surrounding area
836	E	well & surrounding area
837	S	well & Surrounding
838	W	well & Surrounding

Scale: 1 square = _____

1620- Begin hiking back to truck. Dark clouds overhead and starting to rain. Wind picking up.
1650- Arrive back at vehicle. Unload and pack vehicle. Prepare to depart the Site.
1715- Depart Site. Lock gate on way out. Call Barb and let her know that MW-0 & MW-6 Dry. Fill her in on the day's activities.
1800- Arrive back at hotel. Unload equipment to rooms.
1810- Done for today.



Scale: 1 square = _____

Project- La Bajada GW Monitoring
Client- United States Forest Service
Date- Wednesday, September 23, 2015
Personnel- Debbie Kenyon & Greg Roussis
Weather- Partly Cloudy, Breezy ~80°F
Scope of work- Finish purging wells and collecting samples.

0630- Depart hotel and head to Site.
0707- Arrive at gate on-site and meet up with Jesse from the Pueblo. He will not be coming out with us today as he is busy on other projects.
0715- Head back and park in same area as previous 2 days.
0730- Health and Safety briefing. Discuss slips/trips, falls, lifting/carrying weight, biological hazards, PPE,
0745- Calibrate YSI and turbidity meeter *Pack up and prepare to depart the vehicle for day.
0805- Depart vehicle and head to MW-4. Will start furthest out and work our way back.
0823- Arrive at MW-4. Set-up on well to purge and sample using

Scale: 1 square = _____

the peristaltic pump.

0834- Begin trying to purge well. Well will not purge through. Small drops of water and lots of air in line. Try to troubleshoot by checking depth of tubing, pump in right direction for flow, and all is connected correctly. Water level is deeper than the wells from day before so it appears the pump cannot get enough pressure to pump the well. We will pull out and go try MW-5. Will need to come back with the bladder pump to do purge.

0945- Try well MW-5. Well will not purge with the peristaltic pump. We will purge MW-7 on way back to vehicle to get bladder pump.

1005- Arrive at well MW-7. Set-up on well to purge using peristaltic pump

1021- Begin purging well MW-7. Purge details logged onto the sampling form

* While purging, Greg will hike back to vehicle and get bladder pump to the wells so we save time.

1055- Begin collecting sample. Water parameters stabalized.

1155- All sample bottles full. Turn off pump and pull tubing. photo's collected

#	Direction	Description
841	N	equipment
842	NE	set-up to purge
843	SE	set-up to purge
844	N	well & surround area
845	E	well & surrounding area
846	S	well & surrounding area
847	W	well & surrounding area

* will leave peristaltic pump and sample under tree by road and hike it out at end of day.

1203- Head to monitoring well MW-5. Well already set-up to purge. Connect battery and tubing

1209- Begin purging well MW-5 using the bladder pump. Only 1.5 feet of water so will watch water column & drawdown.

* Details and water parameters logged onto sampling sheets.

1245 - Begin collecting sample. Although turbidity above 10 NTUs, water quality parameters have stabalized
1345 - All sample bottles full. Turn off pump and pull tubing.
Photo's collected

#	Direction	Description
848	E	purging well / collect sample
849	NW	purging well
850	SE	purging well
851	N	well & surrounding area
852	E	well & surrounding
853	S	well & surrounding
854	W	well & surrounding

1400 - Head to well MW-4. Set-up equipment to purge.
1423 - Begin purging well MW-4.
*Greg is going to hike all materials no longer needed back to vehicle. Debbie work on purge.
1433 - Battery is dead. Well no longer pumping. Greg had returned for something. Decide we will both hike back all we can and then get the car battery to finish purging the well.

9/23/15

1440 - Hike back to vehicle. Pick up peristaltic pump & MW-7 samples.
1450 - Arrive back at vehicle. Greg is getting ~~back~~ battery out of car.
1545 - Battery out. Begin hike back to well MW-4 to get sample.
1600 - Begin purging well MW-4 again.
1620 - Begin collecting sample. Water parameters stabalized.
1655 - All sample bottles full. Turn-off pump and pull tubing.
*MS/MSD was collected earlier at Well MW-7.
Photo's collected

#	Direction	Description
855	N	well & surrounding
856	E	well & surrounding
857	S	well & surrounding
858	W	well and surrounding

1712 - Begin final hike back to vehicle. All remaining equipment & samples coming back.
1735 - Arrive back at vehicle. Decon equipment and pack-up vehicle.
1800 - Collect equipment blank sample using bladder pump.

Scale: 1 square = _____

Scale: 1 square = _____

9/23/2015

1825- Depart Site. Head to gas station to thoughorly ice down samples.
1900- Arrive at Gas Station. Buy ice and ice down samples
1920- Depart gas station. Head to ABQ.
1950- Arrive at hotel. Finish packing equipment and complete COCs.
2020- Done for today.

Debbie V 9/23/2015

Scale: 1 square = _____

1/12/16 LA BAJADA G. ROUSSOS

0700 G. Roussos and R. Waters on site & will wait for Jesse (tribe) to open locked gate. Weather is clear, 10°F, high of 40°F today. Recently weather has been cold & very wet. Several inches of snow has fallen in the past weeks. Met Jesse, he will be on site with us all day today and tomorrow. Plan to do all surface water sampling first then gauging. ——— RR

0730 onsite, H&S meeting held, driving onsite & cold are the biggest issues today. ——— RR

0735 begin calibrating YSI S/N 11F10281
cond. 1421 → 1000 us/cm
pH 3.52 → 4.00
6.52 → 7.00
6. 9.63 → 10.00 RR

0800 begin to collect water for down stream SW sample. River measures 8' Across. 500 mL Aliquots taken from 2', 4', & 6' from shore. Total of 3 gallons collected. RR

Scale: 1 square = _____

1/12/16 LA BAJADA G. ROUSSOS

water quality from down stream SW sample:

temp −0.72°C
cond 773 uS/cm
%O_2 68.5%
DO 10.11 mg/L
pH 7.95
~~ORP +10.9 mV~~
ORP 28.6

812 start gauging all wells

MW-7	13.12'
MW-6	dry
MW-5	25.56
MW-4	35.09
MW-3	20.62
MW-2	18.15
MW-1	18.59
MW-0	dry, DTB 4.80

dry mud on probe tip

900 begin to collect water for upstream SW sample

stream is 9' wide, 2 aliquots collected at 2', 4', 6' from bank, 3 gallons collected

1/12/16 LA BAJADA G. ROUSSOS

photos collected:

005	down stream	sampling
006	up stream	sampling
007	across stream	ice

water quality:

temp	−0.58°C
cond	759 uS/cm
%O_2	29.7%
DO	4.19 mg/L
pH	9.31
ORP	−27.7

0915 contaminated SW-1 & SW-2 filtering bottles for dissolved metals. all samples stored on ice.

0946 begin to purge MW-1, details recorded on purge log

1020 LB-MW1-011216 collected metals was filtered

1050 photos collected

008	west	overview of
009	north	MW-1
010	east	conditions
011	south	
012	———	close up

Scale: 1 square = _____

Scale: 1 square = _____

1/12/16 LA BAJADA G. ROUSSOS

1052 collected photos of MW-0
- 013 looking N
- 014 looking E
- 015 looking S
- 016 looking W
- 017 close up / down

1108 arrive & begin to purge -MW2, details on log

1140 collected sample LB-MW2-011216 | dissolved metals was filtered.

1201 finished filling all bottles

1203 photos collected
- 018 looking N
- 019 looking E
- 020 looking S
- 021 looking W
- 022 close up

1250 begin collecting samples LB-MW3-011216 ← LB-MW3-011216

1322 photo 023 / west / sampling pt.

1352 photos collected of MW-3
- 023 looking N
- 024 looking E
- 025 looking S
- 026 looking W
- 027 close up looking S

Scale: 1 square = _____

1/12/16 LA BAJADA G. ROUSSOS

** 1345 completed filling all bottles | dissolved metals bottles was filtered

1400 collected photos at MW-6
- 028 looking N
- 029 looking E
- 030 looking S
- 031 looking W
- 032 close up W

1412 arrive @ MW7 & begin to purge, details on purge log

1440 begin to collect sample LB-MW7-011216. dissolved metals was filtered — MS/MSD volume collected

1521 all sample bottles filled | begin to pack up all equipment

1535 all personel off site, plan to meet @ 8am tomorrow

1630 phone call w/ PM B. Wetmington to update on field activities from today.

1/12/16

Scale: 1 square = _____

1/13/16 LA BAJADA G. ROUSSOS

0800 G. Roussos, R. Waters, + Jesse onsite @ locked gate. Plan for the day to sample remaining wells + ship samples. H+S meeting: cold, driving, + slips/trips/falls

0810 begin to calibrate:
- cond: 1847 → 1413
- pH: 11.65 → 10
- 6.14 → 7
- 4.08 → 4

852 begin to purge MW5 w/ bladder pump. unable to produce water, had to place pump on bottom of well, water column is small.

0907 begin to purge MW5

0922 photo #39, N, bladder pump setup on MW-5

940 collect sample LB-MW5-011316

1020 finish filling bottles, metals sample was filtered.

1035 collect sample LB-EB1-011316

1044 collected photos of MW-4
- 0040 view looking N
- 041 looking E
- 042 looking S
- 043 looking W

1/13/16 LA BAJADA G. ROUSSOS

0044 close up view W

1051 set up on ~~MW-5~~ MW-4, begin to purge. details on purge log

1125 collect sample LB-MW4-011316 metals bottle 13 filtered

1152 all bottles are filled, begin to pack up

1200 photos collected at MW-4
- 045 view N
- 046 view E
- 047 view S
- 048 view W
- 049 close up view W

1210 all packed up begin drive off site.

1230 All personell off site, called PM B. Wetnington for status update

1515 All samples/equipment packed + dropped off at FedEx.

1/13/16

MONITORING WELL SAMPLING LOG

Well ID:	Site / Sampling Event:		
MW-1	La Bajada GW / ~~August 2015~~ September 2015		
Purged by:	**Date:**	**Weather:**	
D. Kenyon / G. Rousos	9/22/2015	Partly Cloudy, ~85°F	
Measurement Reference Point:	**Sample Number:**		
northside of casing	LB-MW1-092215		
Static Water Level:	**Well Depth:**	**Well Screen Interval:**	**Initial Time:**	**Final Time:**
19.17	34.71	Unknown	0954	1110
Casing Diameter:	**Bore Volume:**	**Pump Type:**	**Depth to Pump:**	**Filtered Sample:**
4"		Peristaltic Pump ~~QED Bladder Pump~~	30 feet	metals only

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1000	19.20	6.64	17.18	6666	209.4	7.03	4.94	215	
1005	19.35	6.57	17.29	6663	225.8	9.59	4.016	200	
1010	19.47	6.57	16.89	6662	232.6	5.31	3.49	200	
1015	19.58	6.62	16.83	6661	237.5	7.32	2.41	200	
1020	19.70	6.66	16.77	6658	238.6	7.44	2.95	190	
1025	19.82	6.666	17.11	6657	240.2	3.80	2.38	190	
1030	19.95	6.73	18.20	6656	240.6	5.01	2.02	180	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1030	19.95	6.73	18.20	6656	240.6	5.01	2.02	180	

Discharge Time: 11:10 Roadbox VOC: **n/a** Well cap in place? (Yes) / No
Fill Time: 40 minutes Well Headspace VOC: **n/a** Lock in place? (Yes) No
Fill Rate: 180 mL/min

Stabilization Criteria from the OEPA Technical Guidance Manual for Ground Water Investigations:

(Yes) / No	pH	± 0.1 SU	(Yes) / No	ORP	± 10 mV
(Yes) / No	Temp	± 0.5 °Celsius	~~(Yes) / No~~	DO	± 10% or ± 0.2 mg/L (whichever is greater)
(Yes) / No	Cond.	± 3%	(Yes) / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes: DO is jumpy.

MONITORING WELL SAMPLING LOG

Well ID: MW-2	Site / Sampling Event: La Bajada GW / ~~August 2015~~ September 2015			
Purged by: D. Kenyon / G. Roussos	Date: 09/23/2015	Weather: Partly Cloudy, ~85°		
Measurement Reference Point: North side of casing	Sample Number: LB-MW2-092215			
Static Water Level: 20.02	Well Depth: 50.13	Well Screen Interval: Unknown	Initial Time: 11:34	Final Time: 12:50
Casing Diameter: 4	Bore Volume:	Pump Type: Penstaltic Pump ~~QED Bladder Pump~~	Depth to Pump: 35 feet	Filtered Sample: metals only

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1135	20.02	7.55	19.79	570	79.9	9.26	19.6	168	
1140	20.05	6.75	16.89	536	142.6	6.87	5.35	170	
1145	20.10	6.76	16.95	533	161.1	6.35	3.96	170	
1150	20.09	6.79	16.68	534	171.2	5.67	3.41	170	
1155	20.09	6.83	17.09	533	179.3	5.62	4.14	170	
1200	20.09	6.84	17.22	533	188.3	5.99	4.62	170	
1205	20.09	6.88	17.13	530	194.6	5.98	5.01	170	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1205	20.09	6.88	17.13	530	194.6	5.98	5.01	170	

Discharge Time:
Fill Time: 45 minutes
Fill Rate: 170 mL/min
Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**
Well cap in place? (Yes) / No
Lock in place? (Yes) / No

Stabilization Criteria from the OEPA Technical Guidance Manual for Ground Water Investigations:

(Yes) / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
(Yes) / No	Temp	± 0.5 °Celsius	(Yes) / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
(Yes) / No	Cond.	± 3%	(Yes) / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes:

MONITORING WELL SAMPLING LOG

Well ID: MW-3	Site / Sampling Event: La Bajada GW / ~~August 2015~~ September 2015			
Purged by: D. Kenyon/G. Roussos	Date: 09/22/2015	Weather: Partly Cloudy, ~85°F		
Measurement Reference Point: North side of casing	Sample Number: ~~Partly Cloudy, 08825~~ LB-MW3-092215			
Static Water Level: 21.22	Well Depth: 51.04	Well Screen Interval: unknown	Initial Time: 1315	Final Time: 1555
Casing Diameter: 4	Bore Volume:	Pump Type: Peristaltic Pump ~~QED Bladder Pump~~	Depth to Pump: 40 feet	Filtered Sample: metals only

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1315	21.40	6.66	18.94	1582	104.2	3.09	7.73	125	
1320	21.50	6.39	20.08	1570	129.0	3.15	7.44	125	
1325	21.58	6.34	20.07	1575	139.5	3.12	8.37	125	
1330	21.70	6.28	20.40	1574	145.9	1.89	8.26	125	
1335	21.75	6.17	20.88	1576	163.0	1.88	8.69	125	
1340	21.73	6.13	20.40	1575	177.4	1.03	7.92	125	
1345	21.76	6.04	21.09	1580	189.6	0.71	8.02	125	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1348	21.75	6.14	21.06	1576	180.2	0.92	8.03	125	

Discharge Time:
Fill Time: 2 hrs. 7 min
Fill Rate: 125 mL/min
Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**
Well cap in place? (Yes) / No
Lock in place? (Yes) / No

Stabilization Criteria from the OEPA Technical Guidance Manual for Ground Water Investigations:

(Yes) / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
(Yes) / No	Temp	± 0.5 °Celsius	(Yes) / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
(Yes) / No	Cond.	± 3%	(Yes) / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes: Duplicate sample LB-MW3-092215D collected. Time 1350

MONITORING WELL SAMPLING LOG

Well ID: MW-4	Site / Sampling Event: La Bajada GW / ~~August 2015~~ September 2015			
Purged by: D. Kenyon / G. Roussos	Date: 09/23/2015	Weather: Cloudy, Breezy ~80°F		
Measurement Reference Point: North side of casing	Sample Number: LB-MW4-092315			
Static Water Level: 35.85	Well Depth: 54.50	Well Screen Interval: unknown	Initial Time: 1421	Final Time: 1655
Casing Diameter: 4	Bore Volume:	Pump Type: QED Bladder Pump	Depth to Pump: 40 feet	Filtered Sample: metals only

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1423	35.85	6.71	17.80	815	95.7	1.70	24.5	300	
1428	35.86	6.54	17.76	807	124.2	1.47	17.4	275	
1433	35.86	6.54	18.35	808	138.5	1.48	15.1	250	
1604 ~~1604~~	35.86	6.34	18.34	812	128.3	1.56	10.9	300	
1609 ~~1609~~	35.86	6.37	18.01	810	163.2	1.45	8.81	300	
1614 ~~1348~~	35.86	6.16	17.23	807	191.1	1.34	7.17	300	
1619 ~~1353~~	35.86	6.22	16.89	807	199.7	1.40	6.97	300	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1655	35.86	6.33	17.75	806	205.0	1.40	5.86	300	

Discharge Time:
Fill Time: 30 minutes
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? (Yes) No
Lock in place? (Yes) No

Stabilization Criteria from the OEPA Technical Guidance Manual for Ground Water Investigations:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes:

MONITORING WELL SAMPLING LOG

Well ID: MW-5	Site / Sampling Event: La Bajada GW / ~~August 2015~~ September 2015			
Purged by: D. Kenyon / G. Rousos	Date: 09/23/2015	Weather: Sunny, Breezy, ~80°F		
Measurement Reference Point: North side of casing	Sample Number: LB-MW5-092315			
Static Water Level: 25.94	Well Depth: 27.35	Well Screen Interval: unknown	Initial Time: 1209	Final Time: 1348
Casing Diameter: 3	Bore Volume:	Pump Type: QED Bladder Pump	Depth to Pump: 27.30	Filtered Sample: metals only

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1212	26.15	7.06	16.52	678	74.5	2.91	31.1	215	
1217	26.18	6.72	18.05	574	78.5	1.87	27.7	105	
1222	26.19	6.72	19.10	575	51.1	1.91	22.8	105	
1227	26.19	6.78	19.99	575	21.7	1.64	21.9	105	
1232	26.19	6.80	20.43	575	14.5	1.61	20.5	105	
1237	26.19	6.79	20.89	577	3.1	1.56	18.0	90	
1242	26.19	6.80	21.55	577	0.9	1.52	17.3		

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1345	26.38	6.80	22.19	578	-15.9	1.54	16.5		

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria from the OEPA Technical Guidance Manual for Ground Water Investigations:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes:

1345

MONITORING WELL SAMPLING LOG

Well ID: MW-7	Site / Sampling Event: La Bajada GW / ~~August 2015~~ September 2015			
Purged by: D. Kenyon / G. Roussos	Date: 09/23/2015	Weather: Sunny, Breezy, ~80°F		
Measurement Reference Point: North side of casing	Sample Number: LB-MW7-092315			
Static Water Level: 13.43	Well Depth: 53.30	Well Screen Interval: Unknown	Initial Time: 1021	Final Time: 1155
Casing Diameter: 4	Bore Volume:	Pump Type: Peristaltic Pump ~~QED Bladder Pump~~	Depth to Pump: ~40 feet	Filtered Sample: metals only

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1023	13.43	6.81	15.77	636	134.0	2.80	5.40	450	
1028	13.43	6.52	16.91	622	174.3	2.01	3.91	~~371~~ 320	
1033	13.44	6.50	16.97	619	185.6	1.98	2.09	320	
1038	13.43	6.49	17.12	617	201.4	1.97	2.87	320	
1043	13.43	6.47	17.31	611	216.3	2.10	2.61	320	
1048	13.43	6.47	17.05	613	223.9	2.01	3.08	320	
1053	13.43	6.47	17.32	607	233.1	2.23	2.38	320	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1055	13.43	6.48	17.28	609	238.6	2.10	2.56	320	

Discharge Time:
Fill Time: 1 hour
Fill Rate: 300 mL/min
Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**
Well cap in place? (Yes) / No
Lock in place? (Yes) / No

Stabilization Criteria from the OEPA Technical Guidance Manual for Ground Water Investigations:

(Yes) / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
(Yes) / No	Temp	± 0.5 °Celsius	(Yes) / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
(Yes) / No	Cond.	± 3%	(Yes) / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes: MS/MSD sample collected.

MONITORING WELL SAMPLING LOG

Well ID: MW1	Site / Sampling Event: La Bajada GW / January 2016				
Purged by: G. Roussos R. Waters	Date: 1/12/16	Weather:			
Measurement Reference Point: N	Sample Number: LB-MW1-011216				
Static Water Level: 18.59	Well Depth:	Well Screen Interval:	Initial Time: 946	Final Time: 1041	
Casing Diameter:	Bore Volume:	Pump Type: peristaltic	Depth to Pump: 30	Filtered Sample: metals	

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
0950	18.68	8.09	8.25	1069	-40.3	3.99	0.95	375	
0955	18.82	7.49	14.10	1112	-45.9	1.32	49.0		
1000	18.95	7.52	14.32	1126	-71.7	1.27	49.0		
1005	19.10	7.53	14.29	1129	-63.8	1.34	63.2		
1090	19.27	7.53	14.36	1129	-66.0	16.12	57.5	320	#451 turned
1015	19.36	7.53	14.15	1129	-65.0	1.69	54.8		off O2 sensor
1020	19.50	7.51	14.08	1128	-69.1	1.42	50.0		is off now

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes: 19.89 final dtw

MONITORING WELL SAMPLING LOG

Well ID: MW-2	Site / Sampling Event: La Bajada GW / January 2016			
Purged by: G. Roussos / R. Waters	Date: 1/12/16	Weather:		
Measurement Reference Point: N	Sample Number: LB-MW2-011216			
Static Water Level: 18.18	Well Depth:	Well Screen Interval:	Initial Time: 1108	Final Time: 1201
Casing Diameter:	Bore Volume:	Pump Type: peristaltic	Depth to Pump: 35	Filtered Sample: metals

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1110	—	7.49	13.25	1057	-10.3	2.47	7.81	300	
1115	18.20	7.40	14.73	1052	-19.0	1.59	1.83		
1120	18.21	7.40	15.03	1052	-13.0	1.26	1.47		
1125	18.22	7.40	15.19	1050	-14.8	1.18	0.89		
1130	18.22	7.40	15.15	1051	-10.9	1.13	0.78		
1135	18.22	7.41	15.08	1050	-10.4	1.17	0.73		
1140	18.21	7.43	15.01	1049	-8.1	1.13	0.65		

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes:

MONITORING WELL SAMPLING LOG

Well ID: MW-3	Site / Sampling Event: La Bajada GW / January 2016			
Purged by: G. Roussos R. Waters	Date: 1/12/16	Weather:		
Measurement Reference Point: N	Sample Number: LB-MW3-011216 + -Dup			
Static Water Level: 20.62	Well Depth:	Well Screen Interval:	Initial Time: 1219	Final Time: 1345
Casing Diameter:	Bore Volume:	Pump Type: peristaltic	Depth to Pump: 40	Filtered Sample: metals

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1225	21.00	7.23	15.69	2622	-163.5	1.55	16.6	300	
1230	21.12	7.14	15.59	2592	-126.1	1.41	7.74	250	
1235	21.22	7.10	15.40	2549	-91.0	1.18	5.66	225	
1240	21.29	7.10	15.30	2554	-58.6	1.05	4.05	|	
1245	21.27	7.08	15.20	2575	-45.6	1.03	5.51	|	
1250	21.29	7.07	15.27	26.20	-27.4	0.97	3.29	|	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes: final atw 21.31

MONITORING WELL SAMPLING LOG

Well ID: MW-4	Site / Sampling Event: La Bajada GW / January 2016			
Purged by: G. Roussos R. Waters	Date: 1/13/16	Weather:		
Measurement Reference Point: N.	Sample Number: LB-MW4-011316			
Static Water Level: 35.08	Well Depth:	Well Screen Interval:	Initial Time: 1051	Final Time: 1152
Casing Diameter:	Bore Volume:	Pump Type: bladder	Depth to Pump: 40	Filtered Sample: metals

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (° C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1100	35.08	6.99	13.26	1361	105.9	4.18	22.9	250	
1105	35.08	6.95	14.01	1582	110.2	2.54	21.4		
1110	35.08	6.96	14.15	1580	107.7	2.34	21.5		
1115	35.08	6.96	14.13	1585	107.5	2.29	13.2		
1120	35.08	6.96	14.19	1584	107.9	2.14	8.86		
1125	35.08	6.96	14.18	1583	108.2	2.01	9.21		

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (° C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes:

MONITORING WELL SAMPLING LOG

Well ID: MW5			Site / Sampling Event: La Bajada GW / January 2016		
Purged by: G Roussos R. Waters			Date: 1/13/16	Weather:	
Measurement Reference Point: N			Sample Number: LB-MW5-01/13/16		
Static Water Level: 25.53	Well Depth:		Well Screen Interval:	Initial Time: 852	Final Time: 1020
Casing Diameter:	Bore Volume:		Pump Type: bladder	Depth to Pump: 26.3 (bottom)	Filtered Sample: metals

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
907	25.60								first water
910	25.65	7.43	10.52	1085	27.3	2.43	43.0	150	
915	25.70	7.40	11.23	1054	-12.8	1.52	34.9	"	
920	25.70	7.39	11.82	1047	-20.3	1.27	29.5	"	
925	25.80	7.35	12.96	1043	-30.6	1.20	19.6	100	
930	25.75	7.33	12.32	1041	-28.5	1.25	12.8	"	
935	25.77	7.30	12.84	1033	-34.7	1.24	9.07	"	
940	25.79	7.28	13.08	1051	-38.4	1.29	6.52	"	

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes:

MONITORING WELL SAMPLING LOG

Well ID: MW-7	Site / Sampling Event: La Bajada GW / January 2016			
Purged by: G. Rousos / Waters	Date: 1/12/16	Weather:		
Measurement Reference Point: N	Sample Number: LB-mw7-011216			
Static Water Level: 13.12	Well Depth:	Well Screen Interval:	Initial Time: 1416	Final Time: 1521
Casing Diameter:	Bore Volume:	Pump Type: peristaltic	Depth to Pump: 40	Filtered Sample: metals

Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
1420	13.14	7.42	13.16	1092	84.6	3.74	2.92	250	
1425	13.14	7.34	13.77	1060	84.6	2.40	1.64		
1430	13.15	7.34	13.57	1056	86.0	2.21	0.70		
1435	13.15	7.34	13.69	1047	87.0	2.08	0.31		
1440	13.15	7.35	13.24	1052	87.0	1.98	0.73		

Sample Time (hours)	Water Level (feet)	pH (S.U.)	Temp. (°C)	Specific Cond. (ohms/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Comments

Discharge Time:
Fill Time:
Fill Rate:

Roadbox VOC: **n/a**
Well Headspace VOC: **n/a**

Well cap in place? Yes / No
Lock in place? Yes / No

Stabilization Criteria:

Yes / No	pH	± 0.1 SU	Yes / No	ORP	± 10 mV
Yes / No	Temp	± 0.5 °Celsius	Yes / No	DO	± 10% or ± 0.2 mg/L (whichever is greater)
Yes / No	Cond.	± 3%	Yes / No	Turbidity	≤ 10 NTUs or ± 10% if > 10 NTU

Notes: 13.15 final dtw

APPENDIX D

Photograph Log

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PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling September 2015	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
1	9/21/2015

Direction Photo Taken:

East

Description:

Location of Sample SW-1 looking upstream

Photo No.	Date:
2	9/21/2015

Direction Photo Taken:

East

Description:

Location of Sample SW-2 looking upstream

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling September 2015	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
3	9/21/2015

Direction Photo Taken:

West

Description:

Collecting Sample SW-2

Photo No.	Date:
4	9/22/2015

Direction Photo Taken:

Northeast

Description:

Measuring depth to bottom of dry well, MW-0.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling September 2015	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
5	9/22/2015

Direction Photo Taken:

North

Description:

Monitoring well MW-1 with sampling equipment

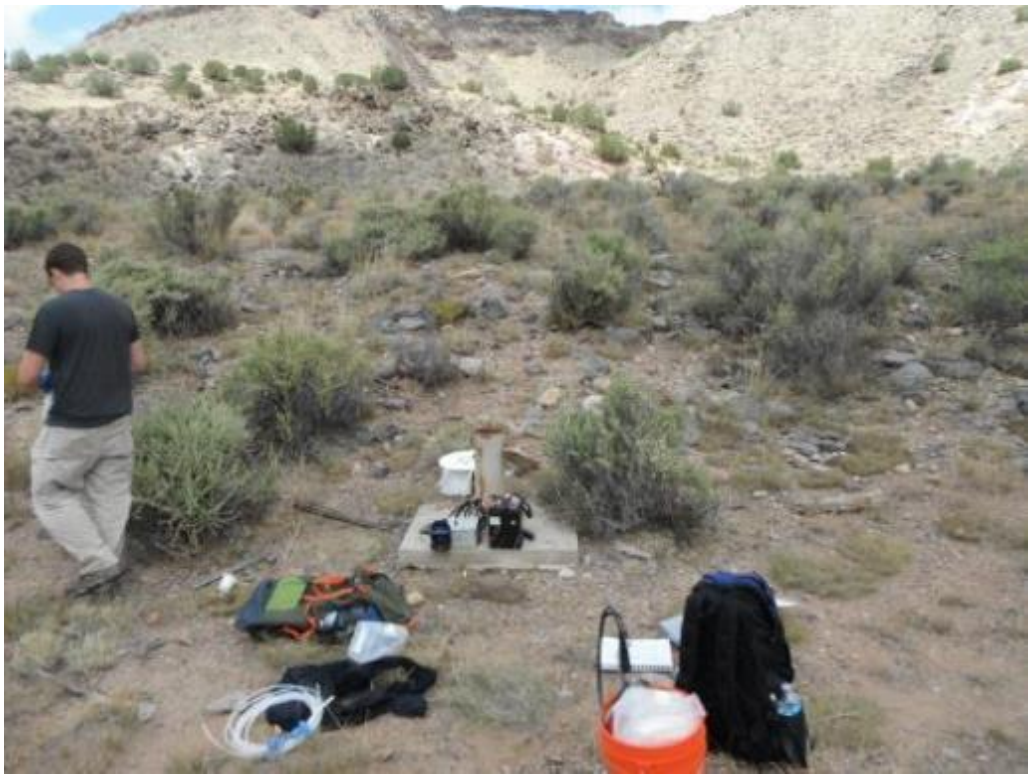
Photo No.	Date:
6	9/22/2015

Direction Photo Taken:

Northeast

Description:

Monitoring well MW-2 with sampling equipment



PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling September 2015	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
7	9/22/2015

Direction Photo Taken:

East

Description:

Monitoring well MW-3 and surrounding area.

Photo No.	Date:
8	9/23/2015

Direction Photo Taken:

North

Description:

Monitoring well MW-4 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling September 2015	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
9	9/23/2015

Direction Photo Taken:

Southeast

Description:

Monitoring well MW-5, purging with bladder pump

Photo No.	Date:
10	9/23/2015

Direction Photo Taken:

Northeast

Description:

Monitoring well MW-7 with sampling equipment.

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling January 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
11	1/12/2016

Direction Photo Taken:

East

Description:

Collecting Sample SW-1 looking upstream

Photo No.	Date:
12	1/12/2016

Direction Photo Taken:

East

Description:

Collecting Sample SW-2 looking upstream

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling January 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
13	1/12/2016

Direction Photo Taken:

East

Description:

Monitoring well 0 and surrounding area

Photo No.	Date:
14	1/12/2016

Direction Photo Taken:

Northeast

Description:

Monitoring well 1 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling January 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
15	1/12/2016

Direction Photo Taken:

North

Description:

Monitoring well 2 and surrounding area

Photo No.	Date:
16	1/12/2016

Direction Photo Taken:

East

Description:

Monitoring well 3 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling January 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
17	1/13/2016

Direction Photo Taken:

North

Description:

Monitoring well 4 and surrounding area

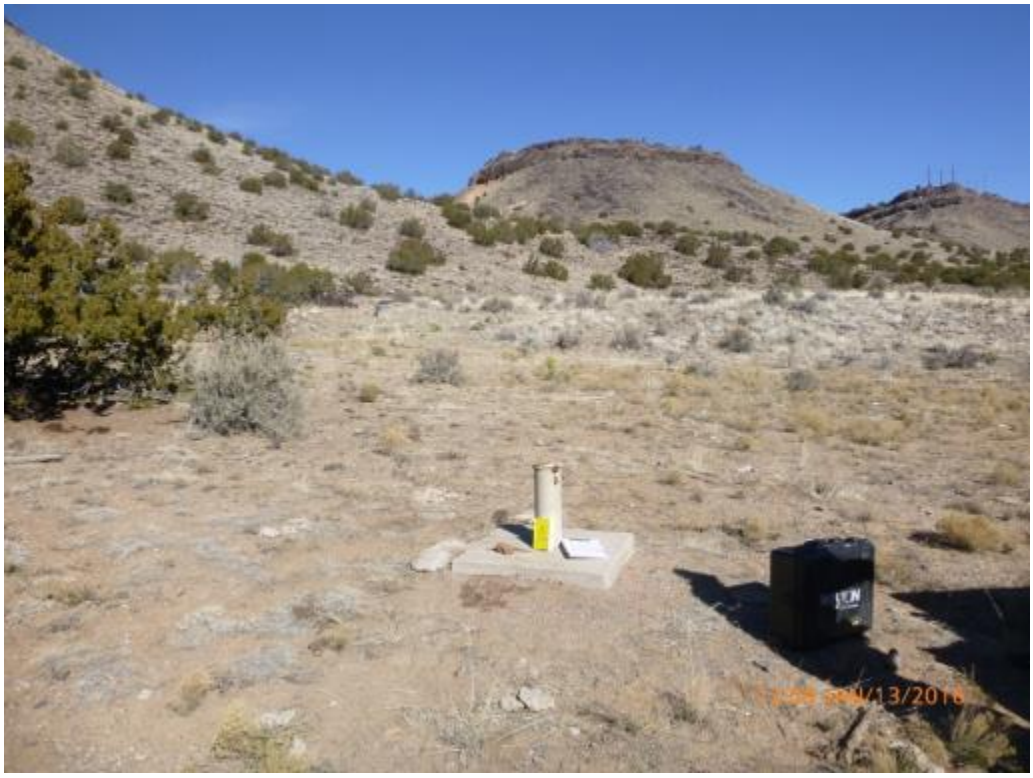


Photo No.	Date:
18	1/13/2016

Direction Photo Taken:

West

Description:

Monitoring well 5 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling January 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
19	1/12/2016

Direction Photo Taken:

East

Description:

Monitoring well 6 and surrounding area

Photo No.	Date:
20	1/12/2016

Direction Photo Taken:

North

Description:

Monitoring well 7 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling January 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
21	1/12/2016

Direction Photo Taken:

East

Description:

Peristatic pump sampling MW-3 along with sampling equipment

Photo No.	Date:
22	1/13/2016

Direction Photo Taken:

East

Description:

Bladder pump purging MW-5 along with sampling equipment

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling May 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
23	5/23/2016

Direction Photo Taken:

East

Description:

Collecting SW-1, looking upstream

Photo No.	Date:
24	5/23/2016

Direction Photo Taken:

East

Description:

Collecting SW-2, looking upstream

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling May 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
25	5/23/2016

Direction Photo Taken:

North

Description:

MW-0 and surrounding area

Photo No.	Date:
26	5/23/2016

Direction Photo Taken:

West

Description:

MW-1 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling May 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
27	5/23/2016

Direction Photo Taken:

East

Description:

MW-2 and surrounding area

Photo No.	Date:
28	5/23/2016

Direction Photo Taken:

West

Description:

MW-3 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling May 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
29	5/23/2016

Direction Photo Taken:

North

Description:

MW-4 and surrounding area

Photo No.	Date:
30	5/23/2016

Direction Photo Taken:

East

Description:

MW-5 and surrounding area

PHOTOGRAPH LOG

Project Name:	Site Location:	Project No.
La Bajada Groundwater Sampling May 2016	Santa Fe National Forest, New Mexico	12767.201.001

Photo No.	Date:
31	5/23/2016

Direction Photo Taken:

East

Description:

MW-6 and surrounding area

Photo No.	Date:
32	5/23/2016

Direction Photo Taken:

North

Description:

Peristatic pump sampling MW-1 along with sampling equipment