Final
First Quarterly Groundwater Monitoring Report

La Bajada Mine
Santa Fe National Forest, New Mexico

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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
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 groundwater monitoring activities conducted in the third quarter of calendar year 2015 and represents WESTON's first of four quarterly groundwater investigation events. Field work was completed by WESTON representatives on September 21-23, 2015.

1.1 SITE NAME AND SAMPLING LOCATION

The project area is located 35 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 and occurred in the 1920s (Chenoweth, 1979). In 1928-1929, the mine consisted of two shafts (Whitworth, 1996). Radioactivity was detected in the mine dump in 1950. The underground workings of the mine were declared unsafe in 1957 and subsequent mining was by open pit. An open pit was developed between the two shafts in the early 1960s and 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 eroding the waste 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) but 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 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.

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 coolwater 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, 2015), groundwater monitoring is being conducted for a 1-year period on a quarterly basis beginning in September 2015. WESTON will conduct four Site visits where groundwater monitor wells will be sampled for laboratory analysis. This work is being conducted to determine concentrations of analytes of concern (AOCs), monitor the potential change of depth to groundwater, 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 joint powers agreement with NMED, performed a 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 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

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 TOC using an electronic water level indicator. Measurements collected are presented in Table 1 and were recorded to 100th of a foot for accuracy.

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. In addition to groundwater elevation data, Table 1 provides well-specific data obtained from existing reports for well depths, screen interval depths, screen slot size, and well diameter. Estimated groundwater elevations and DTW measurements are presented in Figure 3.

Table 1 Current Monitor Well Data

Well	Well Depth (feet bgs)	Depth-to-Water [a] (feet below TOC)	Screen Intervals (feet bgs)	TOC Elevation (feet amsl) [b]	Water Level Elevation (feet amsl) [b]	Diameter (inch)	Slot Size (inch)
MW-0	4.82	Dry	NDA	5624.347	n/a	3	NDA
MW-1	34.71	19.17	NDA	5644.475	5625.305	4	NDA
MW-2	50.13	20.03	NDA	5620.036	5600.006	4	NDA
MW-3	51.04	21.23	NDA	5609.798	5588.568	4	NDA
MW-4	54.63	35.87	NDA	5604.988	5569.118	4	NDA
MW-5	27.35	25.92	NDA	5586.418	5560.498	3	NDA
MW-6	27.72	Dry	NDA	5577.459	n/a	4	NDA
MW-7	53.30	13.43	NDA	5541.436	5528.006	4	NDA

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
NDA: No data available
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 flow-through cell in combination with a water quality meter.

4.3 GROUNDWATER SAMPLING

For this monitoring event, 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 a 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 a 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 pump 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 top of each well casing using an electronic water level indicator. Measurements were recorded to 100^{th} 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 completing 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 Phoenix, Arizona 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 this September 2015 sampling event. One equipment blank sample was collected. Samples were analyzed by Accutest for select dissolved metals, combined radium-226 and -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 phosphate-free detergent (Alconox®) wash and 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 field work 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. For the remaining sampling events each well will be sampled with the same pump type used during this event.

Initial gauging of all of the wells 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.

5.0 SAMPLING RESULTS

A total of six groundwater samples, with one field duplicate and one equipment blank were collected during the September 2015 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 during well purging activities.

Table A-1 (Appendix A) provides a summary of surface water laboratory analytical results. Table A-2 provides groundwater results; groundwater quality stabilization measurements are presented in Table A-3; and average groundwater quality measurements are shown in Table A-4 (Appendix A). Laboratory analytical reports including COC records are provided in Appendix B. Field notes from the 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 Groundwater Standards and applicable New Mexico Surface Water Standards.

5.1 PHYSICAL WATER QUALITY MEASUREMENTS

Physical water quality measurements were collected during purging operations and are included in Table A-2 (Appendix A). Averaged physical water quality values for the September 2015 sampling event are summarized in Table A-3 (Appendix A). Measurements recorded included parameters such as temperature, specific conductivity, dissolved oxygen, 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. At higher temperatures minerals tend to dissolve more readily. An increase in temperature by 1°C can potentially increase specific conductance by approximately 2 percent (Todd, 1980). The average temperature across all wells was determined to be 18.17 °C (64.71°F) and 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 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.

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. The average pH across the site

was determined to be 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).

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 whereby the conductivity of water serves as an indicator of the amount of material dissolved in the water. The average conductivity across the site was determined to be 799 micro Siemens per centimeter (µS/cm) and 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).

5.1.4 Total Dissolved Solids

Total dissolved solids (TDS) was not measured in the field but was analyzed at the laboratory. The average results for TDS analysis across the Site was determined to be 767.8 mg/L and the range of results was between 475 mg/L (MW-5) and 1,790 mg/L (MW-3). 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

5.1.5 Dissolved Oxygen

DO 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. DO 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. DO 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). DO 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. The average DO level across the site was determined to be 3.44 mg/L and 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), respectively.

5.1.6 Oxidation-Reduction Potential

ORP can be used as a qualitative indicator of aerobic versus anaerobic conditions. 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 is considered a reducing environment. ORP values of less than 50 mV are considered representative of a reducing environment (Whitlock and Kelly, 2010). The average ORP level across the Site was determined to be 153.4 mV and the ORP range representative of average measurements recorded at each well was between 34.9 mV (MW-5) and 232.1 mV (MW-1).

5.1.7 Turbidity

Turbidity is an optical property caused by suspended particles in water. Turbidity measurements provide an indication of water clarity where turbidity 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). The average turbidity level measured across the site was 9.51 NTUs, and the turbidity range representative of average measurements recorded at each well was between 3.18 (MW-1) and 22.76 (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 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, which occurred predominantly as bicarbonate alkalinity, was consistent between both samples at 175 mg/L $CaCO_3$ (SW-1) and 172 mg/L $CaCO_3$ (SW-2).

The source of chloride in natural surface waters is generally due to dissolution of minerals. It is a contributor to TDS and conductivity. Chloride was detected in both samples at 59.9 mg/L (SW-1) and 60.7 mg/L (SW-2). Sulfate is derived from dissolution of sulfur-bearing minerals and contributes to acidity in water. Sulfate was detected in both samples at 47.7 mg/L (SW-1) and 46.9 mg/L (SW-2). There are no NM surface water quality standards for chloride or sulfate and the concentrations of both ions detected are typical of other natural waters. TDS was consistent in both samples at 413 mg/L (SW-1) and 392 mg/L (SW-2).

Nitrate-nitrite was not detected in either of the samples above the laboratory RL. TKN was detected in one sample above the laboratory reporting limit (RL) at 0.63 mg/L (SW-1). TKN 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).

5.2.2 Surface Water – Metals and Radionuclides

Dissolved metals detected above RLs for surface water samples collected were reported for boron, calcium, magnesium, nickel, strontium, uranium, and zinc (Table A-1, Appendix A). None of the detections exceeded any of the New Mexico Surface Water Standards. Combined radium-226 and -228 was not detected above the laboratory RL.

5.2.3 Groundwater – General Water Quality Parameters

General water quality parameters were also analyzed in collected groundwater samples. Total alkalinity, which occurred as bicarbonate alkalinity, ranged from 300 mg/L $CaCO_3$ (MW-5) to 559 mg/L $CaCO_3$ (MW-3). Chloride was detected in all samples above the laboratory RL ranging from 15.7 mg/L (MW-2) to 104 (MW-5). Sulfate was detected in all samples above the laboratory RL ranging from 69.0 mg/L (MW-7) to 768 mg/L (MW-3). The NM Groundwater Standard for sulfate is 600 mg/L, which is exceeded in MW-3 and the duplicate taken from MW-3.

TDS ranged from 475 mg/L (MW-5) to 1,790 mg/L (MW-3). The NM Groundwater Standard for TDS is 1,000 mg/L, which was exceeded in MW-3 and the duplicate taken from MW-3. Nitrate-nitrite was detected in two samples 0.11 mg/L (MW-7) and 0.14 mg/L (MW-2). Both samples are below the NM Groundwater Standard for nitrate of 10 mg/L. TKN was detected in only one sample at a concentration of 0.23 mg/L (MW-5).

5.2.4 Groundwater – Metals and Radionuclides

Dissolved metals detected above laboratory RLs in collected groundwater samples were reported for arsenic, boron, calcium, magnesium, manganese, molybdenum, nickel, potassium, sodium, strontium, thallium, uranium, and zinc. Dissolved metal concentrations that exceed the NM Groundwater Standards are manganese and uranium, as described further below.

- Manganese was detected in monitoring wells MW-3 and MW-5 at 0.886 mg/L and 0.887 mg/L, respectively. These exceed the New Mexico Groundwater Standard of 0.2 mg/L.

- Uranium was detected in all of the wells with MW-3 and MW-4 exceeding the New Mexico Groundwater Standard of 0.03 mg/L with concentrations of 0.334 mg/L and 0.0960 mg/L, respectively.

All groundwater results were analyzed for radium-226 and radium-228. Radium-226 was not detected above the laboratory RL in any samples. Radium-228 was detected above the laboratory RL in one sample, the duplicate taken from MW-3 at 1.16 pico Curie per liter (pCi/L). The NM Groundwater Standard for combined radium-226 and -228 is 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 on September 23, 2015 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.

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. A field duplicate was collected at MW-3 and analyzed for total metals consistent with the primary sample analyses. Detectable concentrations of boron, calcium, cobalt, magnesium, manganese, nickel, potassium, sodium, strontium, and uranium, were found in the primary sample and the field duplicate sample (Tables A-1 and A-2, Appendix A). Calculated RPDs for the detected metals ranged from 0 – 3.1%, which do fall within the acceptance criterion of 20% stated in the approved SAP.

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. 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.

5.5 DATA REVIEW AND VALIDATION

WESTON conducted a verification evaluation of the laboratory analytical data 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 method detection limit.
- The serial dilution indicated a 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.

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6.0 SUMMARY

The data collected in September 2015 was compared to applicable NM WQS and historical concentrations (Tables A-1 and A-2, Appendix A). Exceedances of applicable standards from the September 2015 and historical rounds of sampling are summarized below.

Concentrations of AOCs in the upstream and downstream samples collected from the Santa Fe River did not exceed any New Mexico Surface Water standard. 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 exceeded the NM Surface Water standard of Livestock Watering for nitrate-nitrite of 0.132 mg/L 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.

MW-1 did not exhibit concentrations of any AOCs that exceed any of the NM Groundwater Standards during the September 2015 round of sampling, which is generally consistent with previous sampling. Historically, manganese was detected at 0.21 mg/L in April 2003, which exceeded the standard of 0.2 mg/L. Manganese was only analyzed once previous to 2003 (August 2002); results from August 2002 and those obtained after April 2003 have been below the standard.

Similarly, concentrations of AOCs in MW-2 did not exceed any of the NM Groundwater Standards during this round of sampling. In August 2002, manganese was analyzed for the first time and detected at 0.68 mg/L, which exceeded the NMGS of 0.2 mg/L. Analytical results from April 2003 (0.47 mg/L) also exceeded the standard; however, results obtained since April 2003 have been below the standard.

During the current round of sampling concentrations of sulfate, TDS, manganese, and uranium in MW-3 exceeded their respective NM Groundwater Standards. Sulfate was detected at 728 mg/L, which exceeds the NM Groundwater Standard of 600 mg/L. Historically sulfate been detected in MW-3 at concentrations ranging from a maximum of 1,430 mg/L (March 1999) to 948 mg/L (June 2010). The current concentration is the historical low and shows a general downward trend. TDS was most recently detected at 1,790 mg/L, compared to historical concentrations ranging from 2,740 mg/L (March 1999) to 2,140 mg/L. Similar to sulfate, the current TDS concentration is the historical low and a general downward trend is shown. The NM Groundwater Standard for TDS is 1,000 mg/L. Manganese was detected at 0.886 mg/L during the current round of sampling, which exceeds the groundwater standard of 0.2 mg/L. Historically, manganese has been detected in MW-3 at concentrations ranging from a maximum of 7.1 mg/L (April 2003) to <0.001 mg/L (June 2010). The current concentration of uranium detected is 0.334 mg/L, which is down from the historical maximum of 0.65 mg/L detected in March 1999. The groundwater standard for uranium is 0.03 mg/L.

Uranium detected in September 2015 exceeded the NM Groundwater Standard in MW-4 with a concentration of 0.0969 mg/L. Historically uranium has been detected in MW-4 ranging from the maximum of 0.16 mg/L (September 1998) to the 0.028 (October 1996). No other AOCs have currently or historically exceeded their NM Groundwater Standard.

The only AOC detected at a concentration greater than the groundwater standard in MW-5 during the current round of sampling was manganese at a concentration of 0.887 mg/L. Historically manganese results in MW-5 ranged from 0.36 mg/L (April 2003) to 0.57 mg/L (August 2002). During March 1998 and March 1999 uranium was detected at concentrations exceeding the NM Groundwater Standard (0.066 mg/L and 0.036 mg/L, respectively). Uranium was detected during the current sampling event at a concentration of 0.0125 mg/L, which is the historical low.

MW-6 was dry during this round of sampling and therefore not sampled. Historically, only uranium has been detected at concentrations exceeding the groundwater standard at this location. In March and June of 1999, uranium was detected in MW-6 at 0.037 mg/L and 0.041 mg/L, which exceed the standard of 0.03 mg/L.

No AOCs were detected at MW-7 during this round of sampling or during any of the previous sampling events that exceed a NM Groundwater Standard.

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FIGURES

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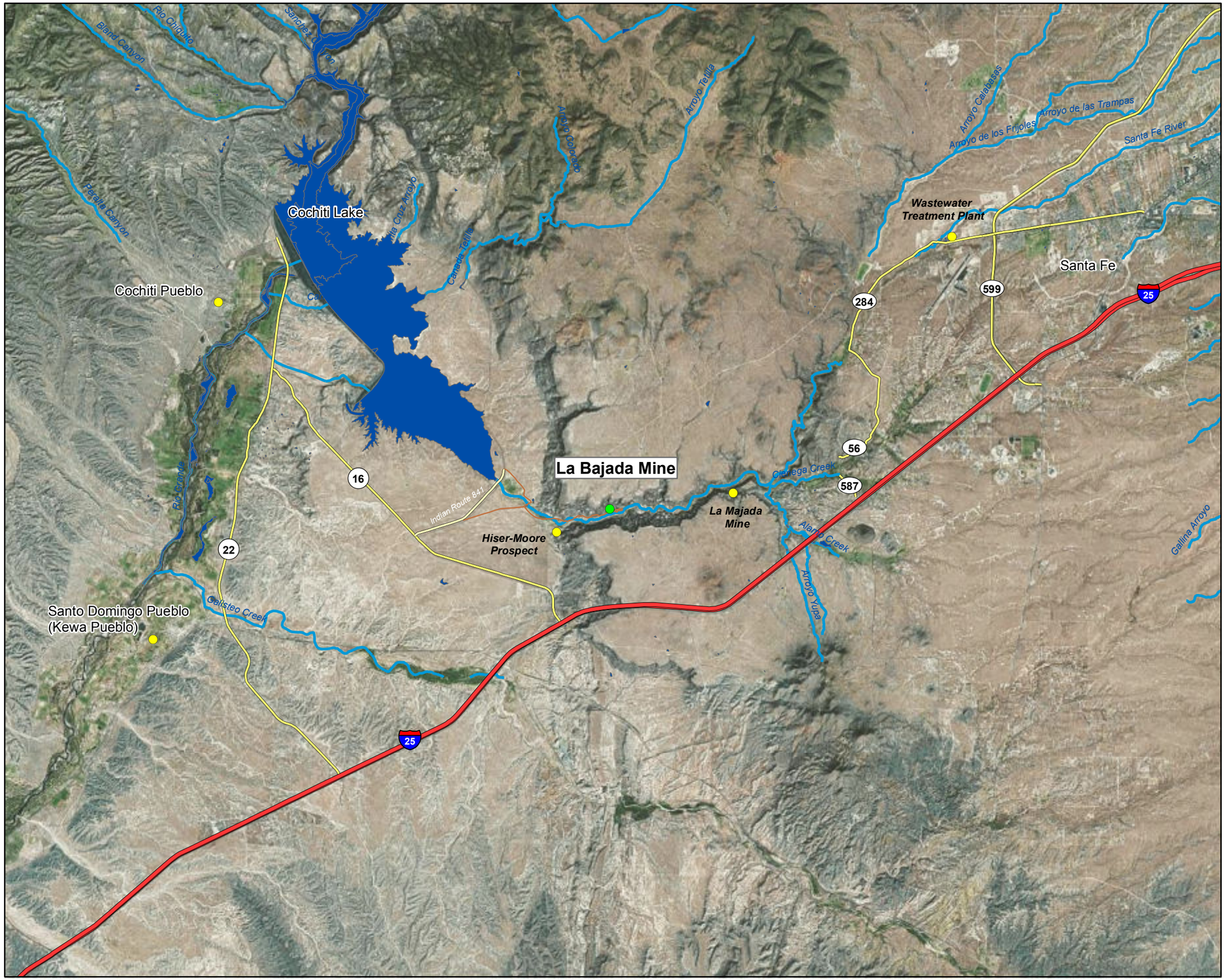

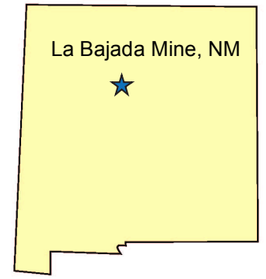

Legend

- 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

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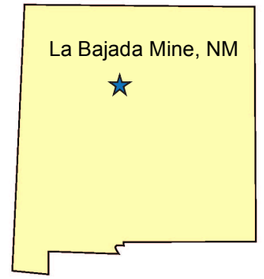
Tempe, AZ 85284



Legend

- Surface Water Sample Locations
- Monitor Well
- Dirt Road
- Rivers and Streams

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 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
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Tempe, AZ 85284

Legend

- Surface Water Sample Locations
- Monitor Well
- Dirt Road
- Rivers and Streams

Notes:
Depth to water measured at the north side of the top of each well casing.

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 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

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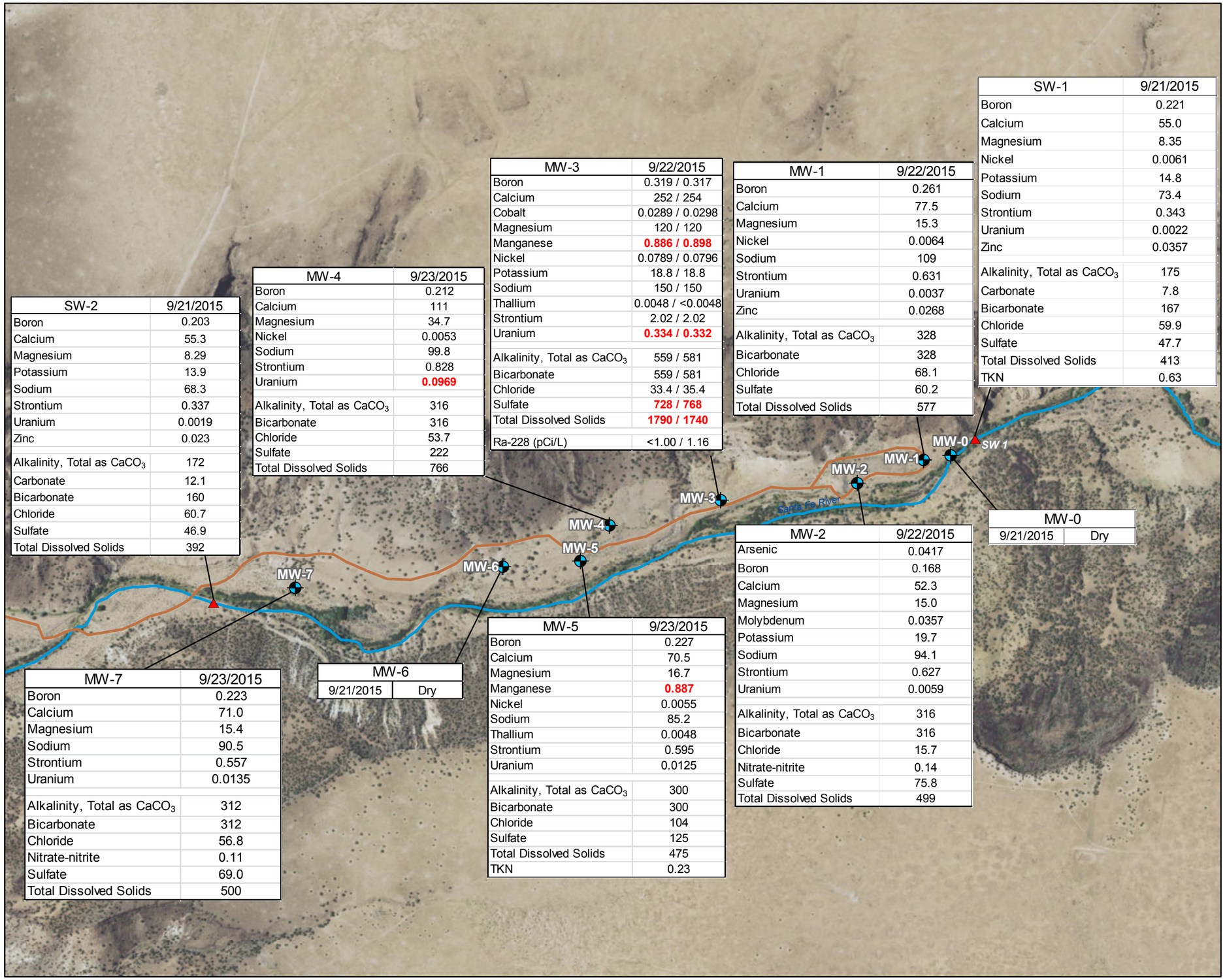
Tempe, AZ 85284



SW-2	9/21/2015
Boron	0.203
Calcium	55.3
Magnesium	8.29
Potassium	13.9
Sodium	68.3
Strontium	0.337
Uranium	0.0019
Zinc	0.023
Alkalinity, Total as $CaCO_3$	172
Carbonate	12.1
Bicarbonate	160
Chloride	60.7
Sulfate	46.9
Total Dissolved Solids	392

MW-4	9/23/2015
Boron	0.212
Calcium	111
Magnesium	34.7
Nickel	0.0053
Sodium	99.8
Strontium	0.828
Uranium	**0.0969**
Alkalinity, Total as $CaCO_3$	316
Bicarbonate	316
Chloride	53.7
Sulfate	222
Total Dissolved Solids	766

MW-3	9/22/2015
Boron	0.319 / 0.317
Calcium	252 / 254
Cobalt	0.0289 / 0.0298
Magnesium	120 / 120
Manganese	**0.886 / 0.898**
Nickel	0.0789 / 0.0796
Potassium	18.8 / 18.8
Sodium	150 / 150
Thallium	0.0048 / <0.0048
Strontium	2.02 / 2.02
Uranium	**0.334 / 0.332**
Alkalinity, Total as $CaCO_3$	559 / 581
Bicarbonate	559 / 581
Chloride	33.4 / 35.4
Sulfate	**728 / 768**
Total Dissolved Solids	**1790 / 1740**
Ra-228 (pCi/L)	<1.00 / 1.16

MW-1	9/22/2015
Boron	0.261
Calcium	77.5
Magnesium	15.3
Nickel	0.0064
Sodium	109
Strontium	0.631
Uranium	0.0037
Zinc	0.0268
Alkalinity, Total as $CaCO_3$	328
Bicarbonate	328
Chloride	68.1
Sulfate	60.2
Total Dissolved Solids	577

SW-1	9/21/2015
Boron	0.221
Calcium	55.0
Magnesium	8.35
Nickel	0.0061
Potassium	14.8
Sodium	73.4
Strontium	0.343
Uranium	0.0022
Zinc	0.0357
Alkalinity, Total as $CaCO_3$	175
Carbonate	7.8
Bicarbonate	167
Chloride	59.9
Sulfate	47.7
Total Dissolved Solids	413
TKN	0.63

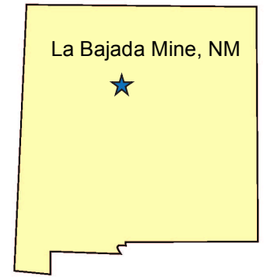
MW-0	
9/21/2015	Dry

MW-2	9/22/2015
Arsenic	0.0417
Boron	0.168
Calcium	52.3
Magnesium	15.0
Molybdenum	0.0357
Potassium	19.7
Sodium	94.1
Strontium	0.627
Uranium	0.0059
Alkalinity, Total as $CaCO_3$	316
Bicarbonate	316
Chloride	15.7
Nitrate-nitrite	0.14
Sulfate	75.8
Total Dissolved Solids	499

MW-5	9/23/2015
Boron	0.227
Calcium	70.5
Magnesium	16.7
Manganese	**0.887**
Nickel	0.0055
Sodium	85.2
Thallium	0.0048
Strontium	0.595
Uranium	0.0125
Alkalinity, Total as $CaCO_3$	300
Bicarbonate	300
Chloride	104
Sulfate	125
Total Dissolved Solids	475
TKN	0.23

MW-6	
9/21/2015	Dry

MW-7	9/23/2015
Boron	0.223
Calcium	71.0
Magnesium	15.4
Sodium	90.5
Strontium	0.557
Uranium	0.0135
Alkalinity, Total as $CaCO_3$	312
Bicarbonate	312
Chloride	56.8
Nitrate-nitrite	0.11
Sulfate	69.0
Total Dissolved Solids	500



Legend

- Surface Water Sample Locations
- Monitor Well
- Dirt Road
- Rivers and Streams

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

Figure 4
Detected Laboratory Analytical Results
La Bajada Mine Groundwater Investigation
Santa Fe National Forest, New Mexico

0 700 1,400
Approximate scale in feet

N

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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 CaCO	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	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	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 CaCO	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	22-Sep-15	Dry - Not Sampled																																									
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	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	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	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	<0.001	<0.1	<0.01	<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	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 (duplicate)	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
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	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	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	<0.00060	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	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.
Red text indicates result exceeds a 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 CaCO	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	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	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	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	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	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	--	<0.001	<0.001	--	--	<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.
Red text indicates result exceeds a standard.

Table A-3
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)
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

°C: Degrees Celcius
DO: Dissolved Oxygen
NC: Not collected
ORP: Oxidation Reduction Potential
µS/cm: microsiemens per centimeter
mg/L: miligrams per liter
NTU: Nephelometric Turbidity Units

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)
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
Average	6.60	18.17	799	153.4	3.44	9.51

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

°C: Degrees Celcius
µS/cm: microsiemens/cm
mg/L: miligrams per liter

APPENDIX B

Laboratory Analytical Reports

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Northern California ACCUTEST LABORATORIES

10/10/15

Technical Report for

Weston Solutions, Inc.

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

12767.201.001.0020

Accutest Job Number: C41963

Sampling Dates: 09/21/15 - 09/23/15

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: **60**

NELAP ACCREDITED TNI LABORATORY

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

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Accutest Laboratories

Sample Summary

Weston Solutions, Inc.

Job No: C41963

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
C41963-1	09/22/15	10:30	DK	09/25/15	AQ	Ground Water	LB-MW1-092215
C41963-1F	09/22/15	10:30	DK	09/25/15	AQ	Groundwater Filtered	LB-MW1-092215
C41963-2	09/22/15	12:05	DK	09/25/15	AQ	Ground Water	LB-MW2-092215
C41963-2F	09/22/15	12:05	DK	09/25/15	AQ	Groundwater Filtered	LB-MW2-092215
C41963-3	09/22/15	13:48	DK	09/25/15	AQ	Ground Water	LB-MW3-092215
C41963-3F	09/22/15	13:48	DK	09/25/15	AQ	Groundwater Filtered	LB-MW3-092215
C41963-4	09/22/15	13:50	DK	09/25/15	AQ	Ground Water	LB-MW3-092215D
C41963-4F	09/22/15	13:50	DK	09/25/15	AQ	Groundwater Filtered	LB-MW3-092215D
C41963-5	09/23/15	16:55	DK	09/25/15	AQ	Ground Water	LB-MW4-092315
C41963-5F	09/23/15	16:55	DK	09/25/15	AQ	Groundwater Filtered	LB-MW4-092315
C41963-6	09/23/15	13:45	DK	09/25/15	AQ	Ground Water	LB-MW5-092315
C41963-6F	09/23/15	13:45	DK	09/25/15	AQ	Groundwater Filtered	LB-MW5-092315
C41963-7	09/23/15	10:55	DK	09/25/15	AQ	Ground Water	LB-MW7-092315

Sample Summary
(continued)

Weston Solutions, Inc.

Job No: C41963

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
C41963-7D	09/23/15	10:55	DK	09/25/15	AQ	Water Dup/MSD	LB-MW7-092315
C41963-7F	09/23/15	10:55	DK	09/25/15	AQ	Groundwater Filtered	LB-MW7-092315
C41963-7FD	09/23/15	10:55	DK	09/25/15	AQ	Water Dup/MSD	LB-MW7-092315
C41963-7FS	09/23/15	10:55	DK	09/25/15	AQ	Water Matrix Spike	LB-MW7-092315
C41963-7S	09/23/15	10:55	DK	09/25/15	AQ	Water Matrix Spike	LB-MW7-092315
C41963-8	09/21/15	15:40	DK	09/25/15	AQ	Ground Water	LB-SW1-092115
C41963-8F	09/21/15	15:40	DK	09/25/15	AQ	Groundwater Filtered	LB-SW1-092115
C41963-9	09/21/15	15:10	DK	09/25/15	AQ	Ground Water	LB-SW2-092115
C41963-9F	09/21/15	15:10	DK	09/25/15	AQ	Groundwater Filtered	LB-SW2-092115
C41963-10F	09/23/15	18:00	DK	09/25/15	AQ	Equip Blank Filtered	LB-EB1-092315

Summary of Hits

Job Number: C41963
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 09/21/15 thru 09/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C41963-1	**LB-MW1-092215**					
Alkalinity, Bicarbonate		328	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		328	5.0	1.5	mg/l	SM2320 B-97
Chloride		68.1	5.0	0.58	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.081 J	0.10	0.041	mg/l	SM4500-NO3 E-00
Solids, Total Dissolved		577	10	2.5	mg/l	SM2540 C-97
Sulfate		60.2	5.0	1.0	mg/l	EPA 300/SW846 9056A
C41963-1F	**LB-MW1-092215**					
Arsenic		0.0058 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0626 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.261	0.10	0.0032	mg/l	EPA 200.7
Calcium		77.5	5.0	0.069	mg/l	EPA 200.7
Cobalt		0.0017 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0071 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		15.3	5.0	0.023	mg/l	EPA 200.7
Manganese		0.0061 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0024 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0064	0.0050	0.00060	mg/l	EPA 200.7
Potassium		7.36 J	10	0.035	mg/l	EPA 200.7
Sodium		109	10	0.025	mg/l	EPA 200.7
Strontium		0.631	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0037	0.0010	0.000017	mg/l	EPA 200.8
Vanadium		0.0060 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0268	0.020	0.0031	mg/l	EPA 200.7
C41963-2	**LB-MW2-092215**					
Alkalinity, Bicarbonate		316	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		316	5.0	1.5	mg/l	SM2320 B-97
Chloride		15.7	2.5	0.29	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.14	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl		0.12 J	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved		499	10	2.5	mg/l	SM2540 C-97
Sulfate		75.8	2.5	0.52	mg/l	EPA 300/SW846 9056A
C41963-2F	**LB-MW2-092215**					
Arsenic		0.0417	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0446 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.168	0.10	0.0032	mg/l	EPA 200.7
Calcium		52.3	5.0	0.069	mg/l	EPA 200.7
Chromium		0.00070 J	0.010	0.00060	mg/l	EPA 200.7

Summary of Hits

Job Number: C41963
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 09/21/15 thru 09/23/15

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Copper	0.0041 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium	15.0	5.0	0.023	mg/l	EPA 200.7
Manganese	0.00030 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0357	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0010 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium	19.7	10	0.035	mg/l	EPA 200.7
Sodium	94.1	10	0.025	mg/l	EPA 200.7
Strontium	0.627	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.0059	0.0010	0.000017	mg/l	EPA 200.8
Vanadium	0.0089 J	0.010	0.00060	mg/l	EPA 200.7
Zinc	0.0104 J	0.020	0.0031	mg/l	EPA 200.7
C41963-3 LB-MW3-092215					
Alkalinity, Bicarbonate	559	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	559	5.0	1.5	mg/l	SM2320 B-97
Chloride	33.4	2.5	0.29	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved	1790	10	2.5	mg/l	SM2540 C-97
Sulfate	728	25	5.2	mg/l	EPA 300/SW846 9056A
C41963-3F LB-MW3-092215					
Barium	0.0458 J	0.20	0.00050	mg/l	EPA 200.7
Boron	0.319	0.10	0.0032	mg/l	EPA 200.7
Cadmium	0.00030 J	0.0020	0.00030	mg/l	EPA 200.7
Calcium	252	5.0	0.069	mg/l	EPA 200.7
Chromium	0.00060 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt	0.0289	0.0050	0.00040	mg/l	EPA 200.7
Magnesium	120	5.0	0.023	mg/l	EPA 200.7
Manganese	0.886	0.015	0.00020	mg/l	EPA 200.7
Molybdenum	0.0115 J	0.020	0.00060	mg/l	EPA 200.7
Nickel	0.0789	0.0050	0.00060	mg/l	EPA 200.7
Potassium	18.8	10	0.035	mg/l	EPA 200.7
Sodium	150	10	0.025	mg/l	EPA 200.7
Strontium	2.02	0.010	0.00020	mg/l	EPA 200.7
Uranium	0.334	0.0010	0.000017	mg/l	EPA 200.8
Zinc	0.0055 J	0.020	0.0031	mg/l	EPA 200.7
C41963-4 LB-MW3-092215D					
Alkalinity, Bicarbonate	581	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3	581	5.0	1.5	mg/l	SM2320 B-97
Chloride	35.4	2.5	0.29	mg/l	EPA 300/SW846 9056A
Nitrogen, Total Kjeldahl	0.11 J	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved	1740	10	2.5	mg/l	SM2540 C-97

Summary of Hits

Job Number: C41963
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 09/21/15 thru 09/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Sulfate		768	25	5.2	mg/l	EPA 300/SW846 9056A
C41963-4F	**LB-MW3-092215D**					
Arsenic		0.0029 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0460 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.317	0.10	0.0032	mg/l	EPA 200.7
Cadmium		0.00030 J	0.0020	0.00030	mg/l	EPA 200.7
Calcium		254	5.0	0.069	mg/l	EPA 200.7
Cobalt		0.0298	0.0050	0.00040	mg/l	EPA 200.7
Magnesium		120	5.0	0.023	mg/l	EPA 200.7
Manganese		0.898	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0112 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0796	0.0050	0.00060	mg/l	EPA 200.7
Potassium		18.8	10	0.035	mg/l	EPA 200.7
Sodium		150	10	0.025	mg/l	EPA 200.7
Strontium		2.02	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.332	0.0010	0.000017	mg/l	EPA 200.8
Zinc		0.0066 J	0.020	0.0031	mg/l	EPA 200.7
C41963-5	**LB-MW4-092315**					
Alkalinity, Bicarbonate		316	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		316	5.0	1.5	mg/l	SM2320 B-97
Chloride		53.7	5.0	0.58	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.058 J	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl		0.17 J	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved		766	10	2.5	mg/l	SM2540 C-97
Sulfate		222	10	2.1	mg/l	EPA 300/SW846 9056A
C41963-5F	**LB-MW4-092315**					
Arsenic		0.0076 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0904 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.212	0.10	0.0032	mg/l	EPA 200.7
Calcium		111	5.0	0.069	mg/l	EPA 200.7
Cobalt		0.0012 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0037 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		34.7	5.0	0.023	mg/l	EPA 200.7
Manganese		0.0011 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0062 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0053	0.0050	0.00060	mg/l	EPA 200.7
Potassium		9.56 J	10	0.035	mg/l	EPA 200.7
Sodium		99.8	10	0.025	mg/l	EPA 200.7
Strontium		0.828	0.010	0.00020	mg/l	EPA 200.7

Summary of Hits

Job Number: C41963
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 09/21/15 thru 09/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Uranium		0.0969	0.0010	0.000017	mg/l	EPA 200.8
Vanadium		0.0074 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0098 J	0.020	0.0031	mg/l	EPA 200.7
C41963-6	**LB-MW5-092315**					
Alkalinity, Bicarbonate		300	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		300	5.0	1.5	mg/l	SM2320 B-97
Chloride		104	10	1.2	mg/l	EPA 300/SW846 9056A
Nitrogen, Total Kjeldahl		0.23	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved		475	10	2.5	mg/l	SM2540 C-97
Sulfate		125	5.0	1.0	mg/l	EPA 300/SW846 9056A
C41963-6F	**LB-MW5-092315**					
Arsenic		0.0084 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0307 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.227	0.10	0.0032	mg/l	EPA 200.7
Calcium		70.5	5.0	0.069	mg/l	EPA 200.7
Chromium		0.00070 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt		0.0011 J	0.0050	0.00040	mg/l	EPA 200.7
Magnesium		16.7	5.0	0.023	mg/l	EPA 200.7
Manganese		0.887	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0107 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0055	0.0050	0.00060	mg/l	EPA 200.7
Potassium		8.05 J	10	0.035	mg/l	EPA 200.7
Sodium		85.2	10	0.025	mg/l	EPA 200.7
Strontium		0.595	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0125	0.0010	0.000017	mg/l	EPA 200.8
Vanadium		0.00070 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0043 J	0.020	0.0031	mg/l	EPA 200.7
C41963-7	**LB-MW7-092315**					
Alkalinity, Bicarbonate		312	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		312	5.0	1.5	mg/l	SM2320 B-97
Chloride		56.8	5.0	0.58	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.11	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl		0.039 J	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved		500	10	2.5	mg/l	SM2540 C-97
Sulfate		69.0	5.0	1.0	mg/l	EPA 300/SW846 9056A
C41963-7F	**LB-MW7-092315**					
Arsenic		0.0073 J	0.010	0.0025	mg/l	EPA 200.7

Summary of Hits

Job Number: C41963
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 09/21/15 thru 09/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Barium		0.0486 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.223	0.10	0.0032	mg/l	EPA 200.7
Calcium		71.0	5.0	0.069	mg/l	EPA 200.7
Cobalt		0.0011 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0032 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		15.4	5.0	0.023	mg/l	EPA 200.7
Manganese		0.00060 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0057 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0042 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium		6.50 J	10	0.035	mg/l	EPA 200.7
Sodium		90.5	10	0.025	mg/l	EPA 200.7
Strontium		0.557	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0135	0.0010	0.000017	mg/l	EPA 200.8
Vanadium		0.0099 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0166 J	0.020	0.0031	mg/l	EPA 200.7
C41963-8	**LB-SW1-092115**					
Alkalinity, Bicarbonate		167	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Carbonate		7.8	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		175	5.0	1.5	mg/l	SM2320 B-97
Chloride		59.9	5.0	0.58	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.067 J	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl		0.63	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved		413	10	2.5	mg/l	SM2540 C-97
Sulfate		47.7	2.5	0.52	mg/l	EPA 300/SW846 9056A
C41963-8F	**LB-SW1-092115**					
Arsenic		0.0052 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0975 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.221	0.10	0.0032	mg/l	EPA 200.7
Calcium		55.0	5.0	0.069	mg/l	EPA 200.7
Chromium		0.00070 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt		0.0018 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0028 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		8.35	5.0	0.023	mg/l	EPA 200.7
Manganese		0.0019 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0068 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0061	0.0050	0.00060	mg/l	EPA 200.7
Potassium		14.8	10	0.035	mg/l	EPA 200.7
Sodium		73.4	10	0.025	mg/l	EPA 200.7
Strontium		0.343	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0022	0.0010	0.000017	mg/l	EPA 200.8
Vanadium		0.0062 J	0.010	0.00060	mg/l	EPA 200.7

Summary of Hits

Job Number: C41963
Account: Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico
Collected: 09/21/15 thru 09/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Zinc		0.0357	0.020	0.0031	mg/l	EPA 200.7
C41963-9	**LB-SW2-092115**					
Alkalinity, Bicarbonate		160	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Carbonate		12.1	5.0	5.0	mg/l	SM2320 B-97
Alkalinity, Total as CaCO3		172	5.0	1.5	mg/l	SM2320 B-97
Chloride		60.7	5.0	0.58	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite		0.064 J	0.10	0.041	mg/l	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl		0.14 J	0.20	0.020	mg/l	SM4500-NH3 D, E-97
Solids, Total Dissolved		392	10	2.5	mg/l	SM2540 C-97
Sulfate		46.9	2.5	0.52	mg/l	EPA 300/SW846 9056A
C41963-9F	**LB-SW2-092115**					
Arsenic		0.0032 J	0.010	0.0025	mg/l	EPA 200.7
Barium		0.0963 J	0.20	0.00050	mg/l	EPA 200.7
Boron		0.203	0.10	0.0032	mg/l	EPA 200.7
Calcium		55.3	5.0	0.069	mg/l	EPA 200.7
Chromium		0.00060 J	0.010	0.00060	mg/l	EPA 200.7
Cobalt		0.0019 J	0.0050	0.00040	mg/l	EPA 200.7
Copper		0.0026 J	0.010	0.0018	mg/l	EPA 200.7
Magnesium		8.29	5.0	0.023	mg/l	EPA 200.7
Manganese		0.0022 J	0.015	0.00020	mg/l	EPA 200.7
Molybdenum		0.0062 J	0.020	0.00060	mg/l	EPA 200.7
Nickel		0.0047 J	0.0050	0.00060	mg/l	EPA 200.7
Potassium		13.9	10	0.035	mg/l	EPA 200.7
Sodium		68.3	10	0.025	mg/l	EPA 200.7
Strontium		0.337	0.010	0.00020	mg/l	EPA 200.7
Uranium		0.0019	0.0010	0.000017	mg/l	EPA 200.8
Vanadium		0.0052 J	0.010	0.00060	mg/l	EPA 200.7
Zinc		0.0230	0.020	0.0031	mg/l	EPA 200.7
C41963-10F	**LB-EB1-092315**					
Zinc		0.0133 J	0.020	0.0031	mg/l	EPA 200.7

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	LB-MW1-092215		
Lab Sample ID:	C41963-1	**Date Sampled:**	09/22/15
Matrix:	AQ - Ground Water	**Date Received:**	09/25/15
		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	328	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	328	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	68.1	5.0	0.58	mg/l	10	09/29/15 14:27	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.081 J	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.020 U	0.20	0.020	mg/l	1	10/08/15 16:50	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	577	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	60.2	5.0	1.0	mg/l	10	09/29/15 14:27	RL	EPA 300/SW846 9056A

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-MW1-092215
Lab Sample ID: C41963-1F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Arsenic	0.0058 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Barium	0.0626 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Boron	0.261	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Calcium	77.5	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Cobalt	0.0017 J	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Copper	0.0071 J	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Magnesium	15.3	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Manganese	0.0061 J	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Molybdenum	0.0024 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Nickel	0.0064	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Potassium	7.36 J	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [2]	EPA 200.7 [4]
Sodium	109	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Strontium	0.631	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Uranium	0.0037	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [3]	EPA 200.8 [5]
Vanadium	0.0060 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Zinc	0.0268	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]

(1) Instrument QC Batch: MA5254
(2) Instrument QC Batch: MA5256
(3) Instrument QC Batch: MA5257
(4) Prep QC Batch: MP10228
(5) Prep QC Batch: MP10229

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-MW2-092215
Lab Sample ID: C41963-2
Matrix: AQ - Ground Water
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	316	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	316	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	15.7	2.5	0.29	mg/l	5	09/29/15 14:44	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.14	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.12 J	0.20	0.020	mg/l	1	10/08/15 16:50	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	499	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	75.8	2.5	0.52	mg/l	5	09/29/15 14:44	RL	EPA 300/SW846 9056A

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-MW2-092215
Lab Sample ID: C41963-2F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0417	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0446 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.168	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	52.3	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00070 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.00040 U	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0041 J	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	15.0	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.00030 J	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0357	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0010 J	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	19.7	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	94.1	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	0.627	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.0059	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.0089 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0104 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

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-MW3-092215
Lab Sample ID: C41963-3
Matrix: AQ - Ground Water
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	559	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	559	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	33.4	2.5	0.29	mg/l	5	09/29/15 15:02	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.041 U	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.020 U	0.20	0.020	mg/l	1	10/08/15 18:30	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	1790	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	728	25	5.2	mg/l	50	09/29/15 16:46	RL	EPA 300/SW846 9056A

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-MW3-092215
Lab Sample ID: C41963-3F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0025 U	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0458 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.319	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 J	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	252	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00060 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.0289	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0018 U	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	120	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.886	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0115 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0789	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	18.8	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	150	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	2.02	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.334	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0055 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

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-MW3-092215D
Lab Sample ID: C41963-4
Matrix: AQ - Ground Water
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	581	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	581	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	35.4	2.5	0.29	mg/l	5	09/29/15 15:19	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.041 U	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.11 J	0.20	0.020	mg/l	1	10/08/15 18:30	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	1740	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	768	25	5.2	mg/l	50	09/29/15 17:03	RL	EPA 300/SW846 9056A

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-MW3-092215D
Lab Sample ID: C41963-4F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/22/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0029 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0460 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.317	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 J	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	254	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.0298	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0018 U	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	120	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.898	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0112 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0796	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	18.8	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	150	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	2.02	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.332	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0066 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

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-MW4-092315
Lab Sample ID: C41963-5
Matrix: AQ - Ground Water
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/23/15
Date Received: 09/25/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	316	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	316	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	53.7	5.0	0.58	mg/l	10	09/29/15 15:36	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.058 J	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.17 J	0.20	0.020	mg/l	1	10/08/15 18:30	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	766	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	222	10	2.1	mg/l	20	09/29/15 17:21	RL	EPA 300/SW846 9056A

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID: LB-MW4-092315
Lab Sample ID: C41963-5F
Matrix: AQ - Groundwater Filtered
Date Sampled: 09/23/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0076 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0904 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.212	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	111	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.0012 J	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0037 J	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	34.7	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.0011 J	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0062 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0053	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	9.56 J	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	99.8	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	0.828	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.0969	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.0074 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0098 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	LB-MW5-092315		
Lab Sample ID:	C41963-6	**Date Sampled:**	09/23/15
Matrix:	AQ - Ground Water	**Date Received:**	09/25/15
		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	300	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	300	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	104	10	1.2	mg/l	20	09/29/15 17:38	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.041 U	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.23	0.20	0.020	mg/l	1	10/08/15 18:30	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	475	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	125	5.0	1.0	mg/l	10	09/29/15 15:54	RL	EPA 300/SW846 9056A

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID: LB-MW5-092315
Lab Sample ID: C41963-6F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/23/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0084 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0307 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.227	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	70.5	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00070 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.0011 J	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0018 U	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	16.7	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.887	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0107 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0055	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	8.05 J	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	85.2	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	0.595	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.0125	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.00070 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0043 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	LB-MW7-092315		
Lab Sample ID:	C41963-7	**Date Sampled:**	09/23/15
Matrix:	AQ - Ground Water	**Date Received:**	09/25/15
		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	312	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Carbonate	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	312	5.0	1.5	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Chloride	56.8	5.0	0.58	mg/l	10	09/29/15 17:55	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	10/02/15 15:45	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.11	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.039 J	0.20	0.020	mg/l	1	10/08/15 16:50	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	500	10	2.5	mg/l	1	09/28/15 09:30	DQ	SM2540 C-97
Sulfate	69.0	5.0	1.0	mg/l	10	09/29/15 17:55	RL	EPA 300/SW846 9056A

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID: LB-MW7-092315
Lab Sample ID: C41963-7F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/23/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Arsenic	0.0073 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Barium	0.0486 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Boron	0.223	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Calcium	71.0	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Cobalt	0.0011 J	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Copper	0.0032 J	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Magnesium	15.4	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Manganese	0.00060 J	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Molybdenum	0.0057 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Nickel	0.0042 J	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Potassium	6.50 J	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [2]	EPA 200.7 [4]
Sodium	90.5	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Strontium	0.557	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Uranium	0.0135	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [3]	EPA 200.8 [5]
Vanadium	0.0099 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]
Zinc	0.0166 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [4]

(1) Instrument QC Batch: MA5254
(2) Instrument QC Batch: MA5256
(3) Instrument QC Batch: MA5257
(4) Prep QC Batch: MP10228
(5) Prep QC Batch: MP10229

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID: LB-SW1-092115
Lab Sample ID: C41963-8
Matrix: AQ - Ground Water
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/21/15
Date Received: 09/25/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	167	5.0	5.0	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Alkalinity, Carbonate	7.8	5.0	5.0	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	175	5.0	1.5	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Chloride	59.9	5.0	0.58	mg/l	10	09/29/15 19:05	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.067 J	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.63	0.20	0.020	mg/l	1	10/08/15 18:30	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	413	10	2.5	mg/l	1	09/25/15 15:30	DQ	SM2540 C-97
Sulfate	47.7	2.5	0.52	mg/l	5	09/29/15 18:47	RL	EPA 300/SW846 9056A

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-SW1-092115
Lab Sample ID: C41963-8F
Matrix: AQ - Groundwater Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/21/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0052 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0975 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.221	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	55.0	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00070 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.0018 J	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0028 J	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	8.35	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.0019 J	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0068 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0061	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	14.8	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	73.4	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	0.343	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.0022	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.0062 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0357	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID: LB-SW2-092115
Lab Sample ID: C41963-9
Matrix: AQ - Ground Water
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/21/15
Date Received: 09/25/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	160	5.0	5.0	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Alkalinity, Carbonate	12.1	5.0	5.0	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Alkalinity, Total as CaCO3	172	5.0	1.5	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Chloride	60.7	5.0	0.58	mg/l	10	09/29/15 20:14	RL	EPA 300/SW846 9056A
Hydroxide Alkalinity	5.0 U	5.0	5.0	mg/l	1	09/28/15 11:50	DQ	SM2320 B-97
Nitrogen, Nitrate + Nitrite	0.064 J	0.10	0.041	mg/l	1	10/08/15 15:01	RL	SM4500-NO3 E-00
Nitrogen, Total Kjeldahl	0.14 J	0.20	0.020	mg/l	1	10/08/15 18:30	RL	SM4500-NH3 D, E-97
Solids, Total Dissolved	392	10	2.5	mg/l	1	09/25/15 15:30	DQ	SM2540 C-97
Sulfate	46.9	2.5	0.52	mg/l	5	09/29/15 19:22	RL	EPA 300/SW846 9056A

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID: LB-SW2-092115
Lab Sample ID: C41963-9F
Matrix: AQ - Groundwater Filtered
Date Sampled: 09/21/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0032 J	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.0963 J	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.203	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	55.3	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00060 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.0019 J	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0026 J	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	8.29	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.0022 J	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.0062 J	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.0047 J	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	13.9	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	68.3	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	0.337	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.0019	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.0052 J	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0230	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

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-EB1-092315
Lab Sample ID: C41963-10F
Matrix: AQ - Equip Blank Filtered
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

Date Sampled: 09/23/15
Date Received: 09/25/15
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	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Antimony	0.0012 U	0.0060	0.0012	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	0.0025 U	0.010	0.0025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Barium	0.00050 U	0.20	0.00050	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Beryllium	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Boron	0.0032 U	0.10	0.0032	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	0.00030 U	0.0020	0.00030	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Calcium	0.069 U	5.0	0.069	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Cobalt	0.00040 U	0.0050	0.00040	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Copper	0.0018 U	0.010	0.0018	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Magnesium	0.023 U	5.0	0.023	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	0.00020 U	0.015	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Molybdenum	0.00060 U	0.020	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Nickel	0.00060 U	0.0050	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Potassium	0.035 U	10	0.035	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Silver	0.0015 U	0.0050	0.0015	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Sodium	0.025 U	10	0.025	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Strontium	0.00020 U	0.010	0.00020	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Thallium	0.0048 U	0.010	0.0048	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Uranium	0.000017 U	0.0010	0.000017	mg/l	1	10/01/15	10/02/15	RS	EPA 200.8 [2]	EPA 200.8 [4]
Vanadium	0.00060 U	0.010	0.00060	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]
Zinc	0.0133 J	0.020	0.0031	mg/l	1	10/01/15	10/01/15	RS	EPA 200.7 [1]	EPA 200.7 [3]

(1) Instrument QC Batch: MA5256
(2) Instrument QC Batch: MA5257
(3) Prep QC Batch: MP10228
(4) Prep QC Batch: MP10229

RL = Reporting Limit
MDL = Method Detection Limit

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

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PHOENIX

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

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

FED-EX Tracking # 7813 8937 1631 5 | Bottle Order Control #
Accutest Quote # | Accutest NC Job # C41963

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Rollsus

Project Information

Project Name: La Bajada GW sampling
Street: Santo Domingo Pueblo
City: State: New Mexico
Project #: 12767.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #

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	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1904	Total Dissolved Solids by SM2540C	Total Alkalinity/Carbonate/Bicarbonate/Hydroxide SM2320B	Chloride/Sulfate by EPA 300.0	Nitrate + Nitrite / TKN SM4500
1	LB-MW1-092215	09/22/15	1030	DK	GW	6			3	2	1				X	X	X	X	X	X
2	LB-MW2-092215	09/22/15	1205	DK	GW	6			3	2	1				X	X	X	X	X	X

Requested Analysis

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:

- [X] 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
- [X] Commerical "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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Hg, Mn, Mo, Ni, K, Ag, Na, Sr, Th, V, U, Zn. Metals Field Filtration. Report as dissolved metals

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	Debbie Kenyon	09/24/15 0800	Fed-Ex	Fedex	9/25/15 9:45	
2						
3						
4						
5						

Custody Seal # Intact | Appropriate Bottle / Pres. Y / N | Headspace Y / N | On Ice Y / N | Cooler Temp.
Labels match CoC? Y / N | Separate Receiving Check List used: Y / N

6 Coolers: 1.9 | 2.6 | 3.1 | 2.5 | 1.6 | 3.1 °C

C41963: Chain of Custody
Page 1 of 8

PHOENIX ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 8976 0436 0193 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C41963

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Sampler's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 12767.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

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	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904	Total Dissolved Solids by SM 2540C	Total Alkalinity (carbonate/Bicarbonate/Hydroxide SM2320B	Chloride / Sulfate by EPA 300.0	Nitrate+Nitrite / TKN SM4500						LAB USE ONLY
3	LB-MW3-092215	9/22/15	1348	DK	GW	6			3	2	1				X	X	X	X	X	X						
4	LB-MW3-092215D	9/22/15	1350	DK	GW	6			3	2	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:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered.
Report as dissolved metals. Check proposal for metals

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	Debbie K	9/24/15 0800	1 Fed-Ex	2 Fedex	9/25/15 09:45	2
3			3	4		4
5			5	Custody Seal # Intact	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. ___°C

PHOENIX ACCUTEST LABORATORIES — CHAIN OF CUSTODY

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

FED-EX Tracking # 7813 8934 6337
Accutest Quote #
Bottle Order Control #
Accutest NC Job #: C41963

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 12702.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Preserved: HCl	NaOH	HNO3	H2SO4	None	NaHSO4	MeOH	Encore	Dissolved metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904	Total Dissolved Solids by SM 2540C	Total Alkalinity / Carbonate / Bicarbonate / Hydroxide SM2320B	Chloride / Sulfate by EPA 300.0	Nitrate + Nitrite / TKN by SM4500	LAB USE ONLY
5	LB-MW4-092315	9/23/15	1655	DC	GW	6			3	2	1				X	X	X	X	X	X	
6	LB-MW5-092315	9/23/15	1345	DC	GW	6			3	2	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:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered.
Report as dissolved metals

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	Debbie Kenyon	9/24/15 0800	Fed-Ex	Fedex	9/25/15 0945	
2						
3						
4						
5				Custody Seal # Intact	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. ____°C

PHOENIX ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 7813 8934 6359 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C41963

Client / Reporting Information

Company Name: Weston Solutions Inc
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Ronsson

Project Information

Project Name: La Bajada Gw Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 127167.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Requested Analysis

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)

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	Dissolved metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904	Total Dissolved Solids SM 2540C	Total Alkalinity/Carbonate/Bicarbonate/Hydroxide SM2320B	Chloride/Sulfate by EPA 300.0	Nitrate+Nitrite/TKN by SM4500	MS/MSD	LAB USE ONLY
7	LB-MW7-092315	9/23/15	1055	DK	GW	12			6	4	2				X	X	X	X	X	X	X	

Turnaround Time (Business days)

Approved By:/ Date:

- [X] 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
- [X] Commerical "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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered

Report as dissolved metals

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	Debbie Kenyon	9/24/15 0800	Fed-Ex	Fedex	9/25/15 09:45	
2						
3						
4						
5						

Custody Seal # Intact | Appropriate Bottle / Pres. Y / N | Headspace Y / N | On Ice Y / N | Cooler Temp. ____ oC
Labels match Coc? Y / N | Separate Receiving Check List used: Y / N

PHOENIX

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

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

FED-EX Tracking # 7813 8934 6726 | Bottle Order Control #
Accutest Quote # 9 | Accutest NC Job #: C C41963

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 127767.201.001.0020
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	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903/904	Total Dissolved Solids SM 2540 C	Total Alkalinity (Carbonate/Bicarbonate) / Hydroxide SM2320B	Chloride / Sulfate / TKN by SM4500	LAB USE ONLY
8	LB-SW1-092115	9/21/15	1540	DK	GW	6			3	2	1				X	X	X	X	X	
9	LB-SW2-092115	09/21/15	1510	DK	GW	6			3	2	1				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:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered. Report as dissolved metals

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	Debbie K	09/24/15 0800	1 Fed-Ex	2 Fedex	9/25/15 0945	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # Intact	Appropriate Bottle / Pres. Y / N; Labels match Coc? Y / N	Headspace Y / N; On Ice Y / N; Separate Receiving Check List used: Y / N; Cooler Temp. ____ oC

C41963: Chain of Custody
Page 5 of 8

PHOENIX

CHAIN OF CUSTODY

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

FED-EX Tracking # 7813 8934 6348
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C41963

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Address: 960 West Elliot Road #101
City: Tempe State: Az Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon IG, Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 12767.201.001.0020
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	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904
19	LB-EB1-092315	9/23/15	1800	DK	W	6			3	2	1				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)

LAB USE ONLY

Turnaround Time (Business days)

Approved By:/ Date:

- [X] 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
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- [ ] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, Sr, Th, V, U, Zn. Metals field filtered
Report as dissolved metals

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	Dekove K	09/24/150800	1 Fed-EX	2 Fedex	9/25/15 09:45	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal # Intact	Appropriate Bottle / Pres. Y / N	Headspace Y / N

Labels match Coc? Y / N
Separate Receiving Check List used: Y / N
Cooler Temp. ____ oC

AZ

C41963: Chain of Custody
Page 6 of 8

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C41963 **Client:** WESTON SOLUTIONS **Project:** LA BAJADA GW SAMPLING

Date / Time Received: 9/25/2015 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:** 781389416315

Cooler Temps (Initial/Adjusted): #1: (1.9/1.9); #2: (2.6/2.6); #3: (3.1/3.1); #4: (2.5/2.5); #5: (1.6/1.6); #6: (3.1/3.1);

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. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No, Coolers	6		

Quality Control Preservation

	Y	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	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 Sample# 5,6,10……requested analysis not listed on the COC.

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

Sample Receipt Summary - Problem Resolution

Accutest Job Number: C41963

CSR: Elvin Kumar **Response Date:** 9/30/2015

Response: Client confirmed that samples will be analyzed for the full suite as requested on the COC for other samples. Samples were marked up on the COC
C41963-5 LB-MW4-092315
C41963-6 LB-MW5-092315

**Only Dissolved metals and Radiochemistry to be reported for the following:
C41963-10 LB-EB1-092315

***Reporting to be setup for MDL and mg/l

Accutest Laboratories
V:408.588.0200
2105 Lundy Avenue
F: 408.588.0201
San Jose, CA 95131
www/accutest.com

C41963: Chain of Custody
Page 8 of 8

Northern California ACCUTEST LABORATORIES

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	27	9.9	<200
Antimony	6.0	1.2	1.2	-1.4	<6.0
Arsenic	10	1.6	2.5	-0.70	<10
Barium	200	.2	.5	0.0	<200
Beryllium	5.0	.2	.6	0.0	<5.0
Boron	100	1.8	3.2	0.70	<100
Cadmium	2.0	.2	.3	-0.10	<2.0
Calcium	5000	28	69	10.8	<5000
Chromium	10	.4	.6	-0.30	<10
Cobalt	5.0	.3	.4	0.10	<5.0
Copper	10	1.2	1.8	0.40	<10
Iron	200	5.3	11		
Lead	10	1	1.7		
Lithium	50	1.1	2.9		
Magnesium	5000	16	23	8.0	<5000
Manganese	15	.2	.2	0.20	<15
Molybdenum	20	.5	.6	-0.20	<20
Nickel	5.0	.4	.6	0.30	<5.0
Potassium	10000	35	35	19.9	<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	-17	<10000
Strontium	10	.1	.2	0.0	<10
Thallium	10	1.7	4.8	2.2	<10
Tin	50	.8	1.3		
Titanium	10	.8	.8		
Vanadium	10	.6	.6	0.20	<10
Zinc	20	.5	3.1	1.4	<20

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	C41963-7F Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum	25.7	12700	12500	101.4	70-130
Antimony	0.0	527	500	105.4	70-130
Arsenic	7.3	549	500	108.3	70-130
Barium	48.6	575	500	105.3	70-130
Beryllium	0.0	524	500	104.8	70-130
Boron	223	759	500	107.2	70-130
Cadmium	0.0	540	500	108.0	70-130
Calcium	71000	83200	12500	97.6	70-130
Chromium	0.40	518	500	103.5	70-130
Cobalt	1.1	524	500	104.6	70-130
Copper	3.2	525	500	104.4	70-130
Iron					
Lead	anr				
Lithium					
Magnesium	15400	27800	12500	99.2	70-130
Manganese	0.60	533	500	106.5	70-130
Molybdenum	5.7	531	500	105.1	70-130
Nickel	4.2	516	500	102.4	70-130
Potassium	6500	11700	5000	104.0	70-130
Selenium					
Silicon					
Silver	0.0	529	500	105.8	70-130
Sodium	90500	103000	12500	100.0	70-130
Strontium	557	1080	500	104.6	-
Thallium	3.0	514	500	102.2	70-130
Tin					
Titanium					
Vanadium	9.9	518	500	101.6	70-130
Zinc	16.6	543	500	105.3	70-130

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	C41963-7F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum	25.7	12700	12500	101.4	0.0	20
Antimony	0.0	533	500	106.6	1.1	20
Arsenic	7.3	557	500	109.9	1.4	20
Barium	48.6	577	500	105.7	0.3	20
Beryllium	0.0	529	500	105.8	0.9	20
Boron	223	764	500	108.2	0.7	20
Cadmium	0.0	545	500	109.0	0.9	20
Calcium	71000	83500	12500	100.0	0.4	20
Chromium	0.40	514	500	102.7	0.8	20
Cobalt	1.1	526	500	105.0	0.4	20
Copper	3.2	529	500	105.2	0.8	20
Iron						
Lead	anr					
Lithium						
Magnesium	15400	28200	12500	102.4	1.4	20
Manganese	0.60	535	500	106.9	0.4	20
Molybdenum	5.7	534	500	105.7	0.6	20
Nickel	4.2	518	500	102.8	0.4	20
Potassium	6500	11800	5000	106.0	0.9	20
Selenium						
Silicon						
Silver	0.0	531	500	106.2	0.4	20
Sodium	90500	104000	12500	108.0	1.0	20
Strontium	557	1090	500	106.6	0.9	
Thallium	3.0	516	500	102.6	0.4	20
Tin						
Titanium						
Vanadium	9.9	516	500	101.2	0.4	20
Zinc	16.6	547	500	106.1	0.7	20

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	C41963-2F Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum	16.9	13000	12500	103.9	70-130
Antimony	0.0	537	500	107.4	70-130
Arsenic	41.7	594	500	110.5	70-130
Barium	44.6	574	500	105.9	70-130
Beryllium	0.0	539	500	107.8	70-130
Boron	168	719	500	110.2	70-130
Cadmium	0.0	548	500	109.6	70-130
Calcium	52300	64500	12500	97.6	70-130
Chromium	0.70	546	500	109.1	70-130
Cobalt	0.0	525	500	105.0	70-130
Copper	4.1	525	500	104.2	70-130
Iron					
Lead	anr				
Lithium					
Magnesium	15000	27700	12500	101.6	70-130
Manganese	0.30	543	500	108.5	70-130
Molybdenum	35.7	573	500	107.5	70-130
Nickel	1.0	521	500	104.0	70-130
Potassium	19700	24600	5000	98.2	70-130
Selenium					
Silicon					
Silver	0.0	529	500	105.8	70-130
Sodium	94100	106000	12500	95.2	70-130
Strontium	627	1160	500	106.6	-
Thallium	0.0	573	500	114.6	70-130
Tin					
Titanium					
Vanadium	8.9	537	500	105.6	70-130
Zinc	10.4	559	500	109.7	70-130

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	C41963-2F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum	16.9	13100	12500	104.7	0.8	20
Antimony	0.0	544	500	108.8	1.3	20
Arsenic	41.7	603	500	112.3	1.5	20
Barium	44.6	586	500	108.3	2.1	20
Beryllium	0.0	544	500	108.8	0.9	20
Boron	168	730	500	112.4	1.5	20
Cadmium	0.0	552	500	110.4	0.7	20
Calcium	52300	64500	12500	97.6	0.0	20
Chromium	0.70	553	500	110.5	1.3	20
Cobalt	0.0	527	500	105.4	0.4	20
Copper	4.1	529	500	105.0	0.8	20
Iron						
Lead	anr					
Lithium						
Magnesium	15000	27700	12500	101.6	0.0	20
Manganese	0.30	541	500	108.1	0.4	20
Molybdenum	35.7	581	500	109.1	1.4	20
Nickel	1.0	525	500	104.8	0.8	20
Potassium	19700	25000	5000	106.8	1.6	20
Selenium						
Silicon						
Silver	0.0	536	500	107.2	1.3	20
Sodium	94100	107000	12500	103.2	0.9	20
Strontium	627	1180	500	110.6	1.7	
Thallium	0.0	576	500	115.2	0.5	20
Tin						
Titanium						
Vanadium	8.9	542	500	106.6	0.9	20
Zinc	10.4	563	500	110.5	0.7	20

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum	12300	12500	98.4	85-115
Antimony	512	500	102.4	85-115
Arsenic	513	500	102.6	85-115
Barium	516	500	103.2	85-115
Beryllium	510	500	102.0	85-115
Boron	533	500	106.6	85-115
Cadmium	525	500	105.0	85-115
Calcium	12400	12500	99.2	85-115
Chromium	514	500	102.8	85-115
Cobalt	527	500	105.4	85-115
Copper	506	500	101.2	85-115
Iron				
Lead	anr			
Lithium				
Magnesium	12300	12500	98.4	85-115
Manganese	527	500	105.4	85-115
Molybdenum	517	500	103.4	85-115
Nickel	489	500	97.8	85-115
Potassium	5000	5000	100.0	85-115
Selenium				
Silicon				
Silver	513	500	102.6	85-115
Sodium	12600	12500	100.8	85-115
Strontium	514	500	102.8	-
Thallium	527	500	105.4	85-115
Tin				
Titanium				
Vanadium	495	500	99.0	85-115
Zinc	528	500	105.6	85-115

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10228
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/01/15

Metal	C41963-7F Original	SDL 1:5	%DIF	QC Limits
Aluminum	25.7	0.00	100.0(a)	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	7.30	0.00	100.0(a)	0-10
Barium	48.3	50.1	3.1	0-10
Beryllium	0.00	0.00	NC	0-10
Boron	223	217	2.9	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	73400	73100	2.9	0-10
Chromium	0.400	0.00	100.0(a)	0-10
Cobalt	1.00	2.10	90.9 (a)	0-10
Copper	3.20	0.00	100.0(a)	0-10
Iron				
Lead	anr			
Lithium				
Magnesium	16000	15900	3.0	0-10
Manganese	0.600	20.8	3366.7(a	0-10
Molybdenum	5.70	6.00	5.3	0-10
Nickel	4.20	4.20	0.0	0-10
Potassium	6530	6680	2.8	0-10
Selenium				
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	90600	92300	2.0	0-10
Strontium	572	575	3.2* (b)	0-
Thallium	3.00	9.20	206.7(a)	0-10
Tin				
Titanium				
Vanadium	9.90	10.4	5.1	0-10
Zinc	16.9	20.8	25.3 (a)	0-10

Associated samples MP10228: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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).
(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 10/01/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	4.5	13		
Antimony	0.50	.27	.42		
Arsenic	1.0	.61	.036		
Barium	1.0	.021	.091		
Beryllium	0.50		.035		
Boron	5.0	.18	.57		
Cadmium	0.50	.0056	.024		
Calcium	500	80	10		
Chromium	4.0	.05	.043		
Cobalt	0.50	.037	.14		
Copper	4.0	.036	.39		
Iron	50	6.2	4.4		
Lead	0.50	.011	.068		
Magnesium	500	1.1	.79		
Manganese	1.0	.024	.071		
Molybdenum	1.0	.23	.46		
Nickel	4.0	.35	.12		
Potassium	500	4.7	5.1		
Selenium	1.0	.33	.21		
Silver	2.0	.0096	.018		
Sodium	500	4.3	9.7		
Strontium	5.0	.043	.072		
Thallium	0.50	.08	.19		
Tin	5.0	.11	.42		
Titanium	1.0	.17	.13		
Vanadium	4.0	.72	.096		
Uranium	1.0	.12	.017	0.00093	<1.0
Zinc	4.0	.45	.81		

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/01/15

Metal	C41963-7F 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	13.5	548	500	106.9	70-130
Zinc	anr				

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/01/15

Metal	C41963-7F 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	13.5	553	500	107.9	5.1	20
Zinc	anr					

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/01/15

Metal	C41963-2F 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	5.9	539	500	106.6	70-130
Zinc	anr				

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229 Methods: EPA 200.8
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/01/15

Metal	C41963-2F 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	5.9	544	500	107.6	0.9	20
Zinc	anr					

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 10/01/15

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	514	500	102.8	85-115
Zinc	anr			

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: C41963
Account: WESTAZT - Weston Solutions, Inc.
Project: La Bajada Mine GW Sampling - Santo Domingo Pueblo, New Mexico

QC Batch ID: MP10229
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 10/01/15

Metal	C41963-7F 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	13.5	13.1	3.0	0-10
Zinc	anr			

Associated samples MP10229: C41963-1F, C41963-2F, C41963-3F, C41963-4F, C41963-5F, C41963-6F, C41963-7F, C41963-8F, C41963-9F, C41963-10F

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

Northern California ACCUTEST LABORATORIES

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: C41963
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	GN17467	5.0	0.0	mg/l	250	252	100.8	75-125%
Alkalinity, Total as CaCO3	GN17503	5.0	0.0	mg/l	250	253	101.2	75-125%
Bromide	GP8436/GN17492	0.20	0.0	mg/l	5	4.79	95.8	90-110%
Chloride	GP8436/GN17492	0.50	0.0	mg/l	5	4.68	93.6	90-110%
Fluoride	GP8436/GN17492	0.10	0.0	mg/l	5	4.74	94.8	90-110%
Nitrogen, Nitrate	GP8436/GN17492	0.10	0.0	mg/l	5	4.75	95.0	90-110%
Nitrogen, Nitrate + Nitrite	GN17535	0.10	0.0	mg/l	0.2	0.20	98.6	85-115%
Nitrogen, Nitrite	GP8436/GN17492	0.10	0.0	mg/l	5	4.60	92.0	90-110%
Nitrogen, Total Kjeldahl	GP8461/GN17542	0.20	0.0	mg/l	5	4.9	97.4	75-125%
Solids, Total Dissolved	GN17454	10	0.0	mg/l				
Solids, Total Dissolved	GN17465	10	0.0	mg/l				
Sulfate	GP8436/GN17492	0.50	0.0	mg/l	5	4.59	91.8	90-110%

Associated Samples:
Batch GP8436: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GP8461: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GN17454: C41963-8, C41963-9
Batch GN17465: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7
Batch GN17467: C41963-8, C41963-9
Batch GN17503: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7
Batch GN17535: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C41963
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	GN17467	mg/l	250	251	0.4	
Alkalinity, Total as CaCO3	GN17503	mg/l	250	257	1.6	
Bromide	GP8436/GN17492	mg/l	5	4.74	1.0	25%
Chloride	GP8436/GN17492	mg/l	5	4.63	1.1	25%
Fluoride	GP8436/GN17492	mg/l	5	4.71	0.6	25%
Nitrogen, Nitrate	GP8436/GN17492	mg/l	5	4.73	0.4	25%
Nitrogen, Nitrate + Nitrite	GN17535	mg/l	0.2	0.19	1.7	
Nitrogen, Nitrite	GP8436/GN17492	mg/l	5	4.63	0.7	25%
Nitrogen, Total Kjeldahl	GP8461/GN17542	mg/l	5	4.9	0.8	
Sulfate	GP8436/GN17492	mg/l	5	4.54	1.1	25%

Associated Samples:
Batch GP8436: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GP8461: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GN17467: C41963-8, C41963-9
Batch GN17503: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7
Batch GN17535: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C41963
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	GN17467	C41967-1	mg/l	309	297	4.0	0-25%
Alkalinity, Total as CaCO3	GN17503	C41963-7	mg/l	312	300	4.0	0-25%
Solids, Total Dissolved	GN17454	C41963-9	mg/l	392	371	5.5	0-10%
Solids, Total Dissolved	GN17465	C41963-7	mg/l	500	505	1.0	0-10%

Associated Samples:
Batch GN17454: C41963-8, C41963-9
Batch GN17465: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7
Batch GN17467: C41963-8, C41963-9
Batch GN17503: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C41963
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	GP8436/GN17492	C41963-7	mg/l	0.23 U	50	47.9	95.8	80-120%
Chloride	GP8436/GN17492	C41963-7	mg/l	56.8	50	105	96.4	80-120%
Fluoride	GP8436/GN17492	C41963-7	mg/l	0.45	50	47.6	94.3	80-120%
Nitrogen, Nitrate	GP8436/GN17492	C41963-7	mg/l	0.23 U	50	47.9	95.8	80-120%
Nitrogen, Nitrate + Nitrite	GN17535	C41963-7	mg/l	0.11	0.2	0.31	101.4	75-125%
Nitrogen, Nitrite	GP8436/GN17492	C41963-7	mg/l	0.13 U	50	47.1	94.2	80-120%
Nitrogen, Total Kjeldahl	GP8461/GN17542	C41963-7	mg/l	0.039	5	4.3	85.0	75-125%
Sulfate	GP8436/GN17492	C41963-7	mg/l	69.0	50	116	94.0	80-120%

Associated Samples:
Batch GP8436: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GP8461: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GN17535: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C41963
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	GP8436/GN17492	C41963-7	mg/l	0.23 U	50	47.9	0.0	
Chloride	GP8436/GN17492	C41963-7	mg/l	56.8	50	105	0.0	
Fluoride	GP8436/GN17492	C41963-7	mg/l	0.45	50	47.8	0.4	
Nitrogen, Nitrate	GP8436/GN17492	C41963-7	mg/l	0.23 U	50	47.9	0.0	
Nitrogen, Nitrate + Nitrite	GN17535	C41963-7	mg/l	0.11	0.2	0.31	0.4	
Nitrogen, Nitrite	GP8436/GN17492	C41963-7	mg/l	0.13 U	50	47.5	0.8	
Nitrogen, Total Kjeldahl	GP8461/GN17542	C41963-7	mg/l	0.039	5	4.4	1.4	
Sulfate	GP8436/GN17492	C41963-7	mg/l	69.0	50	116	0.0	

Associated Samples:
Batch GP8436: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GP8461: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
Batch GN17535: C41963-1, C41963-2, C41963-3, C41963-4, C41963-5, C41963-6, C41963-7, C41963-8, C41963-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Northern California ACCUTEST LABORATORIES

10/20/15

Technical Report for

Weston Solutions, Inc.

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

12767.201.001.0020

Accutest Job Number: C41963X

Sampling Dates: 09/21/15 - 09/23/15

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: **33**

NELAP ACCREDITED TNI LABORATORY

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

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Sample Summary

Weston Solutions, Inc.

Job No: C41963X

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
C41963-1X	09/22/15	10:30	DK	09/25/15	AQ	Ground Water	LB-MW1-092215
C41963-2X	09/22/15	12:05	DK	09/25/15	AQ	Ground Water	LB-MW2-092215
C41963-3X	09/22/15	13:48	DK	09/25/15	AQ	Ground Water	LB-MW3-092215
C41963-4X	09/22/15	13:50	DK	09/25/15	AQ	Ground Water	LB-MW3-092215D
C41963-5X	09/23/15	16:55	DK	09/25/15	AQ	Ground Water	LB-MW4-092315
C41963-6X	09/23/15	13:45	DK	09/25/15	AQ	Ground Water	LB-MW5-092315
C41963-7DX	09/23/15	10:55	DK	09/25/15	AQ	Water Dup/MSD	LB-MW7-092315
C41963-7SX	09/23/15	10:55	DK	09/25/15	AQ	Water Matrix Spike	LB-MW7-092315
C41963-7X	09/23/15	10:55	DK	09/25/15	AQ	Ground Water	LB-MW7-092315
C41963-8X	09/21/15	15:40	DK	09/25/15	AQ	Ground Water	LB-SW1-092115
C41963-9X	09/21/15	15:10	DK	09/25/15	AQ	Ground Water	LB-SW2-092115
C41963-10X	09/23/15	18:00	DK	09/25/15	AQ	Equipment Blank	LB-EB1-092315

Northern California ACCUTEST LABORATORIES

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

October 19, 2015

Elvin
Accutest Laboratories
2105 Lundy Avenue
San Jose, CA 95131
TEL: (408) 588-0200
FAX: (408) 588-0201

RE: WESTAZT8135

Dear Elvin: Order No.: 15092316

Summit Environmental Technologies, Inc. received 12 sample(s) on 9/29/2015 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,

Cecilia Markovich

Technical Director

3310 Win St.
Cuyahoga Falls, Ohio 44223

A2LA 0724.01, Alabama 41600, Arizona AZ0788, Arkansas 88-0735, California 07256CA, Colorado, Connecticut PH-0105, Delaware, Florida NELAC E87688, Georgia E87688 and 943, Idaho OH00923, Illinois 200061 and Reg.5, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Louisiana 04061 and LA12004, Maine 2012015, Maryland 339, Massachusetts M-OPH923, Minnesota 409711, Montana CERT0099, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, Ohio Drinking Water 4170, Ohio VAP CL0052, Oklahoma 9940, Oregon OH200001, Rhode Island LA000317, South Carolina 92016001, Tennessee TN04018, Texas T104704466-11-5, Region 8 8TMS-L, USDA/APHIS P330-11-00244, Utah OH009232011-1, Vermont VT-87688, Virginia 00440 and 1581, Washington C891, West Virginia 248 and 9957C and E87688, Wisconsin 399013010

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#: **15092316**
Date: **10/19/2015**

CLIENT: Accutest Laboratories
Project: WESTAZT8135

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.
Analytical Comments for Radium-228_DW(904.0), Sample 15092316-007aMSD, Batch ID 16240 :
The Radium-228 MS and MSD (Batch R44458) exhibited high RPD.

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

Case Narrative

WO#: **15092316**
Date: **10/19/2015**

CLIENT: Accutest Laboratories
Project: WESTAZT8135

Analytical Comments for Radium-228_DW(904.0), Sample lcsdup, Batch ID R44458 : The Radium-228 LCSD (Batch R44458) exhibited poor recovery; The LCS and LCSD exhibited high RPD.

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

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#: **15092316**
Date: **10/19/2015**

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
Analytical Laboratories

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

Workorder Sample Summary

WO#: **15092316**

19-Oct-15

CLIENT: Accutest Laboratories
Project: WESTAZT8135

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
15092316-001	C41963-1 LB-MW1-092215		9/22/2015 12:30:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-002	C41963-2 LB-MW2-092215		9/22/2015 2:05:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-003	C41963-3 LB-MW3-092215		9/22/2015 3:48:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-004	C41963-4 LB-MW3-092215D		9/22/2015 3:50:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-005	C41963-5 LB-MW4-092215		9/23/2015 6:55:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-006	C41963-6 LB-MW5-092215		9/23/2015 3:45:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-007	C41963-7 LB-MW7-092215		9/23/2015 12:55:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-008	C41963-7 LB-MW7-092215 MS		9/23/2015 12:55:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-009	C41963-7 LB-MW7-092215 MSD		9/23/2015 12:55:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-010	C41963-8 LB-SW1-092215		9/21/2015 5:40:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-011	C41963-9 LB-SW2-092215		9/21/2015 5:10:00 PM	9/29/2015 9:35:00 AM	Liquid
15092316-012	C41963-10 LB-EB1-092215		9/23/2015 8:00:00 PM	9/29/2015 9:35:00 AM	Liquid

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories **Collection Date:** 9/22/2015 12:30:00 PM

Project: WESTAZT8135

Lab ID: 15092316-001 **Matrix:** LIQUID

Client Sample ID C41963-1 LB-MW1-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.58	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.1	1	10/5/2015 9:38:00 AM
Yield	2.00					1	10/5/2015 9:38:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.48	1	10/2/2015 2:21:00 PM
Yield	1.00					1	10/2/2015 2:21:00 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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Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories **Collection Date:** 9/22/2015 2:05:00 PM

Project: WESTAZT8135

Lab ID: 15092316-002 **Matrix:** LIQUID

Client Sample ID C41963-2 LB-MW2-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.61	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.12	1	10/5/2015 9:36:00 AM
Yield	2.00					1	10/5/2015 9:36:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.49	1	10/2/2015 2:22:00 PM
Yield	1.00					1	10/2/2015 2:22:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories
Collection Date: 9/22/2015 3:48:00 PM
Project: WESTAZT8135
Lab ID: 15092316-003
Matrix: LIQUID
Client Sample ID C41963-3 LB-MW3-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.72	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.17	1	10/5/2015 9:36:00 AM
Yield	2.00					1	10/5/2015 9:36:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.55	1	10/2/2015 2:22:00 PM
Yield	1.00					1	10/2/2015 2:22:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories **Collection Date:** 9/22/2015 3:50:00 PM

Project: WESTAZT8135

Lab ID: 15092316-004 **Matrix:** LIQUID

Client Sample ID C41963-4 LB-MW3-092215D

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	1.51	1.00		pCi/L	± 0.86	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.15	1	10/5/2015 9:36:00 AM
Yield	2.00					1	10/5/2015 9:36:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	1.16	1.00		pCi/L	± 0.71	1	10/2/2015 2:22:00 PM
Yield	1.00					1	10/2/2015 2:22:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories
Collection Date: 9/23/2015 6:55:00 PM
Project: WESTAZT8135
Lab ID: 15092316-005
Matrix: LIQUID
Client Sample ID C41963-5 LB-MW4-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.6	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.16	1	10/5/2015 9:37:00 AM
Yield	2.00					1	10/5/2015 9:37:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.44	1	10/2/2015 2:22:00 PM
Yield	1.00					1	10/2/2015 2:22:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories
Collection Date: 9/23/2015 3:45:00 PM
Project: WESTAZT8135
Lab ID: 15092316-006
Matrix: LIQUID
Client Sample ID C41963-6 LB-MW5-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.75	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.19	1	10/5/2015 9:37:00 AM
Yield	2.00					1	10/5/2015 9:37:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.56	1	10/2/2015 2:22:00 PM
Yield	1.00					1	10/2/2015 2:22:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories
Collection Date: 9/23/2015 12:55:00 PM
Project: WESTAZT8135
Lab ID: 15092316-007
Matrix: LIQUID
Client Sample ID C41963-7 LB-MW7-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.54	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.21	1	10/5/2015 9:38:00 AM
Yield	2.00					1	10/5/2015 9:38:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.33	1	10/2/2015 2:21:00 PM
Yield	1.00					1	10/2/2015 2:21:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories **Collection Date:** 9/23/2015 12:55:00 PM

Project: WESTAZT8135

Lab ID: 15092316-008 **Matrix:** LIQUID

Client Sample ID C41963-7 LB-MW7-092215 MS

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226	5.53	1.00	S*	pCi/L		1	10/5/2015
Radium-228	3.68	1.00	S	pCi/L		1	10/5/2015

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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories **Collection Date:** 9/23/2015 12:55:00 PM

Project: WESTAZT8135

Lab ID: 15092316-009 **Matrix:** LIQUID

Client Sample ID C41963-7 LB-MW7-092215 MSD

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226	4.96	1.00	S	pCi/L		1	10/5/2015
Radium-228	4.59	1.00	S	pCi/L		1	10/5/2015

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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories **Collection Date:** 9/21/2015 5:40:00 PM

Project: WESTAZT8135

Lab ID: 15092316-010 **Matrix:** LIQUID

Client Sample ID C41963-8 LB-SW1-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.63	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.12	1	10/5/2015 10:18:00 AM
Yield	2.00					1	10/5/2015 10:18:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.51	1	10/2/2015 3:22:00 PM
Yield	1.00					1	10/2/2015 3:22:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories
Collection Date: 9/21/2015 5:10:00 PM
Project: WESTAZT8135
Lab ID: 15092316-011
Matrix: LIQUID
Client Sample ID C41963-9 LB-SW2-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.54	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.11	1	10/5/2015 10:18:00 AM
Yield	2.00					1	10/5/2015 10:18:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.43	1	10/2/2015 3:18:00 PM
Yield	1.00					1	10/2/2015 3:18:00 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#: **15092316**

Date Reported: **10/19/2015**

CLIENT: Accutest Laboratories
Collection Date: 9/23/2015 8:00:00 PM
Project: WESTAZT8135
Lab ID: 15092316-012
Matrix: LIQUID
Client Sample ID C41963-10 LB-EB1-092215

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
COMBINEDRADIUM226/228-NPW **MBDRA226RA22** **E903-904** Analyst: **BRD**							
COMBINED RADIUM-226/228 ANALYSIS (903.0/904.0)							
Radium-226/Radium-228 Combined	ND	1.00		pCi/L	± 0.52	1	10/5/2015
COMBINEDRADIUM226/228-NPW **E903.0** Analyst: **BRD**							
RADIUM-226 ANALYSIS (903.0)							
Radium-226	ND	1.00		pCi/L	± 0.09	1	10/5/2015 10:18:00 AM
Yield	2.00					1	10/5/2015 10:18:00 AM
COMBINEDRADIUM226/228-NPW **E904.0** **E903-904** Analyst: **BRD**							
RADIUM-228 ANALYSIS (904.0)							
Radium-228	ND	1.00		pCi/L	± 0.43	1	10/2/2015 3:18:00 PM
Yield	1.00					1	10/2/2015 3:18:00 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

ACCUTEST LABORATORIES
2105 Lundy Avenue, San Jose, CA 95131 Phone :(408)588-0200 Fax: (408)588-0201

Accutest ID and PO#: C41963

Subcontract Chain of Custody

Subcontract Lab: Summit Environmental Technologies, Inc.
Date Sent: 09/28/15
Date Due: Standard Turnaround

1509231G-001012
CSL

Project Name: WESTAZT8135 (C41963)
Project Location:

Accutest Lab Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time
C41963-1	LB-MW1-092215	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/22/15	10:30
C41963-2	LB-MW2-092215	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/22/15	12:05
C41963-3	LB-MW3-092215	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/22/15	13:48
C41963-4	LB-MW3-092215D	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/22/15	13:50
C41963-5	LB-MW4-092315	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/23/15	16:55
C41963-6	LB-MW5-092315	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/23/15	13:45
C41963-7 *MS/MSD*	**LB-MW7-092315**	GW	Combined RA-226 & RA-228 *EPA 900 Series* ***(MS/MSD)***	09/23/15	10:55
C41963-8	LB-SW1-092115	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/21/15	15:40
C41963-9	LB-SW2-092115	GW	Combined RA-226 & RA-228 *EPA 900 Series*	09/21/15	15:10
C41963-10	LB-EB1-092315	Equipment Blank	Combined RA-226 & RA-228 *EPA 900 Series*	09/23/15	18:00

***Run MS/MSD for sample C41963-7 (LB-MW7-092315),** Extra Volume provided for MS/MSD
****1-Gallon Container provided with Nitric Acid preservative**

Comments: Samples are from **"New Mexico"** **(Ground water Samples)**

Relinquished By: Lee Baxter	Received By: FedEx PEP EX	Date: 09/28/15	Time: 15:00
Relinquished By: FedEx	Received By: Jimmy Cottrell	Date: 9.29.15	Time: 0935
Relinquished By:	Received By:	Date:	Time:

Send Report to: elvink@accutest.com

2

05/15/15

Summit Environmental Technologies, Inc.
Cooler Receipt Form

Client: AccuTest

Initials of person inspecting cooler and samples: FC

Date Received: 9.29.15 Time Received: 0935 Order Number: 1509316

Number of Coolers/Boxes: 3 Date cooler(s) opened and samples inspected: 9.29.15

Shipper: (FED EX) UPS DHL Airborne US Postal Walk-in Pickup Other: N/A

Packaging: Peanuts Bubble Wrap Paper Foam None (Other) PLASTIC BAG

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 ✓ Blue ice _____	(Y)	present / absent / melted	N/A
Sample Temperature IR Gun #16020459 CF 0.0°C	3.8 °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: _____

Summit Environmental Technologies, Inc.
Sample Receipt

pH and Chlorine test on samples

Radiological scan on sample

pH strip SET (0-14)# OES-01-0207 pH strip (2.8-4.6) SET#OES-01-0149
Total DPD packet SET#_____ Free DPD packet SET#_____
Disp. Pipette SET# WC-03-0510

ID	Method	pH	Chlorine (±)	Comments
CA1963-1	EPA 300	<2		
CA1963-2				
CA1963-3				
CA1963-4				
CA1963-5				
CA1963-6				
CA1963-7				
CA1963-8				
CA1963-9	↓	↓		
CA193-10	EPA-300	<2		

ID	scan	CPM
CA1963-1	✓	28
C41963-2	✓	22
C41963-3	✓	36
CA1963-4	✓	30
C41963-5	✓	20
CA1963-6	✓	30
CA1963-7	✓	28
CA1963-8	✓	30
CA1963-9	✓	16
CA1963-10	✓	24

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-01-0149)
524.2 = pH and Chlorine checked at bench and not log in department

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PHOENIX

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

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

FED-EX Tracking # 7813 & 9 371 6315 | Bottle Order Control #
Accutest Quote # | Accutest NC Job # C41963

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW sampling
Street: Santo Domingo Pueblo
City: State: New Mexico
Project #: 12767.201.001.0020
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	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1904	Total Dissolved Solids by SM2540C	Total Alkalinity/Carbonate/Bicarbonate/Hydroxide SM2320B	Chloride/Sulfate by EPA 300.0	Nitrate + Nitrite / TKN SM4500
1	LB-MW1-092215	09/22/15	1030	DK	GW	6			3	2	1				X	X	X	X	X	X
2	LB-MW2-092215	09/22/15	1205	DK	GW	6			3	2	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)

LAB USE ONLY

Turnaround Time (Business days)

Approved By / Date:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Hg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals Field Filtration. Report as dissolved metals

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	Debbie Kay	09/24/15 0800	Fed-Ex	Fedex	9/25/15 9:45	Ali
2						
3						
4						
5						

Custody Seal # Intact | Appropriate Bottle / Pres. Y / N | Headspace Y / N | On Ice Y / N | Cooler Temp.
Labels match Coc? Y / N | Separate Receiving Check List used: Y / N

6 Coolers: 1.9 | 2.6/3.1 | 2.5 | 1.6/3.1 °C

C41963X: Chain of Custody
Page 1 of 8

#2 of 6

PHOENIX ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 8976 0436 0193 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C41963

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Sampler's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 12767.201.001.0020
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	DI/CORE	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904	Total Dissolved Solids by SM 2540C	Total Alkalinity (carbonate/Bicarbonate/Hydroxide SM2320B	Chloride / Sulfate by EPA 300.0	Nitrate+Nitrite / TKN SM4500						LAB USE ONLY
3	LB-MW3-092215	9/22/15	1348	DK	GW	6			3	2	1				X	X	X	X	X	X						
4	LB-MW3-092215D	9/22/15	1350	DK	GW	6			3	2	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:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered.
Report as dissolved metals. Check proposal for metals

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	Debbie K	9/24/15 0800	1 Fed-Ex	2 Fedex	9/25/15 09:45	2
3			3	4		4
5			5	Custody Seal # Intact	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. ___°C

C41963X: Chain of Custody
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PHOENIX ACCUTEST LABORATORIES — CHAIN OF CUSTODY

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

FED-EX Tracking # 7813 8934 6337
Accutest Quote #
Bottle Order Control #
Accutest NC Job #: C41963

Client / Reporting Information

Company Name: Weston Solutions
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 12702.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #

Requested Analysis

Dissolved metals by EPA 200.7 & 200.8
Combined Ra-226 & Ra-228 by EPA 903.1/904
Total Dissolved Solids by SM 2540C
Total Alkalinity / Carbonate / Bicarbonate / Hydroxide SM2320B
Chloride / Sulfate by EPA 300.0
Nitrate + Nitrite / TKN by SM4500

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)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Preserved: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals	Combined Ra-226 & Ra-228	Total Dissolved Solids	Total Alkalinity / Carbonate / Bicarbonate / Hydroxide	Chloride / Sulfate	Nitrate + Nitrite / TKN	LAB USE ONLY
5	LB-MW4-092315	9/23/15	1655	DK	GW	6			3	2	1				X	X	X	X	X	X	
6	LB-MW5-092315	9/23/15	1345	DK	GW	6			3	2	1				X	X	X	X	X	X	

Turnaround Time (Business days)

Approved By / Date:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered.
Report as dissolved metals

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	Debbie Kenyon	9/24/15 0800	Fed-Ex	Fedex	9/25/15 0945	
2						
3						
4						
5				Custody Seal # Intact	Appropriate Bottle / Pres. Y / N	Headspace Y / N	On Ice Y / N	Cooler Temp.
					Labels match COC? Y / N	Separate Receiving Check List used: Y / N		°C

PHOENIX ACCUTEST LABORATORIES — CHAIN OF CUSTODY

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

FED-EX Tracking # 7813 8934 6359 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C41963

Client / Reporting Information

Company Name: Weston Solutions Inc
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Sampler's Name: D. Kenyon / G. Ronsson

Project Information

Project Name: La Bajada Gw Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 127167.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Preserved: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904	Total Dissolved Solids SM 2540C	Total Alkalinity / Carbonate / Bicarbonate / Hydroxide SM2320B	Chloride / Sulfate by EPA 300.0	Nitrate + Nitrite / TKN by SM4500	MS/MSD	LAB USE ONLY
7	LB-MW7-092315	9/23/15	1055	DK	GW	12			6	4	2				X	X	X	X	X	X	X	

Turnaround Time (Business days)

Approved By / Date:

- [X] 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
- [X] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered

Report as dissolved metals

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	Debbie Kenyon	9/24/15 0800	Fed-Ex	Fedex	9/25/15 09:45	
2						
3						
4						
5						

Custody Seal #: Intact

Appropriate Bottle / Pres. Y / N | Headspace Y / N | On Ice Y / N | Cooler Temp. ____ °C

Labels match CoC? Y / N | Separate Receiving Check List used: Y / N

PHOENIX

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

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

FED-EX Tracking # 781389946726 | Bottle Order Control #
Accutest Quote # 9 | Accutest NC Job #: C C41963

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Address: 960 West Elliot Road #101
City: Tempe State: AZ Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon / G. Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 127767.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #:

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903/904	Total Dissolved Solids SM 2540 C	Total Alkalinity (Carbonate/Bicarbonate) / Hydroxide SM2320B	Chloride / Sulfate / TKN by SM4500							LAB USE ONLY
8	LB-SW1-092115	9/21/15	1540	DK	GW	6			3	2	1				X	X	X	X	X							
9	LB-SW2-092115	09/21/15	1510	DK	GW	6			3	2	1				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:

- [X] 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
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- [ ] 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

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered. Report as dissolved metals

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	Debbie K	09/24/15 0800	1 Fed-Ex	2 Fedex	9/25/15 0945	2
3			3	4		4
5			5	Custody Seals Intact	Appropriate Bottle / Pres. Y / N; Labels match Coc? Y / N	Headspace Y / N; On Ice Y / N; Separate Receiving Check List used: Y / N	Cooler Temp. ____ oC

C41963X: Chain of Custody
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PHOENIX

CHAIN OF CUSTODY

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

FED-EX Tracking # 7815 8934 6348 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C41963

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Address: 960 West Elliot Road #101
City: Tempe State: Az Zip: 85284
Project Contact: Barb Wethington
Phone #: 480-477-4911
Samplers's Name: D. Kenyon IG, Roussos

Project Information

Project Name: La Bajada GW Sampling
Street: Santo Domingo Pueblo
City: New Mexico State:
Project #: 12767.201.001.0020
EMAIL: b.wethington@westonsolutions.com
Client Purchase Order #

Requested Analysis

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)

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	Dissolved Metals by EPA 200.7 & 200.8	Combined Ra-226 & Ra-228 by EPA 903.1/904	LAB USE ONLY
19	LB-EB1-092315	9/23/15	1800	DK	W	6			3	2	1				X	X	

Turnaround Time (Business days)

Approved By:/ Date:

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

Emergency T/A data available VIA Lablink

Data Deliverable Information

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- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Metals consist of Al, Sb, Ar, Ba, Be, Bo, Cd, Ca, Cr, Co, Cu, Mg, Mn, Mo, Ni, K, Ag, Na, St, Th, V, U, Zn. Metals field filtered

Report as dissolved metals

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	Dekove K	09/24/150800	1 Fed-EX	2 Fedex	9/25/15 09:45	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal # Intact	Appropriate Bottle / Pres. Y / N	Headspace Y / N

Labels match Coc? Y / N | Separate Receiving Check List used: Y / N | Cooler Temp. ____ oC

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C41963 **Client:** WESTON SOLUTIONS **Project:** LA BAJADA GW SAMPLING

Date / Time Received: 9/25/2015 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:** 781389416315

Cooler Temps (Initial/Adjusted): #1: (1.9/1.9); #2: (2.6/2.6); #3: (3.1/3.1); #4: (2.5/2.5); #5: (1.6/1.6); #6: (3.1/3.1);

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. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No, Coolers	6		

Quality Control Preservation

	Y	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	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 Sample# 5,6,10……requested analysis not listed on the COC.

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

C41963X: Chain of Custody
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Sample Receipt Summary - Problem Resolution

Accutest Job Number: C41963

CSR: Elvin Kumar **Response Date:** 9/30/2015

Response: Client confirmed that samples will be analyzed for the full suite as requested on the COC for other samples. Samples were marked up on the COC
C41963-5 LB-MW4-092315
C41963-6 LB-MW5-092315

**Only Dissolved metals and Radiochemistry to be reported for the following:
C41963-10 LB-EB1-092315

***Reporting to be setup for MDL and mg/l

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

C41963X: Chain of Custody
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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 = _____

9/21/15

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:

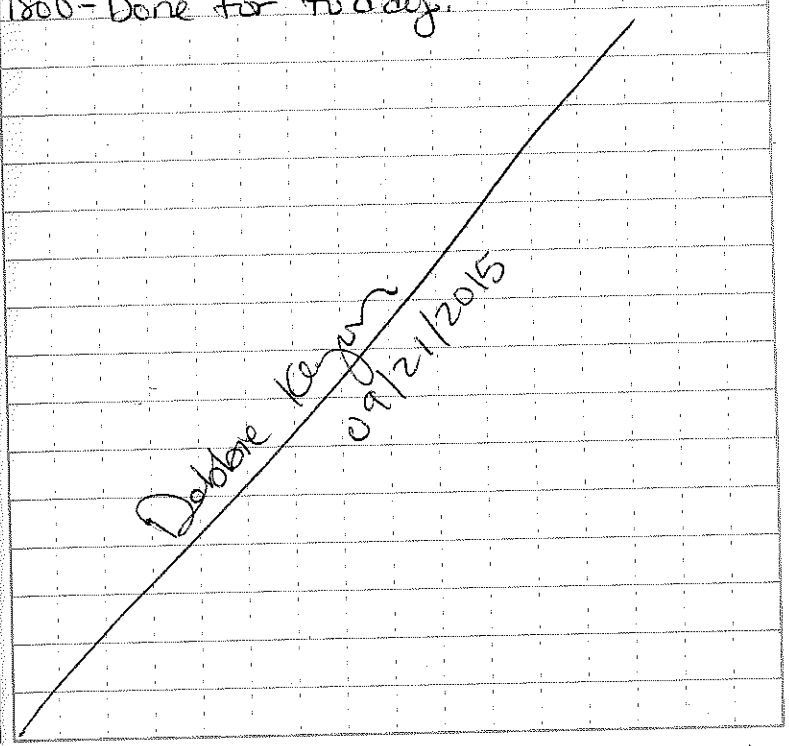
#	Direction	Description
821	W	Downstream
822	E	upstream
823	S	surrounding area

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 = _____

9/21/15

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 = _____
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 = _____

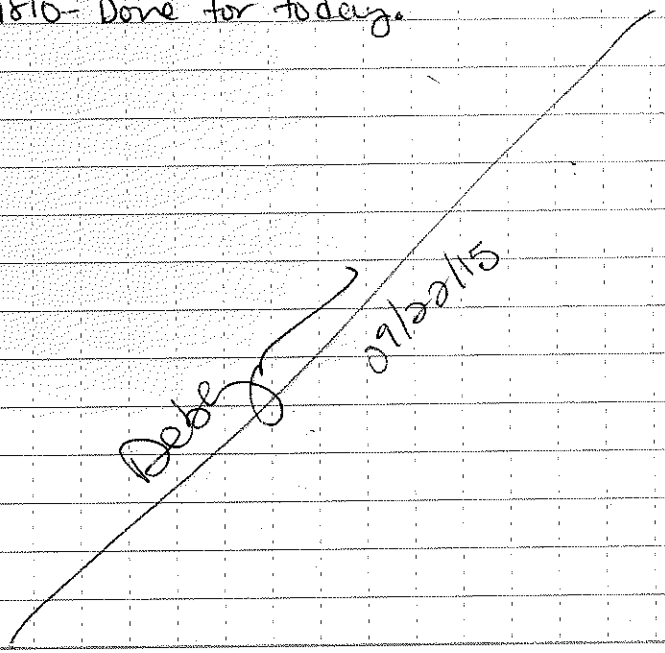
#	Direction	Description
831	N	well & Surrounding area
832	E	well & Surrounding area
833	S	well & Surrounding area
834	W	well & Surrounding area

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.



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 = _____

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 Hy 09/23/2015

Scale: 1 square = _____

Scale: 1 square = _____

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:

WESTON SOLUTIONS

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	13.45	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.

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

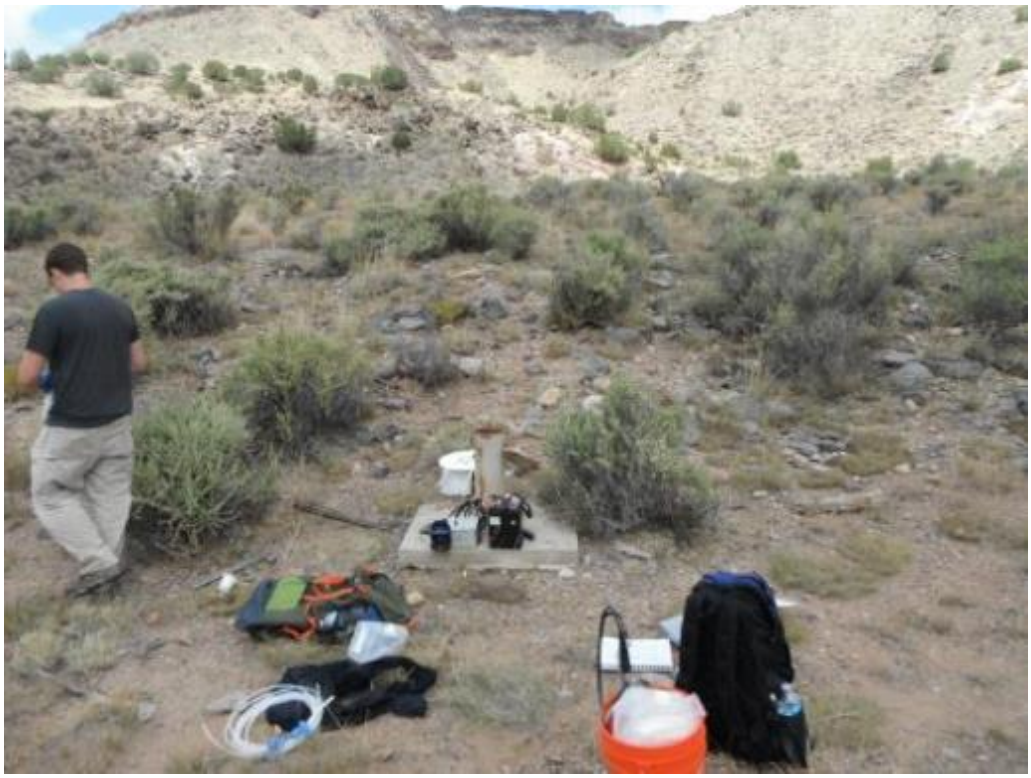
Photo No.	Date:
6	9/22/2015

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.