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Linda Jacobson (3 Copies)
RCRA Project Manager
US EPA Region VIII
8ENF-T
1595 Wynkoop Street
Denver, Colorado 80202-1129

October 7, 2009

SENT BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

CONSENT DECREE
CIVIL ACTION NO. CV 98-3-H-CCL
EAST HELENA SITE
WORK PERFORMED IN SEPTEMBER 2009
PROGRESS REPORT #129

Dear Ms. Jacobson:

On May 5, 1998, Asarco and the United States Environmental Protection Agency (EPA) entered into a Consent Decree (Decree) to further the objectives of the Resource Conservation and Recovery Act (RCRA) and the Clean Water Act (CWA). Section XI of the Decree (Reporting: Corrective Action) requires Asarco to submit certified monthly progress reports to EPA which discuss the actions taken by Asarco in achieving compliance with the Decree. The reports are to be submitted to EPA no later than the twentieth (20th) day of the following month. The following describes only those activities that have occurred or are related to projects performed during September 2009 and early October 2009. The historical actions taken by Asarco in achieving compliance with the Decree are contained in previous monthly progress reports.

a. Describe the actions, progress, and status of projects which have been undertaken pursuant to Part VII of the Decree;

Asarco has updated the Historical and Existing Monitoring Sites Exhibit for the East Helena site. A copy of the Exhibit, along with a diskette, is attached to this monthly progress report.

On October 2, 2009, Asarco notified EPA that the 2009 annual public meeting under the Consent Decree is scheduled to take place on November 10, 2009 at the East Helena Volunteer Firehall.

2009 Cleaning and Demolition Work Plan

During September 2009, Cleveland Wrecking (CWC) continued to haul demolition debris from the stack demolition, abandoned breaking floor and

highline area, and sample and crushing mill area. Material cleanup from these three areas was completed on September 16, 2009, September 21, 2009 and September 28, 2009, respectively. On September 10, 2009, CWC began demolition of the CSHB ventilation system. Demolition and recycling of scrap steel from the CSHB ventilation system was completed on September 28, 2009.

Exposed area footprint soil test pits were dug on September 11th, 21st, 22nd, 23rd, and 28th. The results from the sample mill basement test pit dug on September 11th were received and forwarded to EPA for approval to backfill the area with fumed slag. EPA approved the backfilling of the sample mill basement on September 28, 2009. Backfilling of the area commenced on September 29, 2009. The results of the remainder of the sample mill and crushing mill area samples will be available the first week of October 2009.

During September 2009, IRS Environmental continued to clean the CSHB building. Bulk solids removal was completed September 21, 2009 and washdown of the building interior began on September 22, 2009. During cleaning of the CSHB interior, it was determined that cleaning of the feeder grates in their present location posed a safety hazard. Upon consultation with Asarco, Hydrometrics, EPA, and the Montana Department of Environmental Quality (Department), the Department approved the removal of the feeder grates with a crane. The cleaning of the grates on the ground will minimize the safety hazards of cleaning the grates in place. The removal of the feeder grates commenced on October 2, 2009. Once removed and cleaned, the grates will be cut up and recycled for scrap.

Hydrometrics personnel continue to photograph, record truck contents, and weigh every truck hauling waste to the CAMU Phase 2 cell. Hydrometrics personnel also sample the contents of the haul trucks at a frequency of 1 sample per 20 truckloads.

On October 1, 2009, EPA, in consultation with the Department, approved placement of the additional liner in the former coke storage area. EPA will grant credit for this work under the custodial trust. On October 2, 2009, Asarco provided EPA with a map illustrating the former coke storage area and the approximate dimensions.

Asarco's consultant, ARCADIS continued to draft the report on the historic recordation of buildings scheduled for cleaning and demolition provided in the 2009 Work Plan for the facility. Engineering drawings have been digitized and archival quality photographs of the buildings are being developed to be included in the historic recordation report. Work continued on the video recordation of the demolition of the Blast Furnace Stack, the Acid Plant Stack, and the Sinter Stack, which took place August 14, 2009. Internal review of documentary footage and script continue and will be submitted for agency approval when complete. A two week turnaround time for agency comments will be requested to keep final production timeframes on track. Still and video footage from an independent

professional photographer who covered the event from the vantage point of a helicopter has been obtained. It will be used to supplement the work produced by ARCADIS' subcontractor on the video documentary. It is anticipated that the video will be submitted concurrently with the historic recordation report in mid Fall 2009. On October 2, 2009, Asarco provide the State Historic Preservation Office with a script for the demolition video.

On September 2, 2009, Asarco provided EPA with a cost breakdown for Arcadis to conduct the 2009 Recordation tasks under the approved Work Plan.

On September 14, 2009, Asarco participated in a telephone conference call with EPA and Department representatives to discuss BSI's on-going involvement with the Asarco East Helena facility.

On September 16, 2009, Asarco responded to EPA's inquiry that certain tasks identified in Additive Alternate A had been shifted from Express Services personnel to URS/CWC personnel.

Weekly cleaning and demolition progress meetings are scheduled to occur each Wednesday at 9:00 am in the Hydrometrics' conference room until the project is complete. The minutes from each of these meetings will continue to be distributed to interested parties.

RCRA Facility Investigation (RFI) Phase II Site Characterization and Risk Assessment Work Plans

The Baseline Ecological Risk Assessment (BERA) Work Plan and Field Sampling and Analysis Plan for the BERA were submitted to EPA in late June and mid-July 2009, respectively. Since those times, Asarco and its consultants have been prepared to perform the field activities set forth in the Work Plan and FSAP. In an August 17, 2009 communication, Asarco notified EPA that our consultant had lost the BERA field sampling team members to other projects and that, lacking EPA approval, a distinct possibility exists that the BERA field personnel would not be available to conduct any of the field work in 2009.

On September 28, 2009, Asarco notified EPA that, because no approval had been granted for the Work Plan, and due to the onset of adverse weather conditions and lack of field personnel, Asarco was unable to conduct BERA Work Plan field work in 2009. Later that same day, EPA transmitted a letter with comments on the BERA Work Plan and conditional approval of the Work Plan.

On October 1, 2009, Asarco participated in a conference call with EPA and the Department to discuss possible non-field related BERA Work Plan activities that may be conducted this year.

On September 2, 2009, Asarco requested a two-week extension for submittal of the Phase 2 RCRA Facility Investigation (RFI) Site Characterization Work Plan.

In a September 2, 2009 letter, EPA granted the extension. The revised delivery date of the Work Plan was set for September 24, 2009. On September 24, 2009, Asarco requested a few more days beyond the September 24, 2009 deadline for internal review of the Work Plan prior to submittal to EPA. On September 28, 2009, Asarco submitted to EPA the Work Plan.

The Phase 2 RFI Site Characterization Work Plan summarizes the current conditions of the facility and proposes a site conceptual model, which will provide the foundation for the additional site characterization. The proposed additional site characterization includes the following tasks (note all samples will be analyzed for the expanded parameter list).

- Additional surface soil sampling,
- Drilling and collection of subsurface soil samples,
- Drilling, soil sampling, and monitoring well installation/sampling,
- Evaluation of groundwater/surface water interaction on Prickly Pear Creek, and
- Evaluation of source of arsenic in southwest portion of Lamping Field.

The data collected for the Phase 2 RFI Site Characterization Work Plan will be evaluated to test/update the current site conditions and conceptual model and will be used in the development of the numerical groundwater flow and transport model.

Interim Measures

During September 2009, Hydrometrics personnel finished the quarterly groundwater monitoring event, which included sampling the three slag wells (DH-55, DH-56, and DH-65) on September 10th, 2009 and the CAMU monitoring wells (MW-1 through MW-11) on September 16th, 2009. Samples were not taken from well MW-7, as the well was pumped dry and did not recover by the end of the day. A total of 19 groundwater samples were submitted to Energy Laboratories for analyses of constituents outlined in Table 6 (slag wells) or Table 3 (CAMU wells) of the 2009 Groundwater and Surface Water Sampling and Monitoring Plan (Hydrometrics, 2009). The total number of samples submitted to the lab included 6 QA/QC samples (2 DI blanks, 2 rinsate blanks, and 2 duplicates).

On September 17, 2009, Asarco responded to EPA request for information on the City of East Helena former landfill located on Asarco property. Asarco provided EPA with the (1) lease agreement, (2) State of Montana letter on proper closure of the landfill, (3) State of Montana closure inspection report, and (4) Mayor's letter returning the site to Asarco.

Throughout September 2009, Asarco provided EPA with summary tables, maps, and analysis of the residential groundwater well samples collected in the Seaver

Park Subdivision. The notification letters from the August 12, 2009 Seaver Park sampling event were provided to EPA in the August 2009 monthly progress report. The notification letters from the August 19, 2009 and August 25, 2009 Seaver Park sampling event are attached to this monthly progress report.

Corrective Action Management Unit (CAMU)

During September 2009, Hydrometrics personnel have continued to monitor the leak detection and leachate collection sumps at the CAMU Phase 2 cell. Little precipitation occurred in September and no water was pumped from the leachate collection system. The leak detection sump continues to have zero flow, although a small amount of water (3-4 inches) is present in the bottom of the sump.

RI/FS Long-Term Monitoring Program

In early September 2009, Asarco provided the Lewis and Clark County Hydrogeologist with a copy of a slide (and supporting redox data in a spreadsheet of dissolved arsenic and selenium, arsenic and selenium speciation, and pH) showing the transition from anoxic to oxic near the leading edge of the arsenic plume in the former Lamping field. The slide was previously discussed to Lewis and Clark County Health Department and State of Montana Solid and Hazardous Waste representatives in an August 27, 2009 presentation of the current groundwater flow, plume status, groundwater/surface water interaction, and public water supply (PWS) system monitoring.

On September 9, 2009, Asarco provided EPA with the arsenic and selenium plume maps (shallow and intermediate combined) from the May 2009 semi-annual monitoring event.

On September 4, 2009, Asarco conducted the monthly sampling of select residential groundwater wells, as prescribed in the 2009 Groundwater and Surface Water Sampling and Monitoring Plan (May 2009). Copies of the September 2009 residential well notification letters, along with the respective laboratory analytical reports are attached to this monthly progress report.

A summary of the correspondence transmitted as part of the East Helena Consent Decree in September 2009 is included in Attachment 1.

b. Identify any requirements under the Part VII of the Decree that were not completed in a timely manner, and problems or anticipated problem areas affecting compliance with the Decree;

There were no requirements that were not completed in a timely manner nor were there problems or anticipated problem areas that may affect compliance with the Decree.

c. Describe projects completed during the prior month, as well as activities scheduled for the next month;

In accordance with the 1) 2006 Interim Measures Work Plan Addendum, Final Cleaning, Soil Sampling, Backfilling, and Interim Cap Work Plan and 2) 2006 Interim Measures Work Plan Addendum, Former Acid Plant Sediment Drying Area Slurry Wall, Monitoring, Operation, and Maintenance Work Plan, four areas in which interim caps have been installed are being inspected on a monthly basis. In December 2008, these monthly inspections were expanded to include areas in which above grade demolition activities were conducted under the 1) 2008 Interim Measures Work Plan and 2) 2008 Cleaning and Demolition Project Work Plan, with the most recent inspections occurring on September 3, 2009.

CAMU Landfill - In accordance with the July 2000 CAMU Design Analysis Report (Operation and Maintenance Plan), the CAMU is being inspected monthly with the most recent having occurred on September 1, 2009. The inspections of the CAMU Phase 2 cell temporary cover are being conducted on a weekly schedule. These monthly and weekly inspections documented that the CAMU Phase 1 and Phase 2 cell are operating as designed.

During October 2009, URS/CWC, IRS Environmental, and Express Services personnel will continue with the cleaning and demolition activities set forth in approved 2009 Work Plan. Weekly status update meetings will take place every Wednesday. Field work anticipated for October 2009 includes drilling, installation, and sampling of monitoring wells in the tertiary material to the south of Seaver Park and Lamping field to evaluate background arsenic concentrations in the area. Two additional wells are scheduled for placement upgradient and downgradient of the old City of East Helena Landfill. Asarco is scheduled to submit the Human Health Risk Assessment in October 2009.

d. Describe and estimate the percentage of studies completed;

The Pump and Treat Pilot Scale Testing for Source Area Reduction of Groundwater Contamination is approximately 100% complete.

The jar testing (Phase I) of the East Helena PRB Materials Testing Program is 100% complete.

The slurry wall construction in the former acid plant sediment drying area is 100% complete. On July 24, 2008, Asarco submitted to EPA the Addendum to Interim Measures Work Plan, Former Acid Plan Sediment Drying Wall, Monitoring, Operations, and Maintenance Report, Asarco East Helena Facility.

The interim capping project for the former acid plant sediment drying area, dross area, sinter plant area, gas cleaning section of the acid plant, thaw house, contact section of the acid plant, blast furnace baghouse, blast furnace flue, and Monier flue is 100% complete.

The revised January 2008 CAMU Phase 2 Cell Design Analyses is 100%

complete, the CAMU Phase 2 Cell financial assurance is fully funded, and construction and 2008 waste placement within the CAMU Phase 2 cell is 100% complete.

The slurry wall construction in the former speiss-dross plant area is 100% complete. On September 18, 2008, Asarco submitted to EPA the Addendum to Interim Measures Work Plan, Speiss-Dross Area Slurry Wall, Monitoring, Operations, and Maintenance Report, Asarco East Helena Facility.

Asarco completed the historic recordation tasks associated with the 2008 Cleaning and Demolition Work Plan. On September 23 and 30, 2008, the Phase 1 Historic Recordation Reports were submitted to EPA.

The obligations contained in the 2008 Interim Measures Work Plan Addendum, Blast Furnace Flue and Monier Flue Cleaning and Demolition and Demolition Footprint Exposed Areas Soil Sampling are 100% complete. On February 20, 2009, the findings from this completed work plan were submitted to EPA in a Summary Report.

Asarco completed the 2008 construction activities associated with the CAMU Phase 2 Cell. On January 30, 2009, the CAMU Phase 2 Cell, 2008 Construction Report was submitted to EPA.

Asarco (through ARCADIS) completed the historic recordation of buildings scheduled for cleaning and demolition prescribed in the 2009 Cleaning and Demolition Work Plan.

Asarco submitted the Baseline Ecological Risk Assessment Work Plan (June 2009) and Field Sampling and Analysis Plan (FSAP) to EPA, the Montana Department of Environmental Quality and U.S. Fish Wildlife Service.

Asarco submitted the Phase 2 RCRA Facility Investigation (RFI) Work Plan to EPA.

Asarco submitted the historic recordation script video for the 2009 stack demolition.

e. Describe and summarize all findings to date;

The details of past findings through June are described and summarized in previous monthly progress reports.

f. Describe actions being taken to address problems;

There were no other actions required to address problems associated with the Decree.

g. **Identify changes in key personnel during the period;**

There were no changes in key personnel during the period. Asarco continues to use the services of Hydrometrics Incorporated to perform the various activities required under the Consent Decree.

h. **Include copies of the results of sampling and tests conducted and other data generated pursuant to work performed under Part VII of the Decree since the last Progress Report. Asarco may submit data that has been validated and confirmed by Asarco to supplement any prior submitted data. Updated validated and confirmed data shall be included with the RFI Report, if not delivered before;**

Two validation packages entitled *"Validation Summary, Asarco East Helena, Post RI/FS Long-Term Monitoring Program, East Helena Residential Groundwater, Inorganic Analyses, Seaver Park July -August 2009 Sample Event"* and *"Validation Summary, Asarco East Helena, Post RI/FS Long-Term Monitoring Program, East Helena Residential Groundwater, Inorganic Analyses, September 2009 Sample Event"* are attached to this monthly progress report.

i. **Describe the status of financial assurance mechanisms, including whether any changes have occurred, or are expected to occur which might affect them, and the status of efforts to bring such mechanisms back into compliance with the requirements of this Decree.**

ASARCO filed a voluntary petition for relief under chapter 11 of Title 11 of the United States Bankruptcy Code in the Southern District of Texas on August 9, 2005. ASARCO hopes to use its chapter 11 bankruptcy proceeding to improve its financial position to the point where it can successfully reorganize and emerge from bankruptcy. ASARCO further hopes that at that time it will be in a position to make the required financial assurance demonstration. Asarco has established the necessary CAMU Phase 2 Cell financial assurance and has provided EPA with the complete executed original of the CAMU Trust Fund Agreement.

Sincerely,

Jon Nickel

CERTIFICATION
PURSUANT TO U.S. v ASARCO INCORPORATED
(CV-98-3-H-CCL, USDC, D. Montana)

I certify under penalty of law that this document, September 2009 Progress Report and all attachments, were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature _____
Name: Thomas L. Aldrich
Title: Vice President Environmental Affairs
Date: October 6, 2009

CONSENT DECREE
EAST HELENA SITE
SEPTEMBER 2009 PROGRESS REPORT
SUMMARY OF CORRESPONDENCE
ATTACHMENT 1

DATE OF TRANSMITTAL	CORRESPONDENCE SENT FROM	CORRESPONDENCE SENT TO	SUBJECT	RESPONSE
Attached to This Monthly Progress Report	Jon Nickel	Linda Jacobson	Updated Historical and Existing Monitoring Site Exhibit	No Formal Response Required
October 2, 2009	Jon Nickel	Linda Jacobson	Public Meeting Notification	No Formal Response Required
September 22 and 24, 2009	Mark Rhodes Jon Nickel	Linda Jacobson	Sample Mill Exposed Soils Sample Results	September 28, 2009 Approval to Backfill
September 22, 24, and 25, 2009	Jon Nickel	Linda Jacobson Iver Johnson	Removal of CSHB Feeder Grates	October 2, 2009 Approval
September 21 and 30, 2009	Jon Nickel	Iver Johnson Linda Jacobson	Placement of Liner in Former Coke Storage Area	October 1, 2009 Approval
October 2, 2009	Jon Nickel	Linda Jacobson	Former Coke Storage Areas Map	No Formal Response Required
October 2, 2009	Jon Nickel	Josef Warhank	Script for Demolition Video	Awaiting Approval
September 2, 2009	Jon Nickel	Linda Jacobson	Arcadis Cost Breakdown	No Formal Response Required
September 16, 2009	Jon Nickel	Linda Jacobson	Response to Additive Alternate A Tasks	No Formal Response Required
September 28, 2009	Jon Nickel	Linda Jacobson	Notification of Inability to Conduct BERA Field Tasks	September 28, 2009 EPA Comments and Conditional Approval of BERA

September 28, 2009	Jon Nickel	Linda Jacobson	Phase 2 RCRA Facility Investigation Work Plan	Awaiting EPA Approval
September 17, 2009	Jon Nickel	Linda Jacobson	Response to EPA's Request for City of East Helena Landfill Information	No Formal Response Required
September 9, 2009	Jon Nickel	Linda Jacobson	Arsenic and Selenium Plume Maps (July 2009)	No Formal Response Required
Throughout September 2009	Jon Nickel	Linda Jacobson	Seaver Park Residential Well Information	No Formal Response Required
Attached to This Monthly Progress Report	Jon Nickel	Linda Jacobson	Validation Summary, Asarco East Helena Post RI/FS Long-Term Monitoring Program, East Helena Residential Groundwater, Inorganic Analyses, Seaver Park July-August 2009 Sample Event	No Formal Response Required
Attached to This Monthly Progress Report	Jon Nickel	Linda Jacobson	Validation Summary, Asarco East Helena Post RI/FS Long-Term Monitoring Program, East Helena Residential Groundwater, Inorganic Analyses, September 2009 Sample Event	No Formal Response Required

ASARCO

September 11, 2009

Mark Runkle
88 Howard Beer Road
Clancy, Montana 59634

Dear Mr. Runkle

Enclosed are the analytical results for the water sample that was collected from your groundwater well located at 3655 Highway 12 on August 25, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-359 Runkle Property
Lab ID: H09080292-010 3655 Highway 12
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 11:30 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/26/09 11:12 / hm		PH_090826A	14	090826A-PH-W
Conductivity	1000	umhos/cm		1		A2510 B	08/26/09 10:54 / hm		COND_090826A	14	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:07 / hm		SOLIDS_090826B	39	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	640	mg/L		10		A2540 C	08/26/09 13:36 / hm		SOLIDS_090826A	24	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	300	mg/L		1		A2320 B	08/26/09 15:49 / JG		TITTR_090826A	16	090826A-ALK-W
Bicarbonate as HCO3	370	mg/L		1		A2320 B	08/26/09 15:49 / JG		TITTR_090826A	16	090826A-ALK-W
Chloride	43	mg/L		1		E300.0	08/27/09 19:54 / hm		IC101-H_090827A	34	R56284
Sulfate	130	mg/L		1		E300.0	08/27/09 19:54 / hm		IC101-H_090827A	34	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Arsenic	0.004	mg/L		0.002		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Calcium	85	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Copper	ND	mg/L		0.001		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Magnesium	58	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Potassium	4	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Selenium	0.001	mg/L		0.001		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-359
Lab ID: H09080292-010
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 11:30 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191
Sodium	36	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Zinc	0.03	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 11, 2009

Mark Runkle
88 Howard Beer Road
Clancy, Montana 59634

Dear Mr. Runkle:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 25, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 3885 Highway 12. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.014 mg/l (14 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-360 Runkle Property
Lab ID: H09080292-011 3885 Highway 12
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 12:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 11:17 / hm		PH_090826A	15	090826A-PH-W
Conductivity	675	umhos/cm		1		A2510 B	08/26/09 10:56 / hm		COND_090826A	15	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:07 / hm		SOLIDS_090826B	40	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	468	mg/L		10		A2540 C	08/26/09 13:37 / hm		SOLIDS_090826A	25	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/26/09 16:07 / JG		TITTR_090826A	18	090826A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/26/09 16:07 / JG		TITTR_090826A	18	090826A-ALK-W
Chloride	34	mg/L		1		E300.0	08/27/09 20:10 / hm		IC101-H_090827A	35	R56284
Sulfate	96	mg/L		1		E300.0	08/27/09 20:10 / hm		IC101-H_090827A	35	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Arsenic	0.014	mg/L		0.002		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Calcium	62	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:52 / eli-b		SUB-B135191	57	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Copper	ND	mg/L		0.001		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Magnesium	17	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Potassium	14	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Selenium	0.003	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-360
Lab ID: H09080292-011
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 12:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:52 / eli-b		SUB-B135191	57	B_R135191
Sodium	42	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:52 / eli-b		SUB-B135191	57	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Zinc	0.03	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Manager
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

Printed on Recycled Paper

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from **www.nsf.org**

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 11, 2009

John Padilla
P. O. Box 1204
Ennis, Montana 59729

Dear Mr. Padilla:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 25, 2009.

Enclosed are the analytical results for the water samples (both original sample and duplicate sample) that were collected from your well located at 3430 Weston Street. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.011 mg/l (11 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Project: Seaver Park Residential Well Sampling
Client Sample ID: EHR-0809-357 Padilla Residence (Original Sample)
Collection Date: 08/25/09 10:00 **DateReceived:** 08/25/09
Lab ID: H09080292-008 3430 Weston
Report Date: 09/08/09
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/26/09 11:01 / hm		PH_090826A	11	090826A-PH-W
Conductivity	1330	umhos/cm		1		A2510 B	08/26/09 10:47 / hm		COND_090826A	11	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:06 / hm		SOLIDS_090826B	37	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	946	mg/L		10		A2540 C	08/26/09 13:35 / hm		SOLIDS_090826A	22	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/26/09 15:15 / JG		TITTR_090826A	12	090826A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	08/26/09 15:15 / JG		TITTR_090826A	12	090826A-ALK-W
Chloride	92	mg/L		1		E300.0	08/27/09 19:21 / hm		IC101-H_090827A	32	R56284
Sulfate	390	mg/L		1		E300.0	08/27/09 19:21 / hm		IC101-H_090827A	32	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Arsenic	0.011	mg/L		0.002		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Calcium	91	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Chromium	0.001	mg/L		0.001		E200.8	08/28/09 14:40 / eli-b		SUB-B135191	54	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Magnesium	51	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Potassium	18	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Selenium	0.004	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-357
Lab ID: H09080292-008
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:40 / eli-b		SUB-B135191	54	B_R135191
Sodium	114	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Thallium	0.002	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-358 Padilla Residence (Duplicate)
Lab ID: H09080292-009 3430 Weston
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/26/09 11:10 / hm		PH_090826A	12	090826A-PH-W
Conductivity	1330	umhos/cm		1		A2510 B	08/26/09 10:49 / hm		COND_090826A	1	290826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:06 / hm		SOLIDS_090826B	38	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	949	mg/L		10		A2540 C	08/26/09 13:35 / hm		SOLIDS_090826A	23	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/26/09 15:38 / JG		TITTR_090826A	15	090826A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/26/09 15:38 / JG		TITTR_090826A	15	090826A-ALK-W
Chloride	93	mg/L		1		E300.0	08/27/09 19:37 / hm		IC101-H_090827A	33	R56284
Sulfate	390	mg/L		1		E300.0	08/27/09 19:37 / hm		IC101-H_090827A	33	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Arsenic	0.011	mg/L		0.002		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Calcium	91	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Chromium	0.001	mg/L		0.001		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Copper	0.002	mg/L		0.001		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Magnesium	51	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Potassium	18	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Selenium	0.004	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-358
Lab ID: H09080292-009
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Sodium	117	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Manager
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

Printed on Recycled Paper

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from **www.nsf.org**

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

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Denise Kirkpatrick
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Steve Wharton
Risk Assessor
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Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 11, 2009

Cheryl Shepard
3480 Weston
Helena, Montana 59601

Dear Ms. Shepard:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 25, 2009.

Enclosed are the analytical results for the water samples (both from your well and your reverse osmosis system) that were collected at 3480 Weston. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.019 mg/l (19 parts per billion). The sampling results for your reverse osmosis system show that your water quality meets all Montana Human Health Standards for the constituents sampled.

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-355 Shepard Residence
Lab ID: H09080292-006 3480 Weston
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/26/09 10:49 / hm		PH_090826A	9	090826A-PH-W
Conductivity	2340	umhos/cm		1		A2510 B	08/26/09 10:44 / hm		COND_090826A	9	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:04 / hm		SOLIDS_090826B	34	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1710	mg/L		10		A2540 C	08/26/09 13:32 / hm		SOLIDS_090826A	18	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	220	mg/L		1		A2320 B	08/26/09 14:58 / JG		TITTR_090826A	9	090826A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/26/09 14:58 / JG		TITTR_090826A	9	090826A-ALK-W
Chloride	300	mg/L		1		E300.0	08/27/09 18:15 / hm		IC101-H_090827A	28	R56284
Sulfate	560	mg/L		1		E300.0	08/27/09 18:15 / hm		IC101-H_090827A	28	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Arsenic	0.019	mg/L		0.002		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Calcium	227	mg/L		1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Chromium	0.002	mg/L		0.001		E200.8	08/28/09 14:32 / eli-b		SUB-B135191	52	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Copper	0.002	mg/L		0.001		E200.8	08/28/09 14:32 / eli-b		SUB-B135191	52	B_R135191
Gold	ND	mg/L	D	0.02		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Magnesium	86	mg/L		1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Potassium	25	mg/L		1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Selenium	0.005	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-355
Lab ID: H09080292-006
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:32 / eli-b		SUB-B135191	52	B_R135191
Sodium	166	mg/L	D	2		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Vanadium	ND	mg/L		0.01		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-356
Lab ID: H09080292-007
Matrix: Groundwater

Shepard Residence (Reverse Osmosis)
3480 Weston

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:20
DateReceived: 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	6.7	s.u.		0.1		A4500-H B	08/26/09 10:54 / hm		PH_090826A	10	090826A-PH-W
Conductivity	295	umhos/cm		1		A2510 B	08/26/09 10:46 / hm		COND_090826A	10	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:05 / hm		SOLIDS_090826B	35	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	170	mg/L		10		A2540 C	08/26/09 13:33 / hm		SOLIDS_090826A	19	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	17	mg/L		1		A2320 B	09/03/09 14:10 / hm		TITTR_090903A	3	090903A-ALK-W
Bicarbonate as HCO3	20	mg/L		1		A2320 B	09/03/09 14:10 / hm		TITTR_090903A	3	090903A-ALK-W
Chloride	43	mg/L		1		E300.0	08/27/09 18:31 / hm		IC101-H_090827A	29	R56284
Sulfate	9	mg/L		1		E300.0	08/27/09 18:31 / hm		IC101-H_090827A	29	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Arsenic	ND	mg/L		0.002		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Calcium	7	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:36 / eli-b		SUB-B135191	53	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Magnesium	3	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Potassium	7	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Selenium	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-356
Lab ID: H09080292-007
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:36 / eli-b		SUB-B135191	53	B_R135191
Sodium	45	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:36 / eli-b		SUB-B135191	53	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

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Wendy Thomi
Community Involvement Coordinator
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August 10, 2009

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Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

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ASARCO

September 11, 2009

Rick Lamping
3485 Weston
Helena, Montana 59601

Dear Mr. Lamping:

Enclosed are the analytical results for the water sample that was collected from your groundwater well located at 3485 Weston Street on August 25, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-354
Lab ID: H09080292-005
Matrix: Groundwater

R. Lamping Residence
3485 Weston

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/26/09 10:48 / hm		PH_090826A	8	090826A-PH-W
Conductivity	1820	umhos/cm		1		A2510 B	08/26/09 10:43 / hm		COND_090826A	8	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:03 / hm		SOLIDS_090826B	33	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1390	mg/L		10		A2540 C	08/26/09 13:32 / hm		SOLIDS_090826A	17	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/26/09 14:48 / JG		TITTR_090826A	8	090826A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/26/09 14:48 / JG		TITTR_090826A	8	090826A-ALK-W
Chloride	150	mg/L		1		E300.0	08/27/09 17:59 / hm		IC101-H_090827A	27	R56284
Sulfate	600	mg/L		1		E300.0	08/27/09 17:59 / hm		IC101-H_090827A	27	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Arsenic	0.007	mg/L		0.002		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Calcium	169	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:28 / eli-b		SUB-B135191	51	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Copper	0.002	mg/L		0.001		E200.8	08/28/09 14:28 / eli-b		SUB-B135191	51	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Magnesium	80	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Potassium	22	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Selenium	0.008	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-354
Lab ID: H09080292-005
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:28 / eli-b		SUB-B135191	51	B_R135191
Sodium	109	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 11, 2009

Andy Skinner
P. O. Box 5447
Helena, Montana 59604

Dear Mr. Skinner:

Enclosed are the analytical results for the water sample that was collected from your groundwater well located at 3350 Weston Street on August 25, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-350 Skinner Residence
Lab ID: H09080292-001 3350 Beck Street
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 10:37 / hm		PH_090826A : 3		090826A-PH-W
Conductivity	953	umhos/cm		1		A2510 B	08/26/09 10:32 / hm		COND_090826A : 3		90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:01 / hm		SOLIDS_090826B : 28		090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	644	mg/L		10		A2540 C	08/26/09 13:28 / hm		SOLIDS_090826A : 11		090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	200	mg/L		1		A2320 B	08/26/09 14:17 / JG		TITTR_090826A : 3		090826A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/26/09 14:17 / JG		TITTR_090826A : 3		090826A-ALK-W
Chloride	47	mg/L		1		E300.0	08/27/09 16:20 / hm		IC101-H_090827A : 21		R56284
Sulfate	230	mg/L		1		E300.0	08/27/09 16:20 / hm		IC101-H_090827A : 21		R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Arsenic	0.006	mg/L		0.002		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Calcium	71	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 13:44 / eli-b		SUB-B135191 : 47		B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Copper	0.001	mg/L		0.001		E200.8	08/28/09 13:44 / eli-b		SUB-B135191 : 47		B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Magnesium	45	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Potassium	15	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072 : 42		B_R135072
Selenium	0.002	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049 : 27		B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-350
Lab ID: H09080292-001
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 13:44 / eli-b		SUB-B135191	47	B_R135191
Sodium	57	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 11, 2009

Matt Balcerzak
701 Manlove
P. O. Box 623
East Helena, Montana 59635

Dear Mr. Balcerzak:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 25, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 701 Manlove. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.012 mg/l (12 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-351 Balcerzak Residence
Lab ID: H09080292-002 701 Manlove
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/26/09 10:39 / hm		PH_090826A	4	090826A-PH-W
Conductivity	1240	umhos/cm		1		A2510 B	08/26/09 10:34 / hm		COND_090826A	4	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:02 / hm		SOLIDS_090826B	30	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	907	mg/L		10		A2540 C	08/26/09 13:30 / hm		SOLIDS_090826A	14	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/26/09 14:25 / JG		TITTR_090826A	4	090826A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/26/09 14:25 / JG		TITTR_090826A	4	090826A-ALK-W
Chloride	52	mg/L		1		E300.0	08/27/09 16:37 / hm		IC101-H_090827A	22	R56284
Sulfate	360	mg/L		1		E300.0	08/27/09 16:37 / hm		IC101-H_090827A	22	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Arsenic	0.012	mg/L		0.002		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Calcium	127	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:00 / eli-b		SUB-B135191	48	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Copper	0.003	mg/L		0.001		E200.8	08/28/09 14:00 / eli-b		SUB-B135191	48	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Magnesium	33	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Potassium	19	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Selenium	0.005	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-351
Lab ID: H09080292-002
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:00 / eli-b		SUB-B135191	48	B_R135191
Sodium	82	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/ Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Manager
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

Printed on Recycled Paper

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 11, 2009

Kevin Hulst
800 Manlove
P. O. Box 611
East Helena, Montana 59635

Dear Mr. Hulst:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 25, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 800 Manlove. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.013 mg/l (13 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-352 K. Hulst Residence
Lab ID: H09080292-003 800 Manlove
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:05 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 10:42 / hm		PH_090826A : 5		090826A-PH-W
Conductivity	693	umhos/cm		1		A2510 B	08/26/09 10:37 / hm		COND_090826A : 5		90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:02 / hm		SOLIDS_090826B : 31		090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	482	mg/L		10		A2540 C	08/26/09 13:30 / hm		SOLIDS_090826A : 15		090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	08/26/09 14:29 / JG		TITTR_090826A : 5		090826A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/26/09 14:29 / JG		TITTR_090826A : 5		090826A-ALK-W
Chloride	28	mg/L		1		E300.0	08/27/09 16:53 / hm		IC101-H_090827A : 23		R56284
Sulfate	140	mg/L		1		E300.0	08/27/09 16:53 / hm		IC101-H_090827A : 23		R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Arsenic	0.013	mg/L		0.002		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Calcium	66	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:04 / eli-b		SUB-B135191 : 49		B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Copper	ND	mg/L		0.001		E200.8	08/28/09 14:04 / eli-b		SUB-B135191 : 49		B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Magnesium	18	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Potassium	14	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072 : 44		B_R135072
Selenium	0.003	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049 : 29		B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-352
Lab ID: H09080292-003
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:05 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:04 / eli-b		SUB-B135191	49	B_R135191
Sodium	43	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:04 / eli-b		SUB-B135191	49	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Manager
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

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September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from **www.nsf.org**

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

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RCRA Project Manager
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Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 11, 2009

Jim Wiseman
801 Manlove
P. O. Box 1000
East Helena, Montana 59635

Dear Mr. Wiseman:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 25, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 801 Manlove. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.015 mg/l (15 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-353 J. Wiseman Residence
Lab ID: H09080292-004 801 Manlove
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:25 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 10:44 / hm		PH_090826A	6	090826A-PH-W
Conductivity	474	umhos/cm		1		A2510 B	08/26/09 10:38 / hm		COND_090826A	6	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:03 / hm		SOLIDS_090826B	32	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	329	mg/L		10		A2540 C	08/26/09 13:31 / hm		SOLIDS_090826A	16	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		1		A2320 B	08/26/09 14:39 / JG		TITTR_090826A	7	090826A-ALK-W
Bicarbonate as HCO3	160	mg/L		1		A2320 B	08/26/09 14:39 / JG		TITTR_090826A	7	090826A-ALK-W
Chloride	14	mg/L		1		E300.0	08/27/09 17:09 / hm		IC101-H_090827A	24	R56284
Sulfate	74	mg/L		1		E300.0	08/27/09 17:09 / hm		IC101-H_090827A	24	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Arsenic	0.015	mg/L		0.002		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Calcium	41	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:08 / eli-b		SUB-B135191	50	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Magnesium	11	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Potassium	11	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Selenium	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-353
Lab ID: H09080292-004
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:25 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:08 / eli-b		SUB-B135191	50	B_R135191
Sodium	31	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Thallium	0.002	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

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Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Manager
406-444-3983

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Risk Assessor
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Wendy Thomi
Community Involvement Coordinator
406-457-5037

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September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: www.epa.gov/safewater/arsenic

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

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Steve Wharton
Risk Assessor
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Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 9, 2009

Teresa Wold
2780 Winslow Avenue
Helena, Montana 59601

Dear Mrs. Wold:

Enclosed are the analytical results for the water samples (from your groundwater well and from your reverse osmosis system) that were collected from your residence on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well and from your reverse osmosis system is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-332
Lab ID: H09080233-002
Matrix: Groundwater

Wold Residence
2780 Winslow Avenue

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/20/09 12:33 / hm		PH_090820B	3	090820A-PH-W
Conductivity	1290	umhos/cm		1		A2510 B	08/20/09 12:26 / hm		COND_090820A	3	90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:22 / hm		SOLIDS_090821C	31	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	907	mg/L		10		A2540 C	08/21/09 09:43 / hm		SOLIDS_090821A	10	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/24/09 15:43 / hm		TITTR_090821A	4	090824A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/24/09 15:43 / hm		TITTR_090821A	4	090824A-ALK-W
Chloride	98	mg/L		1		E300.0	08/24/09 17:16 / hm		IC101-H_090824A	20	R56155
Sulfate	330	mg/L		1		E300.0	08/24/09 17:16 / hm		IC101-H_090824A	20	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Calcium	97	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:33 / eli-b		SUB-B134849	2	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Magnesium	56	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Potassium	19	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Selenium	0.005	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-332
Lab ID: H09080233-002
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Sodium	101	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:33 / eli-b		SUB-B134849	2	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-333
Lab ID: H09080233-003
Matrix: Groundwater

Wold Residence (R.O. System)
2780 Winslow Avenue

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	08/20/09 12:39 / hm		PH_090820B : 4		090820A-PH-W
Conductivity	157	umhos/cm		1		A2510 B	08/20/09 12:28 / hm		COND_090820A : 4		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:22 / hm		SOLIDS_090821C : 33		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	103	mg/L		10		A2540 C	08/21/09 09:45 / hm		SOLIDS_090821A : 13		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	26	mg/L		1		A2320 B	08/24/09 15:48 / hm		TITTR_090821A : 5		090824A-ALK-W
Alkalinity, Total as CaCO3	26	mg/L		1		A2320 B	08/28/09 14:48 / JG		TITTR_090828A : 3		090828A-ALK-W
Bicarbonate as HCO3	31	mg/L		1		A2320 B	08/24/09 15:48 / hm		TITTR_090821A : 5		090824A-ALK-W
Bicarbonate as HCO3	31	mg/L		1		A2320 B	08/28/09 14:48 / JG		TITTR_090828A : 3		090828A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 17:32 / hm		IC101-H_090824A : 21		R56155
Sulfate	2	mg/L		1		E300.0	08/24/09 17:32 / hm		IC101-H_090824A : 21		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Arsenic	ND	mg/L		0.002		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Calcium	ND	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:37 / eli-b		SUB-B134849 : 3		B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Magnesium	ND	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750 : 34		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860 : 9		B_R134860

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-333
Lab ID: H09080233-003
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Potassium	ND	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Selenium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Sodium	18	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Zinc	ND	mg/L		0.01		E200.8	08/24/09 16:37 / eli-b		SUB-B134849	3	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Frank Miller
3420 Weston
Helena, Montana 59601

Dear Mr. Miller:

Enclosed are the analytical results for the water sample that was collected from your groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-334
Lab ID: H09080233-004
Matrix: Groundwater

Miller Residence
3420 Weston

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:50 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:42 / hm		PH_090820B	5	090820A-PH-W
Conductivity	1220	umhos/cm		1		A2510 B	08/20/09 12:32 / hm		COND_090820A	5	90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:23 / hm		SOLIDS_090821C	34	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	910	mg/L		10		A2540 C	08/21/09 09:45 / hm		SOLIDS_090821A	14	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	08/24/09 16:03 / hm		TITTR_090821A	7	090824A-ALK-W
Bicarbonate as HCO3	230	mg/L		1		A2320 B	08/24/09 16:03 / hm		TITTR_090821A	7	090824A-ALK-W
Chloride	56	mg/L		1		E300.0	08/24/09 18:22 / hm		IC101-H_090824A	24	R56155
Sulfate	400	mg/L		1		E300.0	08/24/09 18:22 / hm		IC101-H_090824A	24	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Calcium	99	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:41 / eli-b		SUB-B134849	4	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Magnesium	58	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Potassium	18	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Selenium	0.004	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-334
Lab ID: H09080233-004
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:50 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Sodium	83	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:41 / eli-b		SUB-B134849	4	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Barry Potter
3460 Weston
Helena, Montana 59601

Dear Mr. Potter:

Enclosed are the analytical results for the water sample that was collected from your groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-335 Potter Residence
Lab ID: H09080233-005 3460 Weston
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:43 / hm		PH_090820B : 6		090820A-PH-W
Conductivity	735	umhos/cm		1		A2510 B	08/20/09 12:33 / hm		COND_090820A : 6		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:23 / hm		SOLIDS_090821C : 35		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	496	mg/L		10		A2540 C	08/21/09 09:46 / hm		SOLIDS_090821A : 15		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/24/09 16:30 / hm		TITTR_090821A : 8		090824A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/24/09 16:30 / hm		TITTR_090821A : 8		090824A-ALK-W
Chloride	33	mg/L		1		E300.0	08/24/09 18:38 / hm		IC101-H_090824A : 25		R56155
Sulfate	130	mg/L		1		E300.0	08/24/09 18:38 / hm		IC101-H_090824A : 25		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Arsenic	0.009	mg/L		0.002		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Calcium	59	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Copper	0.002	mg/L		0.001		E200.8	08/24/09 16:45 / eli-b		SUB-B134849 : 5		B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Magnesium	34	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Potassium	13	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860 : 11		B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750 : 36		B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-335
Lab ID: H09080233-005
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Sodium	43	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:45 / eli-b		SUB-B134849	5	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Jeff Tobin
3445 Weston
Helena, Montana 59601

Dear Mr. Tobin:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 3445 Weston. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.014 mg/l (14 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-336 Tobin Residence
Lab ID: H09080233-006 3445 Weston
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:35 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:46 / hm		PH_090820B : 8		090820A-PH-W
Conductivity	536	umhos/cm		1		A2510 B	08/20/09 12:42 / hm		COND_090820A : 8		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:23 / hm		SOLIDS_090821C : 36		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	374	mg/L		10		A2540 C	08/21/09 09:46 / hm		SOLIDS_090821A : 16		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	08/24/09 17:01 / hm		TITTR_090821A : 11		090824A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	08/24/09 17:01 / hm		TITTR_090821A : 11		090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 18:54 / hm		IC101-H_090824A : 26		R56155
Sulfate	93	mg/L		1		E300.0	08/24/09 18:54 / hm		IC101-H_090824A : 26		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Arsenic	0.014	mg/L		0.002		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Calcium	41	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Copper	0.002	mg/L		0.001		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Magnesium	18	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Potassium	13	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-336
Lab ID: H09080233-006
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:35 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:52 / eli-b		SUB-B134750	37	B_R134750
Sodium	38	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860	12	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750	37	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 01:52 / eli-b		SUB-B134750	37	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:49 / eli-b		SUB-B134849	6	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Manager
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 9, 2009

Rogge Eiler
2830 Winslow Avenue
Helena, Montana 59601

Dear Mr. Eiler:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 2830 Winslow Avenue. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.019 mg/l (19 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-338
Lab ID: H09080233-008
Matrix: Groundwater

Eiler Residence
2830 Winslow Avenue

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:20 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	10	090820A-PH-W
Conductivity	523	umhos/cm		1		A2510 B	08/20/09 14:32 / hm		COND_090820A	1	090820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:32 / hm		SOLIDS_090821C	38	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	369	mg/L		10		A2540 C	08/21/09 09:47 / hm		SOLIDS_090821A	18	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	08/24/09 17:16 / hm		TITTR_090821A	13	090824A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	08/24/09 17:16 / hm		TITTR_090821A	13	090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 19:27 / hm		IC101-H_090824A	28	R56155
Sulfate	85	mg/L		1		E300.0	08/24/09 19:27 / hm		IC101-H_090824A	28	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Arsenic	0.019	mg/L		0.002		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Calcium	45	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 17:13 / eli-b		SUB-B134849	8	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Magnesium	14	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Potassium	12	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

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Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:20 **DateReceived:** 08/20/09
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Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Sodium	37	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Zinc	0.02	mg/L		0.01		E200.8	08/24/09 17:13 / eli-b		SUB-B134849	8	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: www.epa.gov/safewater/arsenic

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

CONTACTS

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RCRA Project Manager
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Scott Brown
Superfund Project Manager
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Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 9, 2009

Larry Henne
2795 Winslow Avenue
Helena, Montana 59601

Dear Mr. Henne:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 2795 Winslow Avenue. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.011 mg/l (11 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-339
Lab ID: H09080233-009
Matrix: Groundwater

Henne Residence
2795 Winslow Avenue

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	11	090820A-PH-W
Conductivity	648	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	190820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:34 / hm		SOLIDS_090821C	40	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	457	mg/L		10		A2540 C	08/21/09 09:49 / hm		SOLIDS_090821A	20	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/24/09 17:21 / hm		TITTR_090821A	14	090824A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/24/09 17:21 / hm		TITTR_090821A	14	090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 19:44 / hm		IC101-H_090824A	29	R56155
Sulfate	130	mg/L		1		E300.0	08/24/09 19:44 / hm		IC101-H_090824A	29	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Arsenic	0.011	mg/L		0.002		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Calcium	48	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Chromium	0.001	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Copper	ND	mg/L		0.001		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Magnesium	29	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Potassium	13	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750

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Matrix: Groundwater

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Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Sodium	42	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750

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Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
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Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

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The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: www.epa.gov/safewater/arsenic

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

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- ion exchange; or
- reverse osmosis

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Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 9, 2009

Dan Larson
3459 Weston
Helena, Montana 59601

Dear Mr. Larson:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well that provides water to both 2858 and 2866 Winslow Avenue. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.024 mg/l (24 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-341
Lab ID: H09080233-011
Matrix: Groundwater

Larson Property
2858 and 2866 Winslow Avenue

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	14	090820A-PH-W
Conductivity	542	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	490820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:34 / hm		SOLIDS_090821C	42	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	378	mg/L		10		A2540 C	08/21/09 09:50 / hm		SOLIDS_090821A	22	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	08/25/09 15:39 / sld		TITTR_090825A	32	090825A-ALK-W
Bicarbonate as HCO3	180	mg/L		1		A2320 B	08/25/09 15:39 / sld		TITTR_090825A	32	090825A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 20:49 / hm		IC101-H_090824A	33	R56155
Sulfate	84	mg/L		1		E300.0	08/24/09 20:49 / hm		IC101-H_090824A	33	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Arsenic	0.024	mg/L		0.002		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Calcium	45	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Copper	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Magnesium	12	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Potassium	13	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-341
Lab ID: H09080233-011
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Sodium	44	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Vanadium	0.02	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Zinc	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: www.epa.gov/safewater/arsenic

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

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RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

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Steve Wharton
Risk Assessor
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Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

ASARCO

September 9, 2009

Bill Davy
3465 Weston
Helena, Montana 59601

Dear Mr. Davy:

Enclosed are the analytical results for the water sample that was collected from your groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-343
Lab ID: H09080233-013
Matrix: Groundwater

Davy Residence
3465 Weston

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:41 / hm		PH_090820B	16	090820A-PH-W
Conductivity	2680	umhos/cm		1		A2510 B	08/20/09 14:39 / hm		COND_090820A	16	90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:35 / hm		SOLIDS_090821C	44	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	2230	mg/L		10		A2540 C	08/21/09 09:51 / hm		SOLIDS_090821A	24	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	08/25/09 15:46 / sld		TITTR_090825A	34	090825A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/25/09 15:46 / sld		TITTR_090825A	34	090825A-ALK-W
Chloride	170	mg/L		1		E300.0	08/24/09 21:22 / hm		IC101-H_090824A	35	R56155
Sulfate	1200	mg/L		1		E300.0	08/24/09 21:22 / hm		IC101-H_090824A	35	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Calcium	286	mg/L		1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Chromium	0.002	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Copper	0.006	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Gold	ND	mg/L	D	0.02		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Iron	0.08	mg/L		0.02		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Magnesium	123	mg/L		1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Potassium	29	mg/L		1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Selenium	0.013	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-343
Lab ID: H09080233-013
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Sodium	204	mg/L	D	2		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Zinc	0.06	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Paul Hamper
3489 Weston
Helena, Montana 59601

Dear Mr. Hamper:

Enclosed are the analytical results for the water sample that was collected from your groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-344
Lab ID: H09080233-014
Matrix: Groundwater

Hamper Residence
3489 Weston

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:20
DateReceived: 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:44 / hm		PH_090820B	17	090820A-PH-W
Conductivity	1100	umhos/cm		1		A2510 B	08/20/09 14:41 / hm		COND_090820A	1	790820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:35 / hm		SOLIDS_090821C	45	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	804	mg/L		10		A2540 C	08/21/09 09:53 / hm		SOLIDS_090821A	25	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	08/25/09 16:06 / sld		TITTR_090825A	37	090825A-ALK-W
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	08/28/09 14:58 / JG		TITTR_090828A	4	090828A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/25/09 16:06 / sld		TITTR_090825A	37	090825A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/28/09 14:58 / JG		TITTR_090828A	4	090828A-ALK-W
Chloride	70	mg/L		1		E300.0	09/01/09 22:36 / hm		IC101-H_090901A	21	R56319
Sulfate	310	mg/L		1		E300.0	09/01/09 22:36 / hm		IC101-H_090901A	21	R56319
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Arsenic	0.007	mg/L		0.002		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Calcium	118	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Copper	0.003	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Magnesium	31	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-344
Lab ID: H09080233-014
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:20 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Potassium	14	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Selenium	0.005	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Sodium	50	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Dan Lamping
3491 Weston
Helena, Montana 59601

Dear Mr. Lamping:

Enclosed are the analytical results for the water sample that was collected from your groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-345
Lab ID: H09080233-015
Matrix: Groundwater

D. Lamping Residence
3491 Weston

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	08/20/09 14:54 / hm		PH_090820B	19	090820A-PH-W
Conductivity	523	umhos/cm		1		A2510 B	08/20/09 14:43 / hm		COND_090820A	1	990820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:36 / hm		SOLIDS_090821C	46	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	377	mg/L		10		A2540 C	08/21/09 09:54 / hm		SOLIDS_090821A	26	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	08/25/09 16:08 / sld		TITTR_090825A	38	090825A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	08/25/09 16:08 / sld		TITTR_090825A	38	090825A-ALK-W
Chloride	15	mg/L		1		E300.0	08/24/09 21:55 / hm		IC101-H_090824A	37	R56155
Sulfate	93	mg/L		1		E300.0	08/24/09 21:55 / hm		IC101-H_090824A	37	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Arsenic	0.007	mg/L		0.002		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Calcium	54	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Magnesium	12	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Potassium	10	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-345
Lab ID: H09080233-015
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Sodium	31	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Zinc	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Barbara Clampitt
3490 Weston
Helena, Montana 59601

Dear Mrs. Clampitt:

Enclosed are the analytical results for the water sample that was collected from your groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-346
Lab ID: H09080233-016
Matrix: Groundwater

Clampitt Residence
3490 Weston

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:55 / hm		PH_090820B	20	090820A-PH-W
Conductivity	1100	umhos/cm		1		A2510 B	08/20/09 14:44 / hm		COND_090820A	2	090820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:37 / hm		SOLIDS_090821C	47	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	789	mg/L		10		A2540 C	08/21/09 09:54 / hm		SOLIDS_090821A	27	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/25/09 16:13 / sld		TITTR_090825A	39	090825A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/25/09 16:13 / sld		TITTR_090825A	39	090825A-ALK-W
Chloride	88	mg/L		1		E300.0	08/24/09 22:12 / hm		IC101-H_090824A	38	R56155
Sulfate	250	mg/L		1		E300.0	08/24/09 22:12 / hm		IC101-H_090824A	38	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Calcium	112	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Copper	0.001	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Iron	0.03	mg/L		0.02		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Magnesium	37	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Potassium	18	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-346
Lab ID: H09080233-016
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Sodium	55	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

ASARCO

September 9, 2009

Blain and Lora Schaffs
3425 Allied Drive
Helena, Montana 59601

Dear Mr. and Mrs. Schaffs:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples (both original and duplicate) that were collected from your well located at 3425 Allied Drive. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.016 mg/l (16 parts per billion) for the original sample and 0.016 mg/l (16 parts per billion) for the duplicate sample.

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure
Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-347 Schaff Residence (Original Sample)
Lab ID: H09080233-017 3425 Allied
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:56 / hm		PH_090820B	21	090820A-PH-W
Conductivity	1300	umhos/cm		1		A2510 B	08/20/09 14:45 / hm		COND_090820A	2	190820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:37 / hm		SOLIDS_090821C	49	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	945	mg/L		10		A2540 C	08/21/09 09:55 / hm		SOLIDS_090821A	30	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	250	mg/L		1		A2320 B	08/25/09 16:21 / sld		TITTR_090825A	40	090825A-ALK-W
Bicarbonate as HCO3	310	mg/L		1		A2320 B	08/25/09 16:21 / sld		TITTR_090825A	40	090825A-ALK-W
Chloride	81	mg/L		1		E300.0	08/24/09 22:28 / hm		IC101-H_090824A	39	R56155
Sulfate	320	mg/L		1		E300.0	08/24/09 22:28 / hm		IC101-H_090824A	39	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Arsenic	0.016	mg/L		0.002		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Calcium	143	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Chromium	0.001	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Magnesium	33	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Potassium	17	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Selenium	0.008	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-347
Lab ID: H09080233-017
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Sodium	88	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-348 Schaff Residence (Duplicate)
Lab ID: H09080233-018 3425 Allied
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:40 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:57 / hm		PH_090820B	22	090820A-PH-W
Conductivity	1310	umhos/cm		1		A2510 B	08/20/09 14:55 / hm		COND_090820A	2	090820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:38 / hm		SOLIDS_090821C	50	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	933	mg/L		10		A2540 C	08/21/09 09:55 / hm		SOLIDS_090821A	31	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	260	mg/L		1		A2320 B	08/25/09 16:26 / sld		TITTR_090825A	41	090825A-ALK-W
Bicarbonate as HCO3	310	mg/L		1		A2320 B	08/25/09 16:26 / sld		TITTR_090825A	41	090825A-ALK-W
Chloride	81	mg/L		1		E300.0	08/24/09 22:44 / hm		IC101-H_090824A	40	R56155
Sulfate	320	mg/L		1		E300.0	08/24/09 22:44 / hm		IC101-H_090824A	40	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Arsenic	0.016	mg/L		0.002		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Calcium	141	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Chromium	0.002	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Magnesium	32	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Potassium	16	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Selenium	0.008	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-348
Lab ID: H09080233-018
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:40 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Sodium	86	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from **www.nsf.org**

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

Printed on Recycled Paper

ASARCO

September 9, 2009

John Jepsin
3470 Winslow Avenue
Helena, Montana 59601

Dear Mr. Jepsin:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 3470 Weston. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.017 mg/l (17 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-337
Lab ID: H09080233-007
Matrix: Groundwater

Jepsin Residence
3470 Weston

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/20/09 12:47 / hm		PH_090820B	9	090820A-PH-W
Conductivity	782	umhos/cm		1		A2510 B	08/20/09 12:45 / hm		COND_090820A	990820A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:31 / hm		SOLIDS_090821C	37	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	551	mg/L		10		A2540 C	08/21/09 09:47 / hm		SOLIDS_090821A	17	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	08/24/09 17:09 / hm		TITTR_090821A	12	090824A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/24/09 17:09 / hm		TITTR_090821A	12	090824A-ALK-W
Chloride	36	mg/L		1		E300.0	08/24/09 19:11 / hm		IC101-H_090824A	27	R56155
Sulfate	190	mg/L		1		E300.0	08/24/09 19:11 / hm		IC101-H_090824A	27	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Arsenic	0.017	mg/L		0.002		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Calcium	65	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:53 / eli-b		SUB-B134849	7	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Magnesium	28	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Potassium	15	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-337
Lab ID: H09080233-007
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Sodium	55	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Zinc	0.02	mg/L		0.01		E200.8	08/24/09 16:53 / eli-b		SUB-B134849	7	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/ Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: www.epa.gov/safewater/arsenic

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

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Risk Assessor
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Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

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Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

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ASARCO

September 9, 2009

Ed Wegner
2770 Winslow Avenue
Helena, Montana 59601

Dear Mr. Wegner:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well located at 2770 Winslow Avenue. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.012 mg/l (12 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/ Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-331
Lab ID: H09080233-001
Matrix: Groundwater

Wegner Residence
2770 Winslow Avenue

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 10:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:29 / hm		PH_090820B : 2		090820A-PH-W
Conductivity	748	umhos/cm		1		A2510 B	08/20/09 12:25 / hm		COND_090820A : 2		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:21 / hm		SOLIDS_090821C : 30		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	528	mg/L		10		A2540 C	08/21/09 09:42 / hm		SOLIDS_090821A : 9		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/24/09 15:30 / hm		TITTR_090821A : 3		090824A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/24/09 15:30 / hm		TITTR_090821A : 3		090824A-ALK-W
Chloride	32	mg/L		1		E300.0	08/24/09 16:59 / hm		IC101-H_090824A : 19		R56155
Sulfate	170	mg/L		1		E300.0	08/24/09 16:59 / hm		IC101-H_090824A : 19		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Arsenic	0.012	mg/L		0.002		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Calcium	58	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:17 / eli-b		SUB-B134849 : 1		B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Magnesium	31	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Potassium	13	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-331
Lab ID: H09080233-001
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 10:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:04 / eli-b		SUB-B134750	32	B_R134750
Sodium	49	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860	7	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750	32	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:04 / eli-b		SUB-B134750	32	B_R134750
Zinc	0.02	mg/L		0.01		E200.8	08/24/09 16:17 / eli-b		SUB-B134849	1	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from www.nsf.org

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

CONTACTS

Linda Jacobson
RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

Scott Brown
Superfund Project Manager
406-457-5035

Denise Kirkpatrick
Montana RCRA Project Officer
406-444-3983

Steve Wharton
Risk Assessor
1-800-227-8917 x 6935 (toll free)

Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

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ASARCO

September 9, 2009

Dan Larson
3459 Weston
Helena, Montana 59601

Dear Mr. Larson:

Asarco is conducting environmental investigation activities under the oversight of the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). As part of these activities, Asarco collected groundwater samples from your drinking water well on August 19, 2009.

Enclosed are the analytical results for the water samples that were collected from your well that provides water to both 3459 and 3463 Weston. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, as shown on the attached table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested in your well was 0.011 mg/l (11 parts per billion).

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-342 Larson Property
Lab ID: H09080233-012 3459 and 3463 Weston
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:30 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:39 / hm		PH_090820B	15	090820A-PH-W
Conductivity	1660	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	590820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:35 / hm		SOLIDS_090821C	43	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1280	mg/L		10		A2540 C	08/21/09 09:50 / hm		SOLIDS_090821A	23	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/25/09 15:43 / sld		TITTR_090825A	33	090825A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	08/25/09 15:43 / sld		TITTR_090825A	33	090825A-ALK-W
Chloride	87	mg/L		1		E300.0	08/24/09 21:06 / hm		IC101-H_090824A	34	R56155
Sulfate	610	mg/L		1		E300.0	08/24/09 21:06 / hm		IC101-H_090824A	34	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Arsenic	0.011	mg/L		0.002		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Calcium	178	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Magnesium	67	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Potassium	21	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Selenium	0.006	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-342
Lab ID: H09080233-012
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:30 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Sodium	101	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Zinc	0.03	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

September 1, 2009

Well Sampling in Seaver Park

The United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private wells in the Seaver Park neighborhood. Asarco recently collected groundwater samples from your well. The samples were analyzed for metals including: arsenic, cadmium, copper, iron, manganese, lead, selenium, and zinc.

Arsenic is the only metal that was found at levels exceeding Montana Drinking Water Standards and federal Maximum Contaminant Levels (MCLs) applicable to public drinking water supplies. The levels of arsenic found in Seaver Park-including at your residence-do not cause great alarm to public health experts. Some wells contain water measuring more than 0.010 milligrams per Liter (mg/L) or 10 parts per billion (ppb) arsenic which is above the state and federal standards. EPA no longer recommends using wells measuring arsenic above 10 ppb as a source of drinking water.

The potential health effects resulting from **long-term** exposure to inorganic arsenic include cancers of the skin, kidney, bladder and lung, as well as non-cancer effects including skin lesions, gastrointestinal disturbances, diabetes, cardiac arrhythmias, and loss of peripheral nerve function. Daily exposures come from multiple sources including food and dust ingestion as well as drinking water. Cancer risk is assumed to be a function of the concentration of arsenic in drinking water and the total years of exposure. It is important to note that the cancer risk is not zero, even at the standard of 10 ppb. You may also see: **www.epa.gov/safewater/arsenic**

Several alternatives are available to address arsenic in drinking water. You may install one of several home treatment units certified to effectively remove arsenic. Systems may include:

- activated alumina;
- ion exchange; or
- reverse osmosis

Information on certified systems can be obtained from **www.nsf.org**

Drinking bottled water tested and shown to be free of arsenic can be used as a temporary measure. Boiling will not remove arsenic from drinking water and may even increase the concentration of arsenic in your water. Bathing, showering, and laundering of clothes in water containing low levels of arsenic, however, will not significantly contribute to exposures.

Asarco will conduct additional testing of private wells in the near future. Additional soil and groundwater sampling in and around the Seaver Park area will help determine the source and the extent of arsenic contamination. These actions are at no cost to you. USEPA and DEQ will share sampling results with local officials and the public.

Please call any of the USEPA or DEQ contacts listed below with questions and concerns.

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RCRA Project Manager
1-800-227-8917 x 6503 (toll free)

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

August 10, 2009

Supplemental Information for Pet Owners in Seaver Park

The United States Environmental Protection Agency (USEPA)) and the Montana Department of Environmental Quality (DEQ) are working with Asarco to conduct additional sampling of private drinking water wells in the Seaver Park neighborhood. Preliminary sampling of a limited number of wells indicated the presence of elevated arsenic levels above the federal Maximum Contaminant Level for public drinking water systems. Some pet owners in the neighborhood have asked about the safety of their pets relative to the quality of the individual water supply wells. This fact sheet gives a brief overview of this issue.

Domestic animals including dogs and cats typically manifest effects from arsenic exposure in an acute rather than a chronic fashion experiencing the full range of symptoms within a few days. These episodes are most commonly related to contamination of the animal's food supply by soil, vegetation, or discarded materials (herbicides/ insecticides) that contain or are contaminated with high levels of arsenic. The threshold effect levels for dogs and cats is based on the form of arsenic present (in this case most likely sodium arsenate) and is in the range of 3-6 milligrams per pound for dogs and 1-2 milligrams per pound for cats. The arsenic levels currently documented in the Seaver Park wells are in the range of 0.010—0.020 milligrams per liter of water. It is easy to see that the animals, even very small animals weighing only a few pounds, would have to consume many, many liters of water within just a few days to reach levels capable of causing an effect. Animals that are weak, debilitated or dehydrated are more susceptible to arsenic than healthy animals, particularly those with poor kidney function. Because the exposure from soil and other dietary sources is not known for each individual animal, owners could provide treated or bottled water to their pets as a precaution to reduce their overall exposure, but EPA and DEQ do not believe this necessary to ensure the health of these animals.

Regarding tropical and freshwater fish, the threshold effect levels vary widely, but are in the range of 18—75 milligrams per liter, which is approximately one thousand times greater than the levels currently documented in the Seaver Park wells. Again, EPA and DEQ believe that no additional precautions are necessary for these fish.

Additional soils and groundwater sampling will help determine the source and the extent of contamination. EPA and DEQ will share information with local officials and the public. In the mean time, please call any of the contacts listed below with questions and concerns.

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Wendy Thomi
Community Involvement Coordinator
406-457-5037

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ASARCO

September 9, 2009

Dan Larson
3459 Weston
Helena, Montana 59601

Dear Mr. Larson:

Enclosed are the analytical results for the water sample that was collected from your 2850 Winslow property groundwater well on August 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested, as listed on the attached table.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure

Cc: Linda Jacobson, USEPA
Tom Aldrich, Asarco
Bob Anderson, Hydrometrics

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-340 Larson Property
Lab ID: H09080233-010 2850 Winslow Avenue
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 14:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	12	090820A-PH-W
Conductivity	1080	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	290820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:34 / hm		SOLIDS_090821C	41	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	772	mg/L		10		A2540 C	08/21/09 09:49 / hm		SOLIDS_090821A	21	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	200	mg/L		1		A2320 B	08/24/09 17:26 / hm		TITTR_090821A	15	090824A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/24/09 17:26 / hm		TITTR_090821A	15	090824A-ALK-W
Chloride	73	mg/L		1		E300.0	08/24/09 20:00 / hm		IC101-H_090824A	30	R56155
Sulfate	260	mg/L		1		E300.0	08/24/09 20:00 / hm		IC101-H_090824A	30	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Arsenic	0.008	mg/L		0.002		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Calcium	118	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Chromium	0.002	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Copper	0.001	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Magnesium	30	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Potassium	14	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Selenium	0.006	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-340
Lab ID: H09080233-010
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 14:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Sodium	64	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Federal and State Water Quality Criteria

Parameter	Montana Human Health Standard		Montana Freshwater Aquatic Life Standard		Federal MCL/Action Level
	Ground Water	Surface Water	Chronic	Acute	
Aluminum (Al)	--	--	0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056	--	--	0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2	--	--	2
Beryllium (Be)	0.004	0.004	--	--	0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1	--	--	0.1
Chromium (III) (Cr (III))	--	--	0.086+	1.80+	--
Chromium (VI) (Cr (VI))	--	--	0.011	0.016	--
Copper (Cu)	1.3	1.3	0.009+	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1	--	0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#	--	--	0.05*
Mercury (Hg)	0.002	0.00005	0.00091	0.0017	0.002
Nickel (Ni)	0.1	0.1	0.052+	0.469+	--
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1	--	0.0041+	0.1*
Thallium (Tl)	0.002	0.00024	--	--	0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)
+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3
* = Secondary Federal MCL (non-enforceable guideline)
Montana criteria based on Circular DEQ-7, February 2006 Version
Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

VALIDATION SUMMARY

ASARCO EAST HELENA POST RI/FS LONG-TERM MONITORING PROGRAM

EAST HELENA RESIDENTIAL GROUNDWATER INORGANIC ANALYSES

SEAVER PARK JULY-AUGUST 2009 SAMPLE EVENT

ENERGY LABORATORY WORK ORDER NOS. H09070211, H09080156, H09080233, AND H09080292

Prepared for:
Mr. Jon Nickel
ASARCO Incorporated
PO Box 1230
East Helena, MT 59635

Prepared by:
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6900 Cherry Blossom Lane
Albuquerque, NM 87111

September 2009

TABLE OF CONTENTS

LIST OF APPENDICES ii

GLOSSARY OF TERMS iii

SUMMARY 1

1. INTRODUCTION 3

2. DELIVERABLES 3

3. FIELD PROCEDURES 3

4. FIELD BLANKS 4

5. FIELD DUPLICATES 5

6. LABORATORY PROCEDURES 6

7. DETECTION LIMITS 6

8. LABORATORY BLANKS 6

9. LABORATORY MATRIX SPIKES 7

10. LABORATORY DUPLICATES 7

11. LABORATORY CONTROL STANDARDS (LCS) 8

12. INTERPARAMETER COMPARISON 8

13. HISTORICAL COMPARISON SUMMARY 8

14. DATA QUALITY OBJECTIVES (DQOS) 9

15. CONCLUSION 10

REFERENCES 11

LIST OF APPENDICES

APPENDIX 1: TABLES

APPENDIX 2: DATABASE

APPENDIX 3: FIELD NOTES

APPENDIX 4: CHAIN OF CUSTODY

APPENDIX 5: LABORATORY REPORT

GLOSSARY OF TERMS

CLP..... Contract Laboratory Program

COC..... Chain of Custody

CRDL ..... Contract Required Detection Limit

DI..... Deionized Water

DIS..... Dissolved

DQO ..... Data Quality Objective

ELI-Hel..... Energy Laboratories, Inc., Helena, Montana

EPA ..... U.S. Environmental Protection Agency

ICV ..... Initial Calibration Verification

IDL ..... Instrument Detection Limit

LCS..... Laboratory Control Sample

LFB..... Laboratory Fortified Blank

MS ..... Matrix Spike

MSD ..... Matrix Spike Duplicate

NA ..... Not Applicable

PDLG..... Project Detection Limit Goal

QC ..... Quality Control

RI/FS ..... Remedial Investigation/Feasibility Study

RPD ..... Relative Percent Difference

SC ..... Specific Conductivity

TDS ..... Total Dissolved Solids

SUMMARY

East Helena private well water (groundwater) samples were collected from July 17 through August 25, 2009 for the ASARCO East Helena Facility's Seaver Park sample event. Inorganic constituents for these samples were validated using U.S. Environmental Protection Agency (EPA) guidelines for data validation (EPA 2002) and the project work plan (ASARCO 2002 and 2007). Samples were analyzed by Energy Laboratories, Inc. (ELI-Hel) in Helena, Montana, under work orders H09070211, H09080156, H09080233, and H09080292.

Tables containing Validation Code Definitions (Table 1) and the Summary of Qualified Data (Table 2) are located in Appendix 1. The validated database is located in Appendix 2. Field notes, chain of custody forms, and laboratory reports are located in Appendices 3, 4, and 5, respectively.

Data quality objectives for this project are as follows:

- **Precision** is determined by field and laboratory duplicate sample results that are within control limits. The completeness objective for precision is 90% of the duplicate sample results within control limits. **This objective was met as 99.6% (463 out 465 results) of the field and laboratory duplicate results were within control limits.**

- **Accuracy** is determined by laboratory control sample (LCS) and matrix spike (MS) sample results that are within control limits. The completeness objective for accuracy is 90% of the LCS and MS sample results within control limits. **This objective was met as 100% of the LCS results and 99.8% (433 out of 434 results) of the MS results were within control limits.**

  ***Note:** Due to the lack of LCSs for dissolved metals, fortified laboratory blanks were used to assess the accuracy for these analytes. In several cases, samples used for matrix spikes for were from unknown sources and therefore, could not be used to evaluate the accuracy of this sampling event's data. This is explained further in the following report.

- **Completeness** is calculated by the number of valid (not rejected) data per number of planned data, expressed as a percentage. The completeness goal for this project was 90%. **This goal was met as 100% (2262 out of 2262 results) of the planned data were analyzed and deemed valid.**

Qualified Data Summary

Due to analyte detections in three field blanks, twenty dissolved chromium, 33 dissolved copper, 18 total dissolved solids, and 24 dissolved zinc qualified "UJ" to indicate that the true value may be less than the reported value.

Conclusion

The data collected in July and August 2009 for the ASARCO East Helena Facility's Seaver Park sampling event are deemed acceptable and can be used for the purposes they were intended, providing qualified data are used with caution. Of the measured results, **95.8% (2167 out of 2262 results) can be used without qualification.**

Data Validation Report by: Linda L. Tangen

Client Review: Jon Nickel

DATA VALIDATION REPORT

1. INTRODUCTION

- This validation applies to analyses for 62 groundwater and quality control samples collected from July 17 through August 25, 2009 for the ASARCO East Helena Facility's Seaver Park sampling event. Samples were analyzed by Energy Laboratories in Helena, Montana (ELI-Hel) using work order codes: H09070211, H09080156, H09080233, and H09080292. Four field blank and four field duplicate samples were included with these samples.

- Validation procedures used are generally consistent with:
  - _X_ EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganics Data Review (EPA 2002)
  - _X_ Work Plan – Interim Measures Work Plan Addendum (ASARCO 2002)
  - _X_ Post RI/FS Long-Term Monitoring Program (ASARCO 2007)
  - ___ Other

- Overall level of validation:
  - ___ CLP
  - _X_ Standard – Field and laboratory quality control (QC) samples are reviewed; and samples associated with QC violations are flagged.
  - ___ Visual

2. DELIVERABLES

- All laboratory document deliverables were present and accurate as specified in the CLP-Statement of Work (EPA 2001), and/or the project contract.
  - _X_ Yes
  - ___ No

- All documentation of field procedures was provided as required.
  - _X_ Yes
  - ___ No

3. FIELD PROCEDURES

- Samples were collected from all project-required sites.
  - _X_ Yes
  - ___ No

- Field parameters were measured in accordance with the project work plan.
  - _X_ Yes
  - ___ No

- Field instruments were calibrated daily and before measurements were collected.
  _X_ Yes
  ___ No

- Samples were properly preserved and received by the laboratory at the proper temperature (2-4°C).
  ___ Yes
  _X_ No – see notes

  Notes: The following items were noted.

  - Nitric acid had to be added by the laboratory to all metal vials for samples collected 8/12/09 (H09080156). Samples were not adversely affected.
  - Temperatures were elevated for samples collected 8/12/09 (H09080156) (9.8°C) and 8/25/09 (H09080292) (11.1 °C). However, the samples were delivered to the laboratory directly after they were collected and were not adversely affected.

- Chains of Custodies (COCs) were properly filled out and signed by the field personnel.
  _X_ Yes
  ___ No

- Data entry into field books, on COCs, and on sample labels were accurate and complete.
  ___ Yes
  _X_ No – see notes

  Notes: The time entered on EHR-0709-318 bottles was 10:10 and the COC stated 10:20. The laboratory confirmed with the project manager that the correct time was 10:10.

4. FIELD BLANKS

Blanks: Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

Deionized water (DI), trip, rinsate, or any other field blanks have been carried out at the proper frequency (one rinsate blank and one DI blank per event).
_X_ Yes
___ No

Reported results on the field blanks were less than the Project Detection Limit Goals (PDLGs) or reporting limit.
___ Yes
_X_ No - see notes

Notes: Samples associated with blank detections, and with detected results less than five times the blank value were flagged **"UJ"** to indicate a possible positive bias. On the following page is a summary of field blank detections.

Field Blank Detections

Blank Type	Sample Code	Sample Date	Parameter	PDLG (mg/L)	Result (mg/L)	5 X Result (mg/L)	Flags
Field Blank	EHR-0709-306	7/3/09	Bicarbonate	1	2	10	0*
			Total Alkalinity	1	2	10	0*
Field Blank	EHR-0809-330	8/12/09	Bicarbonate (HCO3)	1	2	10	0*
			Chloride (Cl)	1	2	10	0*
			Chromium (Cr)	0.001	0.001	0.005	20
			Copper (Cu)	0.001	0.025	0.125	18
			Lead (Pb)	0.005	0.006	0.030	0*
			SC (umhos/cm at 25 C)	10	21	105	0*
			TDS (Measured at 180 C)	10	108	540	5
			Total Alkalinity As CACO3	1	2	10	0*
			Zinc (Zn)	0.02	0.08	0.40	7
Field Blank	EHR-0809-349	8/19/09	Bicarbonate (HCO3)	1	5	25	0*
			Chloride (Cl)	1	2	10	0*
			Copper (Cu)	0.001	0.022	0.110	10
			Lead (Pb)	0.005	0.007	0.035	0*
			SC (umhos/cm at 25 C)	10	22	110	0*
			TDS (Measured at 180 C)	10	113	565	9
			Total Alkalinity As CACO3	1	4	20	0*
			Zinc (Zn)	0.02	0.07	0.35	15
Field Blank	EHR-0809-361	8/25/09	Bicarbonate (HCO3)	1	4	20.00	0*
			Chloride (Cl)	1	2	10	0*
			Copper (Cu)	0.001	0.019	0.095	5
			Lead (Pb)	0.005	0.006	0.030	0*
			SC (umhos/cm at 25 C)	10	20	100	0*
			TDS (Measured at 180 C)	10	103	515	4
			Total Alkalinity As CACO3	1	3	15	0*
			Zinc (Zn)	0.02	0.06	0.30	2

***Notes:** Associated results were either greater than five times the blank value or less than the PDLG.

5. FIELD DUPLICATES

Field duplicates have been collected at the proper frequency (one field duplicate per event).

_X_ Yes

___ No

Field duplicate relative percent differences (RPDs) were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG.

_X_ Yes

___ No

6. LABORATORY PROCEDURES

- **Laboratory procedures followed**
  - _X_ CLP-Statement of Work (EPA 2001)
  - ___ SW-846 (EPA 1986)
  - _X_ Methods for Chemical Analysis of Water and Wastes (EPA 1983)

- **Holding times met**
  - _X_ Yes
  - ___ No

- **Consistency with project requirements**

  Analyses were carried out as required by the project work plan (ASARCO 2002 and 2007).
  - _X_ Yes
  - ___ No

  Project specified methods were used.
  - _X_ Yes
  - ___ No

7. DETECTION LIMITS

- Reporting detection limits met PDLGs.
  - _X_ Yes
  - ___ No

8. LABORATORY BLANKS

Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

- Method blanks were prepared and analyzed at the required frequency (one per batch or one per 20 samples, whichever is greater.
  - _X_ Yes
  - ___ No

- All the analytes in the blank were less than the PDLG.
  - _X_ Yes
  - ___ No

9. LABORATORY MATRIX SPIKES

- A Matrix Spike (MS) sample (pre-digestion) was analyzed at the proper frequency (one per batch and/or matrix).

  _X_ Yes
  ___ No

- MS recoveries were within the required control limits (75-125%).

  ___ Yes
  _X_ No – see notes

  Notes: One MS recovery exceeded the control limits. However, the paired MS duplicate (MSD) recovery was within the control limits. Therefore, it was determined that the exceedance was associated with the MS only and data were not qualified. Following is a summary the matrix spike exceedances.

MS Sample Code	Sample Batch	Analysis Batch	Analysis Date	Parameter	% Recovery	# of Flags
H09080233-001B MS	H09080233	B_R134750	8/22/2009	Mercury (Dis)	145	0*

***Notes:** Paired MSD was within control. Determined that exceedance was associated with MS only.

10. LABORATORY DUPLICATES

- Laboratory duplicate samples were analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).

  _X_ Yes
  ___ No

- RPDs were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG.

  ___ Yes
  _X_ No – see notes

  Notes: Two MSD RPDs exceeded the control limits. However, other duplicates for these analytes (run in the same analytical batch) were within the control limits. Therefore, it was determined that the duplicate exceedances were associated with the MSDs only and data were not qualified. Following is a summary of the duplicate exceedances.

Laboratory Duplicate Sample Code	Sample Batch	Analysis Batch	Analysis Date	Parameter	RPD	# of Flags
B09081238-001B MSD2	H09080156	B_R134530	8/1/2009	Gold (Dis)	22	0*
H09080233-001B MSD	H09080233	B_R134750	8/22/2009	Mercury (Dis)	27	0*

***Notes:** Associated with MSD only. Other lab duplicates in analytical batch were within control limits.

11. LABORATORY CONTROL STANDARDS (LCS)

Laboratory Fortified Blanks (LFBs) were used in lieu of LCS' for metal analyses. This is acceptable for the purpose of the project.

- The reference material used for the LCS or LFB was of the correct matrix.
  _X_ Yes
  ___ No

- LCS' or LFBs were prepared and analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).
  _X_ Yes
  ___ No

- LCS recoveries were within the required control limits (80-120% or certified range).
  _X_ Yes
  ___ No

12. INTERPARAMETER COMPARISON

_X_ Lab pH vs. Field pH
_X_ Lab Specific Conductivity (SC) vs. Field SC
_X_ Total Dissolved Solids (TDS) vs. Field SC

Lab pH vs. Field pH: Field and lab pH pairs were compared using laboratory duplicate criteria (refer to section 10). These comparisons were less than or equal to 6.2 RPD and therefore acceptable for the purposes of the project.

Lab SC vs. Field SC: Field and lab SC pairs were compared using laboratory duplicate criteria (refer to section 10). Several RPDs were greater than 20 (up to 54.6 RPD). However, the field and lab SC values were within the historical range for private wells. Therefore, the results were not qualified.

TDS vs. Lab SC: The ratio of TDS to lab SC results should lie between 0.55 and 0.75. This ratio is intended to be a check on the accuracy of the TDS and lab SC measurements. In natural waters with high sulfate, the ratio may be much higher and the ratio is less accurate in dilute waters. TDS/SC ratios for this sampling event were 0.58 and 0.83, which were in line with private well historical data.

13. HISTORICAL COMPARISON SUMMARY

With the exception of two wells, all were new sites and therefore did not have historical data associated with them. Data from 701 Manlove and 800 Manlove sites were compared with the previous five years of sampling events (from January 2004 through June 2009). Results that were greater than three times the standard deviation from the historical mean are listed in Table 3 of Appendix 1. *Note: The data for 800 Manlove met these criteria because a lower PDLG used for this sampling event.*

14. DATA QUALITY OBJECTIVES (DQOs)

- The data quality goal was met for precision (90% of the field and laboratory duplicates were within control limits).

  _X_ Yes –see the following table

  ___ No

Precision Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
Field Duplicates	132	0	132	100.0%
Lab Duplicates	333	2	331	99.4%
Overall	**465**	**2**	**463**	**99.6%**

- The data quality goal was met for accuracy (90% of the LCS and matrix spike results were within control limits).

  _X_ Yes – see the following table

  ___ No

Accuracy Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
LCS' and LFBs	130	0	130	100.0%
Matrix Spikes	304	1	303	99.7%
Overall	**434**	**1**	**433**	**99.8%**

- DQO target for completeness was met (the number of valid results divided by the number of possible results is 90% or above).

  _X_ Yes – see the following table

  ___ No

Completeness

# of Planned Measurements	Actual # of Measurements	# of Rejected Measurements	# of Valid Measurements	Completeness
2262	**2262**	**0**	**2262**	**100.0%**

- Samples were qualified for QC exceedances and deficiencies.

  _X_ Yes – see the table on the following page

  ___ No

Qualification of Samples

# of Measurements	# of Qualified Measurements	# Not Qualified	% Not Qualified
2262	95	2167	95.8%

15. CONCLUSION

The data collected in July and August 2009 for the ASARCO East Helena Facility's Seaver Park sampling event are deemed acceptable and can be used for the purposes they were intended, providing qualified data are used with caution.

Data Validation Report by: Linda L. Tangen

Client Review by: Jon Nickel

REFERENCES

ASARCO 2002. *Interim Measures Work Plan Addendum, East Helena Facility.* ASARCO Consulting Inc. Revised May.

ASARCO 2007. *Post RI/FS Long-Term Monitoring Program.* ASARCO LLC. April.

EPA 1983. *Methods for Chemical Analysis of Water and Wastes.* United States Environmental Protection Agency. March.

EPA 1986. *Test Method for Evaluating Solid Waste: Physical/Chemical Methods 3rd Ed. 4 Vols.* United States Environmental Protection Agency. November.

EPA 2001. *USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis.* United States Environmental Protection Agency. Document Number ILM05.2. December.

EPA 2002. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* United States Environmental Protection Agency. July.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
A	Anomalous data. (Not an EPA code.)
J	The associated numerical value is an estimated quantity because quality control criteria were not met. A bias was not determined.
J-	The associated numerical value is estimated with a low bias because quality control criteria were not met.
J+	The estimated numerical value is estimated with a high bias because quality control criteria were not met.
UJ	Blank contamination. Indicates a possible high bias and/or false positive. The associated value is an estimate.
R	Quality control indicates that the data are unusable (compound may or may not be present).

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
2700 Winslow Ave					
EHR-0809-310	**8/12/2009**				
Chromium (Cr) DIS		0.002	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
2705 Winslow Ave					
EHR-0809-315	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
TDS (Measured at 180 C)		447	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG
2715 Winslow Ave					
EHR-0809-323	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
2720 Winslow Ave					
EHR-0809-311	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.004	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG
2725 Winslow Ave					
EHR-0809-324	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
TDS (Measured at 180 C)		462	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG
2730 Winslow Ave					
EHR-0809-312	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
2735 Winslow Ave					
EHR-0809-314	**8/12/2009**				

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
2735 Winslow Ave					
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
TDS (Measured at 180 C)		464	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
2740 Winslow Ave					
EHR-0809-326	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
TDS (Measured at 180 C)		538	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
Zinc (Zn) DIS		0.03	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG
2743 Winslow Ave					
EHR-0809-325	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
2746 Winslow Ave					
EHR-0809-313	**8/12/2009**				
Chromium (Cr) DIS		0.002	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
TDS (Measured at 180 C)		402	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
2765 1/2 Winslow Ave					
EHR-0809-327	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.005	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
2765 Winslow Ave					
EHR-0809-328	**8/12/2009**				
Chromium (Cr) DIS		0.002	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG
EHR-0809-329	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
2770 Winslow Ave Irrig					
EHR-0809-331	**8/19/2009**				
TDS (Measured at 180 C)		528	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
2775 Winslow Ave					
EHR-0809-322	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
2779 Winslow Ave					
EHR-0809-321	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
2780 Winslow Ave Hydra					
EHR-0809-332	**8/19/2009**				
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
2780 Winslow Ave Kitche					
EHR-0809-333	**8/19/2009**				
TDS (Measured at 180 C)		103	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
2795 Winslow Ave					
EHR-0809-339	**8/19/2009**				
TDS (Measured at 180 C)		457	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
2830 Winslow Ave					
EHR-0809-338	**8/19/2009**				
TDS (Measured at 180 C)		369	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
2850 Weston Ave					
EHR-0809-340	**8/19/2009**				
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
2850 Weston Ave					
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
2858/2866 Winslow Ave					
EHR-0809-341	**8/19/2009**				
TDS (Measured at 180 C)		378	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
3350 Beck St					
EHR-0809-350	**8/25/2009**				
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.019 mg/L) > PDLG
3420 Weston Ave					
EHR-0809-334	**8/19/2009**				
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3425 Allied Dr					
EHR-0809-347	**8/19/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
EHR-0809-348	**8/19/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3430 Weston Ave					
EHR-0809-358	**8/25/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.019 mg/L) > PDLG
3433 Beck St					
EHR-0809-320	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
3434 Beck St #1					
EHR-0809-316	**8/12/2009**				
Chromium (Cr) DIS		0.004	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.003	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
3434 Beck St #2					
EHR-0809-317	**8/12/2009**				
Chromium (Cr) DIS		0.003	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
3445 Weston Ave					
EHR-0809-336	**8/19/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
TDS (Measured at 180 C)		374	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3459/3463 Weston Ave					
EHR-0809-342	**8/19/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
Zinc (Zn) DIS		0.03	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3460 Weston Ave					
EHR-0809-335	**8/19/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
TDS (Measured at 180 C)		496	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3463 Beck St					
EHR-0809-319	**8/12/2009**				
Chromium (Cr) DIS		0.002	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
3465 Weston Ave					
EHR-0809-343	**8/19/2009**				
Copper (Cu) DIS		0.006	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
Zinc (Zn) DIS		0.06	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3470 Weston Ave					
EHR-0809-337	**8/19/2009**				
TDS (Measured at 180 C)		551	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
3480 Weston Ave Hydran					
EHR-0809-355	**8/25/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.019 mg/L) > PDLG
3480 Weston Ave Kitchen					
EHR-0809-356	**8/25/2009**				
TDS (Measured at 180 C)		170	mg/L	UJ	Field Blank - Result (103 mg/L) > PDLG
3485 Beck St					
EHR-0809-318	**8/12/2009**				
Chromium (Cr) DIS		0.004	mg/L	UJ	Field Blank - Result (0.001 mg/L) > PDLG
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.025 mg/L) > PDLG
Zinc (Zn) DIS		0.02	mg/L	UJ	Field Blank - Result (0.08 mg/L) > PDLG
3485 Weston Ave					
EHR-0809-354	**8/25/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.019 mg/L) > PDLG
3489 Weston Ave					
EHR-0809-344	**8/19/2009**				
Copper (Cu) DIS		0.003	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3490 Weston Ave					
EHR-0809-346	**8/19/2009**				
Copper (Cu) DIS		0.001	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
Zinc (Zn) DIS		0.01	mg/L	UJ	Field Blank - Result (0.07 mg/L) > PDLG
3491 Weston Ave					
EHR-0809-345	**8/19/2009**				
Copper (Cu) DIS		0.002	mg/L	UJ	Field Blank - Result (0.007 mg/L) > PDLG
TDS (Measured at 180 C)		377	mg/L	UJ	Field Blank - Result (113 mg/L) > PDLG
3655 Highway 12					
EHR-0809-359	**8/25/2009**				
Zinc (Zn) DIS		0.03	mg/L	UJ	Field Blank - Result (0.06 mg/L) > PDLG

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 2. Summary of Qualified Data
ASARCO East Helena - Seaver Park
July and August 2009

Station Name / Field Sample ID / Parameter	Samp Date	Value	Unit	Flag	QC Type-Exceedance
3885 Highway 12					
EHR-0809-360	**8/25/2009**				
TDS (Measured at 180 C)		468	mg/L	UJ	Field Blank - Result (103 mg/L) > PDLG
Zinc (Zn) DIS		0.03	mg/L	UJ	Field Blank - Result (0.06 mg/L) > PDLG
701 Manlove					
EHR-0809-351	**8/25/2009**				
Copper (Cu) DIS		0.003	mg/L	UJ	Field Blank - Result (0.019 mg/L) > PDLG
800 Manlove					
EHR-0809-352	**8/25/2009**				
TDS (Measured at 180 C)		482	mg/L	UJ	Field Blank - Result (103 mg/L) > PDLG
801 Manlove					
EHR-0809-353	**8/25/2009**				
TDS (Measured at 180 C)		329	mg/L	UJ	Field Blank - Result (103 mg/L) > PDLG

Note: MQL =Method Quantitation Limit; SDL = Sample Detection Limit

Table 3. Historical Comparisons Summary~

Asarco East Helena - Seaver Park Wells

July and August 2009

~Where this sampling event's data and historical mean difference is greater than three times the historical standard devation.

Station	This Sampling Event's Data		----------Historical Data----------					Comparison To Historical Data		
Parameter	Sample Date	Value	Cnt	Min	Max	Mean	Std Dev	# of Std Dev*	High or Low	Elev DL**
All units are in ppm unless noted otherwise.										
701 Manlove	**8/25/2009**	**EHR-0809-351**								
Bicarbonate (HCO3)		260	2	215	220	217.5000	3.5355	4.01	Highest	
Calcium (Ca)	DIS	127	2	67	68	67.5000	0.7071	28.0	Highest	
Chloride (Cl)		52	2	26	28	27.0000	1.4142	5.89	Highest	
Magnesium (Mg)	DIS	33	2	18	19	18.5000	0.7071	6.84	Highest	
SC (umhos/cm at 25 C)		1240	2	646	682	664.0000	25.4558	7.54	Highest	
SC (umhos/cm at 25 C) (Fld)		1260	2	470	568	519.0000	69.2965	3.56	Highest	
Sodium (Na)	DIS	82	2	36	37	36.5000	0.7071	21.4	Highest	
Sulfate (SO4)		360	2	110	111	110.5000	0.7071	118	Highest	
TDS (Measured at 180 C)		907	2	440	471	455.5000	21.9203	6.87	Highest	
Total Alkalinity As CACO3		210	2	176	180	178.0000	2.8284	3.77	Highest	
800 Manlove	**8/25/2009**	**EHR-0809-352**								
Copper (Cu)	DIS	< 0.001	2	0.004	0.004	0.0040	0.0000	1390	Lowest	
Iron (Fe)	DIS	< 0.02	2	0.03	0.03	0.0300	0.0000	474	Lowest	

Notes:

* # of Std Dev (from historical mean) = Value and historical mean difference divided by the historical standard deviation.

**Elev DL = An elevated reporting limit was used for the sample's value. The true value may be less than the reporting limit and therefore the value and historical average difference may not be greater than three times the standard deviation; and/or the sample's value may not be the highest historical concentration.,

APPENDIX 2

DATABASE

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Table of Contents by Station Type

Page	Station Type	Station Name
33	Domestic Wells	701Mnlv
35	Domestic Wells	800MnLv
35	Domestic Wells	801Manlove
1	Domestic Wells	2700 Winsl
1	Domestic Wells	2705 Winsl
1	Domestic Wells	2715Winslo
3	Domestic Wells	2720 Winsl
3	Domestic Wells	2725Winslo
3	Domestic Wells	2730 Winsl
5	Domestic Wells	2735 Winsl
5	Domestic Wells	2740Winslo
5	Domestic Wells	2743Winslo
7	Domestic Wells	2746 Winsl
7	Domestic Wells	2765 1/2Wi
7	Domestic Wells	2765Winslo
9	Domestic Wells	2770WinslI
9	Domestic Wells	2775Winslo
11	Domestic Wells	2779Winslo
11	Domestic Wells	2780WinslH
11	Domestic Wells	2780WinslK
13	Domestic Wells	2795Winslo
13	Domestic Wells	2830Winslo
13	Domestic Wells	2850Weston
15	Domestic Wells	2858Winslo
15	Domestic Wells	2880Winslo
15	Domestic Wells	3350 Beck
17	Domestic Wells	3420Weston
17	Domestic Wells	3425Allied
19	Domestic Wells	3430Weston
19	Domestic Wells	3433Beck
19	Domestic Wells	3434Beck1
21	Domestic Wells	3434Beck2
21	Domestic Wells	3445Weston
21	Domestic Wells	3459Winslo
23	Domestic Wells	3460Weston
23	Domestic Wells	3463 Beck
23	Domestic Wells	3465Allied
25	Domestic Wells	3465Weston
25	Domestic Wells	3470Weston
25	Domestic Wells	3475Allied
27	Domestic Wells	3480Allied
27	Domestic Wells	3480WestoH
27	Domestic Wells	3480WestoK

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Table of Contents by Station Type

Page	Station Type	Station Name
29	Domestic Wells	3485Beck
29	Domestic Wells	3485Weston
29	Domestic Wells	3489Weston
31	Domestic Wells	3490Weston
31	Domestic Wells	3491Weston
31	Domestic Wells	3495Allied
33	Domestic Wells	3655 Hwy12
33	Domestic Wells	3885 Hwy12
35	Field Quality Control	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 9/18/2009 2:06:48 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Table of Contents By Lab Sample ID

Page	Lab Sample ID	Sample ID	Sample Date	Station Name
23	H09070211-001	EHR-0709-310	7/17/2009	3465Allied
25	H09070211-002	EHR-0709-311	7/17/2009	3475Allied
31	H09070211-003	EHR-0709-312	7/17/2009	3495Allied
27	H09070211-004	EHR-0709-313	7/17/2009	3480Allied
17	H09070211-005	EHR-0709-314	7/17/2009	3425Allied
15	H09070211-006	EHR-0709-315	7/17/2009	2880Winslo
13	H09070211-007	EHR-0709-316	7/17/2009	2830Winslo
9	H09070211-008	EHR-0709-317	7/17/2009	2770WinslI
9	H09070211-009	EHR-0709-318	7/17/2009	2770WinslI
35	H09070211-010	EHR-0709-319	7/17/2009	FieldBlank
1	H09080156-001	EHR-0809-310	8/12/2009	2700 Winsl
3	H09080156-002	EHR-0809-311	8/12/2009	2720 Winsl
3	H09080156-003	EHR-0809-312	8/12/2009	2730 Winsl
7	H09080156-004	EHR-0809-313	8/12/2009	2746 Winsl
5	H09080156-005	EHR-0809-314	8/12/2009	2735 Winsl
1	H09080156-006	EHR-0809-315	8/12/2009	2705 Winsl
19	H09080156-007	EHR-0809-316	8/12/2009	3434Beck1
21	H09080156-008	EHR-0809-317	8/12/2009	3434Beck2
29	H09080156-009	EHR-0809-318	8/12/2009	3485Beck
23	H09080156-010	EHR-0809-319	8/12/2009	3463 Beck
19	H09080156-011	EHR-0809-320	8/12/2009	3433Beck
11	H09080156-012	EHR-0809-321	8/12/2009	2779Winslo
9	H09080156-013	EHR-0809-322	8/12/2009	2775Winslo
1	H09080156-014	EHR-0809-323	8/12/2009	2715Winslo
3	H09080156-015	EHR-0809-324	8/12/2009	2725Winslo
5	H09080156-016	EHR-0809-325	8/12/2009	2743Winslo
5	H09080156-017	EHR-0809-326	8/12/2009	2740Winslo
7	H09080156-018	EHR-0809-327	8/12/2009	2765 1/2Wi
7	H09080156-019	EHR-0809-328	8/12/2009	2765Winslo
7	H09080156-020	EHR-0809-329	8/12/2009	2765Winslo
35	H09080156-021	EHR-0809-330	8/12/2009	FieldBlank
9	H09080233-001	EHR-0809-331	8/19/2009	2770WinslI
11	H09080233-002	EHR-0809-332	8/19/2009	2780WinslH
11	H09080233-003	EHR-0809-333	8/19/2009	2780WinslK
17	H09080233-004	EHR-0809-334	8/19/2009	3420Weston
23	H09080233-005	EHR-0809-335	8/19/2009	3460Weston
21	H09080233-006	EHR-0809-336	8/19/2009	3445Weston
25	H09080233-007	EHR-0809-337	8/19/2009	3470Weston
13	H09080233-008	EHR-0809-338	8/19/2009	2830Winslo
13	H09080233-009	EHR-0809-339	8/19/2009	2795Winslo
13	H09080233-010	EHR-0809-340	8/19/2009	2850Weston
15	H09080233-011	EHR-0809-341	8/19/2009	2858Winslo
21	H09080233-012	EHR-0809-342	8/19/2009	3459Winslo

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Table of Contents By Lab Sample ID

Page	Lab Sample ID	Sample ID	Sample Date	Station Name
25	H09080233-013	EHR-0809-343	8/19/2009	3465Weston
29	H09080233-014	EHR-0809-344	8/19/2009	3489Weston
31	H09080233-015	EHR-0809-345	8/19/2009	3491Weston
31	H09080233-016	EHR-0809-346	8/19/2009	3490Weston
17	H09080233-017	EHR-0809-347	8/19/2009	3425Allied
17	H09080233-018	EHR-0809-348	8/19/2009	3425Allied
37	H09080233-019	EHR-0809-349	8/19/2009	FieldBlank
15	H09080292-001	EHR-0809-350	8/25/2009	3350 Beck
33	H09080292-002	EHR-0809-351	8/25/2009	701Mnlv
35	H09080292-003	EHR-0809-352	8/25/2009	800MnLv
35	H09080292-004	EHR-0809-353	8/25/2009	801Manlove
29	H09080292-005	EHR-0809-354	8/25/2009	3485Weston
27	H09080292-006	EHR-0809-355	8/25/2009	3480WestoH
27	H09080292-007	EHR-0809-356	8/25/2009	3480WestoK
19	H09080292-008	EHR-0809-357	8/25/2009	3430Weston
19	H09080292-009	EHR-0809-358	8/25/2009	3430Weston
33	H09080292-010	EHR-0809-359	8/25/2009	3655 Hwy12
33	H09080292-011	EHR-0809-360	8/25/2009	3885 Hwy12
37	H09080292-012	EHR-0809-361	8/25/2009	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 9/18/2009 2:06:48 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Table of Contents by Sample ID

Page	Sample ID	Lab Sample ID	Sample Date	Station Name
23	EHR-0709-310	H09070211-001	7/17/2009	3465Allied
25	EHR-0709-311	H09070211-002	7/17/2009	3475Allied
31	EHR-0709-312	H09070211-003	7/17/2009	3495Allied
27	EHR-0709-313	H09070211-004	7/17/2009	3480Allied
17	EHR-0709-314	H09070211-005	7/17/2009	3425Allied
15	EHR-0709-315	H09070211-006	7/17/2009	2880Winslo
13	EHR-0709-316	H09070211-007	7/17/2009	2830Winslo
9	EHR-0709-317	H09070211-008	7/17/2009	2770WinslI
9	EHR-0709-318	H09070211-009	7/17/2009	2770WinslI
35	EHR-0709-319	H09070211-010	7/17/2009	FieldBlank
1	EHR-0809-310	H09080156-001	8/12/2009	2700 Winsl
3	EHR-0809-311	H09080156-002	8/12/2009	2720 Winsl
3	EHR-0809-312	H09080156-003	8/12/2009	2730 Winsl
7	EHR-0809-313	H09080156-004	8/12/2009	2746 Winsl
5	EHR-0809-314	H09080156-005	8/12/2009	2735 Winsl
1	EHR-0809-315	H09080156-006	8/12/2009	2705 Winsl
19	EHR-0809-316	H09080156-007	8/12/2009	3434Beck1
21	EHR-0809-317	H09080156-008	8/12/2009	3434Beck2
29	EHR-0809-318	H09080156-009	8/12/2009	3485Beck
23	EHR-0809-319	H09080156-010	8/12/2009	3463 Beck
19	EHR-0809-320	H09080156-011	8/12/2009	3433Beck
11	EHR-0809-321	H09080156-012	8/12/2009	2779Winslo
9	EHR-0809-322	H09080156-013	8/12/2009	2775Winslo
1	EHR-0809-323	H09080156-014	8/12/2009	2715Winslo
3	EHR-0809-324	H09080156-015	8/12/2009	2725Winslo
5	EHR-0809-325	H09080156-016	8/12/2009	2743Winslo
5	EHR-0809-326	H09080156-017	8/12/2009	2740Winslo
7	EHR-0809-327	H09080156-018	8/12/2009	2765 1/2Wi
7	EHR-0809-328	H09080156-019	8/12/2009	2765Winslo
7	EHR-0809-329	H09080156-020	8/12/2009	2765Winslo
35	EHR-0809-330	H09080156-021	8/12/2009	FieldBlank
9	EHR-0809-331	H09080233-001	8/19/2009	2770WinslI
11	EHR-0809-332	H09080233-002	8/19/2009	2780WinslH
11	EHR-0809-333	H09080233-003	8/19/2009	2780WinslK
17	EHR-0809-334	H09080233-004	8/19/2009	3420Weston
23	EHR-0809-335	H09080233-005	8/19/2009	3460Weston
21	EHR-0809-336	H09080233-006	8/19/2009	3445Weston
25	EHR-0809-337	H09080233-007	8/19/2009	3470Weston
13	EHR-0809-338	H09080233-008	8/19/2009	2830Winslo
13	EHR-0809-339	H09080233-009	8/19/2009	2795Winslo
13	EHR-0809-340	H09080233-010	8/19/2009	2850Weston
15	EHR-0809-341	H09080233-011	8/19/2009	2858Winslo
21	EHR-0809-342	H09080233-012	8/19/2009	3459Winslo

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 9/18/2009 2:06:48 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Table of Contents by Sample ID

Page	Sample ID	Lab Sample ID	Sample Date	Station Name
25	EHR-0809-343	H09080233-013	8/19/2009	3465Weston
29	EHR-0809-344	H09080233-014	8/19/2009	3489Weston
31	EHR-0809-345	H09080233-015	8/19/2009	3491Weston
31	EHR-0809-346	H09080233-016	8/19/2009	3490Weston
17	EHR-0809-347	H09080233-017	8/19/2009	3425Allied
17	EHR-0809-348	H09080233-018	8/19/2009	3425Allied
37	EHR-0809-349	H09080233-019	8/19/2009	FieldBlank
15	EHR-0809-350	H09080292-001	8/25/2009	3350 Beck
33	EHR-0809-351	H09080292-002	8/25/2009	701Mnlv
35	EHR-0809-352	H09080292-003	8/25/2009	800MnLv
35	EHR-0809-353	H09080292-004	8/25/2009	801Manlove
29	EHR-0809-354	H09080292-005	8/25/2009	3485Weston
27	EHR-0809-355	H09080292-006	8/25/2009	3480WestoH
27	EHR-0809-356	H09080292-007	8/25/2009	3480WestoK
19	EHR-0809-357	H09080292-008	8/25/2009	3430Weston
19	EHR-0809-358	H09080292-009	8/25/2009	3430Weston
33	EHR-0809-359	H09080292-010	8/25/2009	3655 Hwy12
33	EHR-0809-360	H09080292-011	8/25/2009	3885 Hwy12
37	EHR-0809-361	H09080292-012	8/25/2009	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 9/18/2009 2:06:48 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2700 Winsl	2705 Winsl	2715Winslo
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	11:30	13:20	17:40
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-001	H09080156-006	H09080156-014
	SAMPLE NUMBER	EHR-0809-310	EHR-0809-315	EHR-0809-323
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	290	290	280
	Calcium (Ca) (DIS)	68	47	67
	Chloride (Cl)	39	24	53
	Magnesium (Mg) (DIS)	46	39	49
	Potassium (K) (DIS)	15	8	12
	Sodium (Na) (DIS)	62	35	50
	Sulfate (SO4)	210	94	170
	Total Alkalinity As CACO3	240	240	230
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.009	0.01	0.008
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.002 UJ	0.003 UJ	0.003 UJ
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.001 UJ	0.001 UJ	0.002 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.004	0.003
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	0.02 UJ	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	10.81	9.84	10.49
	pH	7.9	7.8	7.9
	pH (Fld)	7.65	7.68	7.71
	SC (umhos/cm at 25 C) (Fld)	616	436	577
	SC (umhos/cm at 25 C)	924	673	880

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 9/18/2009 2:06:48 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2700 Winsl	2705 Winsl	2715Winslo
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	11:30	13:20	17:40
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-001	H09080156-006	H09080156-014
	SAMPLE NUMBER	EHR-0809-310	EHR-0809-315	EHR-0809-323
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	659	447 UJ	601
	Water Temperature (C) (Fld)	11	12.2	10.9

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 9/18/2009 2:06:48 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2720 Winsl	2725Winslo	2730 Winsl
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	12:00	18:00	12:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-002	H09080156-015	H09080156-003
	SAMPLE NUMBER	EHR-0809-311	EHR-0809-324	EHR-0809-312
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	350	270	280
	Calcium (Ca) (DIS)	94	53	64
	Chloride (Cl)	120	27	50
	Magnesium (Mg) (DIS)	64	38	44
	Potassium (K) (DIS)	14	11	12
	Sodium (Na) (DIS)	62	37	44
	Sulfate (SO4)	160	110	140
	Total Alkalinity As CACO3	280	220	230
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.007	0.005	0.007
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	0.001	<0.001
	Chromium (Cr) (DIS)	0.003 UJ	0.003 UJ	0.003 UJ
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.004 UJ	0.001 UJ	<0.001
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	0.06	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.004	0.004	0.003
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	0.02 UJ	0.02 UJ	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	11.09	8.12	10.75
	pH	7.9	7.9	7.8
	pH (Fld)	7.7	7.52	7.75
	SC (umhos/cm at 25 C) (Fld)	804	440	563
	SC (umhos/cm at 25 C)	1200	692	839

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2720 Winsl	2725Winslo	2730 Winsl
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	12:00	18:00	12:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-002	H09080156-015	H09080156-003
	SAMPLE NUMBER	EHR-0809-311	EHR-0809-324	EHR-0809-312
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	822	462 UJ	575
	Water Temperature (C) (Fld)	11.4	11.6	11.5

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 9/18/2009 2:06:48 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2735 Winsl	2740Winslo	2743Winslo
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	12:55	18:35	18:15
	LAB	ELI	ELI	ELI
	LAB NUMBER	H0908015 6-005	H09080156-017	H09080156-016
	SAMPLE NUMBER	EHR-0809-314	EHR-0809-326	EHR-0809-325
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	270	250	230
	Calcium (Ca) (DIS)	53	63	62
	Chloride (Cl)	25	45	36
	Magnesium (Mg) (DIS)	36	40	39
	Potassium (K) (DIS)	9	13	12
	Sodium (Na) (DIS)	35	49	47
	Sulfate (SO4)	110	170	190
	Total Alkalinity As CACO3	220	200	190
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.009	0.008	0.008
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	0.001	<0.001
	Chromium (Cr) (DIS)	0.003 UJ	0.003 UJ	0.003 UJ
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.001 UJ	0.002 UJ	0.001 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	0.03	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.002	0.004	0.003
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	0.03 UJ	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	10.35	9.27	9.5
	pH	7.9	7.8	7.8
	pH (Fld)	7.68	7.74	7.67
	SC (umhos/cm at 25 C) (Fld)	400	548	537
	SC (umhos/cm at 25 C)	669	810	794

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2735 Winsl	2740Winslo	2743Winslo
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	12:55	18:35	18:15
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-005	H09080156-017	H09080156-016
	SAMPLE NUMBER	EHR-0809-314	EHR-0809-326	EHR-0809-325
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	464 UJ	538 UJ	558
	Water Temperature (C) (Fld)	12.2	13.8	11.9

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2746 Winsl	2765 1/2Wi	2765Winslo	2765Winslo
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	12:40	18:55	19:15	19:30
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080156-004	H09080156-018	H09080156-019	H09080156-020
	SAMPLE NUMBER	EHR-0809-313	EHR-0809-327	EHR-0809-328	EHR-0809-329
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site	
	REMARKS				Field Duplicate
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	200	210	190	190
	Calcium (Ca) (DIS)	46	57	60	59
	Chloride (Cl)	26	35	38	37
	Magnesium (Mg) (DIS)	22	35	35	34
	Potassium (K) (DIS)	11	13	13	12
	Sodium (Na) (DIS)	35	42	44	44
	Sulfate (SO4)	90	190	190	190
	Total Alkalinity As CACO3	170	170	160	160
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.013	0.01	0.013	0.012
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.002 UJ	0.003 UJ	0.002 UJ	0.003 UJ
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	0.005 UJ	0.001 UJ	0.001 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	0.06	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.002	0.004	0.004	0.004
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	<0.01	0.01 UJ	0.01 UJ
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	10.59	9.88	8.75	
	pH	7.9	7.9	7.8	7.9
	pH (Fld)	7.76	7.69	7.7	
	SC (umhos/cm at 25 C) (Fld)	340	485	543	
	SC (umhos/cm at 25 C)	567	754	765	760

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2746 Winsl	2765 1/2Wi	2765Winslo	2765Winslo
Water	SAMPLE DATE	8/12/2009	8/12/2009	8/12/2009	8/12/2009
	SAMPLE TIME	12:40	18:55	19:15	19:30
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080156-004	H09080156-018	H09080156-019	H09080156-020
	SAMPLE NUMBER	EHR-0809-313	EHR-0809-327	EHR-0809-328	EHR-0809-329
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site	
	REMARKS				Field Duplicate
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10
	TDS (Measured at 180 C)	402 UJ	543	554	543
	Water Temperature (C) (Fld)	12.3	11.8	12.5	

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2770WinsII	2770WinsII	2770WinsII	2775Winslo
Water	SAMPLE DATE	7/17/2009	7/17/2009	8/19/2009	8/12/2009
	SAMPLE TIME	11:00	11:10	10:45	17:20
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09070211-008	H09070211-009	H09080233-001	H09080156-013
	SAMPLE NUMBER	EHR-0709-317	EHR-0709-318	EHR-0809-331	EHR-0809-322
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site		New Site	New Site
	REMARKS		Field Duplicate		
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	220	230	210	220
	Calcium (Ca) (DIS)	77	77	58	85
	Chloride (Cl)	55	55	32	60
	Magnesium (Mg) (DIS)	44	44	31	54
	Potassium (K) (DIS)	14	14	13	17
	Sodium (Na) (DIS)	57	57	49	64
	Sulfate (SO4)	270	270	170	300
	Total Alkalinity As CACO3	180	180	170	180
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.011	0.011	0.012	0.005
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.002	<0.001	<0.001	0.003 UJ
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	0.001	<0.001	0.002 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	0.03	0.03	<0.02	0.14
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	0.02
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.003	0.002	0.005
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	<0.01	0.02 UJ	<0.01
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	10.19		9.03	8.79
	pH	7.8	7.9	7.8	7.7
	pH (Fld)	7.59		7.58	7.45
	SC (umhos/cm at 25 C) (Fld)	685		477	696
	SC (umhos/cm at 25 C)	1010	1010	748	1050

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2770WinsII	2770WinsII	2770WinsII	2775Winslo
Water	SAMPLE DATE	7/17/2009	7/17/2009	8/19/2009	8/12/2009
	SAMPLE TIME	11:00	11:10	10:45	17:20
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09070211-008	H09070211-009	H09080233-001	H09080156-013
	SAMPLE NUMBER	EHR-0709-317	EHR-0709-318	EHR-0809-331	EHR-0809-322
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site		New Site	New Site
	REMARKS		Field Duplicate		
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	12	15	<10	<10
	TDS (Measured at 180 C)	733	736	528 UJ	786
	Water Temperature (C) (Fld)	11.9		11.9	12.8

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2779Winslo	2780WinslH	2780WinslK
Water	SAMPLE DATE	8/12/2009	8/19/2009	8/19/2009
	SAMPLE TIME	17:00	11:10	11:25
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-012	H09080233-002	H09080233-003
	SAMPLE NUMBER	EHR-0809-321	EHR-0809-332	EHR-0809-333
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	230	260	31
	Calcium (Ca) (DIS)	82	97	<1
	Chloride (Cl)	55	98	20
	Magnesium (Mg) (DIS)	53	56	<1
	Potassium (K) (DIS)	18	19	<1
	Sodium (Na) (DIS)	67	101	18
	Sulfate (SO4)	300	330	2
	Total Alkalinity As CACO3	190	210	26
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.009	0.01	<0.002
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.003 UJ	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.001 UJ	<0.001	<0.001
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.006	0.005	<0.001
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	0.01 UJ	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	9.83	10.46	6.5
	pH	7.9	7.9	7.3
	pH (Fld)	7.59	7.63	6.9
	SC (umhos/cm at 25 C) (Fld)	696	819	90
	SC (umhos/cm at 25 C)	1030	1290	157

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2779Winslo	2780WinslH	2780WinslK
Water	SAMPLE DATE	8/12/2009	8/19/2009	8/19/2009
	SAMPLE TIME	17:00	11:10	11:25
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-012	H09080233-002	H09080233-003
	SAMPLE NUMBER	EHR-0809-321	EHR-0809-332	EHR-0809-333
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	769	907	103 UJ
	Water Temperature (C) (Fld)	12.4	11.4	17.4

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2795Winslo	2830Winslo	2830Winslo	2850Weston
Water	SAMPLE DATE	8/19/2009	7/17/2009	8/19/2009	8/19/2009
	SAMPLE TIME	13:45	10:40	13:20	14:45
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080233-009	H09070211-007	H09080233-008	H09080233-010
	SAMPLE NUMBER	EHR-0809-339	EHR-0709-316	EHR-0809-338	EHR-0809-340
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site	New Site
	REMARKS				
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	210	170	170	240
	Calcium (Ca) (DIS)	48	51	45	118
	Chloride (Cl)	20	31	20	73
	Magnesium (Mg) (DIS)	29	17	14	30
	Potassium (K) (DIS)	13	12	12	14
	Sodium (Na) (DIS)	42	36	37	64
	Sulfate (SO4)	130	110	85	260
	Total Alkalinity As CACO3	180	140	140	200
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.011	0.017	0.019	0.008
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.001	<0.001	<0.001	0.002
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	<0.001	<0.001	0.001 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.003	0.002	0.006
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	0.01	0.01	<0.01
	Zinc (Zn) (DIS)	0.01 UJ	<0.01	0.02 UJ	0.01 UJ
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	9.91	10.88	9.92	10.09
	pH	7.8	7.9	7.7	7.7
	pH (Fld)	7.73	7.7	7.76	7.35
	SC (umhos/cm at 25 C) (Fld)	412	370	330	950
	SC (umhos/cm at 25 C)	648	603	523	1080

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2795Winslo	2830Winslo	2830Winslo	2850Weston
Water	SAMPLE DATE	8/19/2009	7/17/2009	8/19/2009	8/19/2009
	SAMPLE TIME	13:45	10:40	13:20	14:45
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080233-009	H09070211-007	H09080233-008	H09080233-010
	SAMPLE NUMBER	EHR-0809-339	EHR-0709-316	EHR-0809-338	EHR-0809-340
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site	New Site
	REMARKS				
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10
	TDS (Measured at 180 C)	457 UJ	428	369 UJ	772
	Water Temperature (C) (Fld)	12	11.7	11.9	11.7

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2858Winslo	2880Winslo	3350 Beck
Water	SAMPLE DATE	8/19/2009	7/17/2009	8/25/2009
	SAMPLE TIME	15:10	10:10	07:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-011	H09070211-006	H09080292-001
	SAMPLE NUMBER	EHR-0809-341	EHR-0709-315	EHR-0809-350
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	180	300	240
	Calcium (Ca) (DIS)	45	160	71
	Chloride (Cl)	20	91	47
	Magnesium (Mg) (DIS)	12	38	45
	Potassium (K) (DIS)	13	16	15
	Sodium (Na) (DIS)	44	91	57
	Sulfate (SO4)	84	410	230
	Total Alkalinity As CACO3	150	250	200
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.024	0.009	0.006
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	0.003	0.001 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	0.03	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.007	0.002
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	0.02	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	<0.01	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	10.18	8.66	8.31
	pH	7.9	7.7	7.9
	pH (Fld)	7.72	7.37	7.65
	SC (umhos/cm at 25 C) (Fld)	471	965	815
	SC (umhos/cm at 25 C)	542	1450	953

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2858 Winslo	2880 Winslo	3350 Beck
Water	SAMPLE DATE	8/19/2009	7/17/2009	8/25/2009
	SAMPLE TIME	15:10	10:10	07:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-011	H09070211-006	H09080292-001
	SAMPLE NUMBER	EHR-0809-341	EHR-0709-315	EHR-0809-350
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	378 UJ	1090	644
	Water Temperature (C) (Fld)	11.5	11.4	11.8

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3420Weston	3425Allied	3425Allied	3425Allied
Water	SAMPLE DATE	8/19/2009	7/17/2009	8/19/2009	8/19/2009
	SAMPLE TIME	11:50	09:40	17:25	17:40
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080233-004	H09070211-005	H09080233-017	H09080233-018
	SAMPLE NUMBER	EHR-0809-334	EHR-0709-314	EHR-0809-347	EHR-0809-348
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site	
	REMARKS				Field Duplicate
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	230	280	310	310
	Calcium (Ca) (DIS)	99	119	143	141
	Chloride (Cl)	56	59	81	81
	Magnesium (Mg) (DIS)	58	28	33	32
	Potassium (K) (DIS)	18	13	17	16
	Sodium (Na) (DIS)	83	63	88	86
	Sulfate (SO4)	400	250	320	320
	Total Alkalinity As CACO3	190	230	250	260
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.01	0.014	0.016	0.016
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	<0.001	0.001	0.002
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	<0.001	0.002 UJ	0.002 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.004	0.006	0.008	0.008
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	0.01
	Zinc (Zn) (DIS)	0.01 UJ	<0.01	0.01 UJ	0.01 UJ
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	9.4	10.1	9.35	
	pH	7.8	7.9	7.8	7.8
	pH (Fld)	7.73	7.6	7.64	
	SC (umhos/cm at 25 C) (Fld)	769	768	1330	
	SC (umhos/cm at 25 C)	1220	1090	1300	1310

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3420Weston	3425Allied	3425Allied	3425Allied
Water	SAMPLE DATE	8/19/2009	7/17/2009	8/19/2009	8/19/2009
	SAMPLE TIME	11:50	09:40	17:25	17:40
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080233-004	H09070211-005	H09080233-017	H09080233-018
	SAMPLE NUMBER	EHR-0809-334	EHR-0709-314	EHR-0809-347	EHR-0809-348
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site	
	REMARKS				Field Duplicate
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10
	TDS (Measured at 180 C)	910	791	945	933
	Water Temperature (C) (Fld)	12.5	11.8	11.7	

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3430Weston	3430Weston	3433Beck	3434Beck1
Water	SAMPLE DATE	8/25/2009	8/25/2009	8/12/2009	8/12/2009
	SAMPLE TIME	10:00	10:20	15:15	13:45
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080292-008	H09080292-009	H09080156-011	H09080156-007
	SAMPLE NUMBER	EHR-0809-357	EHR-0809-358	EHR-0809-320	EHR-0809-316
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site		New Site	New Site
	REMARKS		Field Duplicate		
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	220	210	240	280
	Calcium (Ca) (DIS)	91	91	63	64
	Chloride (Cl)	92	93	43	43
	Magnesium (Mg) (DIS)	51	51	38	43
	Potassium (K) (DIS)	18	18	13	14
	Sodium (Na) (DIS)	114	117	50	49
	Sulfate (SO4)	390	390	150	140
	Total Alkalinity As CACO3	180	180	200	230
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.011	0.011	0.009	0.008
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.001	0.001	0.003 UJ	0.004 UJ
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	0.002 UJ	0.001 UJ	0.003 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.004	0.004	0.003	0.003
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	0.002	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	<0.01	<0.01	<0.01
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	10.11		10.41	10.11
	pH	7.8	7.8	7.8	8
	pH (Fld)	7.74		7.75	7.86
	SC (umhos/cm at 25 C) (Fld)	1310		523	556
	SC (umhos/cm at 25 C)	1330	1330	784	844

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3430Weston	3430Weston	3433Beck	3434Beck1
Water	SAMPLE DATE	8/25/2009	8/25/2009	8/12/2009	8/12/2009
	SAMPLE TIME	10:00	10:20	15:15	13:45
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080292-008	H09080292-009	H09080156-011	H09080156-007
	SAMPLE NUMBER	EHR-0809-357	EHR-0809-358	EHR-0809-320	EHR-0809-316
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site		New Site	New Site
	REMARKS		Field Duplicate		
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10
	TDS (Measured at 180 C)	946	949	544	587
	Water Temperature (C) (Fld)	11.1		11.7	12.4

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3434Beck2	3445Weston	3459Winslo
Water	SAMPLE DATE	8/12/2009	8/19/2009	8/19/2009
	SAMPLE TIME	14:05	12:35	15:30
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-008	H09080233-006	H09080233-012
	SAMPLE NUMBER	EHR-0809-317	EHR-0809-336	EHR-0809-342
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	280	170	220
	Calcium (Ca) (DIS)	65	41	178
	Chloride (Cl)	39	20	87
	Magnesium (Mg) (DIS)	44	18	67
	Potassium (K) (DIS)	13	13	21
	Sodium (Na) (DIS)	46	38	101
	Sulfate (SO4)	150	93	610
	Total Alkalinity As CACO3	230	140	180
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.005	0.014	0.011
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.003 UJ	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.002 UJ	0.002 UJ	0.002 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	0.47	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	0.02	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.002	0.006
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	0.01 UJ	0.03 UJ
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	10.59	9.58	10.29
	pH	7.9	7.8	7.8
	pH (Fld)	7.75	7.77	7.67
	SC (umhos/cm at 25 C) (Fld)	539	366	1730
	SC (umhos/cm at 25 C)	826	536	1660

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3434Beck2	3445Weston	3459Winslo
Water	SAMPLE DATE	8/12/2009	8/19/2009	8/19/2009
	SAMPLE TIME	14:05	12:35	15:30
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-008	H09080233-006	H09080233-012
	SAMPLE NUMBER	EHR-0809-317	EHR-0809-336	EHR-0809-342
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	13	<10	<10
	TDS (Measured at 180 C)	565	374 UJ	1280
	Water Temperature (C) (Fld)	11.2	11.6	11.4

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3460Weston	3463 Beck	3465Allied
Water	SAMPLE DATE	8/19/2009	8/12/2009	7/17/2009
	SAMPLE TIME	12:10	14:50	07:55
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-005	H09080156-010	H09070211-001
	SAMPLE NUMBER	EHR-0809-335	EHR-0809-319	EHR-0709-310
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	260	280	160
	Calcium (Ca) (DIS)	59	70	54
	Chloride (Cl)	33	48	30
	Magnesium (Mg) (DIS)	34	42	12
	Potassium (K) (DIS)	13	14	8
	Sodium (Na) (DIS)	43	52	30
	Sulfate (SO4)	130	150	96
	Total Alkalinity As CACO3	210	230	130
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.009	0.009	0.006
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	0.002 UJ	0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.002 UJ	0.001 UJ	0.003
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.004	0.003
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	0.01 UJ	<0.01	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	9.87	9.6	9.61
	pH	7.8	7.8	7.6
	pH (Fld)	7.71	7.78	7.28
	SC (umhos/cm at 25 C) (Fld)	469	576	430
	SC (umhos/cm at 25 C)	735	858	575

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3460Weston	3463 Beck	3465Allied
Water	SAMPLE DATE	8/19/2009	8/12/2009	7/17/2009
	SAMPLE TIME	12:10	14:50	07:55
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-005	H09080156-010	H09070211-001
	SAMPLE NUMBER	EHR-0809-335	EHR-0809-319	EHR-0709-310
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	496 UJ	580	401
	Water Temperature (C) (Fld)	11.6	11.1	11.5

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3465Weston	3470Weston	3475Allied
Water	SAMPLE DATE	8/19/2009	8/19/2009	7/17/2009
	SAMPLE TIME	16:00	13:00	08:15
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-013	H09080233-007	H09070211-002
	SAMPLE NUMBER	EHR-0809-343	EHR-0809-337	EHR-0709-311
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	240	190	170
	Calcium (Ca) (DIS)	286	65	37
	Chloride (Cl)	170	36	7
	Magnesium (Mg) (DIS)	123	28	8
	Potassium (K) (DIS)	29	15	6
	Sodium (Na) (DIS)	204	55	18
	Sulfate (SO4)	1200	190	42
	Total Alkalinity As CACO3	190	160	140
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.01	0.017	0.002
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.002	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.006 UJ	<0.001	<0.001
	Gold (Au) (DIS)	<0.02	<0.01	<0.01
	Iron (Fe) (DIS)	0.08	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.013	0.003	0.001
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	0.01	<0.01
	Zinc (Zn) (DIS)	0.06 UJ	0.02 UJ	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	9.48	10.14	9.36
	pH	7.7	7.9	7.5
	pH (Fld)	7.56	7.86	7.2
	SC (umhos/cm at 25 C) (Fld)	2760	472	276
	SC (umhos/cm at 25 C)	2680	782	352

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3465Weston	3470Weston	3475Allied
Water	SAMPLE DATE	8/19/2009	8/19/2009	7/17/2009
	SAMPLE TIME	16:00	13:00	08:15
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-013	H09080233-007	H09070211-002
	SAMPLE NUMBER	EHR-0809-343	EHR-0809-337	EHR-0709-311
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	2230	551 UJ	272
	Water Temperature (C) (Fld)	11.2	11.5	11.9

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3480Allied	3480WestoH	3480WestoK
Water	SAMPLE DATE	7/17/2009	8/25/2009	8/25/2009
	SAMPLE TIME	09:10	09:00	09:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09070211-004	H09080292-006	H09080292-007
	SAMPLE NUMBER	EHR-0709-313	EHR-0809-355	EHR-0809-356
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	200	260	20
	Calcium (Ca) (DIS)	75	227	7
	Chloride (Cl)	29	300	43
	Magnesium (Mg) (DIS)	17	86	3
	Potassium (K) (DIS)	9	25	7
	Sodium (Na) (DIS)	32	166	45
	Sulfate (SO4)	150	560	9
	Total Alkalinity As CACO3	160	220	17
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.006	0.019	<0.002
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	0.002	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	0.002 UJ	<0.001
	Gold (Au) (DIS)	<0.01	<0.02	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.005	<0.001
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	<0.01	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	9.96	10.17	7.56
	pH	7.7	7.7	6.7
	pH (Fld)	7.48	7.57	7.13
	SC (umhos/cm at 25 C) (Fld)	550	2360	262
	SC (umhos/cm at 25 C)	697	2340	295

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3480Allied	3480WestoH	3480WestoK
Water	SAMPLE DATE	7/17/2009	8/25/2009	8/25/2009
	SAMPLE TIME	09:10	09:00	09:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09070211-004	H09080292-006	H09080292-007
	SAMPLE NUMBER	EHR-0709-313	EHR-0809-355	EHR-0809-356
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	508	1710	170 UJ
	Water Temperature (C) (Fld)	11.7	11.1	20

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3485Beck	3485Weston	3489Weston
Water	SAMPLE DATE	8/12/2009	8/25/2009	8/19/2009
	SAMPLE TIME	14:30	09:45	16:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080156-009	H09080292-005	H09080233-014
	SAMPLE NUMBER	EHR-0809-318	EHR-0809-354	EHR-0809-344
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	260	210	190
	Calcium (Ca) (DIS)	75	169	118
	Chloride (Cl)	44	150	70
	Magnesium (Mg) (DIS)	36	80	31
	Potassium (K) (DIS)	14	22	14
	Sodium (Na) (DIS)	43	109	50
	Sulfate (SO4)	160	600	310
	Total Alkalinity As CACO3	210	170	150
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.01	0.007	0.007
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	0.004 UJ	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.001 UJ	0.002 UJ	0.003 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.008	0.005
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	0.02 UJ	<0.01	0.01 UJ
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	9.34	9.93	8.93
	pH	7.8	7.7	7.7
	pH (Fld)	7.67	7.52	7.58
	SC (umhos/cm at 25 C) (Fld)	549	1790	1190
	SC (umhos/cm at 25 C)	821	1820	1100

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3485Beck	3485Weston	3489Weston
Water	SAMPLE DATE	8/12/2009	8/25/2009	8/19/2009
	SAMPLE TIME	14:30	09:45	16:20
	LAB	ELI	ELI	ELI
	LAB NUMBER	H090801 56-009	H09080292-005	H09080233-014
	SAMPLE NUMBER	EHR-0809-318	EHR-0809-354	EHR-0809-344
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	589	1390	804
	Water Temperature (C) (Fld)	11.3	11.2	11.4

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3490Weston	3491Weston	3495Allied
Water	SAMPLE DATE	8/19/2009	8/19/2009	7/17/2009
	SAMPLE TIME	17:10	16:45	08:40
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-016	H09080233-015	H09070211-003
	SAMPLE NUMBER	EHR-0809-346	EHR-0809-345	EHR-0709-312
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	210	170	160
	Calcium (Ca) (DIS)	112	54	41
	Chloride (Cl)	88	15	10
	Magnesium (Mg) (DIS)	37	12	9
	Potassium (K) (DIS)	18	10	7
	Sodium (Na) (DIS)	55	31	21
	Sulfate (SO4)	250	93	56
	Total Alkalinity As CACO3	170	140	130
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.01	0.007	0.004
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	0.001 UJ	0.002 UJ	<0.001
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	0.03	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	0.002	0.002
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	0.01 UJ	<0.01	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	8.16	8.01	9.09
	pH	7.7	7.6	7.7
	pH (Fld)	7.63	7.38	7.39
	SC (umhos/cm at 25 C) (Fld)	963	456	313
	SC (umhos/cm at 25 C)	1100	523	392

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3490Weston	3491Weston	3495Allied
Water	SAMPLE DATE	8/19/2009	8/19/2009	7/17/2009
	SAMPLE TIME	17:10	16:45	08:40
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080233-016	H09080233-015	H09070211-003
	SAMPLE NUMBER	EHR-0809-346	EHR-0809-345	EHR-0709-312
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	New Site
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	789	377 UJ	304
	Water Temperature (C) (Fld)	12	11.5	11.7

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3655 Hwy12	3885 Hwy12	701Mnlv
Water	SAMPLE DATE	8/25/2009	8/25/2009	8/25/2009
	SAMPLE TIME	11:30	12:00	07:45
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080292-010	H09080292-011	H09080292-002
	SAMPLE NUMBER	EHR-0809-359	EHR-0809-360	EHR-0809-351
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	
	REMARKS			
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	370	210	260
	Calcium (Ca) (DIS)	85	62	127
	Chloride (Cl)	43	34	52
	Magnesium (Mg) (DIS)	58	17	33
	Potassium (K) (DIS)	4	14	19
	Sodium (Na) (DIS)	36	42	82
	Sulfate (SO4)	130	96	360
	Total Alkalinity As CACO3	300	170	210
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.004	0.014	0.012
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	<0.001	0.003 UJ
	Gold (Au) (DIS)	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.001	0.003	0.005
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	0.03 UJ	0.03 UJ	<0.01
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	6.27	8.78	9.58
	pH	7.7	7.9	7.8
	pH (Fld)	7.36	7.71	7.64
	SC (umhos/cm at 25 C) (Fld)	990	601	1260
	SC (umhos/cm at 25 C)	1000	675	1240

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	3655 Hwy12	3885 Hwy12	701Malv
Water	SAMPLE DATE	8/25/2009	8/25/2009	8/25/2009
	SAMPLE TIME	11:30	12:00	07:45
	LAB	ELI	ELI	ELI
	LAB NUMBER	H09080292-010	H09080292-011	H09080292-002
	SAMPLE NUMBER	EHR-0809-359	EHR-0809-360	EHR-0809-351
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION	New Site	New Site	
	REMARKS			
Physical/Fld-Lab: ppm unless noted				
	Total Suspended Solids	<10	<10	<10
	TDS (Measured at 180 C)	640	468 UJ	907
	Water Temperature (C) (Fld)	9.9	14.9	12.4

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 9/18/2009 2:06:48 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	800MnLv	801Manlove	FieldBlank	FieldBlank
Water	SAMPLE DATE	8/25/2009	8/25/2009	7/17/2009	8/12/2009
	SAMPLE TIME	08:05	08:25	11:30	20:00
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080292-003	H09080292-004	H09070211-010	H09080156-021
	SAMPLE NUMBER	EHR-0809-352	EHR-0809-353	EHR-0709-319	EHR-0809-330
	TYPE	Domestic Wells	Domestic Wells	Field QC	Field QC
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION		New Site		
	REMARKS			Blank	Blank
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	190	160	2	2
	Calcium (Ca) (DIS)	66	41	<1	<1
	Chloride (Cl)	28	14	<1	2
	Magnesium (Mg) (DIS)	18	11	<1	<1
	Potassium (K) (DIS)	14	11	<1	<1
	Sodium (Na) (DIS)	43	31	<1	3
	Sulfate (SO4)	140	74	<1	<1
	Total Alkalinity As CACO3	160	130	2	2
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003	<0.003	<0.003
	Arsenic (As) (DIS)	0.013	0.015	<0.002	<0.002
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	<0.001	<0.001	0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001	<0.001	<0.001	0.025
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02	<0.02	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	0.006
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.003	<0.001	<0.001	<0.001
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	0.002	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.01	<0.01	<0.01	0.08
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	10.25	9.58		
	pH	7.9	7.9	5.9	5.3
	pH (Fld)	7.69	7.77		
	SC (umhos/cm at 25 C) (Fld)	606	409		
	SC (umhos/cm at 25 C)	693	474	2	21

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	800MnLv	801Manlove	FieldBlank	FieldBlank
Water	SAMPLE DATE	8/25/2009	8/25/2009	7/17/2009	8/12/2009
	SAMPLE TIME	08:05	08:25	11:30	20:00
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09080292-003	H09080292-004	H09070211-010	H09080156-021
	SAMPLE NUMBER	EHR-0809-352	EHR-0809-353	EHR-0709-319	EHR-0809-330
	TYPE	Domestic Wells	Domestic Wells	Field QC	Field QC
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION		New Site		
	REMARKS			Blank	Blank
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10
	TDS (Measured at 180 C)	482 UJ	329 UJ	<10	108
	Water Temperature (C) (Fld)	11	12.7		

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 9/18/2009 2:06:48 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena - Seaver Park Private Wells - July & August 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	FieldBlank	FieldBlank
Water	SAMPLE DATE	8/19/2009	8/25/2009
	SAMPLE TIME	18:15	12:30
	LAB	ELI	ELI
	LAB NUMBER	H09080233-019	H09080292-012
	SAMPLE NUMBER	EHR-0809-349	EHR-0809-361
	TYPE	Field QC	Field QC
	GROUP	Private Wells	Private Wells
	DESCRIPTION		
	REMARKS	Blank	Blank
Common Ions (mg/L): ppm unless noted			
	Bicarbonate (HCO3)	5	4
	Calcium (Ca) (DIS)	<1	<1
	Chloride (Cl)	2	2
	Magnesium (Mg) (DIS)	<1	<1
	Potassium (K) (DIS)	<1	<1
	Sodium (Na) (DIS)	3	3
	Sulfate (SO4)	<1	<1
	Total Alkalinity As CACO3	4	3
Metals (mg/L): ppm unless noted			
	Aluminum (Al) (DIS)	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.003	<0.003
	Arsenic (As) (DIS)	<0.002	<0.002
	Barium (Ba) (DIS)	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001	<0.001
	Chromium (Cr) (DIS)	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01
	Copper (Cu) (DIS)	0.022	0.019
	Gold (Au) (DIS)	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	<0.02
	Lead (Pb) (DIS)	0.007	0.006
	Manganese (Mn) (DIS)	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01
	Selenium (Se) (DIS)	<0.001	<0.001
	Silver (Ag) (DIS)	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01
	Zinc (Zn) (DIS)	0.07	0.06
Physical/Fld-Lab: ppm unless noted			
	pH	5.2	5.4
	SC (umhos/cm at 25 C)	22	20
	Total Suspended Solids	<10	<10
	TDS (Measured at 180 C)	113	103

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

APPENDIX 3

FIELD NOTES

JULY 17, 2009
SPECIAL DOMESTIC WELL SAMPLING
WITHIN SEAVER PARK

FIELD STANDARDIZATION OF HONDA

	STANDARD VALUE	METER READING
ph	4.00 SU	4.00 SU
CONDUCTIVITY	4480 umhos/cm	4480 umhos/cm
SALINITY	0.23%	0.23%

DON SCHAEFER
3465 Allied Drive
227-8394
EHR-0709-310
SAMPLE COLLECTED FROM FRONT YARD
LAWN SPIGOT DETACHED FROM HOUSE
AFTER 10 MINUTE PURGE

ph	7.28 SU
CONDUCTIVITY	430 umhos/cm
D.O	9.61 mg/L
TEMP	11.5°C

MIKE MCKEEGAN
3475 Allied Drive
207-0198
EHR-0709-311
SAMPLE COLLECTED FROM LAWN SPIGOT DIRECTLY
SOUTH OF HOME

ph	7.20 SU
CONDUCTIVITY	276 umhos/cm
D.O.	9.36 mg/L
TEMP	11.9°C

BILL ALLICK
3485 Allied Drive
227-6751
EHR-0709-312
SAMPLE COLLECTED EAST OF 3485 Allied Drive
NEAR GARDEN ONLY 30' FROM 3475 well stickup

ph	7.39 SU
CONDUCTIVITY	313 umhos/cm
DO	9.09 mg/L
TEMP	11.7°C

PENNY WATTS
3480 Allied Drive
459-1917
EHR-0709-313
Sample collected from east facing water spigot
attached to 3480 Allied Drive home

ph	7.48 SU
CONDUCTIVITY	550 umhos/cm
D.O.	9.96 mg/L
TEMP	11.7°C

BLAIN AND LOVA SCHAFFS
3425 Allied Drive
227-1259 EHR-0709-314
SAMPLE COLLECTED FROM OUTDOOR GARDEN
SPIGOT SOUTH OF HOME

ph	7.60 SU
CONDUCTIVITY	768 umhos/cm
D.O	10.10 mg/L
TEMP	11.8°C

FERLICKA
2730 WINSLOW AVENUE
EHR-0809-312
IRRIGATION SYSTEM RUNNING BEFORE SAMPLE COLLECTION FROM FAUCET ATTACHED TO SOUTH SIDE OF HOUSE

ph	7.75 SU
CONDUCTIVITY	563 umhos/cm
D.O	10.75 mg/l
TEMP	11.5°C

MARTIAN
2746 WINSLOW AVENUE
EHR-0809-313
IRRIGATION SYSTEM RUNNING BEFORE SAMPLE COLLECTION FROM DETACH SPIGOT EAST OF HOUSE

ph	7.76 SU
CONDUCTIVITY	340 umhos/cm
D.O.	10.59 mg/l
TEMP	12.3°C

WETHERALL
2735 WINSLOW AVENUE
EHR-0809-314
SAMPLE COLLECTED FROM DETACHED SPIGOT SOUTHEAST OF HOUSE

ph	7.68 SU
CONDUCTIVITY	400 umhos/cm
D.O	10.35 mg/l
TEMP	12.2°C

BOBINSKI
2705 WINSLOW
EHR-0809-315
SAMPLE COLLECTED FROM DETACHED SPIGOT SOUTHEAST OF HOME

ph	7.68 SU
CONDUCTIVITY	436 umhos/cm
D.O	9.84 mg/l
TEMP	12.2°C

STATTON
3434 BECK STREET
EHR-0809-316
WELL NO. 1 SAMPLE COLLECTED FROM ATTACHED OUTSIDE SPIGOT WEST SIDE OF 3434 BECK STREET HOUSE

ph	7.86 SU
CONDUCTIVITY	556 umhos/cm
D.O	10.11 mg/l
TEMP	12.4°C

STATTON
3434 BECK STREET
EHR-0809-317
WELL NO. 2 SAMPLE COLLECTED FROM SPIGOT ATTACHED TO WESTSIDE OF GRAY TRAILER SAMPLE TURBID

ph	7.75 SU
CONDUCTIVITY	539 umhos/cm
D.O	10.59 mg/l
TEMP	11.2°C

THIS WELL SERVICES REMAINING SUBDIVISION OF YET-TO-BE HOMES.

ESSLEN
3485 Beck Street
EHR-0809-318
Sample collected from detached
spigot southwest of home

ph	7.61 SU
Conductivity	549 umhos/cm
D.O	9.34 mg/l
Temp	11.3°C

OTTER
3463 Beck Street
EHR-0809-319
Sample collected from detached
sprinkler head North of home

ph	7.78 SU
Conductivity	576778 umhos/cm gw
D.O	9.60 mg/l
Temp	11.1°C

DELONG
3433 Beck Street
EHR-0809-320
Sample collected from detached spigot
East of home

ph	7.75 SU
Conductivity	523 umhos/cm
D.O.	10.41 mg/l
Temp	11.7°C

B. LIPES
2779 Winslow Avenue
EHR-0809-321
Sample collected from spigot attached
to North side of well house

ph	7.59 SU
Conductivity	696 umhos/cm
D.O	9.83 mg/l
Temp	12.4°C

C. LIPES owner reports well depth 130'
2775 Winslow Avenue
EHR-0809-322
Sample collected from spigot attached
to North side of home

ph	7.45 SU
Conductivity	696 umhos/cm
D.O.	8.79 mg/l
Temp	12.8°C

PEEBLES, STARKEL RENTAL
2715 Winslow Avenue
EHR-0809-323
Sample collected from detached spigot
North of home

ph	7.71 SU
Conductivity	577 umhos/cm
D.O.	10.49 mg/l
Temp	10.9°C

STREETER
2725 WINSLOW AVENUE
EHR-0509-324
Sample collected from spigot detached from home on EAST SIDE

ph	7.52 SU
CONDUCTIVITY	440 umhos/cm
D.O	8.12 mg/L
TEMP	11.6°C

VACHER owner reports well depth 133'
2743 WINSLOW
EHR-0509-325
SAMPLE COLLECTED FROM SPIGOT DETACHED FROM HOME ON ~~EAST~~ WEST SIDE

ph	7.67 SU
CONDUCTIVITY	537 umhos/cm
D.O.	9.50 mg/L
TEMP	11.9°C

ZUGG
2740 WINSLOW AVENUE
EHR-0509-326
Sample collected from spigot ATTACHED TO NORTH side of home

ph	7.74 SU
CONDUCTIVITY	548 umhos/cm
D.O.	9.27 mg/L
TEMP	13.8°C

K. CARPS
2765 1/2 WINSLOW AVENUE
EHR-0809-327
SAMPLE COLLECTED FROM SPIGOT ATTACHED FROM GARAGE, EAST SIDE. Well pump failed between VOA and METAL SAMPLE COLLECTION, but owner resumed its operation so METAL SAMPLE could be collected

ph	7.69 SU
CONDUCTIVITY	485 umhos/cm
D.O	9.88 mg/L
TEMP	11.8°C

B. CARPS
2765 WINSLOW AVENUE
EHR-0809-328 COLIFORM
EHR-0809-329 FIELD DUPLICATE
Sample collected from backyard detached spigot

ph	7.70 SU
CONDUCTIVITY	543 umhos/cm
D.O	8.75 mg/L
TEMP	12.5 °C

EHR 0809-330
FIELD BLANK

SEAVER PARK RESIDENTIAL WELL
SAMPLING - AUGUST 19, 2009

FIELD STANDARDIZATION OF HORIBA

	STANDARD VALUE	METER READING
	4.00 SU	4.00 SU
CONDUCTIVITY	4480 umhos/cm	4480 umhos/cm
SALINITY	0.23%	0.23%

WEGNER
2770 WINSLOW AVENUE
EHR-0809-331
SAMPLE COLLECTED FROM DETACHED WATER HYDRANT SOUTHEAST OF HOME.

ph	7.58 SU
CONDUCTIVITY	477 umhos/cm
D.O	9.03 mg/l
TEMP	11.9°C

WOLD
2780 WINSLOW AVENUE
EHR-0809-332
SAMPLE COLLECTED FROM DETACHED WATER HYDRANT NORTH OF HOME, BACK YARD

ph	7.63 SU
CONDUCTIVITY	819 umhos/cm
D.O.	10.16 mg/l
TEMP	11.4°C

WOLD
2780 WINSLOW AVENUE
EHR-0809-333
SAMPLE COLLECTED FROM INDICATED FAUCET IN KITCHEN CONNECTED TO CULLIGAN RO SYSTEM. RO SYSTEM INSTALLED 2-3 YEARS AGO, WATER ALSO SOFTENED

ph	6.90 SU
CONDUCTIVITY	90 umhos/cm
D.O.	6.50 mg/l
TEMP	17.4°C

MILLER
3420 WESTON AVENUE
EHR-0809-334
SAMPLE COLLECTED FROM DETACHED HYDRANT NORTH OF HOME. WELL DEPTH 140 FEET

ph	7.73 SU
CONDUCTIVITY	769 umhos/cm
D.O.	9.40 mg/l
TEMP	12.5°C

POTTER
3460 WESTON AVENUE
EHR-0809-335
DIANA THOMPSON RENTER. SAMPLE COLLECTED FROM DETACHED HYDRANT SOUTH OF HOME BY GARDNER

ph	7.71 SU
CONDUCTIVITY	469 umhos/cm
D.O.	9.87 mg/l
TEMP	11.6°C

TOBIN
3445 WESTON
EHR-0809-336
SAMPLE COLLECTED FROM HOSE SPIGOT ATTACHED TO HOME ON NORTHEAST CORNER

ph	7.77 SU
CONDUCTIVITY	366 umhos/cm
D.O.	9.58 mg/L
Temp	11.6°C

JEPSIN
3470 WESTON AVENUE
EHR-0809-337
SAMPLE COLLECTED FROM HYDRANT BY WELL HEAD SOUTHEAST OF HOME

ph	7.86 SU
CONDUCTIVITY	472 umhos/cm
D.O	10.14 mg/L
Temp	11.5°C

EILER
~~2530 WESTON~~
EHR-0809-338
SAMPLE COLLECTED FROM DETACHED FAUCET BY WELL WEST OF HOME. POOL EILER SAID THIS WELL PROVIDES WATER TO 2540 WESTON ADDRESS (PUCHAWSKI)

ph	7.76 SU
CONDUCTIVITY	320 umhos/cm
D.O	9.92 mg/L
TEMP	11.9°C

HENNE
2795 WINSLOW AVENUE
EHR-0809-339
SAMPLE COLLECTED FROM DETACHED HYDRANT NORTH OF HOUSE, WELL DEPTH 125 FEET

ph	7.73 SU
CONDUCTIVITY	412 umhos/cm
D.O.	9.91 mg/L
Temp	12.0°C

LARSON
2850 WESTON
EHR-0809-340
SAMPLE COLLECTED FROM DETACHED HYDRANT NORTHWEST OF HOME

ph	7.35 SU
CONDUCTIVITY	950 umhos/cm
D.O	10.09 mg/L
Temp	11.7°C

LARSON
~~3457/3463 W~~ OAK
2858/2866 WINSLOW
EHR-0809-341
ONE WELL PROVIDES WATER TO BOTH ADDRESSES. SAMPLE COLLECTED FROM DETACHED FAUCET 3 FEET FROM WELL SETUP

ph	7.72 SU
CONDUCTIVITY	471 umhos/cm
D.O	10.18 mg/L
Temp	11.5°C

LARSON
3459/3463 WESTON
EHR-0809-342
ONE WELL PROVIDES WATER TO BOTH ADDRESSES. SAMPLE COLLECTED FROM DETACHED HYDRANT WEST OF 3459 WESTON, FRONT YARD
SONNY DELAHUNT, 3463 RENTER

ph	7.67 SU
CONDUCTIVITY	1730 umhos/cm
D.O.	10.29 mg/L
TEMP	11.4°C

DAVY
3465 WESTON
EHR-0809-343
SAMPLE COLLECTED FROM SPIGOT ATTACHED TO NORTH SIDE OF HOME

ph	7.56 SU
CONDUCTIVITY	2760 umhos/cm
D.O.	9.48 mg/L
TEMP.	11.2°C

HAMPER
3489 WESTON
EHR-0809-344
SAMPLE COLLECTED FROM SPIGOT ATTACHED TO NORTH SIDE OF HOUSE

ph	7.58 SU
CONDUCTIVITY	1190 umhos/cm
D.O	8.93 mg/L
TEMP	11.4°C

D. LAMPING
3491 WESTON
EHR-0809-345
SAMPLE COLLECTED FROM FAUCET ATTACHED TO HOUSE, NORTHEAST SIDE

ph	7.35 SU
CONDUCTIVITY	456 umhos/cm
D.O	8.01 mg/L
TEMP	11.5°C

CLAMPITT
3490 WESTON
EHR-0809-346
SAMPLE COLLECTED FROM KITCHEN FAUCET, OUTSIDE WATER SYSTEM UNDER REPAIR

ph	7.63 SU
CONDUCTIVITY	963 umhos/cm
D.O	8.16 mg/L
TEMP	12.0°C

SCHAFFS
3425 ALLIED
EHR-0809-347 ORIGINAL
EHR-0809-348 DUPLICATE
SAMPLE COLLECTED FROM DETACHED GARAGE SPIGOT SOUTH OF HOME

ph	7.64 SU
CONDUCTIVITY	1330 umhos/cm
D.O	9.35 mg/L
TEMP	11.7°C

EHR-0809-349 FIELD BLANK

SLAVER PARK RESIDENTIAL WELL
SAMPLING - AUGUST 25, 2009

FIELD STANDARDIZATION OF HORIBA

	STANDARD VALVE	METER READING
ph	4.00 SU	4.00 SU
CONDUCTIVITY	4480 umhos/cm	4480 umhos/cm
SALINITY	0.23%	0.23%

[SKINNER]
3350 BECK STREET
P.O. BOX 5447
HELENA, MT 59604
EHR-0809-350
SAMPLE COLLECTED FROM DETACHED HYDRANT NORTH OF HOME

ph	7.65 SU
CONDUCTIVITY	815 umhos/cm
D.O	8.31 mg/l
TEMP	11.8°C

[M. BALCEREAK]
701 MANLOVE
EHR-0809-351
SAMPLE COLLECTED FROM ATTACHED SPIGOT ON EAST SIDE OF HOUSE

ph	7.64 SU
CONDUCTIVITY	1260 umhos/cm
D.O	9.58 mg/l
TEMP	12.4°C

[KHUST]
800 MANLOVE
EHR-0809-352
SAMPLE COLLECTED FROM DETACHED HYDRANT by SHED SOUTH OF HOUSE

ph	7.69 SU
CONDUCTIVITY	1066 umhos/cm
D.O	10.25 mg/l
TEMP	11.0°C

[J. WISEMAN]
801 MANLOVE
EHR-0809-353
SAMPLE COLLECTED FROM DETACHED HYDRANT EAST OF HOME

ph	7.77 SU
CONDUCTIVITY	409 umhos/cm
D.O.	9.58 mg/l
TEMP	12.7°C

[R. LAMPING]
3485 WESTON
EHR-0809-354
SAMPLE COLLECTED FROM SPIGOT IN GARAGE

ph	7.52 SU
CONDUCTIVITY	1790 umhos/cm
D.O.	9.93 mg/l
TEMP	11.2°C

SHEPARD
3485 WESTON
SAMPLE COLLECTED FROM DETACHED HYDRANT WEST OF HOME, 60' WEST
EHR-0809-355

ph	7.57 SU
CONDUCTIVITY	2360 umhos/cm
DO	10.17 mg/L
Temp	11.1°C

SHEPARD
3485 WESTON
EHR-0809-356
SAMPLE COLLECTED FROM KITCHEN SINK AFTER TREATMENT FROM R.O. UNIT

ph	7.13 SU
CONDUCTIVITY	262 umhos/cm
D.O	7.56 mg/L
Temp	20.0°C

J. PADILLA
3430 WESTON
EHR-0809-357 ORIGINAL
EHR-0809-358 DUPLICATE
SAMPLE COLLECTED FROM DETACHED HYDRANT WEST OF HOUSE

ph	7.74 SU
CONDUCTIVITY	1310 umhos/cm
D.O	10.11 mg/L
TEMP	11.1°C

P.O BOX 1204
ENNIS, MT 59729

RUNKLE
3655 US HIGHWAY 12
EHR-0809-359
SAMPLE COLLECTED FROM DETACHED NEW WELL EAST OF HOUSE BY BOARWA

ph	7.36 SU
CONDUCTIVITY	990 umhos/
D.O	6.27 mg/L
TEMP	9.9°C

RUNKLE
3885 US HIGHWAY 12
EHR-0809-360
SAMPLED COLLECTED FROM ATTACH SPIGOT ON EAST SIDE OF HOUSE

ph	7.71 SU
CONDUCTIVITY	601 umhos/
D.O.	8.78 mg/L
TEMP	14.9°C

FIELD BLANK
EHR-0809-361

APPENDIX 4

CHAIN OF CUSTODIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	SEARLE PARK RESIDENTIAL WELL SAMPLING	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** JON NICOL **Phone/Fax:** (406) 227-4521	**Email:**	**Sampler: (Please Print)** NICOL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA
☐ GSA ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP Format: _____
☐ State: _____ ☐ LEVEL IV
☐ Other: _____ ☐ NELAC

Number of Containers
Sample Type: A Air W Water S Soils/Solids V Vegetation B Bioassay O Other

ANALYSIS REQUESTED

Normal Turnaround (TAT)

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: hand del.
Cooler ID(s):
Receipt Temp 1.9 °C
On Ice: Yes No
Custody Seal Y N
Bottles/ Coolers B C
Intact Y N
Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	SEE ATTACHED
1	EHC-0501-310 DAW	8/12/09	11:30	GW	X
2	EHC-0501-310 MW/DUP		11:30		
3	EHC-0501-311 DAW		12:00		
4	EHC-0501-311 MW/DUP		12:00		
5	EHC-0501-312 DAW		12:20		
6	EHC-0501-312 MW/DUP		12:20		
7	EHC-0501-313 DAW		12:40		
8	EHC-0501-313 MW/DUP		12:40		
9	EHC-0501-314 DAW		12:55		
10	EHC-0501-314 MW/DUP		12:55		

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print): JON NICOL	Date/Time: 8/13/09 7:00	Signature:	Received by (print):	Date/Time: 8-13-09 9:00	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: _____ Lab Disposal: _____			Received by Laboratory:	Date/Time:	Signature:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	[illegible]	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** / **Phone/Fax:**	**Email:**	**Sampler: (Please Print)**
	JON NIKEL (406) 227-4521		NIKEL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/MWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

Normal Turnaround (TAT)

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: Fed Ex

Cooler ID(s):

Receipt Temp 1.4 °C

On Ice: Yes (No)

Custody Seal Y N

Bottles/Coolers B C

Intact Y (N)

Signature Match Y (N)

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	[illegible]	[illegible]	METALS								SEE ATTACHED	
1	EHE-0501-315 RAW	8/12/01	1320	GW	X	X									X	
2	EHE-0501-315 METAL		1320				X									
3	EHE-0501-316 RAW		1315		X	X										
4	EHE-0501-316 METAL		1315				X									
5	EHE-0501-317 RAW		1405		X	X										
6	EHE-0501-317 METAL		1405				X									
7	EHE-0501-318 RAW		1430		X	X										
8	EHE-0501-318 METAL		1430				X									
9	EHE-0501-319 RAW		1450		X	X										
10	EHE-0501-319 METAL		1450				X									

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print): [illegible]	Date/Time: [illegible]	Signature: [illegible]	Received by (print): [illegible]	Date/Time: 5-13-09 9cl	Signature: [illegible]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: _____ Lab Disposal: _____			Received by Laboratory:	Date/Time:	Signature:

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Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	SEALED CASE RESIDENTIAL WELL SAMPLING	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	**Email:**	**Sampler: (Please Print)**
	JOHNSON (406)221-4729		NICKEL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

Normal Turnaround (TAT)

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: hand del.
Cooler ID(s):
Receipt Temp 1.4 °C
On Ice: Yes No
Custody Seal Y N
Bottles/Coolers B C
Intact Y N
Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	COMPLETE DISS	COMPLETE TOTAL	METALS								SEE ATTACHED	
1	EHR-0801-320 DAN	8/12/21	1515	GW	X	/									X	X
2	EHR-0801-320 METAL		1515				X									
3	EHR-0801-321 DAN		1700		X	X										
4	EHR-0801-321 METAL		1700				X									
5	EHR-0801-322 DAN		1720		X	X										
6	EHR-0801-322 METAL		1720				X									
7	EHR-0801-323 DAN		1740		X	X										
8	EHR-0801-323 METAL		1740				X									
9	EHR-0801-324 DAN		1800		X	X										
10	EHR-0801-324 METAL		1800				X									

LABORATORY USE ONLY

Custody Record MUST be Signed

	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	JOHNSON	[illegible]	[signature]	[illegible]	8.13.21 9AM	[signature]
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
				Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: ASARCO LLC	Project Name, PWS, Permit, Etc. SEAVER PARK RESIDENTIAL WELL SAMPLING	Sample Origin State: MT	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: JON NIOKOL Phone/Fax: (406) 227-4529	Email:	Sampler: (Please Print) NIOKOL
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA
☐ GSA ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP Format: _____
☐ State: _____ ☐ LEVEL IV
☐ Other: _____ ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids
Vegetation Bioassay Other

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: hand del
Cooler ID(s):
Receipt Temp 19 °C
On Ice: Yes No
Custody Seal Y N
Bottles/Coolers B C
Intact Y N
Signature Match Y N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Physical Parameters	Common Ions	Metals							SEE ATTACHED	Normal Turnaround (TAT)	RUSH	
1 EHR-0809-325 RAW	8/12/09	1815	GW	X	X								X		X	
2 EHR-0809-325 METAL		1815				X										
3 EHR-0809-326 RAW		1835		X	X											
4 EHR-0809-326 METAL		1835				X										
5 EHR-0809-327 RAW		1855		X	X											
6 EHR-0809-327 METAL		1855				X										
7 EHR-0809-328 RAW		1915		X	X											
8 EHR-0809-328 METAL		1915				X										
9 EHR-0809-329 RAW		1930		X	X											
10 EHR-0809-329 METAL		1930				X										

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
[illegible]	[illegible]	[illegible]	Wanda Tom	8-13-09 9:44	[illegible]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: ASARCO LLC	Project Name, PWS, Permit, Etc. SEAVER PARK RESIDENTIAL WELL SAMPLING	Sample Origin State: MT	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: JON NIOLA Phone/Fax: (406) 227-4529	Email:	Sampler: (Please Print) NIOLEL
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA
☐ GSA ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP Format: _____
☐ State: _____ ☐ LEVEL IV
☐ Other: _____ ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids
Vegetation Bioassay Other

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: hand del.
Cooler ID(s):
Receipt Temp 1.9 °C
On Ice: Yes No
Custody Seal Y N
Bottles/Coolers B C
Intact Y N
Signature Match Y N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	PHYSICAL PARAMETERS	COMMON IONS	METALS							SEE ATTACHED	Normal Turnaround (TAT)	RUSH	
1 EHR-0809-330 RAIN	8/12/09	2000	GW	X	X								X		X	
2 EHR-0809-330 METAL	1	2000	1			X							1		1	
3																
4																
5																
6																
7																
8																
9																
10																

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
[illegible]	8/[illegible]	[illegible]	Wanda John	8-13-09 9a	[illegible]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: ASARCO LLC	Project Name, PWS, Permit, Etc. SLAVER PARK RESIDENTIAL WELL SAMPLING	Sample Origin State: MT	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: JON NIDDEL Phone/Fax: (406) 227-4329	Email:	Sampler: (Please Print) NICKEL
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids
Vegetation Bioassay Other

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: handdel.
Cooler ID(s):
Receipt Temp 3.9 °C
On Ice: Yes No
Custody Seal Y N
Bottles/Coolers B C
Intact Y N
Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Physical Parameters	Common Ions	Metals							SEE ATTACHED	Normal Turnaround (TAT)	RUSH	LABORATORY USE ONLY
1	EHR-0809-331 RAW	8/19/09	10:45	GW	X	X								X		X	
2	EHR-0809-331 METAL		10:45				X										
3	EHR-0809-332 RAW		11:10		X	X											
4	EHR-0809-332 METAL		11:10				X										
5	EHR-0809-333 RAW		11:25		X	X											
6	EHR-0809-333 METAL		11:25				X										
7	EHR-0809-334 RAW		11:50		X	X											
8	EHR-0809-334 METAL		11:50				X										
9	EHR-0809-335 RAW		12:10		X	X											
10	EHR-0809-335 METAL		12:10				X										

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
JON NIDDEL	8/20/09	[signature]	Wanda [illegible]	8-20-09 9:05	[signature]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: ASARCO LLC	Project Name, PWS, Permit, Etc. SEAVER PARK RESIDENTIAL WELL SAMPLING	Sample Origin State: MT	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: JON NICKEL Phone/Fax: (406) 227-4527	Email:	Sampler: (Please Print) NICKEL
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA
☐ GSA ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP Format: _____
☐ State: _____ ☐ LEVEL IV
☐ Other: _____ ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids
Vegetation Bioassay Other

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by:
Cooler ID(s):
Receipt Temp 3.9 °C
On Ice: Yes No
Custody Seal Y N
Bottles/Coolers B C
Intact Y N
Signature Match Y N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	PHYSICAL PARAMETERS	COMMON IONS	METALS							SEE ATTACHED	Normal Turnaround (TAT)	RUSH		LABORATORY USE ONLY
1 EHR-0809-336 RAW	8/17/09	1235	GW	X	X								X		X		
2 EHR-0809-336 METAL		1235				X											
3 EHR-0809-337 RAW		1300		X	X												
4 EHR-0809-337 METAL		1300				X											
5 EHR-0809-338 RAW		1320		X	X												
6 EHR-0809-338 METAL		1320				X											
7 EHR-0809-339 RAW		1345		X	X												
8 EHR-0809-339 METAL		1345				X											
9 EHR-0809-340 RAW		1445		X	X												
10 EHR-0809-340 METAL		1445				X											

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
JON NICKEL	[illegible]	[illegible]	Wanderohm	8-26-09 [illegible]	[illegible]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	SEAVER PASS RESIDENTIAL WELL SAMPLING	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** JON NIDEL **Phone/Fax:** (406) 227-4521	**Email:**	**Sampler: (Please Print)** NIDEL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Number of Containers / Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other	PARTICULATE PARAMETERS	DISSOLVED METALS	TOTAL METALS	SEE ATTACHED	Normal Turnaround (TAT)
EHR-0807-341 DAN	8/11/01	1510	GW		X	X		X	
2 EHR-0807-341 MET		1510					X		
3 EHR-0807-342 DAN		1530			X	X			
4 EHR-0807-342 MET		1530					X		
5 EHR-0807-343 DAN		1600			X	X			
6 EHR-0807-343 MET		1600					X		
7 EHR-0807-344 DAN		1620			X	X			
8 EHR-0807-344 MET		1620					X		
9 EHR-0807-345 DAN		1645			X	X			
10 EHR-0807-345 MET		1645					X		

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 3.1 °C

On Ice: Yes No

Custody Seal Y N

Bottles/ Coolers B C

Intact Y N

Signature Match Y N

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
JON NIDEL	8/20/01		Wanda John	8-20-01 9:05	
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: ASARCO LLC	Project Name, PWS, Permit, Etc. SEAVOR PARK RESIDENTIAL WELL SAMPLING	Sample Origin State: MT	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address:	Contact Name: JON NICKEL Phone/Fax: (406) 227-4521	Email:	Sampler: (Please Print) NICKEL
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids
Vegetation Bioassay Other

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 3.9 °C

On Ice: Yes No

Custody Seal Y N

Bottles/Coolers B C

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Physical Parameters	Common Ions	Metals							SEE ATTACHED	Normal Turnaround (TAT)	RUSH	
1	EHR-0809-346 RAW	8/19/09	1710	GW	X	X								X		X	
2	EHR-0809-346 METAL		1710				X										
3	EHR-0809-347 RAW		1725		X	X											
4	EHR-0809-347 METAL		1725				X										
5	EHR-0809-348 RAW		1740		X	X											
6	EHR-0809-348 METAL		1740				X										
7	EHR-0809-349 RAW		1815		X	X											
8	EHR-0809-349 METAL		1815				X										
9																	
10																	

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
JON NICKEL	[illegible]	[illegible]	Wanda John	8-20-09 9:05	[illegible]
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Chain of Custody and Analytical Request Record

Page 1 of 3

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	SILVER BOW RESIDENTIAL WELL SAMPLING	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** / **Phone/Fax:**	**Email:**	**Sampler: (Please Print)**
	JON NICKEL (406) 221-1521		NICKEL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A Air W Water S Soils/Solids V Vegetation B Bioassay O Other

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	CATION / ANIONS	COMMON IONS	METALS							SEE ATTACHED	Normal Turnaround (TAT)	RUSH
1 EHE-0809-350 RAW	8/25/09	7:20	GW	X	X								X		X
2 EHE-0809-350 METAL		7:20				X									
3 EHE-0809-351 RAW		~~7:20~~ 7:40		X	X										
4 EHE-0809-351 METAL		7:40 ~~7:45~~				X									
5 EHE-0809-352 RAW		~~7:55~~ 8:05		X	X										
6 EHE-0809-352 METAL		8:05				X									
7 EHE-0809-353 RAW		8:25		X	X										
8 EHE-0809-353 METAL		8:25				X									
9 EHE-0809-354 RAW		9:15		X	X										
10 EHE-0809-354 METAL		1:45				X									

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: HAND

Cooler ID(s):

Receipt Temp 11.1 °C

On Ice: Yes No

Custody Seal Y N

Bottles/Coolers B C

Intact Y N

Signature Match Y N

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print): JON NICKEL	Date/Time: 8/25/09	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: _____ Lab Disposal: _____			Received by Laboratory: KRISTINE JOHNS	Date/Time: 8.25.09 13:47	Signature:

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Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	RESIDENTIAL WELL SAMPLING	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	**Email:**	**Sampler: (Please Print)** NICKEL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA
☐ GSA ☐ EDD/EDT(Electronic Data)
☐ POTW/MWTP Format:_____
☐ State:_____ ☐ LEVEL IV
☐ Other:_____ ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	TOTAL (RAW)	DISSOLVED (RAW)	METALS							SEE ATTACHED	Normal Turnaround (TAT)	RUSH
1 ENR-0809-355 RAW	8/25/07	9:00	GW	X	X								X		X
2 ENR-0809-355 METAL		9:00				X									
3 ENR-0809-356 RAW		9:20		X	X										
4 ENR-0809-356 METAL		9:20				X									
5 ENR-0809-357 RAW		10:00		X	X										
6 ENR-0809-357 METAL		10:00				X									
7 ENR-0809-358 RAW		10:20		X	X										
8 ENR-0809-358 METAL		10:20				X									
9 ENR-0809-359 RAW		11:30		X	X										
10 ENR-0809-359 METAL		11:30				X									

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: Fed Ex
Cooler ID(s):
Receipt Temp 11.1 °C
On Ice: Yes (No)
Custody Seal Y (N)
Bottles/Coolers B C
Intact Y N
Signature Match Y N

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client:_____ Lab Disposal:_____			Received by Laboratory: Fed Ex	Date/Time: 8.25.07 13:45	Signature:

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Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	SLAUGH PARK RESIDENTIAL WELL SAMPLING	State: MT	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** / **Phone/Fax:**	**Email:**	**Sampler: (Please Print)**
	JANICE (406) 237-4521		NICKI
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

Normal Turnaround (TAT)

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: HAND

Cooler ID(s):

Receipt Temp 11.1 °C

On Ice: Yes No

Custody Seal Y N

Bottles/Coolers B C

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	CHEMICAL ANALYSIS	TOTAL METALS	SEE ATTACHED	RUSH
1	EVR-0807-360 RAW	8/25/07	12:00	GW	X	X	X	X
2	EVR-0807-360 METAL	"	12:00	"		X	"	"
3	EVR-0807-361 RAW	"	12:30	"	X	X	"	"
4	EVR-0807-361 METAL	"	12:30	"		X	"	"
5								
6								
7								
8								
9								
10								

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print): / Date/Time: / Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print): / Date/Time: / Signature:
Sample Disposal: Return to Client: _____ Lab Disposal: _____			Received by Laboratory: KELLIE WATTS / Date/Time: 8.25.07 17:45 / Signature:

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APPENDIX 5

LABORATORY REPORT

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

ANALYTICAL SUMMARY REPORT

July 24, 2009

Asarco LLC
PO Box 1230
East Helena, MT 59635

Workorder No.: H09070211 Quote ID: H409 - Semi-Annual Residential CAMU Monitoring

Project Name: Residential Well Sampling Seaver Park

Energy Laboratories Inc received the following 10 samples for Asarco LLC on 7/17/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H09070211-001	EHR-0709-310	07/17/09 7:55	07/17/09	Groundwater	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved Solids, Total Suspended
H09070211-002	EHR-0709-311	07/17/09 8:15	07/17/09	Groundwater	Same As Above
H09070211-003	EHR-0709-312	07/17/09 8:40	07/17/09	Groundwater	Same As Above
H09070211-004	EHR-0709-313	07/17/09 9:10	07/17/09	Groundwater	Same As Above
H09070211-005	EHR-0709-314	07/17/09 9:40	07/17/09	Groundwater	Same As Above
H09070211-006	EHR-0709-315	07/17/09 10:10	07/17/09	Groundwater	Same As Above
H09070211-007	EHR-0709-316	07/17/09 10:40	07/17/09	Groundwater	Same As Above
H09070211-008	EHR-0709-317	07/17/09 11:00	07/17/09	Groundwater	Same As Above
H09070211-009	EHR-0709-318	07/17/09 11:10	07/17/09	Groundwater	Same As Above
H09070211-010	EHR-0709-319	07/17/09 11:30	07/17/09	Groundwater	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Jonathan D. Hager
Digitally signed by Jonathan D. Hager
DN: cn=Jonathan D. Hager, o=Energy Laboratory-Helena, ou=Assistant Lab Manager, email=jhager@energylab.com, c=US
Date: 2009.07.24 15:23:18 -06'00'

Report Approved By:

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

CLIENT: Asarco LLC
Project: Residential Well Sampling Seaver Park
Sample Delivery Group: H09070211

Date: *24-Jul-09*

CASE NARRATIVE

Tests Associated with Analyst identified as ELI-B were subcontracted to Energy Laboratories Billings Branch, EPA Number MT00005.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-310
Lab ID: H09070211-001
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 07:55 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	07/17/09 16:31 / JG		PH2_090717A : 13		090717A-PH-W
Conductivity	575	umhos/cm		1		A2510 B	07/17/09 16:33 / hm		COND_090717B : 2		090717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:25 / hm		SOLIDS_090720A : 13		090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	401	mg/L		10		A2540 C	07/20/09 10:04 / hm		SOLIDS_090720C : 5		090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		1		A2320 B	07/20/09 13:45 / hm		TITTR_090720A : 3		090720A-ALK-W
Bicarbonate as HCO3	160	mg/L		1		A2320 B	07/20/09 13:45 / hm		TITTR_090720A : 3		090720A-ALK-W
Chloride	30	mg/L		1		E300.0	07/22/09 03:13 / hm		IC101-H_090721A : 62		R55176
Sulfate	96	mg/L		1		E300.0	07/22/09 03:13 / hm		IC101-H_090721A : 62		R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Arsenic	0.006	mg/L		0.002		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Calcium	54	mg/L		1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Chromium	0.001	mg/L		0.001		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Copper	0.003	mg/L		0.001		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Magnesium	12	mg/L		1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Potassium	8	mg/L		1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155 : 1		B_R133155
Selenium	0.003	mg/L		0.001		E200.8	07/22/09 20:37 / eli-b		SUB-B133169 : 1		B_R133169

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-310
Lab ID: H09070211-001
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 07:55 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 20:37 / eli-b		SUB-B133169	1	B_R133169
Sodium	30	mg/L		1		E200.7	07/22/09 20:11 / eli-b		SUB-B133155	1	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 20:37 / eli-b		SUB-B133169	1	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:11 / eli-b		SUB-B133155	1	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:11 / eli-b		SUB-B133155	1	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-311
Lab ID: H09070211-002
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 08:15 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.5	s.u.		0.1		A4500-H B	07/17/09 16:32 / JG		PH2_090717A	14	090717A-PH-W
Conductivity	352	umhos/cm		1		A2510 B	07/17/09 16:30 / hm		COND_090717B	3	90717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:26 / hm		SOLIDS_090720A	14	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	272	mg/L		10		A2540 C	07/20/09 10:04 / hm		SOLIDS_090720C	6	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	07/20/09 13:52 / hm		TITTR_090720A	4	090720A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	07/20/09 13:52 / hm		TITTR_090720A	4	090720A-ALK-W
Chloride	7	mg/L		1		E300.0	07/22/09 03:30 / hm		IC101-H_090721A	63	R55176
Sulfate	42	mg/L		1		E300.0	07/22/09 03:30 / hm		IC101-H_090721A	63	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Arsenic	0.002	mg/L		0.002		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Calcium	37	mg/L		1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Copper	ND	mg/L		0.001		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Magnesium	8	mg/L		1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Potassium	6	mg/L		1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Selenium	0.001	mg/L		0.001		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-311
Lab ID: H09070211-002
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 08:15 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Sodium	18	mg/L		1		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 20:53 / eli-b		SUB-B133169	2	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:14 / eli-b		SUB-B133155	2	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-312
Lab ID: H09070211-003
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 08:40 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	07/17/09 16:33 / JG		PH2_090717A : 15		090717A-PH-W
Conductivity	392	umhos/cm		1		A2510 B	07/17/09 16:31 / hm		COND_090717B : 4	90717A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:27 / hm		SOLIDS_090720A : 15		090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	304	mg/L		10		A2540 C	07/20/09 10:05 / hm		SOLIDS_090720C : 7		090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		1		A2320 B	07/20/09 14:14 / hm		TITTR_090720A : 6		090720A-ALK-W
Bicarbonate as HCO3	160	mg/L		1		A2320 B	07/20/09 14:14 / hm		TITTR_090720A : 6		090720A-ALK-W
Chloride	10	mg/L		1		E300.0	07/22/09 04:19 / hm		IC101-H_090721A : 66		R55176
Sulfate	56	mg/L		1		E300.0	07/22/09 04:19 / hm		IC101-H_090721A : 66		R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Arsenic	0.004	mg/L		0.002		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Calcium	41	mg/L		1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Copper	ND	mg/L		0.001		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Magnesium	9	mg/L		1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Potassium	7	mg/L		1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155 : 3		B_R133155
Selenium	0.002	mg/L		0.001		E200.8	07/22/09 20:57 / eli-b		SUB-B133169 : 3		B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-312
Lab ID: H09070211-003
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 08:40 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 20:57 / eli-b		SUB-B133169	3	B_R133169
Sodium	21	mg/L		1		E200.7	07/22/09 20:18 / eli-b		SUB-B133155	3	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 20:57 / eli-b		SUB-B133169	3	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:18 / eli-b		SUB-B133155	3	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:18 / eli-b		SUB-B133155	3	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-313
Lab ID: H09070211-004
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 09:10 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	07/17/09 16:36 / JG		PH2_090717A : 16		090717A-PH-W
Conductivity	697	umhos/cm		1		A2510 B	07/17/09 16:32 / hm		COND_090717B : 5		90717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:33 / hm		SOLIDS_090720A : 17		090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	508	mg/L		10		A2540 C	07/20/09 10:07 / hm		SOLIDS_090720C : 9		090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	07/20/09 14:21 / hm		TITTR_090720A : 7		090720A-ALK-W
Bicarbonate as HCO3	200	mg/L		1		A2320 B	07/20/09 14:21 / hm		TITTR_090720A : 7		090720A-ALK-W
Chloride	29	mg/L		1		E300.0	07/22/09 04:35 / hm		IC101-H_090721A : 67		R55176
Sulfate	150	mg/L		1		E300.0	07/22/09 04:35 / hm		IC101-H_090721A : 67		R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169
Arsenic	0.006	mg/L		0.002		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169
Calcium	75	mg/L		1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Copper	ND	mg/L		0.001		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169
Magnesium	17	mg/L		1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Potassium	9	mg/L		1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155 : 4		B_R133155
Selenium	0.003	mg/L		0.001		E200.8	07/22/09 21:01 / eli-b		SUB-B133169 : 4		B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-313
Lab ID: H09070211-004
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 09:10 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:01 / eli-b		SUB-B133169	4	B_R133169
Sodium	32	mg/L		1		E200.7	07/22/09 20:21 / eli-b		SUB-B133155	4	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:01 / eli-b		SUB-B133169	4	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:21 / eli-b		SUB-B133155	4	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:21 / eli-b		SUB-B133155	4	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-314
Lab ID: H09070211-005
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 09:40 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	07/17/09 16:37 / JG		PH2_090717A	17	090717A-PH-W
Conductivity	1090	umhos/cm		1		A2510 B	07/17/09 16:34 / hm		COND_090717B	6	90717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:33 / hm		SOLIDS_090720A	18	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	791	mg/L		10		A2540 C	07/20/09 10:07 / hm		SOLIDS_090720C	10	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	230	mg/L		1		A2320 B	07/20/09 14:36 / hm		TITTR_090720A	8	090720A-ALK-W
Bicarbonate as HCO3	280	mg/L		1		A2320 B	07/20/09 14:36 / hm		TITTR_090720A	8	090720A-ALK-W
Chloride	59	mg/L		1		E300.0	07/22/09 04:52 / hm		IC101-H_090721A	68	R55176
Sulfate	250	mg/L		1		E300.0	07/22/09 04:52 / hm		IC101-H_090721A	68	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Arsenic	0.014	mg/L		0.002		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Calcium	119	mg/L		1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Copper	ND	mg/L		0.001		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Magnesium	28	mg/L		1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Potassium	13	mg/L		1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Selenium	0.006	mg/L		0.001		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-314
Lab ID: H09070211-005
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 09:40 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Sodium	63	mg/L		1		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:22 / eli-b		SUB-B133169	5	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:25 / eli-b		SUB-B133155	5	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-315
Lab ID: H09070211-006
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 10:10 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	07/17/09 16:41 / JG		PH2_090717A	19	090717A-PH-W
Conductivity	1450	umhos/cm		1		A2510 B	07/17/09 16:36 / hm		COND_090717B	8	90717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:35 / hm		SOLIDS_090720A	19	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1090	mg/L		10		A2540 C	07/20/09 10:08 / hm		SOLIDS_090720C	11	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	250	mg/L		1		A2320 B	07/20/09 15:08 / hm		TITTR_090720A	11	090720A-ALK-W
Bicarbonate as HCO3	300	mg/L		1		A2320 B	07/20/09 15:08 / hm		TITTR_090720A	11	090720A-ALK-W
Chloride	91	mg/L		1		E300.0	07/22/09 05:08 / hm		IC101-H_090721A	69	R55176
Sulfate	410	mg/L		1		E300.0	07/22/09 05:08 / hm		IC101-H_090721A	69	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Arsenic	0.009	mg/L		0.002		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Calcium	160	mg/L		1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Chromium	0.001	mg/L		0.001		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Copper	0.003	mg/L		0.001		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Iron	0.03	mg/L		0.02		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Magnesium	38	mg/L		1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Potassium	16	mg/L		1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Selenium	0.007	mg/L		0.001		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-315
Lab ID: H09070211-006
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 10:10 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Sodium	91	mg/L		1		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:26 / eli-b		SUB-B133169	6	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:29 / eli-b		SUB-B133155	6	B_R133155

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-316
Lab ID: H09070211-007
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 10:40 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	07/17/09 16:42 / JG		PH2_090717A	20	090717A-PH-W
Conductivity	603	umhos/cm		1		A2510 B	07/17/09 16:37 / hm		COND_090717B	9	90717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:37 / hm		SOLIDS_090720A	20	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	428	mg/L		10		A2540 C	07/20/09 10:09 / hm		SOLIDS_090720C	12	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	07/20/09 15:12 / hm		TITTR_090720A	12	090720A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	07/20/09 15:12 / hm		TITTR_090720A	12	090720A-ALK-W
Chloride	31	mg/L		1		E300.0	07/22/09 05:25 / hm		IC101-H_090721A	70	R55176
Sulfate	110	mg/L		1		E300.0	07/22/09 05:25 / hm		IC101-H_090721A	70	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Arsenic	0.017	mg/L		0.002		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Calcium	51	mg/L		1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Copper	ND	mg/L		0.001		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Magnesium	17	mg/L		1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Potassium	12	mg/L		1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Selenium	0.003	mg/L		0.001		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-316
Lab ID: H09070211-007
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 10:40 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Sodium	36	mg/L		1		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:30 / eli-b		SUB-B133169	7	B_R133169
Vanadium	0.01	mg/L		0.01		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:32 / eli-b		SUB-B133155	7	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-317
Lab ID: H09070211-008
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 11:00 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	07/17/09 16:44 / JG		PH2_090717A	21	090717A-PH-W
Conductivity	1010	umhos/cm		1		A2510 B	07/17/09 16:38 / hm		COND_090717B	1	090717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	12	mg/L		10		A2540 D	07/20/09 10:37 / hm		SOLIDS_090720A	21	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	733	mg/L		10		A2540 C	07/20/09 10:10 / hm		SOLIDS_090720C	13	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	07/20/09 15:19 / hm		TITTR_090720A	13	090720A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	07/20/09 15:19 / hm		TITTR_090720A	13	090720A-ALK-W
Chloride	55	mg/L		1		E300.0	07/22/09 05:41 / hm		IC101-H_090721A	71	R55176
Sulfate	270	mg/L		1		E300.0	07/22/09 05:41 / hm		IC101-H_090721A	71	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Arsenic	0.011	mg/L		0.002		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Calcium	77	mg/L		1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Chromium	0.002	mg/L		0.001		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Copper	ND	mg/L		0.001		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Iron	0.03	mg/L		0.02		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Magnesium	44	mg/L		1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Potassium	14	mg/L		1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Selenium	0.003	mg/L		0.001		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-317
Lab ID: H09070211-008
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 11:00 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Sodium	57	mg/L		1		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:34 / eli-b		SUB-B133169	8	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:36 / eli-b		SUB-B133155	8	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-318
Lab ID: H09070211-009
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 11:10 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	07/17/09 16:47 / JG		PH2_090717A	22	090717A-PH-W
Conductivity	1010	umhos/cm		1		A2510 B	07/17/09 16:39 / hm		COND_090717B	1	190717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	15	mg/L		10		A2540 D	07/20/09 10:38 / hm		SOLIDS_090720A	23	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	736	mg/L		10		A2540 C	07/20/09 10:11 / hm		SOLIDS_090720C	16	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	07/20/09 15:25 / hm		TITTR_090720A	14	090720A-ALK-W
Bicarbonate as HCO3	230	mg/L		1		A2320 B	07/20/09 15:25 / hm		TITTR_090720A	14	090720A-ALK-W
Chloride	55	mg/L		1		E300.0	07/22/09 06:30 / hm		IC101-H_090721A	74	R55176
Sulfate	270	mg/L		1		E300.0	07/22/09 06:30 / hm		IC101-H_090721A	74	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Arsenic	0.011	mg/L		0.002		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Calcium	77	mg/L		1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Copper	0.001	mg/L		0.001		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Iron	0.03	mg/L		0.02		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Magnesium	44	mg/L		1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Potassium	14	mg/L		1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Selenium	0.003	mg/L		0.001		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-318
Lab ID: H09070211-009
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 11:10 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Sodium	57	mg/L		1		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:38 / eli-b		SUB-B133169	9	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:53 / eli-b		SUB-B133155	9	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-319
Lab ID: H09070211-010
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 11:30 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.9	s.u.		0.1		A4500-H B	07/17/09 16:49 / JG		PH2_090717A	23	090717A-PH-W
Conductivity	2	umhos/cm		1		A2510 B	07/17/09 16:40 / hm		COND_090717B	1	290717A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/20/09 10:38 / hm		SOLIDS_090720A	24	090720A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	07/20/09 10:15 / hm		SOLIDS_090720C	17	090720A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	2	mg/L		1		A2320 B	07/20/09 15:27 / hm		TITTR_090720A	15	090720A-ALK-W
Bicarbonate as HCO3	2	mg/L		1		A2320 B	07/20/09 15:27 / hm		TITTR_090720A	15	090720A-ALK-W
Chloride	ND	mg/L		1		E300.0	07/22/09 06:47 / hm		IC101-H_090721A	75	R55176
Sulfate	ND	mg/L		1		E300.0	07/22/09 06:47 / hm		IC101-H_090721A	75	R55176
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Aluminum	ND	mg/L		0.1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Antimony	ND	mg/L		0.003		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Arsenic	ND	mg/L		0.002		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Barium	ND	mg/L		0.1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Beryllium	ND	mg/L		0.001		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Cadmium	ND	mg/L		0.001		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Calcium	ND	mg/L		1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Chromium	ND	mg/L		0.001		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Cobalt	ND	mg/L		0.01		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Copper	ND	mg/L		0.001		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Gold	ND	mg/L		0.01		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Iron	ND	mg/L		0.02		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Lead	ND	mg/L		0.005		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Magnesium	ND	mg/L		1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Manganese	ND	mg/L		0.01		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Mercury	ND	mg/L		0.001		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Nickel	ND	mg/L		0.01		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Potassium	ND	mg/L		1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Selenium	ND	mg/L		0.001		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0709-319
Lab ID: H09070211-010
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 07/17/09 11:30 **DateReceived:** 07/17/09
Report Date: 07/24/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Sodium	ND	mg/L		1		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Thallium	ND	mg/L		0.001		E200.8	07/22/09 21:42 / eli-b		SUB-B133169	10	B_R133169
Vanadium	ND	mg/L		0.01		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155
Zinc	ND	mg/L		0.01		E200.7	07/22/09 20:57 / eli-b		SUB-B133155	10	B_R133155

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 24-Jul-09

BatchID: 090717A-COND-PROBE

Run ID :Run Order: **COND_090717B: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090717A** Method: **A2510 B**

Analysis Date: **07/17/09 16:29** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1390	1.0	1412		99	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **COND_090717B: 7** SampType: **Sample Duplicate** Sample ID: **H09070211-005ADUP** Method: **A2510 B**

Analysis Date: **07/17/09 16:35** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1090	1.0						1094	**0.4**	10	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **COND_090717B: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090717A** Method: **A2510 B**

Analysis Date: **07/17/09 16:41** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	721	1.0	718		100	90	110				

Associated samples:

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 24-Jul-09

BatchID: 090717A-PH-W

Run ID :Run Order: **PH2_090717A: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090717A** Method: **A4500-H B**

Analysis Date: **07/17/09 15:44** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.03	0.10	7		100	99	101				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **PH2_090717A: 12** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090717A** Method: **A4500-H B**

Analysis Date: **07/17/09 16:27** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	10.1	0.10	10		101	99	101				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **PH2_090717A: 18** SampType: **Sample Duplicate** Sample ID: **H09070211-005ADUP** Method: **A4500-H B**

Analysis Date: **07/17/09 16:39** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.90	0.10						7.87	0.4	2	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **PH2_090717A: 24** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV2_090717A** Method: **A4500-H B**

Analysis Date: **07/17/09 16:50** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	10.1	0.10	10		101	99	101				

Associated samples:

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: 090720A-ALK-W

Run ID :Run Order: **TITTR_090720A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090720A** Method: **A2320 B**
Analysis Date: **07/20/09 13:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **TITTR_090720A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090720A** Method: **A2320 B**
Analysis Date: **07/20/09 13:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	580	4.0	600		97	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **TITTR_090720A: 5** SampType: ***Sample Duplicate*** Sample ID: **H09070211-002ADUP** Method: **A2320 B**
Analysis Date: **07/20/09 14:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	130	4.0						136.7	6.8	20	
Bicarbonate as HCO3	160	4.0						166.8	6.8	20	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **TITTR_090720A: 9** SampType: **Sample Matrix Spike** Sample ID: **H09070211-005AMS** Method: **A2320 B**
Analysis Date: **07/20/09 14:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	780	4.0	600	229.5	91	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **TITTR_090720A: 10** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-005AMSD** Method: **A2320 B**
Analysis Date: **07/20/09 15:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	780	4.0	600	229.5	91	90	110	777.4	0.3	20	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: 090720A-ALK-W

Run ID :Run Order: **TITTR_090720A: 16** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090720A** Method: **A2320 B**

Analysis Date: **07/20/09 15:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1000	4.0	1000		102	90	110				

Associated samples:

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: 090720A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090720C: 1** SampType: **Method Blank** Sample ID: **MBLK1_090720A** Method: **A2540 C**
Analysis Date: **07/20/09 10:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	5	1.0									

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720C: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090720A** Method: **A2540 C**
Analysis Date: **07/20/09 10:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	984	10	1000	5	**98**	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720C: 8** SampType: **Sample Duplicate** Sample ID: **H09070211-003ADUP** Method: **A2540 C**
Analysis Date: **07/20/09 10:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	304	10						304	**0**	20	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720C: 14** SampType: **Sample Matrix Spike** Sample ID: **H09070211-008AMS** Method: **A2540 C**
Analysis Date: **07/20/09 10:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2720	10	2000	733	**99**	80	120				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720C: 15** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-008AMSD** Method: **A2540 C**
Analysis Date: **07/20/09 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2720	10	2000	733	**99**	80	120	2716	**0.2**	10	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Qualifiers:
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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: 090720A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090720A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090720A** Method: **A2540 D**

Analysis Date: **07/20/09 10:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1									

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090720A** Method: **A2540 D**

Analysis Date: **07/20/09 10:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	1830	10	2000		91	70	130				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720A: 16** SampType: **Sample Duplicate** Sample ID: **H09070211-003ADUP** Method: **A2540 D**

Analysis Date: **07/20/09 10:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10								10	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **SOLIDS_090720A: 22** SampType: **Sample Duplicate** Sample ID: **H09070211-008ADUP** Method: **A2540 D**

Analysis Date: **07/20/09 10:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	12.0	10						12		10	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Qualifiers:
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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 24-Jul-09

BatchID: B_R133155

Run ID :Run Order: **SUB-B133155: 11** SampType: **Continuing Calibration Verification Standard** Sample ID: **ICV** Method: **E200.7**

Analysis Date: **07/22/09 11:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.52	0.10	2.5		101	95	105				
Aluminum	2.61	0.10	2.5		104	95	105				
Barium	2.57	0.10	2.5		103	95	105				
Beryllium	1.26	0.010	1.25		101	95	105				
Calcium	25.4	1.0	25		101	95	105				
Cobalt	2.46	0.020	2.5		99	95	105				
Copper	2.53	0.010	2.5		101	95	105				
Gold	2.52	0.0043	2.5		101	95	105				
Iron	2.63	0.030	2.5		105	95	105				
Magnesium	25.3	1.0	25		101	95	105				
Manganese	2.49	0.010	2.5		100	95	105				
Nickel	2.63	0.050	2.5		105	95	105				
Potassium	24.6	1.0	25		99	95	105				
Sodium	24.3	1.0	25		97	95	105				
Vanadium	2.48	0.10	2.5		99	95	105				
Zinc	2.58	0.010	2.5		103	95	105				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133155: 12** SampType: **Method Blank** Sample ID: **MB-SPDIS090722A** Method: **E200.7**

Analysis Date: **07/22/09 11:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	ND	0.02									
Aluminum	ND	0.008									
Barium	0.0004	0.0001									
Beryllium	0.0002	9E-05									
Calcium	0.01	0.009									
Cobalt	0.001	0.001									
Copper	0.0009	0.0009									
Gold	0.007	0.004									
Iron	ND	0.002									
Magnesium	ND	0.01									
Manganese	ND	0.0003									
Nickel	ND	0.002									

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: B_R133155

Run ID :Run Order: **SUB-B133155: 12** SampType: **Method Blank** Sample ID: **MB-SPDIS090722A** Method: **E200.7**

Analysis Date: **07/22/09 11:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	0.01	0.01									
Sodium	ND	0.03									
Vanadium	ND	0.003									
Zinc	0.003	0.002									

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133155: 13** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090722A** Method: **E200.7**

Analysis Date: **07/22/09 11:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	0.969	0.10	1		97	85	115				
Aluminum	5.00	0.10	5		100	85	115				
Barium	0.984	0.10	1	0.00037	98	85	115				
Beryllium	0.498	0.010	0.5	0.00021	100	85	115				
Calcium	49.7	1.0	50	0.01447	99	85	115				
Cobalt	0.969	0.020	1	0.00129	97	85	115				
Copper	0.990	0.010	1	0.00089	99	85	115				
Gold	1.01	0.0045	1	0.00707	100	85	115				
Iron	5.04	0.030	5		101	85	115				
Magnesium	51.6	1.0	50		103	85	115				
Manganese	4.84	0.010	5		97	85	115				
Nickel	1.02	0.050	1		102	85	115				
Potassium	51.2	1.0	50	0.01286	102	85	115				
Sodium	49.1	1.0	50		98	85	115				
Vanadium	0.954	0.10	1		95	85	115				
Zinc	1.00	0.010	1	0.0025	100	85	115				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133155: 14** SampType: **Sample Matrix Spike** Sample ID: **B09071690-002BMS2** Method: **E200.7**

Analysis Date: **07/22/09 19:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.82	0.041	2		91	70	130				
Aluminum	9.84	0.10	10		98	70	130				

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 24-Jul-09

BatchID: B_R133155

Run ID :Run Order: **SUB-B133155: 14** SampType: **Sample Matrix Spike** Sample ID: **B09071690-002BMS2** Method: **E200.7**

Analysis Date: **07/22/09 19:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	2.35	0.10	2	0.4345	96	70	130				
Beryllium	0.943	0.0010	1		94	70	130				
Calcium	104	1.0	100	10.38	94	70	130				
Cobalt	1.90	0.010	2		95	70	130				
Copper	1.95	0.010	2		98	70	130				
Gold	2.01	0.010	2		101	70	130				
Iron	10.2	0.030	10	0.3431	99	70	130				
Magnesium	100	1.0	100	3.766	96	70	130				
Manganese	9.33	0.010	10	0.03706	93	70	130				
Nickel	2.00	0.010	2	0.00498	100	70	130				
Potassium	106	1.4	100	12.36	93	70	130				
Sodium	431	1.0	100	340.6	91	70	130				
Vanadium	1.88	0.10	2		94	70	130				
Zinc	1.98	0.010	2	0.01994	98	70	130				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133155: 15** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09071690-002BMSD2** Method: **E200.7**

Analysis Date: **07/22/09 20:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.85	0.041	2		92	70	130	1.819	1.6	20	
Aluminum	9.75	0.10	10		97	70	130	9.837	0.9	20	
Barium	2.30	0.10	2	0.4345	93	70	130	2.353	2.4	20	
Beryllium	0.934	0.0010	1		93	70	130	0.9429	1	20	
Calcium	104	1.0	100	10.38	93	70	130	104	0.2	20	
Cobalt	1.89	0.010	2		95	70	130	1.895	0.1	20	
Copper	1.91	0.010	2		95	70	130	1.955	2.5	20	
Gold	2.02	0.010	2		101	70	130	2.015	0.2	20	
Iron	10.1	0.030	10	0.3431	97	70	130	10.22	1.4	20	
Magnesium	99.6	1.0	100	3.766	96	70	130	100.1	0.5	20	
Manganese	9.31	0.010	10	0.03706	93	70	130	9.332	0.3	20	
Nickel	2.01	0.010	2	0.00498	100	70	130	2.002	0.5	20	
Potassium	106	1.4	100	12.36	94	70	130	105.7	0.2	20	
Sodium	439	1.0	100	340.6	99	70	130	431.4	1.8	20	

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: B_R133155

Run ID :Run Order: **SUB-B133155: 15** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09071690-002BMSD2** Method: **E200.7**

Analysis Date: **07/22/09 20:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vanadium	1.86	0.10	2		93	70	130	1.885	1.5	20	
Zinc	1.94	0.010	2	0.01994	96	70	130	1.98	1.8	20	

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133155: 16** SampType: **Sample Matrix Spike** Sample ID: **H09070211-008B** Method: **E200.7**

Analysis Date: **07/22/09 20:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	0.755	0.021	1		75	70	130				
Aluminum	4.66	0.10	5		93	70	130				
Barium	0.943	0.10	1	0.03401	91	70	130				
Beryllium	0.452	0.0010	0.5		90	70	130				
Calcium	118	1.0	50	76.6	82	70	130				
Cobalt	0.905	0.010	1		91	70	130				
Copper	0.935	0.010	1		94	70	130				
Gold	0.808	0.010	1		81	70	130				
Iron	4.74	0.030	5	0.02668	94	70	130				
Magnesium	90.3	1.0	50	43.92	93	70	130				
Manganese	4.48	0.010	5	0.00117	90	70	130				
Nickel	0.961	0.010	1		96	70	130				
Potassium	59.4	1.0	50	13.62	92	70	130				
Sodium	103	1.0	50	56.6	93	70	130				
Vanadium	0.906	0.10	1	0.00611	90	70	130				
Zinc	0.946	0.010	1		95	70	130				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133155: 17** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-008B** Method: **E200.7**

Analysis Date: **07/22/09 20:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	0.785	0.021	1		78	70	130	0.755	3.9	20	
Aluminum	4.70	0.10	5		94	70	130	4.662	0.8	20	
Barium	0.943	0.10	1	0.03401	91	70	130	0.9435	0	20	
Beryllium	0.451	0.0010	0.5		90	70	130	0.4517	0.1	20	

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Client: Asarco LLC
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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: B_R133155

Run ID :Run Order: **SUB-B133155: 17** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-008B** Method: **E200.7**

Analysis Date: **07/22/09 20:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	119	1.0	50	76.6	**85**	70	130	117.5	**1.4**	20	
Cobalt	0.906	0.010	1		**91**	70	130	0.9054	**0.1**	20	
Copper	0.943	0.010	1		**94**	70	130	0.9352	**0.9**	20	
Gold	0.806	0.010	1		**81**	70	130	0.8075	**0.1**	20	
Iron	4.79	0.030	5	0.02668	**95**	70	130	4.736	**1.2**	20	
Magnesium	90.0	1.0	50	43.92	**92**	70	130	90.33	**0.3**	20	
Manganese	4.48	0.010	5	0.00117	**90**	70	130	4.476	**0.1**	20	
Nickel	0.958	0.010	1		**96**	70	130	0.961	**0.3**	20	
Potassium	58.2	1.0	50	13.62	**89**	70	130	59.43	**2.1**	20	
Sodium	101	1.0	50	56.6	**90**	70	130	103.1	**1.6**	20	
Vanadium	0.915	0.10	1	0.00611	**91**	70	130	0.9064	**0.9**	20	
Zinc	0.956	0.010	1		**96**	70	130	0.9455	**1.1**	20	

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 24-Jul-09

BatchID: B_R133169

Run ID :Run Order: **SUB-B133169: 11** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **07/22/09 16:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.047	0.050	0.05		**94**	90	110				
Arsenic	0.050	0.0050	0.05		**101**	90	110				
Cadmium	0.024	0.0010	0.025		**96**	90	110				
Chromium	0.050	0.010	0.05		**100**	90	110				
Copper	0.049	0.010	0.05		**99**	90	110				
Lead	0.049	0.010	0.05		**98**	90	110				
Mercury	0.0019	0.0010	0.002		**95**	90	110				
Selenium	0.050	0.0050	0.05		**101**	90	110				
Silver	0.025	0.0050	0.025		**99**	90	110				
Thallium	0.050	0.10	0.05		**100**	90	110				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133169: 12** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **07/22/09 17:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	5E-05									
Arsenic	ND	3E-05									
Cadmium	ND	1E-05									
Chromium	ND	0.0002									
Copper	ND	8E-05									
Lead	ND	8E-06									
Mercury	ND	8E-06									
Selenium	ND	0.0002									
Silver	ND	2E-05									
Thallium	1E-05	8E-06									

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133169: 13** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **07/22/09 17:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.050	0.050	0.05		**99**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: B_R133169

Run ID :Run Order: **SUB-B133169: 13** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**
Analysis Date: **07/22/09 17:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.049	0.0050	0.05		99	85	115				
Cadmium	0.048	0.0010	0.05		95	85	115				
Chromium	0.049	0.010	0.05		98	85	115				
Copper	0.047	0.010	0.05		93	85	115				
Lead	0.050	0.010	0.05		100	85	115				
Mercury	0.0010	0.0010	0.001		102	85	115				
Selenium	0.047	0.0050	0.05		94	85	115				
Silver	0.018	0.0050	0.02		92	85	115				
Thallium	0.050	0.10	0.05	0.00001	101	85	115				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133169: 14** SampType: **Sample Matrix Spike** Sample ID: **H09070211-001B** Method: **E200.8**
Analysis Date: **07/22/09 20:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.245	0.0050	0.25		98	70	130				
Arsenic	0.248	0.0050	0.25	0.005895	97	70	130				
Cadmium	0.233	0.0010	0.25		93	70	130				
Chromium	0.235	0.010	0.25	0.001015	94	70	130				
Copper	0.238	0.010	0.25	0.00301	94	70	130				
Lead	0.248	0.010	0.25	0.00017	99	70	130				
Mercury	0.00485	0.0010	0.005		97	70	130				
Selenium	0.228	0.0050	0.25	0.00302	90	70	130				
Silver	0.0874	0.0050	0.1		87	70	130				
Thallium	0.256	0.0050	0.25	0.00005	102	70	130				

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Run ID :Run Order: **SUB-B133169: 15** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-001B** Method: **E200.8**
Analysis Date: **07/22/09 20:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.242	0.0050	0.25		97	70	130	0.245	1.1	20	
Arsenic	0.244	0.0050	0.25	0.005895	95	70	130	0.2481	1.7	20	
Cadmium	0.231	0.0010	0.25		93	70	130	0.2333	0.8	20	

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: B_R133169

Run ID :Run Order: **SUB-B133169: 15** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-001B** Method: **E200.8**

Analysis Date: **07/22/09 20:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.232	0.010	0.25	0.001015	92	70	130	0.2352	1.6	20	
Copper	0.233	0.010	0.25	0.00301	92	70	130	0.2377	2	20	
Lead	0.244	0.010	0.25	0.00017	98	70	130	0.2481	1.5	20	
Mercury	0.00498	0.0010	0.005		100	70	130	0.004855	2.5	20	
Selenium	0.225	0.0050	0.25	0.00302	89	70	130	0.228	1.5	20	
Silver	0.0844	0.0050	0.1		84	70	130	0.0874	3.6	20	
Thallium	0.252	0.0050	0.25	0.00005	101	70	130	0.2557	1.3	20	

Associated samples: H09070211-001B; H09070211-002B; H09070211-003B; H09070211-004B; H09070211-005B; H09070211-006B; H09070211-007B; H09070211-008B; H09070211-009B; H09070211-010B

Qualifiers:
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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: R55176

Run ID :Run Order: **IC101-H_090721A: 13** SampType: **Initial Calibration Verification Standard** Sample ID: **ICV** Method: **E300.0**
Analysis Date: **07/21/09 13:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.5	1.0	2.5		**100**	90	110				
Sulfate	9.8	1.0	10		**98**	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 14** SampType: **Laboratory Control Sample** Sample ID: **LCS** Method: **E300.0**
Analysis Date: **07/21/09 14:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	85	1.0	87.47		**98**	90	110				
Sulfate	28	1.0	28.53		**98**	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 15** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E300.0**
Analysis Date: **07/21/09 14:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.7	1.0	5		**94**	90	110				
Sulfate	9.6	1.0	10		**96**	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**
Analysis Date: **07/21/09 14:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 58** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **07/22/09 02:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		**94**	90	110				
Sulfate	50	1.0	50		**100**	90	110				

Qualifiers:
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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 24-Jul-09

BatchID: R55176

Run ID :Run Order: **IC101-H_090721A: 58** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **07/22/09 02:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A

Run ID :Run Order: **IC101-H_090721A: 64** SampType: **Sample Matrix Spike** Sample ID: **H09070211-002A MS** Method: **E300.0**
Analysis Date: **07/22/09 03:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	32	1.0	25	7.245	**100**	90	110				
Sulfate	95	1.0	50	42.11	**106**	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 65** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-002A MSD** Method: **E300.0**
Analysis Date: **07/22/09 04:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	32	1.0	25	7.245	**99**	90	110	32.17	**0.2**	20	
Sulfate	95	1.0	50	42.11	**107**	90	110	95.29	**0.1**	20	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 72** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **07/22/09 05:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		**94**	90	110				
Sulfate	50	1.0	50		**100**	90	110				

Associated samples: H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 76** SampType: **Sample Matrix Spike** Sample ID: **H09070211-010A MS** Method: **E300.0**
Analysis Date: **07/22/09 07:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		**96**	90	110				
Sulfate	51	1.0	50	0.328	**102**	90	110				

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Qualifiers:
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Client: Asarco LLC
Work Order: H09070211
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *24-Jul-09*

BatchID: R55176

Run ID :Run Order: **IC101-H_090721A: 77** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09070211-010A MSD** Method: **E300.0**

Analysis Date: **07/22/09 07:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		**96**	90	110	24.07	**0.4**	20	
Sulfate	51	1.0	50	0.328	**101**	90	110	51.11	**0.3**	20	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Run ID :Run Order: **IC101-H_090721A: 79** SampType: **Sample Duplicate** Sample ID: **H09070186-007A DUP** Method: **E300.0**

Analysis Date: **07/22/09 07:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	60	1.0						60	**0.1**	20	
Sulfate	48	1.0						47.91	**0.5**	20	

Associated samples: H09070211-001A; H09070211-002A; H09070211-003A; H09070211-004A; H09070211-005A; H09070211-006A; H09070211-007A; H09070211-008A; H09070211-009A; H09070211-010A

Qualifiers:
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ANALYTICAL SUMMARY REPORT

August 21, 2009

Asarco LLC
PO Box 1230
East Helena, MT 59635

Workorder No.: H09080156 Quote ID: H409 - Semi-Annual Residential CAMU Monitoring

Project Name: Residential Well Sampling Seaver Park

Energy Laboratories Inc received the following 21 samples for Asarco LLC on 8/13/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H09080156-001	EHR-0809-310	08/12/09 11:30	08/13/09	Groundwater	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved Solids, Total Suspended
H09080156-002	EHR-0809-311	08/12/09 12:00	08/13/09	Groundwater	Same As Above
H09080156-003	EHR-0809-312	08/12/09 12:20	08/13/09	Groundwater	Same As Above
H09080156-004	EHR-0809-313	08/12/09 12:40	08/13/09	Groundwater	Same As Above
H09080156-005	EHR-0809-314	08/12/09 12:55	08/13/09	Groundwater	Same As Above
H09080156-006	EHR-0809-315	08/12/09 13:20	08/13/09	Groundwater	Same As Above
H09080156-007	EHR-0809-316	08/12/09 13:45	08/13/09	Groundwater	Same As Above
H09080156-008	EHR-0809-317	08/12/09 14:05	08/13/09	Groundwater	Same As Above
H09080156-009	EHR-0809-318	08/12/09 14:30	08/13/09	Groundwater	Same As Above
H09080156-010	EHR-0809-319	08/12/09 14:50	08/13/09	Groundwater	Same As Above
H09080156-011	EHR-0809-320	08/12/09 15:15	08/13/09	Groundwater	Same As Above
H09080156-012	EHR-0809-321	08/12/09 17:00	08/13/09	Groundwater	Same As Above
H09080156-013	EHR-0809-322	08/12/09 17:20	08/13/09	Groundwater	Same As Above
H09080156-014	EHR-0809-323	08/12/09 17:40	08/13/09	Groundwater	Same As Above
H09080156-015	EHR-0809-324	08/12/09 18:00	08/13/09	Groundwater	Same As Above
H09080156-016	EHR-0809-325	08/12/09 18:15	08/13/09	Groundwater	Same As Above
H09080156-017	EHR-0809-326	08/12/09 18:35	08/13/09	Groundwater	Same As Above
H09080156-018	EHR-0809-327	08/12/09 18:55	08/13/09	Groundwater	Same As Above
H09080156-019	EHR-0809-328	08/12/09 19:15	08/13/09	Groundwater	Same As Above
H09080156-020	EHR-0809-329	08/12/09 19:30	08/13/09	Groundwater	Same As Above
H09080156-021	EHR-0809-330	08/12/09 20:00	08/13/09	Groundwater	Same As Above

This is a preliminary report that contains incomplete data or data that has not been fully validated. Caution should be exercised in the use of any data presented as final reported results may not reflect the values presented.

If you have any questions regarding these tests results, please call 406-442-0711 or 877-472-0711.

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ANALYTICAL SUMMARY REPORT

Report Approved By: Jonathan D. Hager

Digitally signed by Jonathan D. Hager
DN: cn=Jonathan D. Hager, o=Energy Laboratory-Helena, ou=Assistant Lab Manager, email=jhager@energylab.com, c=US
Date: 2009.08.21 08:38:11 -06'00'

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-310
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-001
Collection Date: 08/12/09 11:30
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 10:45 / hm			PH_090813B	2	090813A-PH-W
Conductivity	924	umhos/cm		1		A2510 B	08/13/09 10:40 / hm			COND_090813B	2	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:38 / JG			SOLIDS_090813A	5	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	659	mg/L		10		A2540 C	08/13/09 14:04 / JG			SOLIDS_090813B	6	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	240	mg/L		1		A2320 B	08/14/09 12:04 / hm			TITTR_090814A	3	090814A-ALK-W
Bicarbonate as HCO3	290	mg/L		1		A2320 B	08/14/09 12:04 / hm			TITTR_090814A	3	090814A-ALK-W
Chloride	39	mg/L		1		E300.0	08/13/09 18:36 / hm			IC101-H_090813A	23	R55837
Sulfate	210	mg/L		1		E300.0	08/13/09 18:36 / hm			IC101-H_090813A	23	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Arsenic	0.009	mg/L		0.002		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Calcium	68	mg/L		1		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477
Chromium	0.002	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Magnesium	46	mg/L		1		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Potassium	15	mg/L		1		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Sodium	62	mg/L		1		E200.7	08/17/09 17:40 / eli-b			SUB-B134477	1	B_R134477

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-310
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-001
Collection Date: 08/12/09 11:30
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 19:55 / eli-b			SUB-B134393	9	B_R134393

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-311
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-002
Collection Date: 08/12/09 12:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 10:46 / hm			PH_090813B	3	090813A-PH-W
Conductivity	1200	umhos/cm		1		A2510 B	08/13/09 10:41 / hm			COND_090813B	3	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:38 / JG			SOLIDS_090813A	6	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	822	mg/L		10		A2540 C	08/13/09 14:04 / JG			SOLIDS_090813B	7	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	280	mg/L		1		A2320 B	08/14/09 12:08 / hm			TITTR_090814A	4	090814A-ALK-W
Bicarbonate as HCO3	350	mg/L		1		A2320 B	08/14/09 12:08 / hm			TITTR_090814A	4	090814A-ALK-W
Chloride	120	mg/L		1		E300.0	08/13/09 18:53 / hm			IC101-H_090813A	24	R55837
Sulfate	160	mg/L		1		E300.0	08/13/09 18:53 / hm			IC101-H_090813A	24	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Arsenic	0.007	mg/L		0.002		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Calcium	94	mg/L		1		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Copper	0.004	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Magnesium	64	mg/L		1		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Potassium	14	mg/L		1		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Sodium	62	mg/L		1		E200.7	08/17/09 17:48 / eli-b			SUB-B134477	2	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-311
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-002
Collection Date: 08/12/09 12:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393
Zinc	0.02	mg/L		0.01		E200.8	08/14/09 20:11 / eli-b			SUB-B134393	10	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-312
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-003
Collection Date: 08/12/09 12:20
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 10:47 / hm			PH_090813B	4	090813A-PH-W
Conductivity	839	umhos/cm		1		A2510 B	08/13/09 10:43 / hm			COND_090813B	4	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:39 / JG			SOLIDS_090813A	8	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	575	mg/L		10		A2540 C	08/13/09 14:06 / JG			SOLIDS_090813B	10	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	230	mg/L		1		A2320 B	08/14/09 12:12 / hm			TITTR_090814A	5	090814A-ALK-W
Bicarbonate as HCO3	280	mg/L		1		A2320 B	08/14/09 12:12 / hm			TITTR_090814A	5	090814A-ALK-W
Chloride	50	mg/L		1		E300.0	08/13/09 19:09 / hm			IC101-H_090813A	25	R55837
Sulfate	140	mg/L		1		E300.0	08/13/09 19:09 / hm			IC101-H_090813A	25	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Arsenic	0.007	mg/L		0.002		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Calcium	64	mg/L		1		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Copper	ND	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Magnesium	44	mg/L		1		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Potassium	12	mg/L		1		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Sodium	44	mg/L		1		E200.7	08/17/09 17:52 / eli-b			SUB-B134477	3	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-312
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-003
Collection Date: 08/12/09 12:20
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 20:15 / eli-b			SUB-B134393	11	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-313
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-004
Collection Date: 08/12/09 12:40
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 10:56 / hm			PH_090813B	5	090813A-PH-W
Conductivity	567	umhos/cm		1		A2510 B	08/13/09 10:45 / hm			COND_090813B	5	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:40 / JG			SOLIDS_090813A	9	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	402	mg/L		10		A2540 C	08/13/09 14:07 / JG			SOLIDS_090813B	11	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/14/09 12:16 / hm			TITTR_090814A	6	090814A-ALK-W
Bicarbonate as HCO3	200	mg/L		1		A2320 B	08/14/09 12:16 / hm			TITTR_090814A	6	090814A-ALK-W
Chloride	26	mg/L		1		E300.0	08/13/09 19:26 / hm			IC101-H_090813A	26	R55837
Sulfate	90	mg/L		1		E300.0	08/13/09 19:26 / hm			IC101-H_090813A	26	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Arsenic	0.013	mg/L		0.002		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Calcium	46	mg/L		1		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477
Chromium	0.002	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Copper	ND	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Magnesium	22	mg/L		1		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Potassium	11	mg/L		1		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477
Selenium	0.002	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:19 / eli-b			SUB-B134393	12	B_R134393
Sodium	35	mg/L		1		E200.7	08/17/09 17:56 / eli-b			SUB-B134477	4	B_R134477

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-313
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-004
Collection Date: 08/12/09 12:40
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:19 / eli-b			SUB-B134393 : 12		B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:19 / eli-b			SUB-B134393 : 12		B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 20:19 / eli-b			SUB-B134393 : 12		B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-314
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-005
Collection Date: 08/12/09 12:55
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 10:58 / hm			PH_090813B	6	090813A-PH-W
Conductivity	669	umhos/cm		1		A2510 B	08/13/09 10:48 / hm			COND_090813B	6	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:41 / JG			SOLIDS_090813A	10	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	464	mg/L		10		A2540 C	08/13/09 14:07 / JG			SOLIDS_090813B	12	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	220	mg/L		1		A2320 B	08/14/09 12:19 / hm			TITTR_090814A	7	090814A-ALK-W
Bicarbonate as HCO3	270	mg/L		1		A2320 B	08/14/09 12:19 / hm			TITTR_090814A	7	090814A-ALK-W
Chloride	25	mg/L		1		E300.0	08/13/09 19:42 / hm			IC101-H_090813A	27	R55837
Sulfate	110	mg/L		1		E300.0	08/13/09 19:42 / hm			IC101-H_090813A	27	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Arsenic	0.009	mg/L		0.002		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Calcium	53	mg/L		1		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Magnesium	36	mg/L		1		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Potassium	9	mg/L		1		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477
Selenium	0.002	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:39 / eli-b			SUB-B134393	13	B_R134393
Sodium	35	mg/L		1		E200.7	08/17/09 18:00 / eli-b			SUB-B134477	5	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-314
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-005
Collection Date: 08/12/09 12:55
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:39 / eli-b			SUB-B134393 : 13		B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:39 / eli-b			SUB-B134393 : 13		B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 20:39 / eli-b			SUB-B134393 : 13		B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-315
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-006
Collection Date: 08/12/09 13:20
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:01 / hm			PH_090813B	8	090813A-PH-W
Conductivity	673	umhos/cm		1		A2510 B	08/13/09 10:58 / hm			COND_090813B	8	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:41 / JG			SOLIDS_090813A	11	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	447	mg/L		10		A2540 C	08/13/09 14:08 / JG			SOLIDS_090813B	13	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	240	mg/L		1		A2320 B	08/14/09 12:40 / hm			TITTR_090814A	10	090814A-ALK-W
Bicarbonate as HCO3	290	mg/L		1		A2320 B	08/14/09 12:40 / hm			TITTR_090814A	10	090814A-ALK-W
Chloride	24	mg/L		1		E300.0	08/13/09 19:59 / hm			IC101-H_090813A	28	R55837
Sulfate	94	mg/L		1		E300.0	08/13/09 19:59 / hm			IC101-H_090813A	28	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Arsenic	0.010	mg/L		0.002		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Calcium	47	mg/L		1		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Magnesium	39	mg/L		1		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Potassium	8	mg/L		1		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:43 / eli-b			SUB-B134393	14	B_R134393
Sodium	35	mg/L		1		E200.7	08/17/09 18:04 / eli-b			SUB-B134477	6	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-315
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-006
Collection Date: 08/12/09 13:20
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:43 / eli-b			SUB-B134393 : 14		B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:43 / eli-b			SUB-B134393 : 14		B_R134393
Zinc	0.02	mg/L		0.01		E200.8	08/14/09 20:43 / eli-b			SUB-B134393 : 14		B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-316
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-007
Collection Date: 08/12/09 13:45
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	8.0	s.u.		0.1		A4500-H B	08/13/09 11:03 / hm			PH_090813B	9	090813A-PH-W
Conductivity	844	umhos/cm		1		A2510 B	08/13/09 10:59 / hm			COND_090813B	9	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:42 / JG			SOLIDS_090813A	12	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	587	mg/L		10		A2540 C	08/13/09 14:08 / JG			SOLIDS_090813B	14	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	230	mg/L		1		A2320 B	08/14/09 16:07 / hm			TITTR_090814A	12	090814A-ALK-W
Bicarbonate as HCO3	280	mg/L		1		A2320 B	08/14/09 16:07 / hm			TITTR_090814A	12	090814A-ALK-W
Chloride	43	mg/L		1		E300.0	08/13/09 20:15 / hm			IC101-H_090813A	29	R55837
Sulfate	140	mg/L		1		E300.0	08/13/09 20:15 / hm			IC101-H_090813A	29	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Arsenic	0.008	mg/L		0.002		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Calcium	64	mg/L		1		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477
Chromium	0.004	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Copper	0.003	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Magnesium	43	mg/L		1		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Potassium	14	mg/L		1		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Sodium	49	mg/L		1		E200.7	08/17/09 18:08 / eli-b			SUB-B134477	7	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-316
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-007
Collection Date: 08/12/09 13:45
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 20:47 / eli-b			SUB-B134393	15	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-317
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-008
Collection Date: 08/12/09 14:05
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 11:05 / hm			PH_090813B	10	090813A-PH-W
Conductivity	826	umhos/cm		1		A2510 B	08/13/09 11:00 / hm			COND_090813B	10	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	13	mg/L		10		A2540 D	08/13/09 13:42 / JG			SOLIDS_090813A	13	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	565	mg/L		10		A2540 C	08/13/09 14:11 / JG			SOLIDS_090813B	15	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	230	mg/L		1		A2320 B	08/14/09 16:11 / hm			TITTR_090814A	13	090814A-ALK-W
Bicarbonate as HCO3	280	mg/L		1		A2320 B	08/14/09 16:11 / hm			TITTR_090814A	13	090814A-ALK-W
Chloride	39	mg/L		1		E300.0	08/13/09 21:04 / hm			IC101-H_090813A	32	R55837
Sulfate	150	mg/L		1		E300.0	08/13/09 21:04 / hm			IC101-H_090813A	32	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Arsenic	0.005	mg/L		0.002		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Calcium	65	mg/L		1		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Copper	0.002	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477
Iron	0.47	mg/L		0.02		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Magnesium	44	mg/L		1		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477
Manganese	0.02	mg/L		0.01		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Potassium	13	mg/L		1		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Sodium	46	mg/L		1		E200.7	08/17/09 18:40 / eli-b			SUB-B134477	8	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-317
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-008
Collection Date: 08/12/09 14:05
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 20:51 / eli-b			SUB-B134393	16	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-318
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-009
Collection Date: 08/12/09 14:30
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:07 / hm			PH_090813B	11	090813A-PH-W
Conductivity	821	umhos/cm		1		A2510 B	08/13/09 11:02 / hm			COND_090813B	11	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:43 / JG			SOLIDS_090813A	14	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	589	mg/L		10		A2540 C	08/13/09 14:11 / JG			SOLIDS_090813B	16	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/14/09 16:18 / hm			TITTR_090814A	14	090814A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/14/09 16:18 / hm			TITTR_090814A	14	090814A-ALK-W
Chloride	44	mg/L		1		E300.0	08/13/09 21:21 / hm			IC101-H_090813A	33	R55837
Sulfate	160	mg/L		1		E300.0	08/13/09 21:21 / hm			IC101-H_090813A	33	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Arsenic	0.010	mg/L		0.002		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Calcium	75	mg/L		1		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477
Chromium	0.004	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Magnesium	36	mg/L		1		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Potassium	14	mg/L		1		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Sodium	43	mg/L		1		E200.7	08/17/09 18:44 / eli-b			SUB-B134477	9	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-318
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-009
Collection Date: 08/12/09 14:30
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393
Zinc	0.02	mg/L		0.01		E200.8	08/14/09 20:55 / eli-b			SUB-B134393	17	B_R134393

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-319
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-010
Collection Date: 08/12/09 14:50
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:09 / hm			PH_090813B	12	090813A-PH-W
Conductivity	858	umhos/cm		1		A2510 B	08/13/09 11:04 / hm			COND_090813B	12	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:43 / JG			SOLIDS_090813A	15	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	580	mg/L		10		A2540 C	08/13/09 14:15 / JG			SOLIDS_090813B	17	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	230	mg/L		1		A2320 B	08/14/09 16:26 / hm			TITTR_090814A	15	090814A-ALK-W
Bicarbonate as HCO3	280	mg/L		1		A2320 B	08/14/09 16:26 / hm			TITTR_090814A	15	090814A-ALK-W
Chloride	48	mg/L		1		E300.0	08/13/09 21:37 / hm			IC101-H_090813A	34	R55837
Sulfate	150	mg/L		1		E300.0	08/13/09 21:37 / hm			IC101-H_090813A	34	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Arsenic	0.009	mg/L		0.002		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Calcium	70	mg/L		1		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477
Chromium	0.002	mg/L		0.001		E200.8	08/17/09 17:02 / eli-b			SUB-B134465	2	B_R134465
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Magnesium	42	mg/L		1		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Potassium	14	mg/L		1		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 20:59 / eli-b			SUB-B134393	18	B_R134393
Sodium	52	mg/L		1		E200.7	08/17/09 18:48 / eli-b			SUB-B134477	10	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-319
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-010
Collection Date: 08/12/09 14:50
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 20:59 / eli-b			SUB-B134393 : 18		B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 20:59 / eli-b			SUB-B134393 : 18		B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 20:59 / eli-b			SUB-B134393 : 18		B_R134393

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-320
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-011
Collection Date: 08/12/09 15:15
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:11 / hm			PH_090813B	14	090813A-PH-W
Conductivity	784	umhos/cm		1		A2510 B	08/13/09 11:07 / hm			COND_090813B	14	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:45 / JG			SOLIDS_090813A	17	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	544	mg/L		10		A2540 C	08/13/09 14:16 / JG			SOLIDS_090813B	19	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	200	mg/L		1		A2320 B	08/17/09 10:05 / hm			TITTR_090817B	3	090817A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/17/09 10:05 / hm			TITTR_090817B	3	090817A-ALK-W
Chloride	43	mg/L		1		E300.0	08/13/09 21:54 / hm			IC101-H_090813A	35	R55837
Sulfate	150	mg/L		1		E300.0	08/13/09 21:54 / hm			IC101-H_090813A	35	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Arsenic	0.009	mg/L		0.002		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Calcium	63	mg/L		1		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Magnesium	38	mg/L		1		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Potassium	13	mg/L		1		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Sodium	50	mg/L		1		E200.7	08/17/09 18:52 / eli-b			SUB-B134477	11	B_R134477

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-320
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-011
Collection Date: 08/12/09 15:15
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 21:03 / eli-b			SUB-B134393	19	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-321
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-012
Collection Date: 08/12/09 17:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 11:13 / hm			PH_090813B : 15		090813A-PH-W
Conductivity	1030	umhos/cm		1		A2510 B	08/13/09 11:08 / hm			COND_090813B : 15		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:45 / JG			SOLIDS_090813A : 18		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	769	mg/L		10		A2540 C	08/13/09 14:17 / JG			SOLIDS_090813B : 20		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	08/17/09 10:15 / hm			TITTR_090817B : 4		090817A-ALK-W
Bicarbonate as HCO3	230	mg/L		1		A2320 B	08/17/09 10:15 / hm			TITTR_090817B : 4		090817A-ALK-W
Chloride	55	mg/L		1		E300.0	08/13/09 22:10 / hm			IC101-H_090813A : 36		R55837
Sulfate	300	mg/L		1		E300.0	08/13/09 22:10 / hm			IC101-H_090813A : 36		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Arsenic	0.009	mg/L		0.002		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Calcium	82	mg/L		1		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Magnesium	53	mg/L		1		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Potassium	18	mg/L		1		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477
Selenium	0.006	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:36 / eli-b			SUB-B134393 : 20		B_R134393
Sodium	67	mg/L		1		E200.7	08/17/09 19:04 / eli-b			SUB-B134477 : 12		B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-321
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-012
Collection Date: 08/12/09 17:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:36 / eli-b			SUB-B134393	20	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:36 / eli-b			SUB-B134393	20	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 21:36 / eli-b			SUB-B134393	20	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-322
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-013
Collection Date: 08/12/09 17:20
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.7	s.u.		0.1		A4500-H B	08/13/09 11:14 / hm			PH_090813B : 16		090813A-PH-W
Conductivity	1050	umhos/cm		1		A2510 B	08/13/09 11:10 / hm			COND_090813B : 16		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:46 / JG			SOLIDS_090813A : 19		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	786	mg/L		10		A2540 C	08/13/09 14:18 / JG			SOLIDS_090813B : 21		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/17/09 10:26 / hm			TITTR_090817B : 5		090817A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	08/17/09 10:26 / hm			TITTR_090817B : 5		090817A-ALK-W
Chloride	60	mg/L		1		E300.0	08/13/09 22:26 / hm			IC101-H_090813A : 37		R55837
Sulfate	300	mg/L		1		E300.0	08/13/09 22:26 / hm			IC101-H_090813A : 37		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Arsenic	0.005	mg/L		0.002		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Calcium	85	mg/L		1		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Copper	0.002	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477
Iron	0.14	mg/L		0.02		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Magnesium	54	mg/L		1		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477
Manganese	0.02	mg/L		0.01		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Potassium	17	mg/L		1		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477
Selenium	0.005	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:40 / eli-b			SUB-B134393 : 21		B_R134393
Sodium	64	mg/L		1		E200.7	08/17/09 19:12 / eli-b			SUB-B134477 : 13		B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-322
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-013
Collection Date: 08/12/09 17:20
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:40 / eli-b			SUB-B134393	21	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:40 / eli-b			SUB-B134393	21	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 21:40 / eli-b			SUB-B134393	21	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-323
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-014
Collection Date: 08/12/09 17:40
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 11:17 / hm			PH_090813B	17	090813A-PH-W
Conductivity	880	umhos/cm		1		A2510 B	08/13/09 11:12 / hm			COND_090813B	17	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:46 / JG			SOLIDS_090813A	20	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	601	mg/L		10		A2540 C	08/13/09 14:18 / JG			SOLIDS_090813B	22	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	230	mg/L		1		A2320 B	08/17/09 11:13 / hm			TITTR_090817B	8	090817A-ALK-W
Bicarbonate as HCO3	280	mg/L		1		A2320 B	08/17/09 11:13 / hm			TITTR_090817B	8	090817A-ALK-W
Chloride	53	mg/L		1		E300.0	08/13/09 22:43 / hm			IC101-H_090813A	38	R55837
Sulfate	170	mg/L		1		E300.0	08/13/09 22:43 / hm			IC101-H_090813A	38	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Arsenic	0.008	mg/L		0.002		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Calcium	67	mg/L		1		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Copper	0.002	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477
Iron	ND	mg/L		0.02		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Magnesium	49	mg/L		1		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477
Manganese	ND	mg/L		0.01		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Potassium	12	mg/L		1		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Sodium	50	mg/L		1		E200.7	08/17/09 19:17 / eli-b			SUB-B134477	14	B_R134477

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-323
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-014
Collection Date: 08/12/09 17:40
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 21:44 / eli-b			SUB-B134393	22	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-324
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-015
Collection Date: 08/12/09 18:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 11:18 / hm			PH_090813B : 18		090813A-PH-W
Conductivity	692	umhos/cm		1		A2510 B	08/13/09 11:15 / hm			COND_090813B : 18		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:46 / JG			SOLIDS_090813A : 21		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	462	mg/L		10		A2540 C	08/13/09 14:19 / JG			SOLIDS_090813B : 23		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	220	mg/L		1		A2320 B	08/17/09 12:04 / hm			TITTR_090817B : 10		090817A-ALK-W
Bicarbonate as HCO3	270	mg/L		1		A2320 B	08/17/09 12:04 / hm			TITTR_090817B : 10		090817A-ALK-W
Chloride	27	mg/L		1		E300.0	08/13/09 22:59 / hm			IC101-H_090813A : 39		R55837
Sulfate	110	mg/L		1		E300.0	08/13/09 22:59 / hm			IC101-H_090813A : 39		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Arsenic	0.005	mg/L		0.002		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Cadmium	0.001	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Calcium	53	mg/L		1		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530
Iron	0.06	mg/L		0.02		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Magnesium	38	mg/L		1		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Potassium	11	mg/L		1		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:48 / eli-b			SUB-B134393 : 23		B_R134393
Sodium	37	mg/L		1		E200.7	08/18/09 18:55 / eli-b			SUB-B134530 : 1		B_R134530

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-324
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-015
Collection Date: 08/12/09 18:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:48 / eli-b			SUB-B134393	23	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:48 / eli-b			SUB-B134393	23	B_R134393
Zinc	0.02	mg/L		0.01		E200.8	08/14/09 21:48 / eli-b			SUB-B134393	23	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-325
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-016
Collection Date: 08/12/09 18:15
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:19 / hm			PH_090813B : 19		090813A-PH-W
Conductivity	794	umhos/cm		1		A2510 B	08/13/09 11:17 / hm			COND_090813B : 19		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:47 / JG			SOLIDS_090813A : 22		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	558	mg/L		10		A2540 C	08/13/09 14:19 / JG			SOLIDS_090813B : 24		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	08/17/09 11:48 / hm			TITTR_090817B : 11		090817A-ALK-W
Bicarbonate as HCO3	230	mg/L		1		A2320 B	08/17/09 11:48 / hm			TITTR_090817B : 11		090817A-ALK-W
Chloride	36	mg/L		1		E300.0	08/13/09 23:48 / hm			IC101-H_090813A : 42		R55837
Sulfate	190	mg/L		1		E300.0	08/13/09 23:48 / hm			IC101-H_090813A : 42		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Arsenic	0.008	mg/L		0.002		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Calcium	62	mg/L		1		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530
Iron	ND	mg/L		0.02		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Magnesium	39	mg/L		1		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Potassium	12	mg/L		1		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530
Selenium	0.003	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:52 / eli-b			SUB-B134393 : 24		B_R134393
Sodium	47	mg/L		1		E200.7	08/18/09 19:03 / eli-b			SUB-B134530 : 2		B_R134530

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-325
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-016
Collection Date: 08/12/09 18:15
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:52 / eli-b			SUB-B134393	24	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:52 / eli-b			SUB-B134393	24	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 21:52 / eli-b			SUB-B134393	24	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-326
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-017
Collection Date: 08/12/09 18:35
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:29 / hm			PH_090813B	20	090813A-PH-W
Conductivity	810	umhos/cm		1		A2510 B	08/13/09 11:18 / hm			COND_090813B	20	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:47 / JG			SOLIDS_090813A	23	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	538	mg/L		10		A2540 C	08/13/09 14:20 / JG			SOLIDS_090813B	25	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	200	mg/L		1		A2320 B	08/17/09 11:55 / hm			TITTR_090817B	12	090817A-ALK-W
Bicarbonate as HCO3	250	mg/L		1		A2320 B	08/17/09 11:55 / hm			TITTR_090817B	12	090817A-ALK-W
Chloride	45	mg/L		1		E300.0	08/14/09 00:05 / hm			IC101-H_090813A	43	R55837
Sulfate	170	mg/L		1		E300.0	08/14/09 00:05 / hm			IC101-H_090813A	43	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Arsenic	0.008	mg/L		0.002		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Cadmium	0.001	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Calcium	63	mg/L		1		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Copper	0.002	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530
Iron	0.03	mg/L		0.02		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530
Lead	ND	mg/L		0.005		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Magnesium	40	mg/L		1		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Potassium	13	mg/L		1		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Sodium	49	mg/L		1		E200.7	08/18/09 19:07 / eli-b			SUB-B134530	3	B_R134530

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-326
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-017
Collection Date: 08/12/09 18:35
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393
Zinc	0.03	mg/L		0.01		E200.8	08/14/09 21:56 / eli-b			SUB-B134393	25	B_R134393

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-327
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-018
Collection Date: 08/12/09 18:55
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 11:30 / hm			PH_090813B : 22		090813A-PH-W
Conductivity	754	umhos/cm		1		A2510 B	08/13/09 11:22 / hm			COND_090813B : 22		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:49 / JG			SOLIDS_090813A : 25		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	543	mg/L		10		A2540 C	08/13/09 14:22 / JG			SOLIDS_090813B : 28		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/17/09 12:18 / hm			TITTR_090817B : 13		090817A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/17/09 12:18 / hm			TITTR_090817B : 13		090817A-ALK-W
Chloride	35	mg/L		1		E300.0	08/14/09 00:54 / hm			IC101-H_090813A : 46		R55837
Sulfate	190	mg/L		1		E300.0	08/14/09 00:54 / hm			IC101-H_090813A : 46		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Arsenic	0.010	mg/L		0.002		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Calcium	57	mg/L		1		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Copper	0.005	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530
Iron	0.06	mg/L		0.02		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530
Lead	ND	mg/L		0.005		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Magnesium	35	mg/L		1		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Potassium	13	mg/L		1		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 22:00 / eli-b			SUB-B134393 : 26		B_R134393
Sodium	42	mg/L		1		E200.7	08/18/09 19:11 / eli-b			SUB-B134530 : 4		B_R134530

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-327
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-018
Collection Date: 08/12/09 18:55
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 22:00 / eli-b			SUB-B134393	26	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 22:00 / eli-b			SUB-B134393	26	B_R134393
Zinc	ND	mg/L		0.01		E200.8	08/14/09 22:00 / eli-b			SUB-B134393	26	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-328
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-019
Collection Date: 08/12/09 19:15
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.8	s.u.		0.1		A4500-H B	08/13/09 11:32 / hm			PH_090813B : 23		090813A-PH-W
Conductivity	765	umhos/cm		1		A2510 B	08/13/09 11:23 / hm			COND_090813B : 23		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:49 / JG			SOLIDS_090813A : 26		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	554	mg/L		10		A2540 C	08/13/09 14:22 / JG			SOLIDS_090813B : 29		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	08/17/09 12:24 / hm			TITTR_090817B : 14		090817A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/17/09 12:24 / hm			TITTR_090817B : 14		090817A-ALK-W
Chloride	38	mg/L		1		E300.0	08/14/09 01:11 / hm			IC101-H_090813A : 47		R55837
Sulfate	190	mg/L		1		E300.0	08/14/09 01:11 / hm			IC101-H_090813A : 47		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Arsenic	0.013	mg/L		0.002		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Calcium	60	mg/L		1		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530
Chromium	0.002	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530
Iron	ND	mg/L		0.02		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530
Lead	ND	mg/L		0.005		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Magnesium	35	mg/L		1		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Potassium	13	mg/L		1		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 22:04 / eli-b			SUB-B134393 : 27		B_R134393
Sodium	44	mg/L		1		E200.7	08/18/09 19:15 / eli-b			SUB-B134530 : 5		B_R134530

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-328
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-019
Collection Date: 08/12/09 19:15
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 22:04 / eli-b			SUB-B134393	27	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 22:04 / eli-b			SUB-B134393	27	B_R134393
Zinc	0.01	mg/L		0.01		E200.8	08/14/09 22:04 / eli-b			SUB-B134393	27	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-329
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-020
Collection Date: 08/12/09 19:30
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.9	s.u.		0.1		A4500-H B	08/13/09 11:36 / hm			PH_090813B : 24		090813A-PH-W
Conductivity	760	umhos/cm		1		A2510 B	08/13/09 11:25 / hm			COND_090813B : 24		090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:50 / JG			SOLIDS_090813A : 27		090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	543	mg/L		10		A2540 C	08/13/09 14:23 / JG			SOLIDS_090813B : 30		090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	08/17/09 12:30 / hm			TITTR_090817B : 15		090817A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/17/09 12:30 / hm			TITTR_090817B : 15		090817A-ALK-W
Chloride	37	mg/L		1		E300.0	08/14/09 01:27 / hm			IC101-H_090813A : 48		R55837
Sulfate	190	mg/L		1		E300.0	08/14/09 01:27 / hm			IC101-H_090813A : 48		R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Arsenic	0.012	mg/L		0.002		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Calcium	59	mg/L		1		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530
Chromium	0.003	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Copper	0.001	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530
Iron	ND	mg/L		0.02		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530
Lead	ND	mg/L		0.005		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Magnesium	34	mg/L		1		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Potassium	12	mg/L		1		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530
Selenium	0.004	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 22:08 / eli-b			SUB-B134393 : 28		B_R134393
Sodium	44	mg/L		1		E200.7	08/18/09 19:19 / eli-b			SUB-B134530 : 6		B_R134530

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-329
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-020
Collection Date: 08/12/09 19:30
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 22:08 / eli-b			SUB-B134393	28	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 22:08 / eli-b			SUB-B134393	28	B_R134393
Zinc	0.01	mg/L		0.01		E200.8	08/14/09 22:08 / eli-b			SUB-B134393	28	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-330
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-021
Collection Date: 08/12/09 20:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	5.3	s.u.		0.1		A4500-H B	08/13/09 11:39 / hm			PH_090813B	25	090813A-PH-W
Conductivity	21	umhos/cm		1		A2510 B	08/13/09 11:27 / hm			COND_090813B	25	090813A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/13/09 13:51 / JG			SOLIDS_090813A	28	090813A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	108	mg/L		10		A2540 C	08/13/09 14:23 / JG			SOLIDS_090813B	31	090813A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO3	2	mg/L		1		A2320 B	08/17/09 12:32 / hm			TITTR_090817B	16	090817A-ALK-W
Bicarbonate as HCO3	2	mg/L		1		A2320 B	08/17/09 12:32 / hm			TITTR_090817B	16	090817A-ALK-W
Chloride	2	mg/L		1		E300.0	08/14/09 01:43 / hm			IC101-H_090813A	49	R55837
Sulfate	ND	mg/L		1		E300.0	08/14/09 01:43 / hm			IC101-H_090813A	49	R55837
METALS, DISSOLVED												
Tellurium	ND	mg/L		0.1		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530
Aluminum	ND	mg/L		0.1		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Antimony	ND	mg/L		0.003		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Arsenic	ND	mg/L		0.002		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Barium	ND	mg/L		0.1		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Beryllium	ND	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Cadmium	ND	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Calcium	ND	mg/L		1		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530
Chromium	0.001	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Cobalt	ND	mg/L		0.01		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Copper	0.025	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Gold	ND	mg/L		0.01		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530
Iron	ND	mg/L		0.02		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530
Lead	0.006	mg/L		0.005		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Magnesium	ND	mg/L		1		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530
Manganese	ND	mg/L		0.01		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Mercury	ND	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Nickel	ND	mg/L		0.01		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Potassium	ND	mg/L		1		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530
Selenium	ND	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Silver	ND	mg/L		0.005		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Sodium	3	mg/L		1		E200.7	08/18/09 19:31 / eli-b			SUB-B134530	7	B_R134530

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-330
Project: Residential Well Sampling Seaver Park
Matrix: Groundwater

Lab ID: H09080156-021
Collection Date: 08/12/09 20:00
DateReceived: 08/13/09
Report Date: 08/21/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
METALS, DISSOLVED												
Thallium	ND	mg/L		0.001		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Vanadium	ND	mg/L		0.01		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393
Zinc	0.08	mg/L		0.01		E200.8	08/14/09 22:12 / eli-b			SUB-B134393	29	B_R134393

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: 090813A-COND-PROBE

Run ID :Run Order: **COND_090813B: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090813A** Method: **A2510 B**
Analysis Date: **08/13/09 10:38** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1400	1.0	1412		99	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **COND_090813B: 7** SampType: **Sample Duplicate** Sample ID: **H09080156-005ADUP** Method: **A2510 B**
Analysis Date: **08/13/09 10:56** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	676	1.0						669.1	1.1	10	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **COND_090813B: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090813A** Method: **A2510 B**
Analysis Date: **08/13/09 11:05** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	724	1.0	718		101	90	110				

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **COND_090813B: 21** SampType: **Sample Duplicate** Sample ID: **H09080156-017ADUP** Method: **A2510 B**
Analysis Date: **08/13/09 11:19** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	810	1.0						809.8	0.1	10	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **COND_090813B: 26** SampType: **Sample Duplicate** Sample ID: **H09080156-021ADUP** Method: **A2510 B**
Analysis Date: **08/13/09 11:28** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	20.9	1.0						20.62	1.2	10	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: 090813A-PH-W

Run ID :Run Order: **PH_090813B: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090813A** Method: **A4500-H B**

Analysis Date: **08/13/09 10:40** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.01	0.10	7		**100**	99	101				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **PH_090813B: 7** SampType: **Sample Duplicate** Sample ID: **H09080156-005ADUP** Method: **A4500-H B**

Analysis Date: **08/13/09 11:00** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.88	0.10						7.89	**0.1**	2	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **PH_090813B: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090813A** Method: **A4500-H B**

Analysis Date: **08/13/09 11:10** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	10.0	0.10	10		**100**	99	101				

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **PH_090813B: 21** SampType: **Sample Duplicate** Sample ID: **H09080156-017ADUP** Method: **A4500-H B**

Analysis Date: **08/13/09 11:29** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.83	0.10						7.82	**0.1**	2	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **PH_090813B: 26** SampType: **Sample Duplicate** Sample ID: **H09080156-021ADUP** Method: **A4500-H B**

Analysis Date: **08/13/09 11:39** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	5.35	0.10						5.34	**0.2**	2	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090813A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090813B: 1** SampType: **Method Blank** Sample ID: **MBLK1_090813A** Method: **A2540 C**

Analysis Date: **08/13/09 14:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	ND	1.0									

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813B: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090813A** Method: **A2540 C**

Analysis Date: **08/13/09 14:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	999	10	1000		**100**	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813B: 8** SampType: **Sample Matrix Spike** Sample ID: **H09080156-002AMS** Method: **A2540 C**

Analysis Date: **08/13/09 14:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2800	10	2000	822	**99**	80	120				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813B: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-002AMSD** Method: **A2540 C**

Analysis Date: **08/13/09 14:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2780	10	2000	822	98	80	120	2804	**0.7**	10	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813B: 18** SampType: **Sample Duplicate** Sample ID: **H09080156-010ADUP** Method: **A2540 C**

Analysis Date: **08/13/09 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	588	10						580	**1.4**	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090813A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090813B: 18** SampType: **Sample Duplicate** Sample ID: **H09080156-010ADUP** Method: **A2540 C**

Analysis Date: **08/13/09 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers:
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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090813A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090813A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090813A** Method: **A2540 D**

Analysis Date: **08/13/09 13:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1									

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090813A** Method: **A2540 D**

Analysis Date: **08/13/09 13:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	2050	10	2000		102	70	130				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813A: 7** SampType: **Sample Duplicate** Sample ID: **H09080156-002ADUP** Method: **A2540 D**

Analysis Date: **08/13/09 13:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	4.00	10						2		10	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813A: 16** SampType: **Sample Duplicate** Sample ID: **H09080156-010ADUP** Method: **A2540 D**

Analysis Date: **08/13/09 13:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10								10	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **SOLIDS_090813A: 24** SampType: **Sample Duplicate** Sample ID: **H09080156-017ADUP** Method: **A2540 D**

Analysis Date: **08/13/09 13:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	4.00	10						4		10	

Qualifiers:
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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090813A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090813A: 24** SampType: **Sample Duplicate** Sample ID: **H09080156-017ADUP** Method: **A2540 D**

Analysis Date: **08/13/09 13:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090814A-ALK-W

Run ID :Run Order: **TITTR_090814A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090814A** Method: **A2320 B**
Analysis Date: **08/14/09 11:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A

Run ID :Run Order: **TITTR_090814A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090814A** Method: **A2320 B**
Analysis Date: **08/14/09 11:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	590	4.0	600		98	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A

Run ID :Run Order: **TITTR_090814A: 8** SampType: **Sample Matrix Spike** Sample ID: **H09080156-005AMS** Method: **A2320 B**
Analysis Date: **08/14/09 12:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	770	4.0	600	221	92	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A

Run ID :Run Order: **TITTR_090814A: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-005AMSD** Method: **A2320 B**
Analysis Date: **08/14/09 12:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	770	4.0	600	221	92	90	110	770.9	0	20	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A

Run ID :Run Order: **TITTR_090814A: 11** SampType: **Sample Duplicate** Sample ID: **H09080156-006ADUP** Method: **A2320 B**
Analysis Date: **08/14/09 12:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	240	4.0						240.6	0.4	20	
Bicarbonate as HCO3	290	4.0						293.5	0.4	20	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090814A-ALK-W

Run ID :Run Order: **TITTR_090814A: 16** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090814A** Method: **A2320 B**

Analysis Date: **08/14/09 16:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1000	4.0	1000		102	90	110				

Associated samples:

Qualifiers:
ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090817A-ALK-W

Run ID :Run Order: **TITTR_090817B: 1** SampType: **Method Blank** Sample ID: **MBLK1_090817A** Method: **A2320 B**
Analysis Date: **08/17/09 09:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **TITTR_090817B: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090817A** Method: **A2320 B**
Analysis Date: **08/17/09 09:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	600	4.0	600		100	90	110				

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **TITTR_090817B: 6** SampType: **Sample Matrix Spike** Sample ID: **H09080156-013AMS** Method: **A2320 B**
Analysis Date: **08/17/09 11:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	730	4.0	600	178.6	92	90	110				

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **TITTR_090817B: 7** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-013AMSD** Method: **A2320 B**
Analysis Date: **08/17/09 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	730	4.0	600	178.6	92	90	110	731.5	0.1	20	

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **TITTR_090817B: 9** SampType: **Sample Duplicate** Sample ID: **H09080156-014ADUP** Method: **A2320 B**
Analysis Date: **08/17/09 11:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	220	4.0						226.5	2.7	20	
Bicarbonate as HCO3	270	4.0						276.4	2.7	20	

Associated samples: H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: 090817A-ALK-W

Run ID :Run Order: **TITTR_090817B: 17** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090817A** Method: **A2320 B**

Analysis Date: **08/17/09 12:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1000	4.0	1000		**101**	90	110				

Associated samples:

Qualifiers:
ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 4** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/14/09 09:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.25	0.10	0.25		100	90	110				
Antimony	0.048	0.050	0.05		96	90	110				
Arsenic	0.050	0.0050	0.05		101	90	110				
Barium	0.051	0.10	0.05		102	90	110				
Beryllium	0.025	0.0010	0.025		100	90	110				
Cadmium	0.026	0.0010	0.025		102	90	110				
Chromium	0.050	0.010	0.05		100	90	110				
Cobalt	0.050	0.010	0.05		99	90	110				
Copper	0.049	0.010	0.05		97	90	110				
Lead	0.050	0.010	0.05		99	90	110				
Manganese	0.25	0.010	0.25		99	90	110				
Mercury	0.0021	0.0010	0.002		103	90	110				
Nickel	0.049	0.010	0.05		99	90	110				
Selenium	0.050	0.0050	0.05		100	90	110				
Silver	0.025	0.0050	0.025		102	90	110				
Thallium	0.050	0.10	0.05		101	90	110				
Vanadium	0.050	0.10	0.05		101	90	110				
Zinc	0.051	0.010	0.05		101	90	110				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 5** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **08/14/09 10:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0001									
Antimony	ND	5E-05									
Arsenic	0.0001	3E-05									
Barium	ND	3E-05									
Beryllium	ND	1E-05									
Cadmium	ND	1E-05									
Chromium	ND	0.0002									
Cobalt	ND	2E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
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A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 5** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**
Analysis Date: **08/14/09 10:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	8E-05									
Lead	1E-05	8E-06									
Manganese	ND	2E-05									
Mercury	1E-05	8E-06									
Nickel	ND	5E-05									
Selenium	ND	0.0002									
Silver	9E-05	2E-05									
Thallium	ND	8E-06									
Vanadium	ND	4E-05									
Zinc	0.0007	0.0001									

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 6** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**
Analysis Date: **08/14/09 10:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.051	0.10	0.05		102	85	115				
Antimony	0.052	0.050	0.05		103	85	115				
Arsenic	0.052	0.0050	0.05	0.00014	103	85	115				
Barium	0.052	0.10	0.05		103	85	115				
Beryllium	0.050	0.0010	0.05		101	85	115				
Cadmium	0.052	0.0010	0.05		104	85	115				
Chromium	0.051	0.010	0.05		103	85	115				
Cobalt	0.051	0.010	0.05		103	85	115				
Copper	0.051	0.010	0.05		102	85	115				
Lead	0.051	0.010	0.05	0.00001	102	85	115				
Manganese	0.052	0.010	0.05		103	85	115				
Mercury	0.0010	0.0010	0.001	0.00001	102	85	115				
Nickel	0.051	0.010	0.05		102	85	115				
Selenium	0.051	0.0050	0.05		102	85	115				
Thallium	0.051	0.10	0.05		102	85	115				
Vanadium	0.051	0.10	0.05		103	85	115				
Zinc	0.053	0.010	0.05	0.00066	104	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 6** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **08/14/09 10:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 7** SampType: **Sample Matrix Spike** Sample ID: **B09081305-001BMS** Method: **E200.8**

Analysis Date: **08/14/09 17:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0522	0.10	0.05	0.00066	103	70	130				
Antimony	0.0535	0.0050	0.05		107	70	130				
Arsenic	0.0551	0.0050	0.05	0.00023	110	70	130				
Barium	0.547	0.10	0.05	0.5017		70	130				A
Beryllium	0.0534	0.0010	0.05		107	70	130				
Cadmium	0.0522	0.0010	0.05		104	70	130				
Chromium	0.0558	0.010	0.05	0.00514	101	70	130				
Cobalt	0.0506	0.010	0.05	0.00075	100	70	130				
Copper	0.0493	0.010	0.05	0.00041	98	70	130				
Lead	0.0512	0.010	0.05	0.00011	102	70	130				
Manganese	0.0700	0.010	0.05	0.01947	101	70	130				
Mercury	0.00108	0.0010	0.001		108	70	130				
Nickel	0.0491	0.010	0.05	0.00051	97	70	130				
Selenium	0.0568	0.0050	0.05		114	70	130				
Silver	0.0164	0.0050	0.02		82	70	130				
Thallium	0.0509	0.0050	0.05		102	70	130				
Vanadium	0.0535	0.10	0.05	0.00132	104	70	130				
Zinc	0.0541	0.010	0.05	0.00331	101	70	130				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 8** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081305-001BMSD** Method: **E200.8**

Analysis Date: **08/14/09 17:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0518	0.10	0.05	0.00066	102	70	130	0.05216		20	
Antimony	0.0529	0.0050	0.05		106	70	130	0.05351	1.2	20	

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 8** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081305-001BMSD** Method: **E200.8**

Analysis Date: **08/14/09 17:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0543	0.0050	0.05	0.00023	**108**	70	130	0.05512	**1.5**	20	
Barium	0.543	0.10	0.05	0.5017		70	130	0.5471	**0.8**	20	A
Beryllium	0.0533	0.0010	0.05		**107**	70	130	0.05341	**0.2**	20	
Cadmium	0.0517	0.0010	0.05		**103**	70	130	0.05221	**1.1**	20	
Chromium	0.0554	0.010	0.05	0.00514	**101**	70	130	0.05579	**0.7**	20	
Cobalt	0.0500	0.010	0.05	0.00075	**98**	70	130	0.05061	**1.3**	20	
Copper	0.0488	0.010	0.05	0.00041	**97**	70	130	0.04927	**0.9**	20	
Lead	0.0514	0.010	0.05	0.00011	**103**	70	130	0.05117	**0.5**	20	
Manganese	0.0692	0.010	0.05	0.01947	**100**	70	130	0.07004	**1.1**	20	
Mercury	0.00108	0.0010	0.001		**108**	70	130	0.00108	**0.4**	20	
Nickel	0.0484	0.010	0.05	0.00051	**96**	70	130	0.04906	**1.4**	20	
Selenium	0.0559	0.0050	0.05		**112**	70	130	0.05678	**1.5**	20	
Silver	0.0176	0.0050	0.02		**88**	70	130	0.0164	**6.9**	20	
Thallium	0.0512	0.0050	0.05		**102**	70	130	0.05088	**0.6**	20	
Vanadium	0.0530	0.10	0.05	0.00132	**103**	70	130	0.05348		20	
Zinc	0.0539	0.010	0.05	0.00331	**101**	70	130	0.05406	**0.2**	20	

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 30** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **08/14/09 11:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.020	0.0050	0.02	0.00009	**99**	85	115				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 31** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/14/09 19:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.25	0.10	0.25		**100**	90	110				
Antimony	0.048	0.050	0.05		**95**	90	110				
Arsenic	0.049	0.0050	0.05		**98**	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; N - Analyte concentration was not sufficiently high to calculate RPD
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits; A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 31** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/14/09 19:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.050	0.10	0.05		100	90	110				
Beryllium	0.025	0.0010	0.025		99	90	110				
Cadmium	0.025	0.0010	0.025		101	90	110				
Chromium	0.049	0.010	0.05		98	90	110				
Cobalt	0.049	0.010	0.05		98	90	110				
Copper	0.048	0.010	0.05		95	90	110				
Lead	0.049	0.010	0.05		98	90	110				
Manganese	0.24	0.010	0.25		98	90	110				
Mercury	0.0019	0.0010	0.002		96	90	110				
Nickel	0.048	0.010	0.05		97	90	110				
Selenium	0.049	0.0050	0.05		98	90	110				
Silver	0.026	0.0050	0.025		105	90	110				
Thallium	0.050	0.10	0.05		99	90	110				
Vanadium	0.050	0.10	0.05		100	90	110				
Zinc	0.049	0.010	0.05		99	90	110				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 32** SampType: **Sample Matrix Spike** Sample ID: **H09080156-001B** Method: **E200.8**

Analysis Date: **08/14/09 19:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.261	0.10	0.25	0.025	95	70	130				
Antimony	0.252	0.0050	0.25		101	70	130				
Arsenic	0.261	0.0050	0.25	0.0091	101	70	130				
Barium	0.285	0.10	0.25	0.0348	100	70	130				
Beryllium	0.253	0.0010	0.25		101	70	130				
Cadmium	0.251	0.0010	0.25		101	70	130				
Chromium	0.251	0.010	0.25	0.00215	100	70	130				
Cobalt	0.249	0.010	0.25	0.00015	100	70	130				
Copper	0.250	0.010	0.25	0.0011	100	70	130				
Lead	0.253	0.010	0.25	0.00005	101	70	130				
Manganese	0.249	0.010	0.25	0.0009	99	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 32** SampType: **Sample Matrix Spike** Sample ID: **H09080156-001B** Method: **E200.8**

Analysis Date: **08/14/09 19:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00500	0.0010	0.005	0.00005	99	70	130				
Nickel	0.245	0.010	0.25	0.0008	98	70	130				
Selenium	0.253	0.0050	0.25	0.0032	100	70	130				
Silver	0.0922	0.0050	0.1	0.00035	92	70	130				
Thallium	0.252	0.0050	0.25		101	70	130				
Vanadium	0.259	0.10	0.25	0.0084	100	70	130				
Zinc	0.264	0.010	0.25	0.0078	103	70	130				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 33** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-001B** Method: **E200.8**

Analysis Date: **08/14/09 20:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.258	0.10	0.25	0.025	93	70	130	0.2615	1.3	20	
Antimony	0.253	0.0050	0.25		101	70	130	0.2518	0.6	20	
Arsenic	0.263	0.0050	0.25	0.0091	101	70	130	0.2605	0.8	20	
Barium	0.287	0.10	0.25	0.0348	101	70	130	0.2847	0.8	20	
Beryllium	0.257	0.0010	0.25		103	70	130	0.2525	1.8	20	
Cadmium	0.253	0.0010	0.25		101	70	130	0.2513	0.9	20	
Chromium	0.257	0.010	0.25	0.00215	102	70	130	0.2509	2.2	20	
Cobalt	0.253	0.010	0.25	0.00015	101	70	130	0.2493	1.7	20	
Copper	0.252	0.010	0.25	0.0011	100	70	130	0.25	0.8	20	
Lead	0.252	0.010	0.25	0.00005	101	70	130	0.2529	0.5	20	
Manganese	0.255	0.010	0.25	0.0009	102	70	130	0.2492	2.4	20	
Mercury	0.00507	0.0010	0.005	0.00005	100	70	130	0.005	1.5	20	
Nickel	0.250	0.010	0.25	0.0008	100	70	130	0.2448	2.1	20	
Selenium	0.256	0.0050	0.25	0.0032	101	70	130	0.2526	1.3	20	
Silver	0.0985	0.0050	0.1	0.00035	98	70	130	0.0922	6.6	20	
Thallium	0.254	0.0050	0.25		102	70	130	0.2523	0.6	20	
Vanadium	0.266	0.10	0.25	0.0084	103	70	130	0.2585	2.9	20	
Zinc	0.266	0.010	0.25	0.0078	103	70	130	0.2642	0.6	20	

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 34** SampType: **Sample Matrix Spike** Sample ID: **H09080156-011B** Method: **E200.8**

Analysis Date: **08/14/09 21:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.262	0.10	0.25		105	70	130				
Antimony	0.255	0.0050	0.25		102	70	130				
Arsenic	0.266	0.0050	0.25	0.0088	103	70	130				
Barium	0.303	0.10	0.25	0.04765	102	70	130				
Beryllium	0.263	0.0010	0.25		105	70	130				
Cadmium	0.255	0.0010	0.25		102	70	130				
Chromium	0.265	0.010	0.25	0.0028	105	70	130				
Cobalt	0.263	0.010	0.25	0.0002	105	70	130				
Copper	0.258	0.010	0.25	0.0011	103	70	130				
Lead	0.255	0.010	0.25	0.00005	102	70	130				
Manganese	0.264	0.010	0.25	0.0009	105	70	130				
Mercury	0.00505	0.0010	0.005	0.00005	100	70	130				
Nickel	0.261	0.010	0.25	0.001	104	70	130				
Selenium	0.265	0.0050	0.25	0.00345	105	70	130				
Silver	0.0942	0.0050	0.1		94	70	130				
Thallium	0.254	0.0050	0.25		102	70	130				
Vanadium	0.272	0.10	0.25	0.0074	106	70	130				
Zinc	0.273	0.010	0.25	0.00785	106	70	130				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 35** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-011B** Method: **E200.8**

Analysis Date: **08/14/09 21:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.269	0.10	0.25		107	70	130	0.2618	2.6	20	
Antimony	0.258	0.0050	0.25		103	70	130	0.2549	1.1	20	
Arsenic	0.269	0.0050	0.25	0.0088	104	70	130	0.2657	1.3	20	
Barium	0.307	0.10	0.25	0.04765	104	70	130	0.3033	1.2	20	
Beryllium	0.269	0.0010	0.25		108	70	130	0.263	2.3	20	
Cadmium	0.259	0.0010	0.25		104	70	130	0.255	1.5	20	
Chromium	0.267	0.010	0.25	0.0028	106	70	130	0.2651	0.9	20	
Cobalt	0.267	0.010	0.25	0.0002	107	70	130	0.2633	1.5	20	
Copper	0.263	0.010	0.25	0.0011	105	70	130	0.2577	2	20	

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 35** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-011B** Method: **E200.8**

Analysis Date: **08/14/09 21:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.256	0.010	0.25	0.00005	**103**	70	130	0.2548	**0.6**	20	
Manganese	0.267	0.010	0.25	0.0009	**107**	70	130	0.264	**1.3**	20	
Mercury	0.00510	0.0010	0.005	0.00005	**101**	70	130	0.00505	**1**	20	
Nickel	0.261	0.010	0.25	0.001	**104**	70	130	0.2609	**0.1**	20	
Selenium	0.268	0.0050	0.25	0.00345	**106**	70	130	0.2652	**0.9**	20	
Silver	0.0941	0.0050	0.1		**94**	70	130	0.0942	**0.1**	20	
Thallium	0.256	0.0050	0.25		**102**	70	130	0.2541	**0.8**	20	
Vanadium	0.274	0.10	0.25	0.0074	**107**	70	130	0.2724	**0.7**	20	
Zinc	0.274	0.010	0.25	0.00785	**107**	70	130	0.2733	**0.3**	20	

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 36** SampType: **Sample Matrix Spike** Sample ID: **H09080156-021B** Method: **E200.8**

Analysis Date: **08/14/09 22:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.259	0.10	0.25	0.0047	**102**	70	130				
Antimony	0.252	0.0050	0.25		**101**	70	130				
Arsenic	0.255	0.0050	0.25	0.0005	**102**	70	130				
Barium	0.255	0.10	0.25	0.0003	**102**	70	130				
Beryllium	0.262	0.0010	0.25		**105**	70	130				
Cadmium	0.254	0.0010	0.25	0.0002	**102**	70	130				
Chromium	0.259	0.010	0.25	0.0012	**103**	70	130				
Cobalt	0.258	0.010	0.25	0.00035	**103**	70	130				
Copper	0.280	0.010	0.25	0.02545	**102**	70	130				
Lead	0.261	0.010	0.25	0.00565	**102**	70	130				
Manganese	0.261	0.010	0.25	0.00055	**104**	70	130				
Mercury	0.00485	0.0010	0.005	0.00005	**96**	70	130				
Nickel	0.259	0.010	0.25	0.00025	**104**	70	130				
Selenium	0.256	0.0050	0.25		**102**	70	130				
Silver	0.0920	0.0050	0.1		**92**	70	130				
Thallium	0.256	0.0050	0.25		**102**	70	130				
Vanadium	0.257	0.10	0.25	0.00025	**103**	70	130				
Zinc	0.335	0.010	0.25	0.0775	**103**	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134393

Run ID :Run Order: **SUB-B134393: 36** SampType: **Sample Matrix Spike** Sample ID: **H09080156-021B** Method: **E200.8**

Analysis Date: **08/14/09 22:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134393: 37** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-021B** Method: **E200.8**

Analysis Date: **08/14/09 22:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.262	0.10	0.25	0.0047	103	70	130	0.2588	1.2	20	
Antimony	0.252	0.0050	0.25		101	70	130	0.2519	0.1	20	
Arsenic	0.255	0.0050	0.25	0.0005	102	70	130	0.2545	0.2	20	
Barium	0.255	0.10	0.25	0.0003	102	70	130	0.2549	0.1	20	
Beryllium	0.262	0.0010	0.25		105	70	130	0.2621	0.2	20	
Cadmium	0.253	0.0010	0.25	0.0002	101	70	130	0.2544	0.6	20	
Chromium	0.259	0.010	0.25	0.0012	103	70	130	0.259	0	20	
Cobalt	0.259	0.010	0.25	0.00035	103	70	130	0.2584	0.2	20	
Copper	0.280	0.010	0.25	0.02545	102	70	130	0.2801	0.2	20	
Lead	0.258	0.010	0.25	0.00565	101	70	130	0.2613	1.1	20	
Manganese	0.260	0.010	0.25	0.00055	104	70	130	0.2606	0.3	20	
Mercury	0.00491	0.0010	0.005	0.00005	97	70	130	0.00485	1.1	20	
Nickel	0.259	0.010	0.25	0.00025	104	70	130	0.2595	0	20	
Selenium	0.257	0.0050	0.25		103	70	130	0.256	0.5	20	
Silver	0.0997	0.0050	0.1		100	70	130	0.092	8	20	
Thallium	0.252	0.0050	0.25		101	70	130	0.2557	1.3	20	
Vanadium	0.259	0.10	0.25	0.00025	104	70	130	0.2574	0.8	20	
Zinc	0.333	0.010	0.25	0.0775	102	70	130	0.3347	0.6	20	

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B; H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Qualifiers:
ND - Not Detected at the Reporting Limit
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N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134465

Run ID :Run Order: **SUB-B134465: 3** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**
Analysis Date: **08/17/09 11:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.0002									

Associated samples: H09080156-010B

Run ID :Run Order: **SUB-B134465: 4** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**
Analysis Date: **08/17/09 11:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.049	0.010	0.05		**98**	85	115				

Associated samples: H09080156-010B

Run ID :Run Order: **SUB-B134465: 5** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**
Analysis Date: **08/17/09 12:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.050	0.010	0.05		**100**	90	110				

Associated samples: H09080156-010B

Run ID :Run Order: **SUB-B134465: 6** SampType: **Sample Matrix Spike** Sample ID: **H09080156-010B** Method: **E200.8**
Analysis Date: **08/17/09 13:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.261	0.010	0.25	0.0017	**104**	70	130				

Associated samples: H09080156-010B

Run ID :Run Order: **SUB-B134465: 7** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-010B** Method: **E200.8**
Analysis Date: **08/17/09 14:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.257	0.010	0.25	0.0017	**102**	70	130	0.2606	**1.5**	20	

Associated samples: H09080156-010B

Qualifiers:
ND - Not Detected at the Reporting Limit
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N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: B_R134465

Run ID :Run Order: **SUB-B134465: 8** SampType: **Sample Matrix Spike** Sample ID: **B09081249-002CMS** Method: **E200.8**

Analysis Date: **08/17/09 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.05166	0.010	0.05		**103**	70	130				

Associated samples: H09080156-010B

Run ID :Run Order: **SUB-B134465: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081249-002CMSD** Method: **E200.8**

Analysis Date: **08/17/09 16:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.05119	0.010	0.05		**102**	70	130	0.05166	**0.9**	20	

Associated samples: H09080156-010B

Qualifiers:
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ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134477

Run ID :Run Order: **SUB-B134477: 15** SampType: **Continuing Calibration Verification Standard** Sample ID: **ICV** Method: **E200.7**

Analysis Date: **08/17/09 11:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.60	0.10	2.5		104	95	105				
Calcium	25.4	1.0	25		101	95	105				
Gold	2.53	0.0043	2.5		101	95	105				
Iron	2.56	0.030	2.5		102	95	105				
Magnesium	24.8	1.0	25		99	95	105				
Potassium	24.9	1.0	25		100	95	105				
Sodium	25.5	1.0	25		102	95	105				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Run ID :Run Order: **SUB-B134477: 16** SampType: **Method Blank** Sample ID: **MB-SPDIS090817A** Method: **E200.7**

Analysis Date: **08/17/09 12:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	ND	0.02									
Calcium	0.03	0.009									
Gold	ND	0.004									
Iron	ND	0.002									
Magnesium	ND	0.01									
Potassium	ND	0.01									
Sodium	ND	0.03									

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Run ID :Run Order: **SUB-B134477: 17** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090817A** Method: **E200.7**

Analysis Date: **08/17/09 12:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.05	0.10	1		105	85	115				
Calcium	50.1	1.0	50	0.02785	100	85	115				
Gold	1.02	0.0045	1		102	85	115				
Iron	5.16	0.030	5		103	85	115				
Magnesium	51.6	1.0	50		103	85	115				
Potassium	45.1	1.0	50		90	85	115				
Sodium	52.5	1.0	50		105	85	115				

Qualifiers:
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: B_R134477

Run ID :Run Order: **SUB-B134477: 17** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090817A** Method: **E200.7**

Analysis Date: **08/17/09 12:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Run ID :Run Order: **SUB-B134477: 18** SampType: **Sample Matrix Spike** Sample ID: **B09081267-001BMS2** Method: **E200.7**

Analysis Date: **08/17/09 17:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	0.982	0.021	1		**98**	70	130				
Calcium	65.8	1.0	50	19.47	**93**	70	130				
Gold	0.914	0.010	1		**91**	70	130				
Iron	4.81	0.030	5	0.00853	**96**	70	130				
Magnesium	54.3	1.0	50	6.62	**95**	70	130				
Potassium	50.2	1.0	50	1.538	**97**	70	130				
Sodium	50.8	1.0	50	2.324	**97**	70	130				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Run ID :Run Order: **SUB-B134477: 19** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081267-001BMSD2** Method: **E200.7**

Analysis Date: **08/17/09 17:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	0.974	0.021	1		**97**	70	130	0.9816	**0.7**	20	
Calcium	65.7	1.0	50	19.47	**92**	70	130	65.82	**0.2**	20	
Gold	0.941	0.010	1		**94**	70	130	0.9136	**3**	20	
Iron	4.81	0.030	5	0.00853	**96**	70	130	4.811	**0**	20	
Magnesium	54.8	1.0	50	6.62	**96**	70	130	54.28	**0.9**	20	
Potassium	52.0	1.0	50	1.538	**101**	70	130	50.2	**3.5**	20	
Sodium	52.4	1.0	50	2.324	**100**	70	130	50.77	**3.2**	20	

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Run ID :Run Order: **SUB-B134477: 20** SampType: **Sample Matrix Spike** Sample ID: **H09080156-011B** Method: **E200.7**

Analysis Date: **08/17/09 18:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.04	0.021	1		**104**	70	130				
Calcium	109	1.0	50	62.7	**92**	70	130				

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: B_R134477

Run ID :Run Order: **SUB-B134477: 20** SampType: **Sample Matrix Spike** Sample ID: **H09080156-011B** Method: **E200.7**

Analysis Date: **08/17/09 18:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gold	0.962	0.010	1		**96**	70	130				
Iron	5.05	0.030	5		**101**	70	130				
Magnesium	87.9	1.0	50	37.52	**101**	70	130				
Potassium	64.0	1.0	50	13.3	**101**	70	130				
Sodium	102	1.0	50	49.52	**105**	70	130				

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Run ID :Run Order: **SUB-B134477: 21** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-011B** Method: **E200.7**

Analysis Date: **08/17/09 19:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.02	0.021	1		**102**	70	130	1.035	**1**	20	
Calcium	108	1.0	50	62.7	**90**	70	130	108.9	**0.9**	20	
Gold	0.966	0.010	1		**97**	70	130	0.962	**0.4**	20	
Iron	5.00	0.030	5		**100**	70	130	5.052	**1.1**	20	
Magnesium	87.0	1.0	50	37.52	**99**	70	130	87.86	**0.9**	20	
Potassium	63.2	1.0	50	13.3	**100**	70	130	63.96	**1.1**	20	
Sodium	102	1.0	50	49.52	**105**	70	130	102.1	**0.1**	20	

Associated samples: H09080156-001B; H09080156-002B; H09080156-003B; H09080156-004B; H09080156-005B; H09080156-006B; H09080156-007B; H09080156-008B; H09080156-009B; H09080156-010B; H09080156-011B; H09080156-012B; H09080156-013B; H09080156-014B

Qualifiers:
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ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: B_R134530

Run ID :Run Order: **SUB-B134530: 8** SampType: **Continuing Calibration Verification Standard** Sample ID: **ICV** Method: **E200.7**

Analysis Date: **08/18/09 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.61	0.10	2.5		104	95	105				
Calcium	25.6	1.0	25		102	95	105				
Gold	2.53	0.0043	2.5		101	95	105				
Iron	2.60	0.18	2.5		104	95	105				
Magnesium	25.7	1.0	25		103	95	105				
Potassium	24.6	1.0	25		99	95	105				
Sodium	24.7	1.0	25		99	95	105				

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134530: 9** SampType: **Method Blank** Sample ID: **MB-SPDIS090818A** Method: **E200.7**

Analysis Date: **08/18/09 10:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	ND	0.02									
Calcium	0.02	0.009									
Gold	ND	0.004									
Iron	ND	0.002									
Magnesium	ND	0.01									
Potassium	0.01	0.01									
Sodium	ND	0.03									

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134530: 10** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090818A** Method: **E200.7**

Analysis Date: **08/18/09 10:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.03	0.10	1		103	85	115				
Calcium	47.0	1.0	50	0.02292	94	85	115				
Gold	0.980	0.0045	1		98	85	115				
Iron	4.90	0.030	5		98	85	115				
Magnesium	48.1	1.0	50		96	85	115				
Potassium	42.7	1.0	50	0.01469	85	85	115				
Sodium	50.2	1.0	50		100	85	115				

Qualifiers:
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: B_R134530

Run ID :Run Order: **SUB-B134530: 10** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090818A** Method: **E200.7**
Analysis Date: **08/18/09 10:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134530: 11** SampType: **Sample Matrix Spike** Sample ID: **B09081238-001BMS2** Method: **E200.7**
Analysis Date: **08/18/09 18:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.02	0.021	1		102	70	130				
Calcium	56.5	1.0	50	8.86	95	70	130				
Gold	0.678	0.010	1		68	70	130				S
Iron	5.36	0.030	5	0.449	98	70	130				
Magnesium	50.8	1.0	50	0.833	100	70	130				
Potassium	60.3	1.0	50	11.29	98	70	130				
Sodium	131	1.0	50	77.5	107	70	130				

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134530: 12** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081238-001BMSD2** Method: **E200.7**
Analysis Date: **08/18/09 18:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.05	0.021	1		105	70	130	1.019	2.7	20	
Calcium	56.7	1.0	50	8.86	96	70	130	56.55	0.2	20	
Gold	0.844	0.010	1		84	70	130	0.6777	22	20	R
Iron	5.36	0.030	5	0.449	98	70	130	5.356	0	20	
Magnesium	49.9	1.0	50	0.833	98	70	130	50.77	1.7	20	
Potassium	60.7	1.0	50	11.29	99	70	130	60.26	0.7	20	
Sodium	133	1.0	50	77.5	110	70	130	131	1.3	20	

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134530: 13** SampType: **Sample Matrix Spike** Sample ID: **B09081504-003BMS2** Method: **E200.7**
Analysis Date: **08/18/09 19:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.01	0.021	1		101	70	130				
Calcium	101	1.0	50	56.3	90	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: B_R134530

Run ID :Run Order: **SUB-B134530: 13** SampType: **Sample Matrix Spike** Sample ID: **B09081504-003BMS2** Method: **E200.7**

Analysis Date: **08/18/09 19:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gold	0.881	0.010	1		88	70	130				
Iron	4.84	0.030	5		97	70	130				
Magnesium	74.3	1.0	50	25.31	98	70	130				
Potassium	49.5	1.0	50	2.311	94	70	130				
Sodium	55.3	1.0	50	6.95	97	70	130				

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Run ID :Run Order: **SUB-B134530: 14** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081504-003BMSD2** Method: **E200.7**

Analysis Date: **08/18/09 19:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.01	0.021	1		101	70	130	1.007	0.4	20	
Calcium	103	1.0	50	56.3	93	70	130	101.5	1.4	20	
Gold	0.882	0.010	1		88	70	130	0.8807	0.1	20	
Iron	4.82	0.030	5		96	70	130	4.839	0.5	20	
Magnesium	74.6	1.0	50	25.31	99	70	130	74.26	0.4	20	
Potassium	49.3	1.0	50	2.311	94	70	130	49.51	0.5	20	
Sodium	55.8	1.0	50	6.95	98	70	130	55.31	0.9	20	

Associated samples: H09080156-015B; H09080156-016B; H09080156-017B; H09080156-018B; H09080156-019B; H09080156-020B; H09080156-021B

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: R55837

Run ID :Run Order: **IC101-H_090813A: 12** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **08/13/09 15:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		93	90	110				
Sulfate	48	1.0	50		97	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A

Run ID :Run Order: **IC101-H_090813A: 13** SampType: **Initial Calibration Verification Standard** Sample ID: **ICV** Method: **E300.0**
Analysis Date: **08/13/09 15:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.5	1.0	2.5		102	90	110				
Sulfate	9.8	1.0	10		98	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 14** SampType: **Laboratory Control Sample** Sample ID: **LCS** Method: **E300.0**
Analysis Date: **08/13/09 16:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	85	1.0	87.47		98	90	110				
Sulfate	28	1.0	28.53		97	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 15** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E300.0**
Analysis Date: **08/13/09 16:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.9	1.0	5		97	90	110				
Sulfate	9.9	1.0	10		99	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 21-Aug-09

BatchID: R55837

Run ID :Run Order: **IC101-H_090813A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**

Analysis Date: **08/13/09 16:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 20** SampType: **Sample Matrix Spike** Sample ID: **H09080145-001A MS** Method: **E300.0**

Analysis Date: **08/13/09 17:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		**95**	90	110				
Sulfate	51	1.0	50	0.609	**100**	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 21** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080145-001A MSD** Method: **E300.0**

Analysis Date: **08/13/09 18:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		**93**	90	110	23.82	**2.4**	20	
Sulfate	50	1.0	50	0.609	**98**	90	110	50.8	**2.3**	20	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 30** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**

Analysis Date: **08/13/09 20:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		**92**	90	110				
Sulfate	49	1.0	50		**98**	90	110				

Associated samples: H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: R55837

Run ID :Run Order: **IC101-H_090813A: 40** SampType: **Sample Matrix Spike** Sample ID: **H09080156-015A MS** Method: **E300.0**

Analysis Date: **08/13/09 23:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	53	1.0	25	27.15	**105**	90	110				
Sulfate	170	1.0	50	115	**106**	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 41** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-015A MSD** Method: **E300.0**

Analysis Date: **08/13/09 23:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	53	1.0	25	27.15	**105**	90	110	53.38	**0**	20	
Sulfate	170	1.0	50	115	**105**	90	110	168.1	**0.4**	20	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 44** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**

Analysis Date: **08/14/09 00:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		**93**	90	110				
Sulfate	50	1.0	50		**99**	90	110				

Associated samples: H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Run ID :Run Order: **IC101-H_090813A: 50** SampType: **Sample Matrix Spike** Sample ID: **H09080156-021A MS** Method: **E300.0**

Analysis Date: **08/14/09 02:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.656	**96**	90	110				
Sulfate	51	1.0	50	0.383	**100**	90	110				

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers:
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080156
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *21-Aug-09*

BatchID: R55837

Run ID :Run Order: **IC101-H_090813A: 51** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080156-021A MSD** Method: **E300.0**

Analysis Date: **08/14/09 02:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.656	**98**	90	110	25.71	**1.5**	20	
Sulfate	51	1.0	50	0.383	**101**	90	110	50.51	**1**	20	

Associated samples: H09080156-001A; H09080156-002A; H09080156-003A; H09080156-004A; H09080156-005A; H09080156-006A; H09080156-007A; H09080156-008A; H09080156-009A; H09080156-010A; H09080156-011A; H09080156-012A; H09080156-013A; H09080156-014A; H09080156-015A; H09080156-016A; H09080156-017A; H09080156-018A; H09080156-019A; H09080156-020A; H09080156-021A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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ANALYTICAL SUMMARY REPORT

September 08, 2009

Asarco LLC
PO Box 1230
East Helena, MT 59635

Workorder No.: H09080233 Quote ID: H409 - Semi-Annual Residential CAMU Monitoring

Project Name: Residential Well Sampling Seaver Park

Energy Laboratories Inc received the following 19 samples for Asarco LLC on 8/20/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H09080233-001	EHR-0809-331	08/19/09 10:45	08/20/09	Groundwater	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved Solids, Total Suspended
H09080233-002	EHR-0809-332	08/19/09 11:10	08/20/09	Groundwater	Same As Above
H09080233-003	EHR-0809-333	08/19/09 11:25	08/20/09	Groundwater	Same As Above
H09080233-004	EHR-0809-334	08/19/09 11:50	08/20/09	Groundwater	Same As Above
H09080233-005	EHR-0809-335	08/19/09 12:10	08/20/09	Groundwater	Same As Above
H09080233-006	EHR-0809-336	08/19/09 12:35	08/20/09	Groundwater	Same As Above
H09080233-007	EHR-0809-337	08/19/09 13:00	08/20/09	Groundwater	Same As Above
H09080233-008	EHR-0809-338	08/19/09 13:20	08/20/09	Groundwater	Same As Above
H09080233-009	EHR-0809-339	08/19/09 13:45	08/20/09	Groundwater	Same As Above
H09080233-010	EHR-0809-340	08/19/09 14:45	08/20/09	Groundwater	Same As Above
H09080233-011	EHR-0809-341	08/19/09 15:10	08/20/09	Groundwater	Same As Above
H09080233-012	EHR-0809-342	08/19/09 15:30	08/20/09	Groundwater	Same As Above
H09080233-013	EHR-0809-343	08/19/09 16:00	08/20/09	Groundwater	Same As Above
H09080233-014	EHR-0809-344	08/19/09 16:20	08/20/09	Groundwater	Same As Above
H09080233-015	EHR-0809-345	08/19/09 16:45	08/20/09	Groundwater	Same As Above
H09080233-016	EHR-0809-346	08/19/09 17:10	08/20/09	Groundwater	Same As Above
H09080233-017	EHR-0809-347	08/19/09 17:25	08/20/09	Groundwater	Same As Above
H09080233-018	EHR-0809-348	08/19/09 17:40	08/20/09	Groundwater	Same As Above
H09080233-019	EHR-0809-349	08/19/09 18:15	08/20/09	Groundwater	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

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ANALYTICAL SUMMARY REPORT

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: Jonathan D. Hager

Digitally signed by Jonathan D. Hager
DN: cn=Jonathan D. Hager, o=Energy Laboratory-Helena, ou=Assistant Lab Manager, email=jhager@energylab.com, c=US
Date: 2009.09.09 07:27:12 -06'00'

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-331
Lab ID: H09080233-001
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 10:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:29 / hm		PH_090820B : 2		090820A-PH-W
Conductivity	748	umhos/cm		1		A2510 B	08/20/09 12:25 / hm		COND_090820A : 2		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:21 / hm		SOLIDS_090821C : 30		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	528	mg/L		10		A2540 C	08/21/09 09:42 / hm		SOLIDS_090821A : 9		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/24/09 15:30 / hm		TITTR_090821A : 3		090824A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/24/09 15:30 / hm		TITTR_090821A : 3		090824A-ALK-W
Chloride	32	mg/L		1		E300.0	08/24/09 16:59 / hm		IC101-H_090824A : 19		R56155
Sulfate	170	mg/L		1		E300.0	08/24/09 16:59 / hm		IC101-H_090824A : 19		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Arsenic	0.012	mg/L		0.002		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Calcium	58	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:17 / eli-b		SUB-B134849 : 1		B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Magnesium	31	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Potassium	13	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860 : 7		B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750 : 32		B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-331
Lab ID: H09080233-001
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 10:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:04 / eli-b		SUB-B134750	32	B_R134750
Sodium	49	mg/L		1		E200.7	08/24/09 14:06 / eli-b		SUB-B134860	7	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:04 / eli-b		SUB-B134750	32	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:04 / eli-b		SUB-B134750	32	B_R134750
Zinc	0.02	mg/L		0.01		E200.8	08/24/09 16:17 / eli-b		SUB-B134849	1	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-332
Lab ID: H09080233-002
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/20/09 12:33 / hm		PH_090820B : 3		090820A-PH-W
Conductivity	1290	umhos/cm		1		A2510 B	08/20/09 12:26 / hm		COND_090820A : 3		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:22 / hm		SOLIDS_090821C : 31		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	907	mg/L		10		A2540 C	08/21/09 09:43 / hm		SOLIDS_090821A : 10		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/24/09 15:43 / hm		TITTR_090821A : 4		090824A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/24/09 15:43 / hm		TITTR_090821A : 4		090824A-ALK-W
Chloride	98	mg/L		1		E300.0	08/24/09 17:16 / hm		IC101-H_090824A : 20		R56155
Sulfate	330	mg/L		1		E300.0	08/24/09 17:16 / hm		IC101-H_090824A : 20		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Calcium	97	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:33 / eli-b		SUB-B134849 : 2		B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Magnesium	56	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Potassium	19	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860 : 8		B_R134860
Selenium	0.005	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750 : 33		B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-332
Lab ID: H09080233-002
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Sodium	101	mg/L		1		E200.7	08/24/09 14:43 / eli-b		SUB-B134860	8	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:20 / eli-b		SUB-B134750	33	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:33 / eli-b		SUB-B134849	2	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-333
Lab ID: H09080233-003
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	08/20/09 12:39 / hm		PH_090820B	4	090820A-PH-W
Conductivity	157	umhos/cm		1		A2510 B	08/20/09 12:28 / hm		COND_090820A	4	90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:22 / hm		SOLIDS_090821C	33	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	103	mg/L		10		A2540 C	08/21/09 09:45 / hm		SOLIDS_090821A	13	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	26	mg/L		1		A2320 B	08/24/09 15:48 / hm		TITTR_090821A	5	090824A-ALK-W
Bicarbonate as HCO3	31	mg/L		1		A2320 B	08/24/09 15:48 / hm		TITTR_090821A	5	090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 17:32 / hm		IC101-H_090824A	21	R56155
Sulfate	2	mg/L		1		E300.0	08/24/09 17:32 / hm		IC101-H_090824A	21	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Arsenic	ND	mg/L		0.002		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Calcium	ND	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:37 / eli-b		SUB-B134849	3	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Magnesium	ND	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Potassium	ND	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Selenium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-333
Lab ID: H09080233-003
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Sodium	18	mg/L		1		E200.7	08/24/09 14:47 / eli-b		SUB-B134860	9	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:24 / eli-b		SUB-B134750	34	B_R134750
Zinc	ND	mg/L		0.01		E200.8	08/24/09 16:37 / eli-b		SUB-B134849	3	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-334
Lab ID: H09080233-004
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:50 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:42 / hm		PH_090820B	5	090820A-PH-W
Conductivity	1220	umhos/cm		1		A2510 B	08/20/09 12:32 / hm		COND_090820A	5	90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:23 / hm		SOLIDS_090821C	34	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	910	mg/L		10		A2540 C	08/21/09 09:45 / hm		SOLIDS_090821A	14	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	08/24/09 16:03 / hm		TITTR_090821A	7	090824A-ALK-W
Bicarbonate as HCO3	230	mg/L		1		A2320 B	08/24/09 16:03 / hm		TITTR_090821A	7	090824A-ALK-W
Chloride	56	mg/L		1		E300.0	08/24/09 18:22 / hm		IC101-H_090824A	24	R56155
Sulfate	400	mg/L		1		E300.0	08/24/09 18:22 / hm		IC101-H_090824A	24	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Calcium	99	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:41 / eli-b		SUB-B134849	4	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Magnesium	58	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Potassium	18	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Selenium	0.004	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-334
Lab ID: H09080233-004
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 11:50 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Sodium	83	mg/L		1		E200.7	08/24/09 14:51 / eli-b		SUB-B134860	10	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:28 / eli-b		SUB-B134750	35	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:41 / eli-b		SUB-B134849	4	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-335
Lab ID: H09080233-005
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:43 / hm		PH_090820B	6	090820A-PH-W
Conductivity	735	umhos/cm		1		A2510 B	08/20/09 12:33 / hm		COND_090820A	6	90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:23 / hm		SOLIDS_090821C	35	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	496	mg/L		10		A2540 C	08/21/09 09:46 / hm		SOLIDS_090821A	15	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/24/09 16:30 / hm		TITTR_090821A	8	090824A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/24/09 16:30 / hm		TITTR_090821A	8	090824A-ALK-W
Chloride	33	mg/L		1		E300.0	08/24/09 18:38 / hm		IC101-H_090824A	25	R56155
Sulfate	130	mg/L		1		E300.0	08/24/09 18:38 / hm		IC101-H_090824A	25	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Arsenic	0.009	mg/L		0.002		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Calcium	59	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Copper	0.002	mg/L		0.001		E200.8	08/24/09 16:45 / eli-b		SUB-B134849	5	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Magnesium	34	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Potassium	13	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-335
Lab ID: H09080233-005
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Sodium	43	mg/L		1		E200.7	08/24/09 14:55 / eli-b		SUB-B134860	11	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 01:48 / eli-b		SUB-B134750	36	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:45 / eli-b		SUB-B134849	5	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-336
Lab ID: H09080233-006
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:35 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 12:46 / hm		PH_090820B : 8		090820A-PH-W
Conductivity	536	umhos/cm		1		A2510 B	08/20/09 12:42 / hm		COND_090820A : 8		90820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:23 / hm		SOLIDS_090821C : 36		090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	374	mg/L		10		A2540 C	08/21/09 09:46 / hm		SOLIDS_090821A : 16		090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	08/24/09 17:01 / hm		TITTR_090821A : 11		090824A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	08/24/09 17:01 / hm		TITTR_090821A : 11		090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 18:54 / hm		IC101-H_090824A : 26		R56155
Sulfate	93	mg/L		1		E300.0	08/24/09 18:54 / hm		IC101-H_090824A : 26		R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Arsenic	0.014	mg/L		0.002		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Calcium	41	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Copper	0.002	mg/L		0.001		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Gold	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Magnesium	18	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Potassium	13	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860 : 12		B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750 : 37		B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-336
Lab ID: H09080233-006
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 12:35 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:52 / eli-b		SUB-B134750	37	B_R134750
Sodium	38	mg/L		1		E200.7	08/24/09 14:59 / eli-b		SUB-B134860	12	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:52 / eli-b		SUB-B134750	37	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 01:52 / eli-b		SUB-B134750	37	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/24/09 16:49 / eli-b		SUB-B134849	6	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-337
Lab ID: H09080233-007
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/20/09 12:47 / hm		PH_090820B	9	090820A-PH-W
Conductivity	782	umhos/cm		1		A2510 B	08/20/09 12:45 / hm		COND_090820A	990820A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:31 / hm		SOLIDS_090821C	37	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	551	mg/L		10		A2540 C	08/21/09 09:47 / hm		SOLIDS_090821A	17	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	08/24/09 17:09 / hm		TITTR_090821A	12	090824A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/24/09 17:09 / hm		TITTR_090821A	12	090824A-ALK-W
Chloride	36	mg/L		1		E300.0	08/24/09 19:11 / hm		IC101-H_090824A	27	R56155
Sulfate	190	mg/L		1		E300.0	08/24/09 19:11 / hm		IC101-H_090824A	27	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Arsenic	0.017	mg/L		0.002		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Calcium	65	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 16:53 / eli-b		SUB-B134849	7	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Magnesium	28	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Potassium	15	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-337
Lab ID: H09080233-007
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Sodium	55	mg/L		1		E200.7	08/24/09 15:03 / eli-b		SUB-B134860	13	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 01:56 / eli-b		SUB-B134750	38	B_R134750
Zinc	0.02	mg/L		0.01		E200.8	08/24/09 16:53 / eli-b		SUB-B134849	7	B_R134849

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-338
Lab ID: H09080233-008
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:20 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	10	090820A-PH-W
Conductivity	523	umhos/cm		1		A2510 B	08/20/09 14:32 / hm		COND_090820A	1	090820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:32 / hm		SOLIDS_090821C	38	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	369	mg/L		10		A2540 C	08/21/09 09:47 / hm		SOLIDS_090821A	18	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	08/24/09 17:16 / hm		TITTR_090821A	13	090824A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	08/24/09 17:16 / hm		TITTR_090821A	13	090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 19:27 / hm		IC101-H_090824A	28	R56155
Sulfate	85	mg/L		1		E300.0	08/24/09 19:27 / hm		IC101-H_090824A	28	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Aluminum	ND	mg/L		0.1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Antimony	ND	mg/L		0.003		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Arsenic	0.019	mg/L		0.002		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Beryllium	ND	mg/L		0.001		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Calcium	45	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Cobalt	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Copper	ND	mg/L		0.001		E200.8	08/24/09 17:13 / eli-b		SUB-B134849	8	B_R134849
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Magnesium	14	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Manganese	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Mercury	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Nickel	ND	mg/L		0.01		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Potassium	12	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-338
Lab ID: H09080233-008
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:20 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Sodium	37	mg/L		1		E200.7	08/24/09 15:07 / eli-b		SUB-B134860	14	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 02:00 / eli-b		SUB-B134750	39	B_R134750
Zinc	0.02	mg/L		0.01		E200.8	08/24/09 17:13 / eli-b		SUB-B134849	8	B_R134849

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-339
Lab ID: H09080233-009
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	11	090820A-PH-W
Conductivity	648	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	190820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:34 / hm		SOLIDS_090821C	40	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	457	mg/L		10		A2540 C	08/21/09 09:49 / hm		SOLIDS_090821A	20	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/24/09 17:21 / hm		TITTR_090821A	14	090824A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/24/09 17:21 / hm		TITTR_090821A	14	090824A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 19:44 / hm		IC101-H_090824A	29	R56155
Sulfate	130	mg/L		1		E300.0	08/24/09 19:44 / hm		IC101-H_090824A	29	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Arsenic	0.011	mg/L		0.002		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Calcium	48	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Chromium	0.001	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Copper	ND	mg/L		0.001		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Magnesium	29	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Potassium	13	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-339
Lab ID: H09080233-009
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 13:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Sodium	42	mg/L		1		E200.7	08/24/09 15:11 / eli-b		SUB-B134860	15	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 03:29 / eli-b		SUB-B134750	40	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-340
Lab ID: H09080233-010
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 14:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	12	090820A-PH-W
Conductivity	1080	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	290820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:34 / hm		SOLIDS_090821C	41	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	772	mg/L		10		A2540 C	08/21/09 09:49 / hm		SOLIDS_090821A	21	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	200	mg/L		1		A2320 B	08/24/09 17:26 / hm		TITTR_090821A	15	090824A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/24/09 17:26 / hm		TITTR_090821A	15	090824A-ALK-W
Chloride	73	mg/L		1		E300.0	08/24/09 20:00 / hm		IC101-H_090824A	30	R56155
Sulfate	260	mg/L		1		E300.0	08/24/09 20:00 / hm		IC101-H_090824A	30	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Arsenic	0.008	mg/L		0.002		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Calcium	118	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Chromium	0.002	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Copper	0.001	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Magnesium	30	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Potassium	14	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Selenium	0.006	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-340
Lab ID: H09080233-010
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 14:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Sodium	64	mg/L		1		E200.7	08/24/09 15:15 / eli-b		SUB-B134860	16	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 03:33 / eli-b		SUB-B134750	41	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-341
Lab ID: H09080233-011
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/20/09 14:32 / hm		PH_090820B	14	090820A-PH-W
Conductivity	542	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	490820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:34 / hm		SOLIDS_090821C	42	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	378	mg/L		10		A2540 C	08/21/09 09:50 / hm		SOLIDS_090821A	22	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	08/25/09 15:39 / sld		TITTR_090825A	32	090825A-ALK-W
Bicarbonate as HCO3	180	mg/L		1		A2320 B	08/25/09 15:39 / sld		TITTR_090825A	32	090825A-ALK-W
Chloride	20	mg/L		1		E300.0	08/24/09 20:49 / hm		IC101-H_090824A	33	R56155
Sulfate	84	mg/L		1		E300.0	08/24/09 20:49 / hm		IC101-H_090824A	33	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Arsenic	0.024	mg/L		0.002		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Calcium	45	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Copper	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Magnesium	12	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Potassium	13	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-341
Lab ID: H09080233-011
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Sodium	44	mg/L		1		E200.7	08/24/09 15:35 / eli-b		SUB-B134860	17	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Vanadium	0.02	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750
Zinc	ND	mg/L		0.01		E200.8	08/22/09 03:37 / eli-b		SUB-B134750	42	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-342
Lab ID: H09080233-012
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:30 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:39 / hm		PH_090820B	15	090820A-PH-W
Conductivity	1660	umhos/cm		1		A2510 B	08/20/09 14:33 / hm		COND_090820A	1	590820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:35 / hm		SOLIDS_090821C	43	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1280	mg/L		10		A2540 C	08/21/09 09:50 / hm		SOLIDS_090821A	23	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/25/09 15:43 / sld		TITTR_090825A	33	090825A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	08/25/09 15:43 / sld		TITTR_090825A	33	090825A-ALK-W
Chloride	87	mg/L		1		E300.0	08/24/09 21:06 / hm		IC101-H_090824A	34	R56155
Sulfate	610	mg/L		1		E300.0	08/24/09 21:06 / hm		IC101-H_090824A	34	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Arsenic	0.011	mg/L		0.002		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Calcium	178	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Magnesium	67	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Potassium	21	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Selenium	0.006	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-342
Lab ID: H09080233-012
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 15:30 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Sodium	101	mg/L		1		E200.7	08/24/09 15:39 / eli-b		SUB-B134860	18	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750
Zinc	0.03	mg/L		0.01		E200.8	08/22/09 03:41 / eli-b		SUB-B134750	43	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-343
Lab ID: H09080233-013
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:41 / hm		PH_090820B	16	090820A-PH-W
Conductivity	2680	umhos/cm		1		A2510 B	08/20/09 14:39 / hm		COND_090820A	1690820A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:35 / hm		SOLIDS_090821C	44	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	2230	mg/L		10		A2540 C	08/21/09 09:51 / hm		SOLIDS_090821A	24	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	08/25/09 15:46 / sld		TITTR_090825A	34	090825A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/25/09 15:46 / sld		TITTR_090825A	34	090825A-ALK-W
Chloride	170	mg/L		1		E300.0	08/24/09 21:22 / hm		IC101-H_090824A	35	R56155
Sulfate	1200	mg/L		1		E300.0	08/24/09 21:22 / hm		IC101-H_090824A	35	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Calcium	286	mg/L		1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Chromium	0.002	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Copper	0.006	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Gold	ND	mg/L	D	0.02		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Iron	0.08	mg/L		0.02		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Magnesium	123	mg/L		1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Potassium	29	mg/L		1		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Selenium	0.013	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-343
Lab ID: H09080233-013
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:00 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Sodium	204	mg/L	D	2		E200.7	08/24/09 15:43 / eli-b		SUB-B134860	19	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750
Zinc	0.06	mg/L		0.01		E200.8	08/22/09 03:45 / eli-b		SUB-B134750	44	B_R134750

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-344
Lab ID: H09080233-014
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:20 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:44 / hm		PH_090820B	17	090820A-PH-W
Conductivity	1100	umhos/cm		1		A2510 B	08/20/09 14:41 / hm		COND_090820A	1	790820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:35 / hm		SOLIDS_090821C	45	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	804	mg/L		10		A2540 C	08/21/09 09:53 / hm		SOLIDS_090821A	25	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	08/25/09 16:06 / sld		TITTR_090825A	37	090825A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/25/09 16:06 / sld		TITTR_090825A	37	090825A-ALK-W
Chloride	70	mg/L		1		E300.0	09/01/09 22:36 / hm		IC101-H_090901A	21	R56319
Sulfate	310	mg/L		1		E300.0	09/01/09 22:36 / hm		IC101-H_090901A	21	R56319
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Arsenic	0.007	mg/L		0.002		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Calcium	118	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Copper	0.003	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Magnesium	31	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Potassium	14	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Selenium	0.005	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-344
Lab ID: H09080233-014
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:20 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Sodium	50	mg/L		1		E200.7	08/24/09 15:47 / eli-b		SUB-B134860	20	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 03:49 / eli-b		SUB-B134750	45	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-345
Lab ID: H09080233-015
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	08/20/09 14:54 / hm		PH_090820B	19	090820A-PH-W
Conductivity	523	umhos/cm		1		A2510 B	08/20/09 14:43 / hm		COND_090820A	1	990820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:36 / hm		SOLIDS_090821C	46	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	377	mg/L		10		A2540 C	08/21/09 09:54 / hm		SOLIDS_090821A	26	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	08/25/09 16:08 / sld		TITTR_090825A	38	090825A-ALK-W
Bicarbonate as HCO3	170	mg/L		1		A2320 B	08/25/09 16:08 / sld		TITTR_090825A	38	090825A-ALK-W
Chloride	15	mg/L		1		E300.0	08/24/09 21:55 / hm		IC101-H_090824A	37	R56155
Sulfate	93	mg/L		1		E300.0	08/24/09 21:55 / hm		IC101-H_090824A	37	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Arsenic	0.007	mg/L		0.002		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Calcium	54	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Magnesium	12	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Potassium	10	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Selenium	0.002	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-345
Lab ID: H09080233-015
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 16:45 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Sodium	31	mg/L		1		E200.7	08/24/09 15:51 / eli-b		SUB-B134860	21	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750
Zinc	ND	mg/L		0.01		E200.8	08/22/09 04:10 / eli-b		SUB-B134750	46	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-346
Lab ID: H09080233-016
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/20/09 14:55 / hm		PH_090820B	20	090820A-PH-W
Conductivity	1100	umhos/cm		1		A2510 B	08/20/09 14:44 / hm		COND_090820A	2	090820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:37 / hm		SOLIDS_090821C	47	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	789	mg/L		10		A2540 C	08/21/09 09:54 / hm		SOLIDS_090821A	27	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/25/09 16:13 / sld		TITTR_090825A	39	090825A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/25/09 16:13 / sld		TITTR_090825A	39	090825A-ALK-W
Chloride	88	mg/L		1		E300.0	08/24/09 22:12 / hm		IC101-H_090824A	38	R56155
Sulfate	250	mg/L		1		E300.0	08/24/09 22:12 / hm		IC101-H_090824A	38	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Arsenic	0.010	mg/L		0.002		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Calcium	112	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Copper	0.001	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Iron	0.03	mg/L		0.02		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Magnesium	37	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Potassium	18	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Selenium	0.003	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-346
Lab ID: H09080233-016
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:10 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Sodium	55	mg/L		1		E200.7	08/24/09 15:55 / eli-b		SUB-B134860	22	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 04:14 / eli-b		SUB-B134750	47	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-347
Lab ID: H09080233-017
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:56 / hm		PH_090820B	21	090820A-PH-W
Conductivity	1300	umhos/cm		1		A2510 B	08/20/09 14:45 / hm		COND_090820A	2	190820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:37 / hm		SOLIDS_090821C	49	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	945	mg/L		10		A2540 C	08/21/09 09:55 / hm		SOLIDS_090821A	30	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	250	mg/L		1		A2320 B	08/25/09 16:21 / sld		TITTR_090825A	40	090825A-ALK-W
Bicarbonate as HCO3	310	mg/L		1		A2320 B	08/25/09 16:21 / sld		TITTR_090825A	40	090825A-ALK-W
Chloride	81	mg/L		1		E300.0	08/24/09 22:28 / hm		IC101-H_090824A	39	R56155
Sulfate	320	mg/L		1		E300.0	08/24/09 22:28 / hm		IC101-H_090824A	39	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Arsenic	0.016	mg/L		0.002		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Calcium	143	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Chromium	0.001	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Magnesium	33	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Potassium	17	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Selenium	0.008	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-347
Lab ID: H09080233-017
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:25 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Sodium	88	mg/L		1		E200.7	08/24/09 15:59 / eli-b		SUB-B134860	23	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 04:18 / eli-b		SUB-B134750	48	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-348
Lab ID: H09080233-018
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:40 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/20/09 14:57 / hm		PH_090820B	22	090820A-PH-W
Conductivity	1310	umhos/cm		1		A2510 B	08/20/09 14:55 / hm		COND_090820A	2	290820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:38 / hm		SOLIDS_090821C	50	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	933	mg/L		10		A2540 C	08/21/09 09:55 / hm		SOLIDS_090821A	31	090821A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	260	mg/L		1		A2320 B	08/25/09 16:26 / sld		TITTR_090825A	41	090825A-ALK-W
Bicarbonate as HCO3	310	mg/L		1		A2320 B	08/25/09 16:26 / sld		TITTR_090825A	41	090825A-ALK-W
Chloride	81	mg/L		1		E300.0	08/24/09 22:44 / hm		IC101-H_090824A	40	R56155
Sulfate	320	mg/L		1		E300.0	08/24/09 22:44 / hm		IC101-H_090824A	40	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Arsenic	0.016	mg/L		0.002		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Calcium	141	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Chromium	0.002	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Copper	0.002	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Lead	ND	mg/L		0.005		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Magnesium	32	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Potassium	16	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Selenium	0.008	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-348
Lab ID: H09080233-018
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 17:40 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Sodium	86	mg/L		1		E200.7	08/24/09 16:03 / eli-b		SUB-B134860	24	B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Vanadium	0.01	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750
Zinc	0.01	mg/L		0.01		E200.8	08/22/09 04:22 / eli-b		SUB-B134750	49	B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-349
Lab ID: H09080233-019
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 18:15 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.2	s.u.		0.1		A4500-H B	08/20/09 14:59 / hm		PH_090820B	23	090820A-PH-W
Conductivity	22	umhos/cm		1		A2510 B	08/20/09 14:56 / hm		COND_090820A	2	390820A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/21/09 10:38 / hm		SOLIDS_090821C	51	090821A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	113	mg/L		10		A2540 C	08/25/09 11:24 / hm		SOLIDS_090825B	3	090825A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	4	mg/L		1		A2320 B	08/25/09 16:41 / sld		TITTR_090825A	44	090825A-ALK-W
Bicarbonate as HCO3	5	mg/L		1		A2320 B	08/25/09 16:41 / sld		TITTR_090825A	44	090825A-ALK-W
Chloride	2	mg/L		1		E300.0	08/24/09 23:01 / hm		IC101-H_090824A	41	R56155
Sulfate	ND	mg/L		1		E300.0	08/24/09 23:01 / hm		IC101-H_090824A	41	R56155
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/24/09 16:07 / eli-b		SUB-B134860	25	B_R134860
Aluminum	ND	mg/L		0.1		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Antimony	ND	mg/L		0.003		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Arsenic	ND	mg/L		0.002		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Barium	ND	mg/L		0.1		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Beryllium	ND	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Cadmium	ND	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Calcium	ND	mg/L		1		E200.7	08/24/09 16:07 / eli-b		SUB-B134860	25	B_R134860
Chromium	ND	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Cobalt	ND	mg/L		0.01		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Copper	0.022	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Gold	ND	mg/L		0.01		E200.7	08/24/09 16:07 / eli-b		SUB-B134860	25	B_R134860
Iron	ND	mg/L		0.02		E200.7	08/24/09 16:07 / eli-b		SUB-B134860	25	B_R134860
Lead	0.007	mg/L		0.005		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Magnesium	ND	mg/L		1		E200.7	08/24/09 16:07 / eli-b		SUB-B134860	25	B_R134860
Manganese	ND	mg/L		0.01		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Mercury	ND	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Nickel	ND	mg/L		0.01		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750
Potassium	ND	mg/L		1		E200.7	08/24/09 16:07 / eli-b		SUB-B134860	25	B_R134860
Selenium	ND	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750	50	B_R134750

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-349
Lab ID: H09080233-019
Matrix: Groundwater

Project: Residential Well Sampling Seaver Park
Collection Date: 08/19/09 18:15 **DateReceived:** 08/20/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/22/09 04:38 / eli-b		SUB-B134750 : 50		B_R134750
Sodium	3	mg/L		1		E200.7	08/24/09 16:07 / eli-b		SUB-B134860 : 25		B_R134860
Thallium	ND	mg/L		0.001		E200.8	08/22/09 04:38 / eli-b		SUB-B134750 : 50		B_R134750
Vanadium	ND	mg/L		0.01		E200.8	08/22/09 04:38 / eli-b		SUB-B134750 : 50		B_R134750
Zinc	0.07	mg/L		0.01		E200.8	08/22/09 04:38 / eli-b		SUB-B134750 : 50		B_R134750

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090820A-COND-PROBE

Run ID :Run Order: **COND_090820A: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090820A** Method: **A2510 B**
Analysis Date: **08/20/09 12:23** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1430	1.0	1412		**101**	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **COND_090820A: 7** SampType: **Sample Duplicate** Sample ID: **H09080233-005ADUP** Method: **A2510 B**
Analysis Date: **08/20/09 12:39** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	733	1.0						735.1	**0.2**	10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **COND_090820A: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090820A** Method: **A2510 B**
Analysis Date: **08/20/09 14:33** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	735	1.0	718		**102**	90	110				

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **COND_090820A: 18** SampType: **Sample Duplicate** Sample ID: **H09080233-014ADUP** Method: **A2510 B**
Analysis Date: **08/20/09 14:41** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1110	1.0						1103	**0.4**	10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **COND_090820A: 24** SampType: **Sample Duplicate** Sample ID: **H09080233-019ADUP** Method: **A2510 B**
Analysis Date: **08/20/09 14:58** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	21.3	1.0						21.98	**3.3**	10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090820A-PH-W

Run ID :Run Order: **PH_090820B: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090820A** Method: **A4500-H B**

Analysis Date: **08/20/09 12:26** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.02	0.10	7		**100**	99	101				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **PH_090820B: 7** SampType: **Sample Duplicate** Sample ID: **H09080233-005ADUP** Method: **A4500-H B**

Analysis Date: **08/20/09 12:45** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.79	0.10						7.81	**0.3**	2	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **PH_090820B: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090820A** Method: **A4500-H B**

Analysis Date: **08/20/09 14:32** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	10.0	0.10	10		**100**	99	101				

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **PH_090820B: 18** SampType: **Sample Duplicate** Sample ID: **H09080233-014ADUP** Method: **A4500-H B**

Analysis Date: **08/20/09 14:46** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.65	0.10						7.67	**0.3**	2	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090821A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090821A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090821A** Method: **A2540 C**

Analysis Date: **08/21/09 09:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1	1.0									

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **SOLIDS_090821A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090821A** Method: **A2540 C**

Analysis Date: **08/21/09 09:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1010	10	1000	1	**101**	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **SOLIDS_090821A: 11** SampType: **Sample Matrix Spike** Sample ID: **H09080233-002AMS** Method: **A2540 C**

Analysis Date: **08/21/09 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2870	10	2000	907	**98**	80	120				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **SOLIDS_090821A: 12** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-002AMSD** Method: **A2540 C**

Analysis Date: **08/21/09 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2890	10	2000	907	**99**	80	120	2874	**0.7**	10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **SOLIDS_090821A: 19** SampType: **Sample Duplicate** Sample ID: **H09080233-008ADUP** Method: **A2540 C**

Analysis Date: **08/21/09 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	374	10						369	**1.3**	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090821A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090821A: 19** SampType: **Sample Duplicate** Sample ID: **H09080233-008ADUP** Method: **A2540 C**

Analysis Date: **08/21/09 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **SOLIDS_090821A: 28** SampType: **Sample Matrix Spike** Sample ID: **H09080233-016AMS** Method: **A2540 C**

Analysis Date: **08/21/09 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2760	10	2000	789	99	80	120				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **SOLIDS_090821A: 29** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-016AMSD** Method: **A2540 C**

Analysis Date: **08/21/09 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2770	10	2000	789	99	80	120	2764	0.4	10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090821A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090821C: 1** SampType: **Method Blank** Sample ID: **MBLK1_090821A** Method: **A2540 D**

Analysis Date: **08/21/09 10:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1									

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **SOLIDS_090821C: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090821A** Method: **A2540 D**

Analysis Date: **08/21/09 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	1920	10	2000		96	70	130				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **SOLIDS_090821C: 32** SampType: **Sample Duplicate** Sample ID: **H09080233-002ADUP** Method: **A2540 D**

Analysis Date: **08/21/09 10:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10								10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **SOLIDS_090821C: 39** SampType: **Sample Duplicate** Sample ID: **H09080233-008ADUP** Method: **A2540 D**

Analysis Date: **08/21/09 10:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10						1		10	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **SOLIDS_090821C: 48** SampType: **Sample Duplicate** Sample ID: **H09080233-016ADUP** Method: **A2540 D**

Analysis Date: **08/21/09 10:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	6.00	10								10	

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090821A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090821C: 48** SampType: **Sample Duplicate** Sample ID: **H09080233-016ADUP** Method: **A2540 D**

Analysis Date: **08/21/09 10:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090824A-ALK-W

Run ID :Run Order: **TITTR_090821A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090824A** Method: **A2320 B**
Analysis Date: **08/24/09 15:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A

Run ID :Run Order: **TITTR_090821A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090824A** Method: **A2320 B**
Analysis Date: **08/24/09 15:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	600	4.0	600		**100**	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A

Run ID :Run Order: **TITTR_090821A: 6** SampType: **Sample Duplicate** Sample ID: **H09080233-003ADUP** Method: **A2320 B**
Analysis Date: **08/24/09 15:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	27	4.0						25.53	**3.8**	20	
Bicarbonate as HCO3	32	4.0						31.15	**3.8**	20	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A

Run ID :Run Order: **TITTR_090821A: 9** SampType: **Sample Matrix Spike** Sample ID: **H09080233-005AMS** Method: **A2320 B**
Analysis Date: **08/24/09 16:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	750	4.0	600	209.2	**91**	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A

Run ID :Run Order: **TITTR_090821A: 10** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-005AMSD** Method: **A2320 B**
Analysis Date: **08/24/09 16:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	760	4.0	600	209.2	**93**	90	110	752.2	**1.7**	20	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A

Qualifiers:
ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090825A-ALK-W

Run ID :Run Order: **TITTR_090825A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090825A** Method: **A2320 B**
Analysis Date: **08/25/09 12:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **TITTR_090825A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090825A** Method: **A2320 B**
Analysis Date: **08/25/09 12:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	570	4.0	600		**95**	90	110				

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **TITTR_090825A: 29** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV2_090825A** Method: **A2320 B**
Analysis Date: **08/25/09 15:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1000	4.0	1000		**104**	90	110				

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A

Run ID :Run Order: **TITTR_090825A: 35** SampType: **Sample Matrix Spike** Sample ID: **H09080233-013AMS** Method: **A2320 B**
Analysis Date: **08/25/09 15:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	750	4.0	600	194.4	**93**	90	110				

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **TITTR_090825A: 36** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-013AMSD** Method: **A2320 B**
Analysis Date: **08/25/09 16:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	750	4.0	600	194.4	**93**	90	110	750.2	**0.3**	20	

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090825A-ALK-W

Run ID :Run Order: **TITTR_090825A: 42** SampType: **Sample Duplicate** Sample ID: **H09080233-018ADUP** Method: **A2320 B**

Analysis Date: **08/25/09 16:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	250	4.0						255.3	**0.8**	20	
Bicarbonate as HCO3	310	4.0						311.5	**0.8**	20	

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-014A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **TITTR_090825A: 43** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV3_090825A** Method: **A2320 B**

Analysis Date: **08/25/09 16:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1000	4.0	1000		**102**	90	110				

Associated samples: H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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A - Analyte concentration greater than three times the spike amount

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Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090825A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090825B: 1** SampType: **Method Blank** Sample ID: **MBLK1_090825A** Method: **A2540 C**
Analysis Date: **08/25/09 11:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	4	1.0									

Associated samples: H09080233-019A

Run ID :Run Order: **SOLIDS_090825B: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090825A** Method: **A2540 C**
Analysis Date: **08/25/09 11:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	986	10	1000	4	**98**	90	110				

Associated samples: H09080233-019A

Run ID :Run Order: **SOLIDS_090825B: 6** SampType: **Sample Matrix Spike** Sample ID: **H09080236-002AMS** Method: **A2540 C**
Analysis Date: **08/25/09 11:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2330	10	2000	352	**99**	80	120				

Associated samples: H09080233-019A

Run ID :Run Order: **SOLIDS_090825B: 7** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080236-002AMSD** Method: **A2540 C**
Analysis Date: **08/25/09 11:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2350	10	2000	352	**100**	80	120	2330	**0.9**	10	

Associated samples: H09080233-019A

Run ID :Run Order: **SOLIDS_090825B: 28** SampType: **Sample Duplicate** Sample ID: **H09080255-007ADUP** Method: **A2540 C**
Analysis Date: **08/25/09 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1360	10						1354	**0.1**	20	

Associated samples: H09080233-019A

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Client: Asarco LLC
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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 8** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **08/21/09 13:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0001									
Antimony	ND	5E-05									
Arsenic	ND	3E-05									
Barium	ND	3E-05									
Beryllium	ND	1E-05									
Cadmium	ND	1E-05									
Chromium	ND	0.0002									
Cobalt	ND	2E-05									
Copper	ND	8E-05									
Lead	ND	8E-06									
Manganese	ND	2E-05									
Mercury	1E-05	8E-06									
Nickel	ND	5E-05									
Selenium	ND	0.0002									
Silver	ND	2E-05									
Thallium	ND	8E-06									
Vanadium	ND	4E-05									
Zinc	0.0006	0.0001									

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 9** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **08/21/09 13:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.048	0.10	0.05		**96**	85	115				
Antimony	0.049	0.050	0.05		**98**	85	115				
Arsenic	0.049	0.0050	0.05		**98**	85	115				
Barium	0.049	0.10	0.05		**98**	85	115				
Beryllium	0.048	0.0010	0.05		**96**	85	115				
Cadmium	0.050	0.0010	0.05		**100**	85	115				
Chromium	0.049	0.010	0.05		**97**	85	115				
Cobalt	0.049	0.010	0.05		**98**	85	115				
Copper	0.051	0.010	0.05		**101**	85	115				

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Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 9** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **08/21/09 13:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.050	0.010	0.05		99	85	115				
Manganese	0.049	0.010	0.05		97	85	115				
Mercury	0.00097	0.0010	0.001	0.00001	96	85	115				
Nickel	0.048	0.010	0.05		96	85	115				
Selenium	0.050	0.0050	0.05		101	85	115				
Silver	0.020	0.0050	0.02		100	85	115				
Thallium	0.049	0.10	0.05		99	85	115				
Vanadium	0.048	0.10	0.05		96	85	115				
Zinc	0.049	0.010	0.05	0.00064	97	85	115				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 10** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/22/09 18:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.25	0.10	0.25		98	90	110				
Antimony	0.049	0.050	0.05		97	90	110				
Arsenic	0.051	0.0050	0.05		101	90	110				
Barium	0.051	0.10	0.05		102	90	110				
Beryllium	0.026	0.0010	0.025		103	90	110				
Cadmium	0.026	0.0010	0.025		105	90	110				
Chromium	0.051	0.010	0.05		102	90	110				
Cobalt	0.051	0.010	0.05		103	90	110				
Copper	0.051	0.010	0.05		102	90	110				
Lead	0.050	0.010	0.05		101	90	110				
Manganese	0.25	0.010	0.25		100	90	110				
Mercury	0.0020	0.0010	0.002		98	90	110				
Nickel	0.051	0.010	0.05		101	90	110				
Selenium	0.050	0.0050	0.05		101	90	110				
Silver	0.027	0.0050	0.025		107	90	110				
Thallium	0.051	0.10	0.05		101	90	110				
Vanadium	0.051	0.10	0.05		102	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 10** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/22/09 18:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.054	0.010	0.05		108	90	110				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 16** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/22/09 09:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.25	0.10	0.25		99	90	110				
Antimony	0.048	0.050	0.05		96	90	110				
Arsenic	0.050	0.0050	0.05		99	90	110				
Barium	0.051	0.10	0.05		101	90	110				
Beryllium	0.026	0.0010	0.025		103	90	110				
Cadmium	0.026	0.0010	0.025		103	90	110				
Chromium	0.049	0.010	0.05		98	90	110				
Cobalt	0.050	0.010	0.05		101	90	110				
Copper	0.050	0.010	0.05		100	90	110				
Lead	0.050	0.010	0.05		100	90	110				
Manganese	0.24	0.010	0.25		97	90	110				
Mercury	0.0019	0.0010	0.002		96	90	110				
Nickel	0.050	0.010	0.05		99	90	110				
Selenium	0.049	0.0050	0.05		98	90	110				
Silver	0.027	0.0050	0.025		108	90	110				
Thallium	0.050	0.10	0.05		101	90	110				
Vanadium	0.049	0.10	0.05		98	90	110				
Zinc	0.053	0.010	0.05		107	90	110				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 17** SampType: **Sample Matrix Spike** Sample ID: **B09081885-001CMS** Method: **E200.8**

Analysis Date: **08/22/09 12:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.11	0.10	0.05	0.05882	**103**	70	130				
Antimony	0.053	0.0030	0.05		**105**	70	130				
Arsenic	0.055	0.0010	0.05	0.00063	**109**	70	130				
Barium	0.069	0.10	0.05	0.01526	**107**	70	130				
Beryllium	0.052	0.0010	0.05		**104**	70	130				
Cadmium	0.053	0.0010	0.05		**107**	70	130				
Chromium	0.057	0.010	0.05		**114**	70	130				
Cobalt	0.055	0.010	0.05	0.00003	**111**	70	130				
Copper	0.056	0.010	0.05	0.00182	**109**	70	130				
Lead	0.054	0.0010	0.05	0.00043	**108**	70	130				
Manganese	0.058	0.010	0.05	0.00071	**114**	70	130				
Mercury	0.0010	0.00020	0.001		**104**	70	130				
Nickel	0.055	0.010	0.05	0.00023	**110**	70	130				
Selenium	0.057	0.0050	0.05		**113**	70	130				
Silver	0.020	0.0050	0.02		**100**	70	130				
Thallium	0.053	0.0010	0.05		**107**	70	130				
Vanadium	0.057	0.10	0.05	0.00054	**113**	70	130				
Zinc	0.080	0.010	0.05	0.0259	**109**	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 18** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081885-001CMSD** Method: **E200.8**

Analysis Date: **08/22/09 12:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.11	0.10	0.05	0.05882	**101**	70	130	0.1102	**0.9**	20	
Antimony	0.053	0.0030	0.05		**107**	70	130	0.05274	**1.3**	20	
Arsenic	0.055	0.0010	0.05	0.00063	**109**	70	130	0.05508	**0.1**	20	
Barium	0.069	0.10	0.05	0.01526	**107**	70	130	0.06863		20	
Beryllium	0.052	0.0010	0.05		**104**	70	130	0.052	**0**	20	
Cadmium	0.054	0.0010	0.05		**108**	70	130	0.05336	**1.2**	20	
Chromium	0.058	0.010	0.05		**115**	70	130	0.0571	**0.8**	20	
Cobalt	0.055	0.010	0.05	0.00003	**109**	70	130	0.05534	**1.1**	20	
Copper	0.056	0.010	0.05	0.00182	**108**	70	130	0.05621	**0.6**	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 18** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081885-001CMSD** Method: **E200.8**

Analysis Date: **08/22/09 12:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.055	0.0010	0.05	0.00043	**108**	70	130	0.05443	**0.3**	20	
Manganese	0.058	0.010	0.05	0.00071	**114**	70	130	0.0576	**0.1**	20	
Mercury	0.0011	0.00020	0.001		**105**	70	130	0.00104	**1.4**	20	
Nickel	0.054	0.010	0.05	0.00023	**108**	70	130	0.05503	**1.2**	20	
Selenium	0.057	0.0050	0.05		**113**	70	130	0.05672	**0.1**	20	
Silver	0.021	0.0050	0.02		**107**	70	130	0.01992	**6.8**	20	
Thallium	0.053	0.0010	0.05		**107**	70	130	0.05328	**0**	20	
Vanadium	0.057	0.10	0.05	0.00054	**114**	70	130	0.05717		20	
Zinc	0.081	0.010	0.05	0.0259	**110**	70	130	0.08021	**0.7**	20	

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 51** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/21/09 15:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.25	0.10	0.25		**100**	90	110				
Antimony	0.047	0.050	0.05		**93**	90	110				
Arsenic	0.049	0.0050	0.05		**99**	90	110				
Barium	0.050	0.10	0.05		**101**	90	110				
Beryllium	0.025	0.0010	0.025		**99**	90	110				
Cadmium	0.026	0.0010	0.025		**102**	90	110				
Chromium	0.050	0.010	0.05		**101**	90	110				
Cobalt	0.051	0.010	0.05		**102**	90	110				
Copper	0.050	0.010	0.05		**101**	90	110				
Lead	0.049	0.010	0.05		**99**	90	110				
Manganese	0.25	0.010	0.25		**100**	90	110				
Mercury	0.0019	0.0010	0.002		**93**	90	110				
Nickel	0.050	0.010	0.05		**100**	90	110				
Selenium	0.050	0.0050	0.05		**100**	90	110				
Silver	0.027	0.0050	0.025		**108**	90	110				
Thallium	0.050	0.10	0.05		**100**	90	110				
Vanadium	0.050	0.10	0.05		**100**	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 51** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/21/09 15:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.054	0.010	0.05		**108**	90	110				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 52** SampType: **Sample Matrix Spike** Sample ID: **H09080233-001B** Method: **E200.8**

Analysis Date: **08/22/09 01:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.295	0.10	0.25	0.0028	**117**	70	130				
Antimony	0.250	0.0050	0.25		**100**	70	130				
Arsenic	0.261	0.0050	0.25	0.0117	**100**	70	130				
Barium	0.282	0.10	0.25	0.0279	**102**	70	130				
Beryllium	0.284	0.0010	0.25		**114**	70	130				
Cadmium	0.261	0.0010	0.25	0.0001	**104**	70	130				
Chromium	0.261	0.010	0.25		**104**	70	130				
Cobalt	0.289	0.010	0.25	0.0002	**116**	70	130				
Copper	0.281	0.010	0.25	0.0015	**112**	70	130				
Lead	0.256	0.010	0.25	0.0002	**102**	70	130				
Manganese	0.279	0.010	0.25	0.0046	**110**	70	130				
Mercury	0.00730	0.0010	0.005	0.00005	145	70	130				S
Nickel	0.283	0.010	0.25	0.00095	**113**	70	130				
Selenium	0.258	0.0050	0.25	0.0024	**102**	70	130				
Silver	0.0830	0.0050	0.1	0.0001	**83**	70	130				
Thallium	0.253	0.0050	0.25	0.0001	**101**	70	130				
Vanadium	0.260	0.10	0.25	0.00705	**101**	70	130				
Zinc	0.298	0.010	0.25	0.0118	**114**	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 53** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-001B** Method: **E200.8**

Analysis Date: **08/22/09 01:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.296	0.10	0.25	0.0028	**117**	70	130	0.2953	**0.1**	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 53** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-001B** Method: **E200.8**

Analysis Date: **08/22/09 01:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.251	0.0050	0.25		100	70	130	0.2496	0.7	20	
Arsenic	0.261	0.0050	0.25	0.0117	100	70	130	0.2612	0	20	
Barium	0.281	0.10	0.25	0.0279	101	70	130	0.2822	0.3	20	
Beryllium	0.285	0.0010	0.25		114	70	130	0.2838	0.3	20	
Cadmium	0.262	0.0010	0.25	0.0001	105	70	130	0.2608	0.3	20	
Chromium	0.263	0.010	0.25		105	70	130	0.2606	0.9	20	
Cobalt	0.285	0.010	0.25	0.0002	114	70	130	0.2894	1.5	20	
Copper	0.280	0.010	0.25	0.0015	111	70	130	0.2811	0.4	20	
Lead	0.259	0.010	0.25	0.0002	104	70	130	0.2557	1.4	20	
Manganese	0.278	0.010	0.25	0.0046	109	70	130	0.2795	0.6	20	
Mercury	0.00555	0.0010	0.005	0.00005	110	70	130	0.0073	27	20	R
Nickel	0.279	0.010	0.25	0.00095	111	70	130	0.283	1.4	20	
Selenium	0.261	0.0050	0.25	0.0024	103	70	130	0.2585	1	20	
Silver	0.0861	0.0050	0.1	0.0001	86	70	130	0.08295	3.7	20	
Thallium	0.255	0.0050	0.25	0.0001	102	70	130	0.2529	0.9	20	
Vanadium	0.261	0.10	0.25	0.00705	101	70	130	0.2601	0.2	20	
Zinc	0.288	0.010	0.25	0.0118	110	70	130	0.2978	3.5	20	

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 54** SampType: **Sample Matrix Spike** Sample ID: **H09080233-008B** Method: **E200.8**

Analysis Date: **08/22/09 02:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.304	0.10	0.25	0.0025	121	70	130				
Antimony	0.250	0.0050	0.25		100	70	130				
Arsenic	0.267	0.0050	0.25	0.01885	99	70	130				
Barium	0.298	0.10	0.25	0.0423	102	70	130				
Beryllium	0.290	0.0010	0.25		116	70	130				
Cadmium	0.262	0.0010	0.25		105	70	130				
Chromium	0.254	0.010	0.25		101	70	130				
Cobalt	0.290	0.010	0.25	0.0001	116	70	130				
Copper	0.286	0.010	0.25	0.00115	114	70	130				
Lead	0.259	0.010	0.25	0.0001	103	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 54** SampType: **Sample Matrix Spike** Sample ID: **H09080233-008B** Method: **E200.8**

Analysis Date: **08/22/09 02:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.273	0.010	0.25	0.0009	109	70	130				
Mercury	0.00465	0.0010	0.005		93	70	130				
Nickel	0.285	0.010	0.25	0.00065	114	70	130				
Selenium	0.257	0.0050	0.25	0.0025	102	70	130				
Silver	0.0964	0.0050	0.1		96	70	130				
Thallium	0.255	0.0050	0.25	0.0001	102	70	130				
Vanadium	0.259	0.10	0.25	0.01405	98	70	130				
Zinc	0.300	0.010	0.25	0.01835	113	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 55** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-008B** Method: **E200.8**

Analysis Date: **08/22/09 02:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.303	0.10	0.25	0.0025	120	70	130	0.3038	0.2	20	
Antimony	0.249	0.0050	0.25		100	70	130	0.2504	0.5	20	
Arsenic	0.263	0.0050	0.25	0.01885	98	70	130	0.2667	1.4	20	
Barium	0.297	0.10	0.25	0.0423	102	70	130	0.2984	0.5	20	
Beryllium	0.289	0.0010	0.25		116	70	130	0.2895	0.2	20	
Cadmium	0.261	0.0010	0.25		104	70	130	0.2617	0.5	20	
Chromium	0.250	0.010	0.25		100	70	130	0.2536	1.4	20	
Cobalt	0.287	0.010	0.25	0.0001	115	70	130	0.2903	1.3	20	
Copper	0.283	0.010	0.25	0.00115	113	70	130	0.2859	0.9	20	
Lead	0.257	0.010	0.25	0.0001	103	70	130	0.2586	0.8	20	
Manganese	0.268	0.010	0.25	0.0009	107	70	130	0.2726	1.7	20	
Mercury	0.00483	0.0010	0.005		97	70	130	0.00465	3.7	20	
Nickel	0.283	0.010	0.25	0.00065	113	70	130	0.2854	0.9	20	
Selenium	0.254	0.0050	0.25	0.0025	100	70	130	0.2572	1.4	20	
Silver	0.0984	0.0050	0.1		98	70	130	0.09635	2.1	20	
Thallium	0.253	0.0050	0.25	0.0001	101	70	130	0.2551	0.7	20	
Vanadium	0.255	0.10	0.25	0.01405	96	70	130	0.2594	1.7	20	
Zinc	0.300	0.010	0.25	0.01835	113	70	130	0.2999	0.1	20	

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 55** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-008B** Method: **E200.8**

Analysis Date: **08/22/09 02:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 56** SampType: **Sample Matrix Spike** Sample ID: **B09081967-018BMS** Method: **E200.8**

Analysis Date: **08/22/09 04:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.256	0.10	0.25		102	70	130				
Antimony	0.255	0.0050	0.25		102	70	130				
Arsenic	0.276	0.0050	0.25	0.0163	104	70	130				
Barium	0.336	0.10	0.25	0.08045	102	70	130				
Beryllium	0.259	0.0010	0.25		103	70	130				
Cadmium	0.261	0.0010	0.25		104	70	130				
Chromium	0.262	0.010	0.25	0.0015	104	70	130				
Cobalt	0.260	0.010	0.25	0.00035	104	70	130				
Copper	0.265	0.010	0.25	0.00205	105	70	130				
Lead	0.259	0.010	0.25	0.0001	103	70	130				
Manganese	0.258	0.010	0.25	0.00015	103	70	130				
Mercury	0.00480	0.0010	0.005		96	70	130				
Nickel	0.256	0.010	0.25	0.00185	102	70	130				
Selenium	0.272	0.0050	0.25	0.0081	106	70	130				
Silver	0.102	0.0050	0.1		102	70	130				
Thallium	0.255	0.0050	0.25	0.00005	102	70	130				
Vanadium	0.271	0.10	0.25	0.01	104	70	130				
Zinc	0.273	0.010	0.25	0.0119	104	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 57** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081967-018BMSD** Method: **E200.8**

Analysis Date: **08/22/09 04:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.256	0.10	0.25		102	70	130	0.2556	0.2	20	
Antimony	0.252	0.0050	0.25		101	70	130	0.2547	1	20	

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 57** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081967-018BMSD** Method: **E200.8**

Analysis Date: **08/22/09 04:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.277	0.0050	0.25	0.0163	104	70	130	0.2762	0.3	20	
Barium	0.329	0.10	0.25	0.08045	100	70	130	0.3357	1.9	20	
Beryllium	0.258	0.0010	0.25		103	70	130	0.2585	0.2	20	
Cadmium	0.257	0.0010	0.25		103	70	130	0.2609	1.6	20	
Chromium	0.266	0.010	0.25	0.0015	106	70	130	0.2617	1.7	20	
Cobalt	0.260	0.010	0.25	0.00035	104	70	130	0.26	0.1	20	
Copper	0.262	0.010	0.25	0.00205	104	70	130	0.2653	1.1	20	
Lead	0.260	0.010	0.25	0.0001	104	70	130	0.2586	0.3	20	
Manganese	0.261	0.010	0.25	0.00015	105	70	130	0.2582	1.3	20	
Mercury	0.00507	0.0010	0.005		101	70	130	0.0048	5.6	20	
Nickel	0.253	0.010	0.25	0.00185	101	70	130	0.256	1	20	
Selenium	0.277	0.0050	0.25	0.0081	108	70	130	0.2722	1.7	20	
Silver	0.100	0.0050	0.1		100	70	130	0.1018	1.3	20	
Thallium	0.257	0.0050	0.25	0.00005	103	70	130	0.2551	0.9	20	
Vanadium	0.277	0.10	0.25	0.01	107	70	130	0.2712	2.1	20	
Zinc	0.270	0.010	0.25	0.0119	103	70	130	0.2731	1.2	20	

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134750: 60** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/22/09 02:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.24	0.10	0.25		98	90	110				
Antimony	0.047	0.050	0.05		94	90	110				
Arsenic	0.050	0.0050	0.05		99	90	110				
Barium	0.050	0.10	0.05		100	90	110				
Beryllium	0.025	0.0010	0.025		100	90	110				
Cadmium	0.026	0.0010	0.025		103	90	110				
Chromium	0.050	0.010	0.05		101	90	110				
Cobalt	0.051	0.010	0.05		102	90	110				
Copper	0.051	0.010	0.05		103	90	110				
Lead	0.050	0.010	0.05		100	90	110				

Qualifiers:
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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134750

Run ID :Run Order: **SUB-B134750: 60** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/22/09 02:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.25	0.010	0.25		101	90	110				
Mercury	0.0019	0.0010	0.002		96	90	110				
Nickel	0.051	0.010	0.05		102	90	110				
Selenium	0.050	0.0050	0.05		100	90	110				
Silver	0.027	0.0050	0.025		108	90	110				
Thallium	0.050	0.10	0.05		100	90	110				
Vanadium	0.050	0.10	0.05		100	90	110				
Zinc	0.054	0.010	0.05		108	90	110				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

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ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134849

Run ID :Run Order: **SUB-B134849: 9** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/24/09 11:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.051	0.010	0.05		**101**	90	110				
Zinc	0.051	0.010	0.05		**102**	90	110				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B

Run ID :Run Order: **SUB-B134849: 10** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **08/24/09 13:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	8E-05									
Zinc	0.001	0.0001									

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B

Run ID :Run Order: **SUB-B134849: 11** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **08/24/09 13:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.052	0.010	0.05		**103**	85	115				
Zinc	0.053	0.010	0.05	0.00147	**103**	85	115				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B

Run ID :Run Order: **SUB-B134849: 12** SampType: **Sample Matrix Spike** Sample ID: **H09080233-001B** Method: **E200.8**

Analysis Date: **08/24/09 16:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.265	0.010	0.25		**106**	70	130				
Zinc	0.286	0.010	0.25	0.01545	**108**	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B

Run ID :Run Order: **SUB-B134849: 13** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-001B** Method: **E200.8**

Analysis Date: **08/24/09 16:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.253	0.010	0.25		**101**	70	130	0.2647	**4.4**	20	

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134849

Run ID :Run Order: **SUB-B134849: 13** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-001B** Method: **E200.8**

Analysis Date: **08/24/09 16:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.274	0.010	0.25	0.01545	**103**	70	130	0.2856	**4.2**	20	

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B

Run ID :Run Order: **SUB-B134849: 24** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/24/09 22:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.052	0.010	0.05		**104**	90	110				
Zinc	0.052	0.010	0.05		**104**	90	110				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B

Qualifiers:
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R - RPD outside accepted recovery limits
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A - Analyte concentration greater than three times the spike amount

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ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134860

Run ID :Run Order: **SUB-B134860: 2** SampType: **Continuing Calibration Verification Standard** Sample ID: **ICV** Method: **E200.7**

Analysis Date: **08/24/09 11:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.55	0.10	2.5		102	95	105				
Aluminum	2.48	0.10	2.5		99	95	105				
Beryllium	1.25	0.010	1.25		100	95	105				
Calcium	25.4	1.0	25		102	95	105				
Cobalt	2.52	0.020	2.5		101	95	105				
Copper	2.51	0.010	2.5		101	95	105				
Gold	2.50	0.0043	2.5		100	95	105				
Iron	2.57	0.030	2.5		103	95	105				
Magnesium	24.8	1.0	25		99	95	105				
Manganese	2.50	0.010	2.5		100	95	105				
Nickel	2.59	0.050	2.5		104	95	105				
Potassium	25.0	1.0	25		100	95	105				
Sodium	25.6	1.0	25		102	95	105				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 26** SampType: **Method Blank** Sample ID: **MB-SPDIS090824A** Method: **E200.7**

Analysis Date: **08/24/09 11:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	ND	0.02									
Aluminum	ND	0.008									
Beryllium	0.0005	9E-05									
Calcium	0.01	0.009									
Cobalt	ND	0.001									
Copper	ND	0.0009									
Gold	ND	0.004									
Iron	ND	0.002									
Magnesium	ND	0.01									
Manganese	0.0006	0.0003									
Nickel	ND	0.002									
Potassium	0.01	0.01									
Sodium	ND	0.03									

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134860

Run ID :Run Order: **SUB-B134860: 26** SampType: **Method Blank** Sample ID: **MB-SPDIS090824A** Method: **E200.7**

Analysis Date: **08/24/09 11:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 27** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090824A** Method: **E200.7**

Analysis Date: **08/24/09 12:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.03	0.10	1		103	85	115				
Aluminum	5.09	0.10	5		102	85	115				
Beryllium	0.500	0.010	0.5	0.00045	100	85	115				
Calcium	49.8	1.0	50	0.01412	100	85	115				
Cobalt	1.02	0.020	1		102	85	115				
Copper	1.00	0.010	1		100	85	115				
Gold	1.02	0.0045	1		102	85	115				
Iron	5.05	0.030	5		101	85	115				
Magnesium	49.9	1.0	50		100	85	115				
Manganese	5.07	0.010	5	0.00059	101	85	115				
Nickel	1.04	0.050	1		104	85	115				
Potassium	52.4	1.0	50	0.01216	105	85	115				
Sodium	51.8	1.0	50		104	85	115				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 28** SampType: **Sample Matrix Spike** Sample ID: **B09081965-018CMS2** Method: **E200.7**

Analysis Date: **08/24/09 13:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.03	0.021	1		103	70	130				
Aluminum	4.87	0.10	5		97	70	130				
Beryllium	0.475	0.0010	0.5		95	70	130				
Calcium	47.8	1.0	50		96	70	130				
Cobalt	0.972	0.010	1		97	70	130				
Copper	0.974	0.010	1		97	70	130				
Gold	0.969	0.010	1		97	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134860

Run ID :Run Order: **SUB-B134860: 28** SampType: **Sample Matrix Spike** Sample ID: **B09081965-018CMS2** Method: **E200.7**
Analysis Date: **08/24/09 13:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4.90	0.030	5	0.02024	98	70	130				
Magnesium	47.8	1.0	50		96	70	130				
Manganese	4.87	0.010	5	0.00051	97	70	130				
Nickel	1.01	0.010	1		101	70	130				
Potassium	43.8	1.0	50		88	70	130				
Sodium	48.6	1.0	50		97	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 29** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081965-018CMSD2** Method: **E200.7**
Analysis Date: **08/24/09 14:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.04	0.021	1		104	70	130	1.026	1.5	20	
Aluminum	4.95	0.10	5		99	70	130	4.871	1.5	20	
Beryllium	0.486	0.0010	0.5		97	70	130	0.4751	2.3	20	
Calcium	48.8	1.0	50		98	70	130	47.81	2.1	20	
Cobalt	0.969	0.010	1		97	70	130	0.9723	0.3	20	
Copper	0.986	0.010	1		99	70	130	0.9744	1.2	20	
Gold	0.964	0.010	1		96	70	130	0.9692	0.5	20	
Iron	4.95	0.030	5	0.02024	99	70	130	4.903	0.9	20	
Magnesium	49.0	1.0	50		98	70	130	47.81	2.5	20	
Manganese	4.98	0.010	5	0.00051	100	70	130	4.869	2.3	20	
Nickel	1.01	0.010	1		101	70	130	1.008	0	20	
Potassium	44.7	1.0	50		89	70	130	43.76	2.1	20	
Sodium	49.6	1.0	50		99	70	130	48.62	2.1	20	

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 30** SampType: **Sample Matrix Spike** Sample ID: **H09080233-010B** Method: **E200.7**
Analysis Date: **08/24/09 15:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.03	0.021	1		103	70	130				

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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134860

Run ID :Run Order: **SUB-B134860: 30** SampType: **Sample Matrix Spike** Sample ID: **H09080233-010B** Method: **E200.7**

Analysis Date: **08/24/09 15:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.92	0.10	5		98	70	130				
Beryllium	0.488	0.0010	0.5		98	70	130				
Calcium	166	1.0	50	117.8	96	70	130				
Cobalt	0.962	0.010	1		96	70	130				
Copper	1.01	0.010	1		101	70	130				
Gold	0.918	0.010	1		92	70	130				
Iron	5.00	0.030	5	0.00703	100	70	130				
Magnesium	80.0	1.0	50	29.89	100	70	130				
Manganese	4.89	0.010	5		98	70	130				
Nickel	1.01	0.010	1		101	70	130				
Potassium	63.6	1.0	50	13.97	99	70	130				
Sodium	116	1.0	50	63.6	105	70	130				

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 31** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-010B** Method: **E200.7**

Analysis Date: **08/24/09 15:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.05	0.021	1		105	70	130	1.033	1.9	20	
Aluminum	4.96	0.10	5		99	70	130	4.921	0.8	20	
Beryllium	0.484	0.0010	0.5		97	70	130	0.4881	0.9	20	
Calcium	165	1.0	50	117.8	94	70	130	165.8	0.5	20	
Cobalt	0.959	0.010	1		96	70	130	0.962	0.3	20	
Copper	1.02	0.010	1		102	70	130	1.009	0.7	20	
Gold	0.897	0.010	1		90	70	130	0.9177	2.3	20	
Iron	5.02	0.030	5	0.00703	100	70	130	5.001	0.4	20	
Magnesium	79.6	1.0	50	29.89	99	70	130	80.03	0.5	20	
Manganese	4.87	0.010	5		97	70	130	4.888	0.3	20	
Nickel	1.01	0.010	1		101	70	130	1.01	0.1	20	
Potassium	62.6	1.0	50	13.97	97	70	130	63.55	1.5	20	
Sodium	114	1.0	50	63.6	101	70	130	116	1.5	20	

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Qualifiers:
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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134860

Run ID :Run Order: **SUB-B134860: 32** SampType: **Sample Matrix Spike** Sample ID: **B09081991-001BMS2** Method: **E200.7**

Analysis Date: **08/24/09 16:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.05	0.041	2		102	70	130				
Aluminum	9.75	0.10	10		98	70	130				
Beryllium	0.964	0.0010	1		96	70	130				
Calcium	160	1.0	100	65.34	95	70	130				
Cobalt	1.88	0.010	2		94	70	130				
Copper	1.98	0.010	2		99	70	130				
Gold	1.94	0.010	2		97	70	130				
Iron	9.79	0.030	10	0.00818	98	70	130				
Magnesium	171	1.0	100	73.56	97	70	130				
Manganese	9.57	0.010	10	0.00096	96	70	130				
Nickel	2.00	0.010	2		100	70	130				
Potassium	105	1.4	100	10	95	70	130				
Sodium	715	1.0	100	634		70	130				A

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Run ID :Run Order: **SUB-B134860: 33** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081991-001BMSD2** Method: **E200.7**

Analysis Date: **08/24/09 16:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.00	0.041	2		100	70	130	2.046	2	20	
Aluminum	9.77	0.10	10		98	70	130	9.752	0.2	20	
Beryllium	0.956	0.0010	1		96	70	130	0.9644	0.9	20	
Calcium	160	1.0	100	65.34	95	70	130	160.5	0	20	
Cobalt	1.91	0.010	2		95	70	130	1.881	1.4	20	
Copper	1.96	0.010	2		98	70	130	1.976	0.7	20	
Gold	1.97	0.010	2		98	70	130	1.943	1.3	20	
Iron	9.86	0.030	10	0.00818	99	70	130	9.787	0.7	20	
Magnesium	172	1.0	100	73.56	99	70	130	171	0.7	20	
Manganese	9.58	0.010	10	0.00096	96	70	130	9.571	0.1	20	
Nickel	2.02	0.010	2		101	70	130	1.996	1.2	20	
Potassium	105	1.4	100	10	95	70	130	104.9	0.4	20	
Sodium	726	1.0	100	634		70	130	715	1.5	20	A

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R134860

Run ID :Run Order: **SUB-B134860: 33** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09081991-001BMSD2** Method: **E200.7**

Analysis Date: **08/24/09 16:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080233-001B; H09080233-002B; H09080233-003B; H09080233-004B; H09080233-005B; H09080233-006B; H09080233-007B; H09080233-008B; H09080233-009B; H09080233-010B; H09080233-011B; H09080233-012B; H09080233-013B; H09080233-014B; H09080233-015B; H09080233-016B; H09080233-017B; H09080233-018B; H09080233-019B

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
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Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56155

Run ID :Run Order: **IC101-H_090824A: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**

Analysis Date: **08/24/09 15:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		94	90	110				
Sulfate	49	1.0	50		98	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A

Run ID :Run Order: **IC101-H_090824A: 14** SampType: **Initial Calibration Verification Standard** Sample ID: **ICV** Method: **E300.0**

Analysis Date: **08/24/09 15:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.6	1.0	2.5		103	90	110				
Sulfate	10	1.0	10		101	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **IC101-H_090824A: 15** SampType: **Laboratory Control Sample** Sample ID: **LCS** Method: **E300.0**

Analysis Date: **08/24/09 15:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	87	1.0	87.47		99	90	110				
Sulfate	28	1.0	28.53		100	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **IC101-H_090824A: 16** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E300.0**

Analysis Date: **08/24/09 16:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.7	1.0	5		93	90	110				
Sulfate	9.7	1.0	10		97	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56155

Run ID :Run Order: **IC101-H_090824A: 17** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**

Analysis Date: **08/24/09 16:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **IC101-H_090824A: 22** SampType: **Sample Matrix Spike** Sample ID: **H09080233-003A MS** Method: **E300.0**

Analysis Date: **08/24/09 17:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	45	1.0	25	19.66	101	90	110				
Sulfate	52	1.0	50	1.854	101	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **IC101-H_090824A: 23** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-003A MSD** Method: **E300.0**

Analysis Date: **08/24/09 18:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	45	1.0	25	19.66	101	90	110	44.9	0.2	20	
Sulfate	51	1.0	50	1.854	99	90	110	52.25	1.9	20	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **IC101-H_090824A: 31** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**

Analysis Date: **08/24/09 20:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		93	90	110				
Sulfate	49	1.0	50		99	90	110				

Associated samples: H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56155

Run ID :Run Order: **IC101-H_090824A: 42** SampType: **Sample Matrix Spike** Sample ID: **H09080233-019A MS** Method: **E300.0**

Analysis Date: **08/24/09 23:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.71	**97**	90	110				
Sulfate	51	1.0	50	0.458	**102**	90	110				

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Run ID :Run Order: **IC101-H_090824A: 43** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080233-019A MSD** Method: **E300.0**

Analysis Date: **08/24/09 23:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.71	**97**	90	110	25.97	**0**	20	
Sulfate	51	1.0	50	0.458	**101**	90	110	51.3	**0.9**	20	

Associated samples: H09080233-001A; H09080233-002A; H09080233-003A; H09080233-004A; H09080233-005A; H09080233-006A; H09080233-007A; H09080233-008A; H09080233-009A; H09080233-010A; H09080233-011A; H09080233-012A; H09080233-013A; H09080233-015A; H09080233-016A; H09080233-017A; H09080233-018A; H09080233-019A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56319

Run ID :Run Order: **IC101-H_090901A: 12** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **09/01/09 20:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		93	90	110				
Sulfate	48	1.0	50		97	90	110				

Associated samples: H09080233-014A

Run ID :Run Order: **IC101-H_090901A: 13** SampType: **Initial Calibration Verification Standard** Sample ID: **ICV** Method: **E300.0**
Analysis Date: **09/01/09 20:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.6	1.0	2.5		102	90	110				
Sulfate	9.7	1.0	10		97	90	110				

Associated samples: H09080233-014A

Run ID :Run Order: **IC101-H_090901A: 14** SampType: **Laboratory Control Sample** Sample ID: **LCS** Method: **E300.0**
Analysis Date: **09/01/09 20:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	88	1.0	87.47		101	90	110				
Sulfate	28	1.0	28.53		98	90	110				

Associated samples: H09080233-014A

Run ID :Run Order: **IC101-H_090901A: 15** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E300.0**
Analysis Date: **09/01/09 20:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.7	1.0	5		94	90	110				
Sulfate	9.7	1.0	10		97	90	110				

Associated samples: H09080233-014A

Run ID :Run Order: **IC101-H_090901A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**
Analysis Date: **09/01/09 21:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080233
Project: Residential Well Sampling Seaver Park

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56319

Run ID :Run Order: **IC101-H_090901A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**
Analysis Date: **09/01/09 21:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09080233-014A

Run ID :Run Order: **IC101-H_090901A: 26** SampType: **Sample Matrix Spike** Sample ID: **H09080331-019A MS** Method: **E300.0**
Analysis Date: **09/01/09 23:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25	0.16	97	90	110				
Sulfate	50	1.0	50	0.4	100	90	110				

Associated samples: H09080233-014A

Run ID :Run Order: **IC101-H_090901A: 27** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080331-019A MSD** Method: **E300.0**
Analysis Date: **09/02/09 00:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25	0.16	93	90	110	24.35	4	20	
Sulfate	49	1.0	50	0.4	97	90	110	50.45	2.7	20	

Associated samples: H09080233-014A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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ANALYTICAL SUMMARY REPORT

September 08, 2009

Asarco LLC
PO Box 1230
East Helena, MT 59635

Workorder No.: H09080292 Quote ID: H409 - Semi-Annual Residential CAMU Monitoring

Project Name: Seaver Park Residential Well Sampling

Energy Laboratories Inc received the following 12 samples for Asarco LLC on 8/25/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H09080292-001	EHR-0809-350	08/25/09 7:20	08/25/09	Groundwater	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved Solids, Total Suspended
H09080292-002	EHR-0809-351	08/25/09 7:45	08/25/09	Groundwater	Same As Above
H09080292-003	EHR-0809-352	08/25/09 8:05	08/25/09	Groundwater	Same As Above
H09080292-004	EHR-0809-353	08/25/09 8:25	08/25/09	Groundwater	Same As Above
H09080292-005	EHR-0809-354	08/25/09 9:45	08/25/09	Groundwater	Same As Above
H09080292-006	EHR-0809-355	08/25/09 9:00	08/25/09	Groundwater	Same As Above
H09080292-007	EHR-0809-356	08/25/09 9:20	08/25/09	Groundwater	Same As Above
H09080292-008	EHR-0809-357	08/25/09 10:00	08/25/09	Groundwater	Same As Above
H09080292-009	EHR-0809-358	08/25/09 10:20	08/25/09	Groundwater	Same As Above
H09080292-010	EHR-0809-359	08/25/09 11:30	08/25/09	Groundwater	Same As Above
H09080292-011	EHR-0809-360	08/25/09 12:00	08/25/09	Groundwater	Same As Above
H09080292-012	EHR-0809-361	08/25/09 12:30	08/25/09	Groundwater	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

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ANALYTICAL SUMMARY REPORT

Report Approved By:

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-350
Lab ID: H09080292-001
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 10:37 / hm		PH_090826A	3	090826A-PH-W
Conductivity	953	umhos/cm		1		A2510 B	08/26/09 10:32 / hm		COND_090826A	3	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:01 / hm		SOLIDS_090826B	28	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	644	mg/L		10		A2540 C	08/26/09 13:28 / hm		SOLIDS_090826A	11	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	200	mg/L		1		A2320 B	08/26/09 14:17 / JG		TITTR_090826A	3	090826A-ALK-W
Bicarbonate as HCO3	240	mg/L		1		A2320 B	08/26/09 14:17 / JG		TITTR_090826A	3	090826A-ALK-W
Chloride	47	mg/L		1		E300.0	08/27/09 16:20 / hm		IC101-H_090827A	21	R56284
Sulfate	230	mg/L		1		E300.0	08/27/09 16:20 / hm		IC101-H_090827A	21	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Arsenic	0.006	mg/L		0.002		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Calcium	71	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 13:44 / eli-b		SUB-B135191	47	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Copper	0.001	mg/L		0.001		E200.8	08/28/09 13:44 / eli-b		SUB-B135191	47	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Magnesium	45	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Potassium	15	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Selenium	0.002	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-350
Lab ID: H09080292-001
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 13:44 / eli-b		SUB-B135191	47	B_R135191
Sodium	57	mg/L		1		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 14:36 / eli-b		SUB-B135049	27	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 16:48 / eli-b		SUB-B135072	42	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-351
Lab ID: H09080292-002
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/26/09 10:39 / hm		PH_090826A	4	090826A-PH-W
Conductivity	1240	umhos/cm		1		A2510 B	08/26/09 10:34 / hm		COND_090826A	4	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:02 / hm		SOLIDS_090826B	30	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	907	mg/L		10		A2540 C	08/26/09 13:30 / hm		SOLIDS_090826A	14	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		1		A2320 B	08/26/09 14:25 / JG		TITTR_090826A	4	090826A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/26/09 14:25 / JG		TITTR_090826A	4	090826A-ALK-W
Chloride	52	mg/L		1		E300.0	08/27/09 16:37 / hm		IC101-H_090827A	22	R56284
Sulfate	360	mg/L		1		E300.0	08/27/09 16:37 / hm		IC101-H_090827A	22	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Arsenic	0.012	mg/L		0.002		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Calcium	127	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:00 / eli-b		SUB-B135191	48	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Copper	0.003	mg/L		0.001		E200.8	08/28/09 14:00 / eli-b		SUB-B135191	48	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Magnesium	33	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Potassium	19	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Selenium	0.005	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-351
Lab ID: H09080292-002
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 07:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:00 / eli-b		SUB-B135191	48	B_R135191
Sodium	82	mg/L		1		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 14:52 / eli-b		SUB-B135049	28	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 16:52 / eli-b		SUB-B135072	43	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-352
Lab ID: H09080292-003
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:05 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 10:42 / hm		PH_090826A	5	090826A-PH-W
Conductivity	693	umhos/cm		1		A2510 B	08/26/09 10:37 / hm		COND_090826A	5	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:02 / hm		SOLIDS_090826B	31	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	482	mg/L		10		A2540 C	08/26/09 13:30 / hm		SOLIDS_090826A	15	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	08/26/09 14:29 / JG		TITTR_090826A	5	090826A-ALK-W
Bicarbonate as HCO3	190	mg/L		1		A2320 B	08/26/09 14:29 / JG		TITTR_090826A	5	090826A-ALK-W
Chloride	28	mg/L		1		E300.0	08/27/09 16:53 / hm		IC101-H_090827A	23	R56284
Sulfate	140	mg/L		1		E300.0	08/27/09 16:53 / hm		IC101-H_090827A	23	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Arsenic	0.013	mg/L		0.002		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Calcium	66	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:04 / eli-b		SUB-B135191	49	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/28/09 14:04 / eli-b		SUB-B135191	49	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Magnesium	18	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Potassium	14	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Selenium	0.003	mg/L		0.001		E200.8	08/27/09 14:56 / eli-b		SUB-B135049	29	B_R135049

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-352
Lab ID: H09080292-003
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:05 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:04 / eli-b		SUB-B135191	49	B_R135191
Sodium	43	mg/L		1		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:04 / eli-b		SUB-B135191	49	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 16:56 / eli-b		SUB-B135072	44	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-353
Lab ID: H09080292-004
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:25 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 10:44 / hm		PH_090826A	6	090826A-PH-W
Conductivity	474	umhos/cm		1		A2510 B	08/26/09 10:38 / hm		COND_090826A	6	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:03 / hm		SOLIDS_090826B	32	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	329	mg/L		10		A2540 C	08/26/09 13:31 / hm		SOLIDS_090826A	16	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		1		A2320 B	08/26/09 14:39 / JG		TITTR_090826A	7	090826A-ALK-W
Bicarbonate as HCO3	160	mg/L		1		A2320 B	08/26/09 14:39 / JG		TITTR_090826A	7	090826A-ALK-W
Chloride	14	mg/L		1		E300.0	08/27/09 17:09 / hm		IC101-H_090827A	24	R56284
Sulfate	74	mg/L		1		E300.0	08/27/09 17:09 / hm		IC101-H_090827A	24	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Arsenic	0.015	mg/L		0.002		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Calcium	41	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:08 / eli-b		SUB-B135191	50	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Magnesium	11	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Potassium	11	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Selenium	ND	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-353
Lab ID: H09080292-004
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 08:25 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:08 / eli-b		SUB-B135191	50	B_R135191
Sodium	31	mg/L		1		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Thallium	0.002	mg/L		0.001		E200.8	08/27/09 15:00 / eli-b		SUB-B135049	30	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:00 / eli-b		SUB-B135072	45	B_R135072

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-354
Lab ID: H09080292-005
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/26/09 10:48 / hm		PH_090826A	8	090826A-PH-W
Conductivity	1820	umhos/cm		1		A2510 B	08/26/09 10:43 / hm		COND_090826A	8	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:03 / hm		SOLIDS_090826B	33	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1390	mg/L		10		A2540 C	08/26/09 13:32 / hm		SOLIDS_090826A	17	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/26/09 14:48 / JG		TITTR_090826A	8	090826A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/26/09 14:48 / JG		TITTR_090826A	8	090826A-ALK-W
Chloride	150	mg/L		1		E300.0	08/27/09 17:59 / hm		IC101-H_090827A	27	R56284
Sulfate	600	mg/L		1		E300.0	08/27/09 17:59 / hm		IC101-H_090827A	27	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Arsenic	0.007	mg/L		0.002		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Calcium	169	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:28 / eli-b		SUB-B135191	51	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Copper	0.002	mg/L		0.001		E200.8	08/28/09 14:28 / eli-b		SUB-B135191	51	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Magnesium	80	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Potassium	22	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Selenium	0.008	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-354
Lab ID: H09080292-005
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:45 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:28 / eli-b		SUB-B135191	51	B_R135191
Sodium	109	mg/L		1		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 15:04 / eli-b		SUB-B135049	31	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:04 / eli-b		SUB-B135072	46	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-355
Lab ID: H09080292-006
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/26/09 10:49 / hm		PH_090826A	9	090826A-PH-W
Conductivity	2340	umhos/cm		1		A2510 B	08/26/09 10:44 / hm		COND_090826A	9	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:04 / hm		SOLIDS_090826B	34	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	1710	mg/L		10		A2540 C	08/26/09 13:32 / hm		SOLIDS_090826A	18	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	220	mg/L		1		A2320 B	08/26/09 14:58 / JG		TITTR_090826A	9	090826A-ALK-W
Bicarbonate as HCO3	260	mg/L		1		A2320 B	08/26/09 14:58 / JG		TITTR_090826A	9	090826A-ALK-W
Chloride	300	mg/L		1		E300.0	08/27/09 18:15 / hm		IC101-H_090827A	28	R56284
Sulfate	560	mg/L		1		E300.0	08/27/09 18:15 / hm		IC101-H_090827A	28	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Arsenic	0.019	mg/L		0.002		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Calcium	227	mg/L		1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Chromium	0.002	mg/L		0.001		E200.8	08/28/09 14:32 / eli-b		SUB-B135191	52	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Copper	0.002	mg/L		0.001		E200.8	08/28/09 14:32 / eli-b		SUB-B135191	52	B_R135191
Gold	ND	mg/L	D	0.02		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Magnesium	86	mg/L		1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Potassium	25	mg/L		1		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Selenium	0.005	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-355
Lab ID: H09080292-006
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:32 / eli-b		SUB-B135191	52	B_R135191
Sodium	166	mg/L	D	2		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Vanadium	ND	mg/L		0.01		E200.8	08/27/09 15:24 / eli-b		SUB-B135049	32	B_R135049
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:08 / eli-b		SUB-B135072	47	B_R135072

Report Definitions: RL - Analyte reporting limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-356
Lab ID: H09080292-007
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	6.7	s.u.		0.1		A4500-H B	08/26/09 10:54 / hm		PH_090826A	10	090826A-PH-W
Conductivity	295	umhos/cm		1		A2510 B	08/26/09 10:46 / hm		COND_090826A	10	090826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:05 / hm		SOLIDS_090826B	35	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	170	mg/L		10		A2540 C	08/26/09 13:33 / hm		SOLIDS_090826A	19	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	17	mg/L		1		A2320 B	09/03/09 14:10 / hm		TITTR_090903A	3	090903A-ALK-W
Bicarbonate as HCO3	20	mg/L		1		A2320 B	09/03/09 14:10 / hm		TITTR_090903A	3	090903A-ALK-W
Chloride	43	mg/L		1		E300.0	08/27/09 18:31 / hm		IC101-H_090827A	29	R56284
Sulfate	9	mg/L		1		E300.0	08/27/09 18:31 / hm		IC101-H_090827A	29	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Arsenic	ND	mg/L		0.002		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Calcium	7	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:36 / eli-b		SUB-B135191	53	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Magnesium	3	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Potassium	7	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Selenium	ND	mg/L		0.001		E200.8	08/27/09 15:28 / eli-b		SUB-B135049	33	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-356
Lab ID: H09080292-007
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 09:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:36 / eli-b		SUB-B135191	53	B_R135191
Sodium	45	mg/L		1		E200.7	09/03/09 10:46 / eli-b		SUB-B135437	1	B_R135437
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:36 / eli-b		SUB-B135191	53	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:12 / eli-b		SUB-B135072	48	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-357
Lab ID: H09080292-008
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/26/09 11:01 / hm		PH_090826A	11	090826A-PH-W
Conductivity	1330	umhos/cm		1		A2510 B	08/26/09 10:47 / hm		COND_090826A	11	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:06 / hm		SOLIDS_090826B	37	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	946	mg/L		10		A2540 C	08/26/09 13:35 / hm		SOLIDS_090826A	22	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/26/09 15:15 / JG		TITTR_090826A	12	090826A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	08/26/09 15:15 / JG		TITTR_090826A	12	090826A-ALK-W
Chloride	92	mg/L		1		E300.0	08/27/09 19:21 / hm		IC101-H_090827A	32	R56284
Sulfate	390	mg/L		1		E300.0	08/27/09 19:21 / hm		IC101-H_090827A	32	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Arsenic	0.011	mg/L		0.002		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Calcium	91	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Chromium	0.001	mg/L		0.001		E200.8	08/28/09 14:40 / eli-b		SUB-B135191	54	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Copper	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Magnesium	51	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Potassium	18	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Selenium	0.004	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-357
Lab ID: H09080292-008
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:40 / eli-b		SUB-B135191	54	B_R135191
Sodium	114	mg/L		1		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Thallium	0.002	mg/L		0.001		E200.8	08/27/09 15:32 / eli-b		SUB-B135049	34	B_R135049
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:32 / eli-b		SUB-B135072	49	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-358
Lab ID: H09080292-009
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	08/26/09 11:10 / hm		PH_090826A	12	090826A-PH-W
Conductivity	1330	umhos/cm		1		A2510 B	08/26/09 10:49 / hm		COND_090826A	1	290826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:06 / hm		SOLIDS_090826B	38	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	949	mg/L		10		A2540 C	08/26/09 13:35 / hm		SOLIDS_090826A	23	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	08/26/09 15:38 / JG		TITTR_090826A	15	090826A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/26/09 15:38 / JG		TITTR_090826A	15	090826A-ALK-W
Chloride	93	mg/L		1		E300.0	08/27/09 19:37 / hm		IC101-H_090827A	33	R56284
Sulfate	390	mg/L		1		E300.0	08/27/09 19:37 / hm		IC101-H_090827A	33	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Arsenic	0.011	mg/L		0.002		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Calcium	91	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Chromium	0.001	mg/L		0.001		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Copper	0.002	mg/L		0.001		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Magnesium	51	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Potassium	18	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Selenium	0.004	mg/L		0.001		E200.8	08/27/09 15:36 / eli-b		SUB-B135049	35	B_R135049

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-358
Lab ID: H09080292-009
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 10:20 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Sodium	117	mg/L		1		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:44 / eli-b		SUB-B135191	55	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072
Zinc	ND	mg/L		0.01		E200.7	08/27/09 17:36 / eli-b		SUB-B135072	50	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-359
Lab ID: H09080292-010
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 11:30 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	08/26/09 11:12 / hm		PH_090826A	14	090826A-PH-W
Conductivity	1000	umhos/cm		1		A2510 B	08/26/09 10:54 / hm		COND_090826A	14	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:07 / hm		SOLIDS_090826B	39	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	640	mg/L		10		A2540 C	08/26/09 13:36 / hm		SOLIDS_090826A	24	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	300	mg/L		1		A2320 B	08/26/09 15:49 / JG		TITTR_090826A	16	090826A-ALK-W
Bicarbonate as HCO3	370	mg/L		1		A2320 B	08/26/09 15:49 / JG		TITTR_090826A	16	090826A-ALK-W
Chloride	43	mg/L		1		E300.0	08/27/09 19:54 / hm		IC101-H_090827A	34	R56284
Sulfate	130	mg/L		1		E300.0	08/27/09 19:54 / hm		IC101-H_090827A	34	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Arsenic	0.004	mg/L		0.002		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Calcium	85	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Copper	ND	mg/L		0.001		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Magnesium	58	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:40 / eli-b		SUB-B135049	36	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Potassium	4	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Selenium	0.001	mg/L		0.001		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-359
Lab ID: H09080292-010
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 11:30 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191
Sodium	36	mg/L		1		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:48 / eli-b		SUB-B135191	56	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072
Zinc	0.03	mg/L		0.01		E200.7	08/27/09 17:40 / eli-b		SUB-B135072	51	B_R135072

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-360
Lab ID: H09080292-011
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 12:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	08/26/09 11:17 / hm		PH_090826A	15	090826A-PH-W
Conductivity	675	umhos/cm		1		A2510 B	08/26/09 10:56 / hm		COND_090826A	15	90826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:07 / hm		SOLIDS_090826B	40	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	468	mg/L		10		A2540 C	08/26/09 13:37 / hm		SOLIDS_090826A	25	090826A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		1		A2320 B	08/26/09 16:07 / JG		TITTR_090826A	18	090826A-ALK-W
Bicarbonate as HCO3	210	mg/L		1		A2320 B	08/26/09 16:07 / JG		TITTR_090826A	18	090826A-ALK-W
Chloride	34	mg/L		1		E300.0	08/27/09 20:10 / hm		IC101-H_090827A	35	R56284
Sulfate	96	mg/L		1		E300.0	08/27/09 20:10 / hm		IC101-H_090827A	35	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Arsenic	0.014	mg/L		0.002		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Calcium	62	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 14:52 / eli-b		SUB-B135191	57	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Copper	ND	mg/L		0.001		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Lead	ND	mg/L		0.005		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Magnesium	17	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Potassium	14	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Selenium	0.003	mg/L		0.001		E200.8	08/27/09 15:44 / eli-b		SUB-B135049	37	B_R135049

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-360
Lab ID: H09080292-011
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 12:00 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	08/28/09 14:52 / eli-b		SUB-B135191	57	B_R135191
Sodium	42	mg/L		1		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 14:52 / eli-b		SUB-B135191	57	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072
Zinc	0.03	mg/L		0.01		E200.7	08/27/09 17:45 / eli-b		SUB-B135072	52	B_R135072

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-361
Lab ID: H09080292-012
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 12:30 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.4	s.u.		0.1		A4500-H B	08/26/09 11:19 / hm		PH_090826A	16	090826A-PH-W
Conductivity	20	umhos/cm		1		A2510 B	08/26/09 11:12 / hm		COND_090826A	1	690826A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	08/26/09 13:08 / hm		SOLIDS_090826B	41	090826A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	103	mg/L		10		A2540 C	08/26/09 13:37 / hm		SOLIDS_090826A	26	090826A-SLDS-TDS-
-The TDS value was analyzed in duplicate. Results confirmed.											
INORGANICS											
Alkalinity, Total as CaCO3	3	mg/L		1		A2320 B	08/26/09 16:09 / JG		TITTR_090826A	19	090826A-ALK-W
Bicarbonate as HCO3	4	mg/L		1		A2320 B	08/26/09 16:09 / JG		TITTR_090826A	19	090826A-ALK-W
Chloride	2	mg/L		1		E300.0	08/27/09 20:26 / hm		IC101-H_090827A	36	R56284
Sulfate	ND	mg/L		1		E300.0	08/27/09 20:26 / hm		IC101-H_090827A	36	R56284
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Aluminum	ND	mg/L		0.1		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Antimony	ND	mg/L		0.003		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Arsenic	ND	mg/L		0.002		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Barium	ND	mg/L		0.1		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Beryllium	ND	mg/L		0.001		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Cadmium	ND	mg/L		0.001		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Calcium	ND	mg/L		1		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Chromium	ND	mg/L		0.001		E200.8	08/28/09 15:24 / eli-b		SUB-B135191	58	B_R135191
Cobalt	ND	mg/L		0.01		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Copper	0.019	mg/L		0.001		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Gold	ND	mg/L		0.01		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Iron	ND	mg/L		0.02		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Lead	0.006	mg/L		0.005		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Magnesium	ND	mg/L		1		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Manganese	ND	mg/L		0.01		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Mercury	ND	mg/L		0.001		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Nickel	ND	mg/L		0.01		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Potassium	ND	mg/L		1		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0809-361
Lab ID: H09080292-012
Matrix: Groundwater

Project: Seaver Park Residential Well Sampling
Collection Date: 08/25/09 12:30 **DateReceived:** 08/25/09
Report Date: 09/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Selenium	ND	mg/L		0.001		E200.8	08/27/09 16:02 / eli-b		SUB-B135049	38	B_R135049
Silver	ND	mg/L		0.005		E200.8	08/28/09 15:24 / eli-b		SUB-B135191	58	B_R135191
Sodium	3	mg/L		1		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Thallium	ND	mg/L		0.001		E200.8	08/28/09 15:24 / eli-b		SUB-B135191	58	B_R135191
Vanadium	ND	mg/L		0.01		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072
Zinc	0.06	mg/L		0.01		E200.7	08/27/09 17:49 / eli-b		SUB-B135072	53	B_R135072

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090826A-ALK-W

Run ID :Run Order: **TITTR_090826A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090826A** Method: **A2320 B**

Analysis Date: **08/26/09 14:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	2	1									

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090826A** Method: **A2320 B**

Analysis Date: **08/26/09 14:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	580	4.0	600	1.964	**96**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 6** SampType: **Sample Duplicate** Sample ID: **H09080292-003ADUP** Method: **A2320 B**

Analysis Date: **08/26/09 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	160	4.0						157.1	**1.2**	20	
Bicarbonate as HCO3	190	4.0						191.7	**1.2**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 11** SampType: **Sample Duplicate** Sample ID: **H09080292-007ADUP** Method: **A2320 B**

Analysis Date: **08/26/09 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	16	4.0						16.69	**6.1**	20	
Bicarbonate as HCO3	19	4.0						20.37	**6.1**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 13** SampType: **Sample Matrix Spike** Sample ID: **H09080292-008AMS** Method: **A2320 B**

Analysis Date: **08/26/09 15:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	740	4.0	600	176.8	**94**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090826A-ALK-W

Run ID :Run Order: **TITTR_090826A: 14** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-008AMSD** Method: **A2320 B**

Analysis Date: **08/26/09 15:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	740	4.0	600	176.8	**93**	90	110	742.4	**0.8**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 17** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090826A** Method: **A2320 B**

Analysis Date: **08/26/09 16:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1000	4.0	1000		**104**	90	110				

Associated samples: **H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 20** SampType: **Sample Matrix Spike** Sample ID: **H09080292-012AMS** Method: **A2320 B**

Analysis Date: **08/26/09 16:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	*580*	*4.0*	*600*	*2.946*	**96**	*90*	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **TITTR_090826A: 21** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-012AMSD** Method: **A2320 B**

Analysis Date: **08/26/09 16:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	580	4.0	600	2.946	**96**	90	110	581.3	**0.3**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090826A-COND-PROBE

Run ID :Run Order: **COND_090826A: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090826A** Method: **A2510 B**
Analysis Date: **08/26/09 10:29** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1400	1.0	1412		**99**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **COND_090826A: 7** SampType: **Sample Duplicate** Sample ID: **H09080292-004ADUP** Method: **A2510 B**
Analysis Date: **08/26/09 10:41** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	472	1.0						474	**0.5**	10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **COND_090826A: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090826A** Method: **A2510 B**
Analysis Date: **08/26/09 10:52** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	715	1.0	718		**100**	90	110				

Associated samples: **H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **COND_090826A: 17** SampType: **Sample Duplicate** Sample ID: **H09080292-012ADUP** Method: **A2510 B**
Analysis Date: **08/26/09 11:17** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	20.8	1.0						20.23	**2.9**	10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090826A-PH-W

Run ID :Run Order: **PH_090826A: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090826A** Method: **A4500-H B**

Analysis Date: **08/26/09 10:32** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.02	0.10	7		**100**	99	101				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **PH_090826A: 7** SampType: **Sample Duplicate** Sample ID: **H09080292-004ADUP** Method: **A4500-H B**

Analysis Date: **08/26/09 10:47** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.87	0.10						7.86	**0.1**	2	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **PH_090826A: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090826A** Method: **A4500-H B**

Analysis Date: **08/26/09 11:11** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	9.99	0.10	10		**100**	99	101				

Associated samples: **H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **PH_090826A: 17** SampType: **Sample Duplicate** Sample ID: **H09080292-012ADUP** Method: **A4500-H B**

Analysis Date: **08/26/09 11:21** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	5.37	0.10						5.41	**0.7**	2	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers:
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R - RPD outside accepted recovery limits
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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: 090826A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090826A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090826A** Method: **A2540 C**

Analysis Date: **08/26/09 13:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	4	1.0									

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090826A** Method: **A2540 C**

Analysis Date: **08/26/09 13:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	990	10	1000	4	**99**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826A: 12** SampType: **Sample Matrix Spike** Sample ID: **H09080292-001AMS** Method: **A2540 C**

Analysis Date: **08/26/09 13:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2630	10	2000	644	**99**	80	120				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826A: 13** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-001AMSD** Method: **A2540 C**

Analysis Date: **08/26/09 13:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2630	10	2000	644	**99**	80	120	2626	**0**	10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826A: 20** SampType: **Sample Matrix Spike** Sample ID: **H09080292-007AMS** Method: **A2540 C**

Analysis Date: **08/26/09 13:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2150	10	2000	170	**99**	80	120				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers: ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090826A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090826A: 21** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-007AMSD** Method: **A2540 C**

Analysis Date: **08/26/09 13:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2150	10	2000	170	**99**	80	120	2150	**0.2**	10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826A: 27** SampType: **Sample Duplicate** Sample ID: **H09080292-012ADUP** Method: **A2540 C**

Analysis Date: **08/26/09 13:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	107	10						103	**3.8**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers:
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090826A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090826B: 1** SampType: **Method Blank** Sample ID: **MBLK1_090826A** Method: **A2540 D**

Analysis Date: **08/26/09 12:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1									

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826B: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090826A** Method: **A2540 D**

Analysis Date: **08/26/09 12:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	1760	10	2000		88	70	130				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826B: 29** SampType: **Sample Duplicate** Sample ID: **H09080292-001ADUP** Method: **A2540 D**

Analysis Date: **08/26/09 13:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	6.00	10						2		10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826B: 36** SampType: **Sample Duplicate** Sample ID: **H09080292-007ADUP** Method: **A2540 D**

Analysis Date: **08/26/09 13:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10								10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **SOLIDS_090826B: 42** SampType: **Sample Duplicate** Sample ID: **H09080292-012ADUP** Method: **A2540 D**

Analysis Date: **08/26/09 13:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10								10	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: 090903A-ALK-W

Run ID :Run Order: **TITTR_090903A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090903A** Method: **A2320 B**
Analysis Date: **09/03/09 12:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: **H09080292-007A**

Run ID :Run Order: **TITTR_090903A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090903A** Method: **A2320 B**
Analysis Date: **09/03/09 12:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	590	4.0	600		**99**	90	110				

Associated samples: **H09080292-007A**

Run ID :Run Order: **TITTR_090903A: 4** SampType: **Sample Duplicate** Sample ID: **H09080292-007ADUP** Method: **A2320 B**
Analysis Date: **09/03/09 14:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	17	4.0						16.69	**0**	20	
Bicarbonate as HCO3	20	4.0						20.37	**0**	20	

Associated samples: **H09080292-007A**

Run ID :Run Order: **TITTR_090903A: 6** SampType: **Sample Matrix Spike** Sample ID: **H09080341-001AMS** Method: **A2320 B**
Analysis Date: **09/03/09 14:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	610	4.0	600	43.21	**95**	90	110				

Associated samples: **H09080292-007A**

Run ID :Run Order: **TITTR_090903A: 7** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080341-001AMSD** Method: **A2320 B**
Analysis Date: **09/03/09 15:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	600	4.0	600	43.21	**94**	90	110	614.7	**1.6**	20	

Associated samples: **H09080292-007A**

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135049

Run ID :Run Order: **SUB-B135049: 2** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **08/27/09 11:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0001									
Antimony	ND	5E-05									
Arsenic	6E-05	3E-05									
Beryllium	ND	1E-05									
Cadmium	ND	1E-05									
Copper	ND	8E-05									
Lead	ND	8E-06									
Mercury	3E-05	8E-06									
Selenium	ND	0.0002									
Thallium	0.0006	8E-06									
Vanadium	7E-05	4E-05									

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135049: 3** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **08/27/09 11:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.050	0.10	0.05		**100**	85	115				
Antimony	0.049	0.050	0.05		**99**	85	115				
Arsenic	0.050	0.0050	0.05	0.00006	**100**	85	115				
Beryllium	0.048	0.0010	0.05		**96**	85	115				
Cadmium	0.050	0.0010	0.05		**100**	85	115				
Copper	0.052	0.010	0.05		**104**	85	115				
Lead	0.051	0.010	0.05		**101**	85	115				
Mercury	0.0010	0.0010	0.001	0.00003	**99**	85	115				
Selenium	0.051	0.0050	0.05		**102**	85	115				
Thallium	0.050	0.10	0.05	0.00057	**99**	85	115				
Vanadium	0.048	0.10	0.05	0.00007	**95**	85	115				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R135049

Run ID :Run Order: **SUB-B135049: 4** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/27/09 17:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.24	0.10	0.25		**98**	90	110				
Antimony	0.045	0.050	0.05		**90**	90	110				
Arsenic	0.049	0.0050	0.05		**98**	90	110				
Beryllium	0.025	0.0010	0.025		**98**	90	110				
Cadmium	0.025	0.0010	0.025		**102**	90	110				
Copper	0.051	0.010	0.05		**102**	90	110				
Lead	0.049	0.010	0.05		**98**	90	110				
Mercury	0.0019	0.0010	0.002		**94**	90	110				
Selenium	0.050	0.0050	0.05		**99**	90	110				
Thallium	0.049	0.10	0.05		**98**	90	110				
Vanadium	0.049	0.10	0.05		**98**	90	110				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135049: 23** SampType: **Sample Matrix Spike** Sample ID: **H09080266-031B** Method: **E200.8**

Analysis Date: **08/28/09 01:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.05092	0.10	0.05		**102**	70	130				
Antimony	0.05022	0.0050	0.05	0.00102	**98**	70	130				
Arsenic	0.05261	0.0050	0.05	0.00159	**102**	70	130				
Beryllium	0.05010	0.0010	0.05		**100**	70	130				
Cadmium	0.05175	0.0010	0.05	0.00026	**103**	70	130				
Copper	0.05545	0.010	0.05	0.00188	**107**	70	130				
Lead	0.05210	0.010	0.05	0.00089	**102**	70	130				
Mercury	0.0009700	0.0010	0.001		**97**	70	130				
Selenium	0.05319	0.0050	0.05	0.0004	**106**	70	130				
Thallium	0.05110	0.0050	0.05		**102**	70	130				
Vanadium	0.04747	0.10	0.05	0.00019	**95**	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135049

Run ID :Run Order: **SUB-B135049: 24** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080266-031B** Method: **E200.8**

Analysis Date: **08/28/09 01:09** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.05089	0.10	0.05		**102**	70	130	0.05092		20	
Antimony	0.05047	0.0050	0.05	0.00102	**99**	70	130	0.05022	**0.5**	20	
Arsenic	0.05231	0.0050	0.05	0.00159	**101**	70	130	0.05261	**0.6**	20	
Beryllium	0.05056	0.0010	0.05		**101**	70	130	0.0501	**0.9**	20	
Cadmium	0.05176	0.0010	0.05	0.00026	**103**	70	130	0.05175	**0**	20	
Copper	0.05402	0.010	0.05	0.00188	**104**	70	130	0.05545	**2.6**	20	
Lead	0.05189	0.010	0.05	0.00089	**102**	70	130	0.0521	**0.4**	20	
Mercury	0.0009570	0.0010	0.001		**96**	70	130	0.00097		20	
Selenium	0.05255	0.0050	0.05	0.0004	**104**	70	130	0.05319	**1.2**	20	
Thallium	0.05056	0.0050	0.05		**101**	70	130	0.0511	**1.1**	20	
Vanadium	0.04734	0.10	0.05	0.00019	**94**	70	130	0.04747		20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135049: 39** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/27/09 11:00** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.24	0.10	0.25		**97**	90	110				
Antimony	0.045	0.050	0.05		**90**	90	110				
Arsenic	0.048	0.0050	0.05		**97**	90	110				
Beryllium	0.024	0.0010	0.025		**97**	90	110				
Cadmium	0.025	0.0010	0.025		**100**	90	110				
Copper	0.049	0.010	0.05		**98**	90	110				
Lead	0.049	0.010	0.05		**98**	90	110				
Mercury	0.0019	0.0010	0.002		**96**	90	110				
Selenium	0.049	0.0050	0.05		**99**	90	110				
Thallium	0.049	0.10	0.05		**99**	90	110				
Vanadium	0.048	0.10	0.05		**96**	90	110				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
ND - Not Detected at the Reporting Limit
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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135049

Run ID :Run Order: **SUB-B135049: 40** SampType: **Sample Matrix Spike** Sample ID: **H09080292-001B** Method: **E200.8**

Analysis Date: **08/27/09 14:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.255	0.10	0.25	0.00505	**100**	70	130				
Antimony	0.256	0.0050	0.25		**102**	70	130				
Arsenic	0.260	0.0050	0.25	0.006	**102**	70	130				
Beryllium	0.247	0.0010	0.25		**99**	70	130				
Cadmium	0.259	0.0010	0.25	0.0002	**103**	70	130				
Copper	0.263	0.010	0.25	0.00195	**104**	70	130				
Lead	0.261	0.010	0.25	0.0006	**104**	70	130				
Mercury	0.00505	0.0010	0.005		**101**	70	130				
Selenium	0.262	0.0050	0.25	0.0024	**104**	70	130				
Thallium	0.261	0.0050	0.25		**104**	70	130				
Vanadium	0.268	0.10	0.25	0.00655	**105**	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135049: 41** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-001B** Method: **E200.8**

Analysis Date: **08/27/09 14:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.243	0.10	0.25	0.00505	**95**	70	130	0.2549	**4.7**	20	
Antimony	0.251	0.0050	0.25		**100**	70	130	0.256	**2**	20	
Arsenic	0.255	0.0050	0.25	0.006	**100**	70	130	0.2599	**1.8**	20	
Beryllium	0.235	0.0010	0.25		**94**	70	130	0.2466	**4.6**	20	
Cadmium	0.253	0.0010	0.25	0.0002	**101**	70	130	0.2586	**2.3**	20	
Copper	0.258	0.010	0.25	0.00195	**102**	70	130	0.2628	**1.9**	20	
Lead	0.253	0.010	0.25	0.0006	**101**	70	130	0.2614	**3.1**	20	
Mercury	0.00508	0.0010	0.005		**102**	70	130	0.00505	**0.7**	20	
Selenium	0.258	0.0050	0.25	0.0024	**102**	70	130	0.2619	**1.6**	20	
Thallium	0.253	0.0050	0.25		**101**	70	130	0.2605	**2.9**	20	
Vanadium	0.265	0.10	0.25	0.00655	**104**	70	130	0.2682	**1**	20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135049

Run ID :Run Order: **SUB-B135049: 42** SampType: **Sample Matrix Spike** Sample ID: **B09082367-011BMS** Method: **E200.8**

Analysis Date: **08/27/09 15:50** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.246	0.10	0.25		98	70	130				
Antimony	0.249	0.0050	0.25		100	70	130				
Arsenic	0.261	0.0050	0.25	0.01355	99	70	130				
Beryllium	0.239	0.0010	0.25		96	70	130				
Cadmium	0.252	0.0010	0.25	0.00015	101	70	130				
Copper	0.255	0.010	0.25	0.001	102	70	130				
Lead	0.254	0.010	0.25	0.00015	102	70	130				
Mercury	0.00510	0.0010	0.005		102	70	130				
Selenium	0.255	0.0050	0.25	0.00285	101	70	130				
Thallium	0.253	0.0050	0.25	0.00245	100	70	130				
Vanadium	0.274	0.10	0.25	0.0152	103	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135049: 43** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09082367-011BMSD** Method: **E200.8**

Analysis Date: **08/27/09 15:54** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.248	0.10	0.25		99	70	130	0.2459	1	20	
Antimony	0.249	0.0050	0.25		99	70	130	0.2492	0.3	20	
Arsenic	0.262	0.0050	0.25	0.01355	99	70	130	0.2611	0.5	20	
Beryllium	0.237	0.0010	0.25		95	70	130	0.2388	0.5	20	
Cadmium	0.251	0.0010	0.25	0.00015	100	70	130	0.2516	0.4	20	
Copper	0.259	0.010	0.25	0.001	103	70	130	0.2548	1.6	20	
Lead	0.254	0.010	0.25	0.00015	102	70	130	0.2542	0	20	
Mercury	0.00500	0.0010	0.005		100	70	130	0.0051	2.1	20	
Selenium	0.258	0.0050	0.25	0.00285	102	70	130	0.2555	0.8	20	
Thallium	0.254	0.0050	0.25	0.00245	100	70	130	0.2535	0	20	
Vanadium	0.278	0.10	0.25	0.0152	105	70	130	0.2736	1.5	20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: B_R135072

Run ID :Run Order: **SUB-B135072: 15** SampType: **Continuing Calibration Verification Standard** Sample ID: **ICV** Method: **E200.7**

Analysis Date: **08/27/09 11:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.54	0.10	2.5		**101**	95	105				
Barium	2.49	0.10	2.5		**100**	95	105				
Calcium	25.4	1.0	25		**101**	95	105				
Cobalt	2.47	0.020	2.5		**99**	95	105				
Copper	2.46	0.010	2.5		**98**	95	105				
Gold	2.48	0.0043	2.5		**99**	95	105				
Iron	2.52	0.030	2.5		**101**	95	105				
Magnesium	24.5	1.0	25		**98**	95	105				
Manganese	2.49	0.010	2.5		**100**	95	105				
Nickel	2.53	0.050	2.5		**101**	95	105				
Potassium	25.0	1.0	25		**100**	95	105				
Sodium	25.6	1.0	25		**102**	95	105				
Vanadium	2.47	0.10	2.5		**99**	95	105				
Zinc	2.48	0.010	2.5		**99**	95	105				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135072: 16** SampType: **Method Blank** Sample ID: **MB-SPDIS090827A** Method: **E200.7**

Analysis Date: **08/27/09 12:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	0.02	0.02									
Barium	ND	0.0001									
Calcium	ND	0.009									
Cobalt	ND	0.001									
Copper	ND	0.0009									
Gold	ND	0.004									
Iron	ND	0.002									
Magnesium	ND	0.01									
Manganese	ND	0.0003									
Nickel	ND	0.002									
Potassium	ND	0.01									
Sodium	ND	0.03									
Vanadium	ND	0.003									
Zinc	ND	0.002									

Qualifiers: ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135072

Run ID :Run Order: **SUB-B135072: 16** SampType: **Method Blank** Sample ID: **MB-SPDIS090827A** Method: **E200.7**

Analysis Date: **08/27/09 12:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135072: 17** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090827A** Method: **E200.7**

Analysis Date: **08/27/09 12:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.03	0.10	1	0.02025	**101**	85	115				
Barium	0.985	0.10	1		**98**	85	115				
Calcium	49.7	1.0	50		**99**	85	115				
Cobalt	0.974	0.020	1		**97**	85	115				
Copper	0.983	0.010	1		**98**	85	115				
Gold	0.971	0.0045	1		**97**	85	115				
Iron	4.93	0.030	5		**99**	85	115				
Magnesium	49.0	1.0	50		**98**	85	115				
Manganese	4.90	0.010	5		**98**	85	115				
Nickel	1.00	0.050	1		**100**	85	115				
Potassium	50.5	1.0	50		**101**	85	115				
Sodium	51.0	1.0	50		**102**	85	115				
Vanadium	0.987	0.10	1		**99**	85	115				
Zinc	0.982	0.010	1		**98**	85	115				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135072: 36** SampType: **Sample Matrix Spike** Sample ID: **H09080292-007B** Method: **E200.7**

Analysis Date: **08/27/09 17:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.01	0.021	1		**101**	70	130				
Barium	0.964	0.10	1		**96**	70	130				
Calcium	55.5	1.0	50	6.99	**97**	70	130				
Cobalt	0.976	0.010	1		**98**	70	130				
Copper	0.977	0.010	1		**98**	70	130				
Gold	0.920	0.010	1		**92**	70	130				
Iron	4.88	0.030	5		**98**	70	130				
Magnesium	50.4	1.0	50	2.281	**96**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
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N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135072

Run ID :Run Order:: **SUB-B135072: 36** SampType: **Sample Matrix Spike** Sample ID: **H09080292-007B** Method: **E200.7**

Analysis Date: **08/27/09 17:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	4.82	0.010	5		**96**	70	130				
Nickel	0.989	0.010	1		**99**	70	130				
Potassium	57.0	1.0	50	7.53	**99**	70	130				
Sodium	92.3	1.0	50	41.49	**102**	70	130				
Vanadium	0.978	0.10	1		**98**	70	130				
Zinc	0.992	0.010	1	0.0074	**98**	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135072: 37** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-007B** Method: **E200.7**

Analysis Date: **08/27/09 17:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.00	0.021	1		**100**	70	130	1.008	**0.7**	20	
Barium	0.982	0.10	1		**98**	70	130	0.9641	**1.8**	20	
Calcium	55.6	1.0	50	6.99	**97**	70	130	55.52	**0.2**	20	
Cobalt	0.973	0.010	1		**97**	70	130	0.9764	**0.3**	20	
Copper	0.967	0.010	1		**97**	70	130	0.9775	**1.1**	20	
Gold	0.919	0.010	1		**92**	70	130	0.9198	**0.1**	20	
Iron	4.87	0.030	5		**97**	70	130	4.88	**0.3**	20	
Magnesium	50.2	1.0	50	2.281	**96**	70	130	50.42	**0.4**	20	
Manganese	4.82	0.010	5		**96**	70	130	4.817	**0**	20	
Nickel	0.984	0.010	1		**98**	70	130	0.9888	**0.5**	20	
Potassium	56.5	1.0	50	7.53	**98**	70	130	56.96	**0.7**	20	
Sodium	90.9	1.0	50	41.49	**99**	70	130	92.29	**1.5**	20	
Vanadium	0.973	0.10	1		**97**	70	130	0.9785	**0.5**	20	
Zinc	0.990	0.010	1	0.0074	**98**	70	130	0.9919	**0.2**	20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135191

Run ID :Run Order: **SUB-B135191: 22** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/28/09 16:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.051	0.010	0.05		**102**	90	110				
Copper	0.051	0.010	0.05		**101**	90	110				
Selenium	0.051	0.0050	0.05		**102**	90	110				
Silver	0.026	0.0050	0.025		**105**	90	110				
Thallium	0.050	0.10	0.05		**99**	90	110				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 27** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **08/29/09 02:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.050	0.010	0.05		**100**	90	110				
Copper	0.051	0.010	0.05		**102**	90	110				
Selenium	0.050	0.0050	0.05		**100**	90	110				
Silver	0.026	0.0050	0.025		**105**	90	110				
Thallium	0.049	0.10	0.05		**98**	90	110				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 39** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **08/28/09 13:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.0002									
Copper	ND	8E-05									
Selenium	ND	0.0002									
Silver	4E-05	2E-05									
Thallium	0.0002	8E-06									

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers: ND - Not Detected at the Reporting Limit
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135191

Run ID :Run Order: **SUB-B135191: 40** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**
Analysis Date: **08/28/09 13:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.052	0.010	0.05		**103**	85	115				
Copper	0.055	0.010	0.05		**110**	85	115				
Selenium	0.053	0.0050	0.05		**106**	85	115				
Silver	0.022	0.0050	0.02	0.00004	**109**	85	115				
Thallium	0.050	0.10	0.05	0.00016	**100**	85	115				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 41** SampType: **Sample Matrix Spike** Sample ID: **B09082560-006AMS** Method: **E200.8**
Analysis Date: **08/29/09 07:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.050	0.010	0.05	0.00035	**100**	70	130				
Copper	0.054	0.010	0.05	0.0013	**106**	70	130				
Selenium	0.052	0.0050	0.05	0.00233	**99**	70	130				
Silver	0.020	0.0050	0.02		**98**	70	130				
Thallium	0.050	0.0010	0.05		**100**	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 42** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09082560-006AMSD** Method: **E200.8**
Analysis Date: **08/29/09 07:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.050	0.010	0.05	0.00035	**98**	70	130	0.05021	**1.3**	20	
Copper	0.054	0.010	0.05	0.0013	**105**	70	130	0.05416	**1**	20	
Selenium	0.053	0.0050	0.05	0.00233	**101**	70	130	0.05201	**1.5**	20	
Silver	0.019	0.0050	0.02		**95**	70	130	0.01958	**2.7**	20	
Thallium	0.050	0.0010	0.05		**100**	70	130	0.05001	**0**	20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135191

Run ID :Run Order: **SUB-B135191: 59** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **08/28/09 12:06** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.049	0.010	0.05		**98**	90	110				
Copper	0.051	0.010	0.05		**102**	90	110				
Selenium	0.051	0.0050	0.05		**102**	90	110				
Silver	0.028	0.0050	0.025		**110**	90	110				
Thallium	0.049	0.10	0.05		**98**	90	110				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 60** SampType: **Sample Matrix Spike** Sample ID: **H09080292-001B** Method: **E200.8**

Analysis Date: **08/28/09 13:48** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.0543	0.010	0.05	0.00074	**107**	70	130				
Copper	0.0543	0.010	0.05	0.00122	**106**	70	130				
Selenium	0.0586	0.0050	0.05	0.00357	**110**	70	130				
Silver	0.0211	0.0050	0.02	0.00003	**106**	70	130				
Thallium	0.0511	0.0050	0.05		**102**	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 61** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-001B** Method: **E200.8**

Analysis Date: **08/28/09 13:52** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.0553	0.010	0.05	0.00074	**109**	70	130	0.0543	**1.8**	20	
Copper	0.0542	0.010	0.05	0.00122	**106**	70	130	0.0543	**0.1**	20	
Selenium	0.0581	0.0050	0.05	0.00357	**109**	70	130	0.05864	**0.9**	20	
Silver	0.0209	0.0050	0.02	0.00003	**104**	70	130	0.02115	**1.3**	20	
Thallium	0.0505	0.0050	0.05		**101**	70	130	0.05114	**1.2**	20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
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Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: B_R135191

Run ID :Run Order: **SUB-B135191: 62** SampType: **Sample Matrix Spike** Sample ID: **B09082367-011BMS** Method: **E200.8**

Analysis Date: **08/28/09 14:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.0545	0.010	0.05	0.00073	**107**	70	130				
Copper	0.0520	0.010	0.05	0.00175	**101**	70	130				
Selenium	0.0594	0.0050	0.05	0.00331	**112**	70	130				
Silver	0.0199	0.0050	0.02		**99**	70	130				
Thallium	0.0506	0.0050	0.05		**101**	70	130				

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Run ID :Run Order: **SUB-B135191: 63** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09082367-011BMSD** Method: **E200.8**

Analysis Date: **08/28/09 15:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.0578	0.010	0.05	0.00073	**114**	70	130	0.05446	**6**	20	
Copper	0.0519	0.010	0.05	0.00175	**100**	70	130	0.05201	**0.1**	20	
Selenium	0.0613	0.0050	0.05	0.00331	**116**	70	130	0.05935	**3.3**	20	
Silver	0.0209	0.0050	0.02		**104**	70	130	0.01987	**5**	20	
Thallium	0.0506	0.0050	0.05		**101**	70	130	0.0506	**0**	20	

Associated samples: **H09080292-001B; H09080292-002B; H09080292-003B; H09080292-004B; H09080292-005B; H09080292-006B; H09080292-007B; H09080292-008B; H09080292-009B; H09080292-010B; H09080292-011B; H09080292-012B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56284

Run ID :Run Order: **IC101-H_090827A: 12** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**

Analysis Date: **08/27/09 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		**95**	90	110				
Sulfate	50	1.0	50		**99**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A**

Run ID :Run Order: **IC101-H_090827A: 13** SampType: **Initial Calibration Verification Standard** Sample ID: **ICV** Method: **E300.0**

Analysis Date: **08/27/09 14:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.6	1.0	2.5		**103**	90	110				
Sulfate	9.7	1.0	10		**97**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 14** SampType: **Laboratory Control Sample** Sample ID: **LCS** Method: **E300.0**

Analysis Date: **08/27/09 14:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	87	1.0	87.47		**99**	90	110				
Sulfate	28	1.0	28.53		**99**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 15** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E300.0**

Analysis Date: **08/27/09 14:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5.0	1.0	5		**101**	90	110				
Sulfate	9.7	1.0	10		**97**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**

Analysis Date: **08/27/09 14:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: 08-Sep-09

BatchID: R56284

Run ID :Run Order: **IC101-H_090827A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**
Analysis Date: **08/27/09 14:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 25** SampType: **Sample Matrix Spike** Sample ID: **H09080292-004A MS** Method: **E300.0**
Analysis Date: **08/27/09 17:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	39	1.0	25	13.87	**101**	90	110				
Sulfate	130	1.0	50	73.89	**106**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 26** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-004A MSD** Method: **E300.0**
Analysis Date: **08/27/09 17:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	39	1.0	25	13.87	**99**	90	110	39.1	**0.9**	20	
Sulfate	130	1.0	50	73.89	**104**	90	110	126.9	**0.6**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 30** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **08/27/09 18:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		**94**	90	110				
Sulfate	49	1.0	50		**98**	90	110				

Associated samples: **H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Run ID :Run Order: **IC101-H_090827A: 37** SampType: **Sample Matrix Spike** Sample ID: **H09080292-012A MS** Method: **E300.0**
Analysis Date: **08/27/09 20:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.887	**96**	90	110				
Sulfate	50	1.0	50	0.298	**100**	90	110				

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09080292
Project: Seaver Park Residential Well Sampling

ANALYTICAL QC SUMMARY REPORT

Date: *08-Sep-09*

BatchID: R56284

Run ID :Run Order: **IC101-H_090827A: 38** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09080292-012A MSD** Method: **E300.0**

Analysis Date: **08/27/09 20:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	25	1.0	25	1.887	**94**	90	110	25.82	**1.3**	20	
Sulfate	50	1.0	50	0.298	**100**	90	110	50.08	**0.2**	20	

Associated samples: **H09080292-001A; H09080292-002A; H09080292-003A; H09080292-004A; H09080292-005A; H09080292-006A; H09080292-007A; H09080292-008A; H09080292-009A; H09080292-010A; H09080292-011A; H09080292-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

ASARCO

September 30, 2009

David Jensen
P. O. Box 1021
401 Gail Street
East Helena, Montana 59635

Dear Mr. Jensen:

Enclosed are the analytical results for the water samples (both original and duplicate) that were collected from your ground water well on September 4, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Concentration Limits (MCL)/Action Levels for the constituents tested.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure
Cc: Bob Anderson
Tom Aldrich

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303 Jensen Residence (Original Sample)
Lab ID: H09090078-004 401 Gail Street
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:03 / hm		PH_090908A	6	090908A-PH-W
Conductivity	777	umhos/cm		1		A2510 B	09/08/09 10:55 / hm		COND_090908A	1	290908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	9	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	561	mg/L		10		A2540 C	09/08/09 16:00 / JG		SOLIDS_090908B	10	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Chloride	27	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
Sulfate	240	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Cadmium	0.003	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Calcium	105	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Copper	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Selenium	0.026	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303
Lab ID: H09090078-004
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304 Jensen Residence (Duplicate Sample)
Lab ID: H09090078-005 401 Gail Street
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:04 / hm		PH_090908A	7	090908A-PH-W
Conductivity	811	umhos/cm		1		A2510 B	09/08/09 10:59 / hm		COND_090908A	1	490908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	10	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	588	mg/L		10		A2540 C	09/08/09 16:01 / JG		SOLIDS_090908B	11	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A	11	090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A	11	090909A-ALK-W
Chloride	29	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A	46	R56461
Sulfate	260	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A	46	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Calcium	104	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Copper	0.004	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Selenium	0.023	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304
Lab ID: H09090078-005
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ASARCO

September 30, 2009

David Jensen
P. O. Box 1021
401 Gail Street
East Helena, Montana 59635

Dear Mr. Jensen:

Enclosed are the analytical results for the water samples (both original and duplicate) that were collected from your ground water well on September 4, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Concentration Limits (MCL)/Action Levels for the constituents tested.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure
Cc: Bob Anderson
Tom Aldrich

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303 Jensen Residence (Original Sample)
Lab ID: H09090078-004 401 Gail Street
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:03 / hm		PH_090908A	6	090908A-PH-W
Conductivity	777	umhos/cm		1		A2510 B	09/08/09 10:55 / hm		COND_090908A	1	290908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	9	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	561	mg/L		10		A2540 C	09/08/09 16:00 / JG		SOLIDS_090908B	10	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Chloride	27	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
Sulfate	240	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Cadmium	0.003	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Calcium	105	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Copper	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Selenium	0.026	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303
Lab ID: H09090078-004
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794 : 77		B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794 : 77		B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917 : 14		B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794 : 77		B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:45 / eli-b		SUB-B135917 : 14		B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304 Jensen Residence (Duplicate Sample)
Lab ID: H09090078-005 401 Gail Street
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:04 / hm		PH_090908A : 7		090908A-PH-W
Conductivity	811	umhos/cm		1		A2510 B	09/08/09 10:59 / hm		COND_090908A : 1	4	90908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A : 10		090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	588	mg/L		10		A2540 C	09/08/09 16:01 / JG		SOLIDS_090908B : 11		090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A : 11		090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A : 11		090909A-ALK-W
Chloride	29	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A : 46		R56461
Sulfate	260	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A : 46		R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Calcium	104	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Copper	0.004	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Selenium	0.023	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304
Lab ID: H09090078-005
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ASARCO

September 30, 2009

David Jensen
P. O. Box 1021
401 Gail Street
East Helena, Montana 59635

Dear Mr. Jensen:

Enclosed are the analytical results for the water samples (both original and duplicate) that were collected from your ground water well on September 4, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Concentration Limits (MCL)/Action Levels for the constituents tested.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel

Enclosure
Cc: Bob Anderson
Tom Aldrich

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303 Jensen Residence (Original Sample)
Lab ID: H09090078-004 401 Gail Street
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:03 / hm		PH_090908A	6	090908A-PH-W
Conductivity	777	umhos/cm		1		A2510 B	09/08/09 10:55 / hm		COND_090908A	1	290908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	9	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	561	mg/L		10		A2540 C	09/08/09 16:00 / JG		SOLIDS_090908B	10	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Chloride	27	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
Sulfate	240	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Cadmium	0.003	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Calcium	105	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Copper	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Selenium	0.026	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303
Lab ID: H09090078-004
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304 Jensen Residence (Duplicate Sample)
Lab ID: H09090078-005 401 Gail Street
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:04 / hm		PH_090908A : 7		090908A-PH-W
Conductivity	811	umhos/cm		1		A2510 B	09/08/09 10:59 / hm		COND_090908A : 1		090908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A : 10		090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	588	mg/L		10		A2540 C	09/08/09 16:01 / JG		SOLIDS_090908B : 11		090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A : 11		090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A : 11		090909A-ALK-W
Chloride	29	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A : 46		R56461
Sulfate	260	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A : 46		R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Calcium	104	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Copper	0.004	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794
Selenium	0.023	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917 : 15		B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:50 / eli-b		SUB-B135794 : 78		B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304
Lab ID: H09090078-005
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

TARGET SHEET

EPA REGION VIII

SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOCUMENT NUMBER: 1118086

SITE NAME: EAST HELENA RCRA CORRECTIVE ACTION

DOCUMENT DATE: 10/07/2009

DOCUMENT NOT SCANNED

Due to one of the following reasons:

- ☐ PHOTOGRAPHS
- ☐ 3-DIMENSIONAL
- ☑ OVERSIZED
- ☑ AUDIO/VISUAL
- ☐ PERMANENTLY BOUND DOCUMENTS
- ☐ POOR LEGIBILITY
- ☐ OTHER
- ☐ NOT AVAILABLE
- ☐ TYPES OF DOCUMENTS NOT TO BE SCANNED
  (Data Packages, Data Validation, Sampling Data, CBI, Chain of Custody)

DOCUMENT DESCRIPTION:

1 CD - HISTORICAL AND EXISTING MONITORING SITES FIGURE
EXHIBIT 1 HISTORICAL AND EXISTING MONITORING SITES

Contact the Superfund Records Center to view available document.
(303) 312-6473

VALIDATION SUMMARY

ASARCO EAST HELENA POST RI/FS LONG-TERM MONITORING PROGRAM

EAST HELENA RESIDENTIAL GROUNDWATER INORGANIC ANALYSES

September 2009 SAMPLE EVENT

ENERGY LABORATORY WORK ORDER NO. H09090078

Prepared for:
Mr. Jon Nickel
ASARCO Incorporated
PO Box 1230
East Helena, MT 59635

Prepared by:
Linda L. Tangen
6900 Cherry Blossom Lane
Albuquerque, NM 87111

October 2009

TABLE OF CONTENTS

LIST OF APPENDICES ii

GLOSSARY OF TERMS iii

SUMMARY 1

1. INTRODUCTION 3

2. DELIVERABLES 3

3. FIELD PROCEDURES 3

4. FIELD BLANKS 4

5. FIELD DUPLICATES 5

6. LABORATORY PROCEDURES 5

7. DETECTION LIMITS 6

8. LABORATORY BLANKS 6

9. LABORATORY MATRIX SPIKES 6

10. LABORATORY DUPLICATES 7

11. LABORATORY CONTROL STANDARDS (LCS) 7

12. INTERPARAMETER COMPARISON 7

13. HISTORICAL COMPARISON SUMMARY 8

14. DATA QUALITY OBJECTIVES (DQOS) 8

15. CONCLUSION 9

REFERENCES 10

LIST OF APPENDICES

APPENDIX 1: TABLES

APPENDIX 2: DATABASE

APPENDIX 3: FIELD NOTES

APPENDIX 4: CHAIN OF CUSTODY

APPENDIX 5: LABORATORY REPORT

GLOSSARY OF TERMS

CLP..... Contract Laboratory Program

COC..... Chain of Custody

CRDL..... Contract Required Detection Limit

DI..... Deionized Water

DIS..... Dissolved

DQO..... Data Quality Objective

ELI-Hel ..... Energy Laboratories, Inc., Helena, Montana

EPA..... U.S. Environmental Protection Agency

ICV ..... Initial Calibration Verification

IDL ..... Instrument Detection Limit

LCS..... Laboratory Control Sample

LFB..... Laboratory Fortified Blank

MS ..... Matrix Spike

NA ..... Not Applicable

PDLG..... Project Detection Limit Goal

QC ..... Quality Control

RI/FS..... Remedial Investigation/Feasibility Study

RPD ..... Relative Percent Difference

SC ..... Specific Conductivity

TDS ..... Total Dissolved Solids

SUMMARY

East Helena private well water (groundwater) samples were collected on September 4, 2009 for the ASARCO East Helena Facility Post RI/FS Long-Term Monitoring sample event. Inorganic constituents for these samples were validated using U.S. Environmental Protection Agency (EPA) guidelines for data validation (EPA 2004) and the project work plan (ASARCO 2002 and 2007). Samples were analyzed by Energy Laboratories, Inc. (ELI-Hel) in Helena, Montana, under work orders H09090078.

Tables containing Validation Code Definitions (Table 1) and the Summary of Qualified Data (Table 2) are located in Appendix 1. The validated database is located in Appendix 2. Field notes, chain of custody forms, and laboratory reports are located in Appendices 3, 4, and 5, respectively.

Data quality objectives for this project are as follows:

- **Precision** is determined by field and laboratory duplicate sample results that are within control limits. The completeness objective for precision is 90% of the duplicate sample results within control limits. **This objective was met as 93.9% (31 out 33 results) of the field duplicate and 100% (32 out of 32 results) of the laboratory duplicate results were in control limits. The overall precision was calculated at 96.9% (63 out of 65 results).**

- **Accuracy** is determined by laboratory control sample (LCS) and matrix spike (MS) sample results that are within control limits. The completeness objective for accuracy is 90% of the LCS and MS sample results within control limits. **This objective was met as 100% (36 out of 36 results) of the LCS results and 100% (66 out of 66 results) of the MS results were within control limits. The overall accuracy was calculated at 100% (102 out of 102 results).**

  ***Note:** Due to the lack of LCSs for dissolved metals, fortified laboratory blanks were used to assess the accuracy for these analytes. In several cases, samples used for matrix spikes for were from unknown sources and therefore, could not be used to evaluate the accuracy of this sampling event's data. This is explained further in the following report.

- **Completeness** is calculated by the number of valid (not rejected) data per number of planned data, expressed as a percentage. The completeness goal for this project was 90%. **This goal was met as 100% (215 out of 215) of the planned data were analyzed and deemed valid.**

Qualified Data Summary

- Chloride, dissolved copper, total dissolved solids (TDS), and dissolved zinc were detected in the field blank. Three chloride, two dissolved copper, four TDS, and three dissolved zinc results were flagged **"UJ"** to indicate the true value may be less than the reported value.
- Dissolved cadmium and copper field duplicate results were out of control limits. Five dissolved cadmium and three dissolved copper results were flagged **"J"** to indicate the value was estimated and may be variable.

Other Issues Associated With This Sampling Event

- A sample was not collected at 203 Gail because the property was vacant and power was turned off to the well. This omission was not subtracted from the total planned sites because the well was not being used at the time of the sampling event.
- The original laboratory reported silver results from analytical batch B_R1359794. However, the matrix spike/matrix spike duplicate recoveries and RPD for silver were excessively out of control limits. Silver results from analytical batch B_R135917 instead of B_R135794 were reported in the revised laboratory report. All of the silver results from both analytical batches were reported as less than the reporting limit.
- The original reporting limit for antimony was 0.005 mg/L instead of the requested 0.003 mg/L. The laboratory report was revised to reflect the correct reporting limits.

Conclusion

The data collected in September 2009 for the ASARCO East Helena Post RI/FS Long Term Monitoring Program are deemed acceptable and can be used for the purposes they were intended, providing qualified data are used with caution. Of the measured results, **90.7% (195 out of 215 results) can be used without qualification.**

Data Validation Report by: Linda L. Tangen

Client Review: Jon Nickel

DATA VALIDATION REPORT

1. INTRODUCTION

- This validation applies to analyses for six groundwater and quality control samples collected on September 4, 2009 for the ASARCO East Helena Post RI/FS Long-Term Monitoring Program (ASARCO 2002 and 2007). Samples were analyzed by Energy Laboratories in Helena, Montana (ELI-Hel) under work order H09090078. One field blank and one field duplicate sample was included with these samples.

- Validation procedures used are generally consistent with:
  - _X_ EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganics Data Review (EPA 2004)
  - _X_ Work Plan – Interim Measures Work Plan Addendum (ASARCO 2002)
  - _X_ Post RI/FS Long-Term Monitoring Program (ASARCO 2007)
  - ___ Other

- Overall level of validation:
  - ___ CLP
  - _X_ Standard – Field and laboratory quality control (QC) samples are reviewed; and samples associated with QC violations are flagged.
  - ___ Visual

2. DELIVERABLES

- All laboratory document deliverables were present and accurate as specified in the CLP-Statement of Work (EPA 2001), and/or the project contract.
  - _X_ Yes
  - ___ No

- All documentation of field procedures was provided as required.
  - _X_ Yes
  - ___ No

3. FIELD PROCEDURES

- Samples were collected from all project-required sites.
  - ___ Yes
  - _X_ No – see notes

  Notes: A sample was not collected at 203 Gail because the property was vacant and power was turned off to the well. This omission was not subtracted from the total planned sites because the well was not being used at the time of the sampling event.

- Field parameters were measured in accordance with the project work plan.
  _X_ Yes
  ___ No

- Field instruments were calibrated daily and before measurements were collected.
  _X_ Yes
  ___ No

- Chains of Custodies (COCs) were properly filled out and signed by the field personnel.
  _X_ Yes
  ___ No

- Data entry into field books, on COCs, and on sample labels were accurate and complete.
  _X_ Yes
  ___ No

4. FIELD BLANKS

Blanks: Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

Deionized water (DI), trip, rinsate, or any other field blanks have been carried out at the proper frequency (one rinsate blank and one DI blank per event).
_X_ Yes
___ No

Reported results on the field blanks were less than the Project Detection Limit Goals (PDLGs) or reporting limit.
___ Yes
_X_ No - see notes

Notes: Eight field blank results were detected at values greater than the PDLG. Associated results that were detected and less than five times the blank's value were flagged **"UJ"** to indicate the true value may be less than the reported value. Following is a summary of these detections.

Blank Type	Sample Code	Sample Date	Parameter	PDLG (mg/L)	Result (mg/L)	5 X Result (mg/L)	Flags
Field Blank	HER-0909-305	9/4/09	Bicarbonate	1	5	25	0*
			Chloride	1	2	10	3
			Copper	0.001	0.018	0.09	2
			Lead	0.005	0.005	0.025	0*
			Specific Conductivity (umhos/cm)	10	20	100	0*
			Total Dissolved Solids	10	108	540	4
			Total Alkalinity	1	4	20	0*
			Zinc	0.02	0.06	0.3	3

*Notes: Associated results were either greater than five times the blank value or less than the PDLG.

5. FIELD DUPLICATES

Field duplicates have been collected at the proper frequency (one field duplicate per event).

_X_ Yes
___ No

Field duplicate relative percent differences (RPDs) were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG.

___ Yes
_X_ No – see notes

Notes: Two field duplicate results were not in control limits. The results associated with these exceedances were qualified **"J"** to indicate the reported value was estimated and may be variable. Following is a list of the field duplicate exceedances.

Site	Sample & Dup Code	Sample Date	Parameter	Orig Result (mg/L)	Dup Result (mg/L)	PDLG (mg/L)	Diff (mg/L)	Flags
401 Gail	EHR-0909-304 &	9/4/2009	Cadmium	0.003	<0.001	0.001	0.002 Diff	5
	EHR-0709-305		Copper	<0.001	0.004	0.001	0.003 Diff	3

6. LABORATORY PROCEDURES

- **Laboratory procedures followed**
  - _X_ CLP-Statement of Work (EPA 2001)
  - ___ SW-846 (EPA 1986)
  - _X_ Methods for Chemical Analysis of Water and Wastes (EPA 1983)

- **Holding times met**
  - _X_ Yes
  - ___ No

- **Consistency with project requirements**

  Analyses were carried out as required by the project work plan (ASARCO 2002 and 2007).

  _X_ Yes
  ___ No

  Project specified methods were used.

  _X_ Yes
  ___ No

7. DETECTION LIMITS

- Reporting detection limits met PDLGs.

  _X_ Yes
  ___ No

8. LABORATORY BLANKS

Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

- Method blanks were prepared and analyzed at the required frequency (one per batch or one per 20 samples, whichever is greater.

  _X_ Yes
  ___ No

- All the analytes in the blank were less than the PDLG.

  ___ Yes
  _X_ No – see notes

  Notes: Two analytes were detected in one method blank. However, the results associated with these detections were either less than the PDLG or greater than five times the blank value. Following is a summary of the method blank detections.

Blank Sample Code	Sample Batch	Analysis Batch	Analysis Date	Parameter	PDLG (mg/L)	Result (mg/L)	5 X Result (mg/L)	# of Flags
MB-SPDIS090910A	H09090078	B_R135794	9/10/2009	Cadmium	0.001	0.001	0.005	0*
				Copper	0.001	0.001	0.005	0*

***Notes:** Associated results were either less than PDLG or greater than five times the blank value.

9. LABORATORY MATRIX SPIKES

- A Matrix Spike (MS) sample (pre-digestion) was analyzed at the proper frequency (one per batch and/or matrix).

  _X_ Yes
  ___ No

- MS recoveries were within the required control limits (75-125%).

  _X_ Yes
  ___ No

10. LABORATORY DUPLICATES

- Laboratory duplicate samples were analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).
  _X_ Yes
  ___ No

- RPDs were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG.
  _X_ Yes
  ___ No

11. LABORATORY CONTROL STANDARDS (LCS)

Laboratory Fortified Blanks (LFBs) were used in lieu of LCS' for metal analyses. This is acceptable for the purpose of the project.

- The reference material used for the LCS or LFB was of the correct matrix.
  _X_ Yes
  ___ No

- LCS' or LFBs were prepared and analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).
  _X_ Yes
  ___ No

- LCS recoveries were within the required control limits (80-120% or certified range).
  _X_ Yes
  ___ No

12. INTERPARAMETER COMPARISON

_X_ Lab pH vs. Field pH
_X_ Lab Specific Conductivity (SC) vs. Field SC
_X_ Total Dissolved Solids (TDS) vs. Field SC

Lab pH vs. Field pH: Field and lab pH pairs were compared using laboratory duplicate criteria (refer to section 10). These comparisons were less than or equal to 8.0 RPD and therefore acceptable for the purposes of the project.

Lab SC vs. Field SC: Field and lab SC pairs were compared using laboratory duplicate criteria (refer to section 10). These comparisons were less than or equal to 17.7 RPD and therefore acceptable for the purposes of the project.

TDS vs. Lab SC: The ratio of TDS to lab SC results should lie between 0.55 and 0.75. This ratio is intended to be a check on the accuracy of the TDS and lab SC measurements. In natural waters with high sulfate, the ratio may be much higher and the ratio is less accurate in dilute waters. TDS/SC ratios for this sampling event were 0.64 and 0.72, which were in line with historical data.

13. HISTORICAL COMPARISON SUMMARY

Data for this sampling event were compared with the previous five years of sampling events (from January 2004 through August 2009). Results that were greater than three times the standard deviation from the historical mean are listed in Table 3 in Appendix A.

14. CORRECTIVE ACTIONS

- No corrective actions were required for this sampling event.

  ____ Yes
  _X_ No – see notes

  Notes: The following corrective actions were taken for this sampling event:

  - The original laboratory reported silver results from analytical batch B_R1359794. However, the matrix spike/matrix spike recoveries and RPD for silver were excessively out of control limits. Silver results from analytical batch B_R135917 instead of B_R135794 were reported in the revised laboratory report. All of the silver results from both analytical batches were reported as less than the reporting limit.
  - The original reporting limit for antimony was 0.005 mg/L instead of the requested 0.003 mg/L. The laboratory report was revised to reflect the correct reporting limits.

15. DATA QUALITY OBJECTIVES (DQOS)

- The data quality goal was met for precision (90% of the field and laboratory duplicates were within control limits).

  _X_ Yes –see the following table
  ____ No

Precision Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
Field Duplicates	33	2	31	93.9%
Lab Duplicates	32	0	32	100.0%
Overall	**65**	**2**	**63**	**96.9%**

- The data quality goal was met for accuracy (90% of the LCS and matrix spike results were within control limits).
  _X_ Yes – see the following table
  ___ No

Accuracy Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
LCS' and LFBs	36	0	36	100.0%
Matrix Spikes	66	0	66	100.0%
Overall	**102**	**0**	**102**	**100.0%**

- DQO target for completeness was met (the number of valid results divided by the number of possible results is 90% or above).
  _X_ Yes – see the following table
  ___ No

Completeness

# of Planned Measurements	Actual # of Measurements	# of Rejected Measurements	# of Valid Measurements	Completeness
215	**215**	**0**	**215**	**100.0%**

- Samples were qualified for QC exceedances and deficiencies.
  _X_ Yes – see the following table
  ___ No

Qualification of Samples

# of Measurements	# of Qualified Measurements	# Not Qualified	% Not Qualified
215	**20**	**215**	**90.7**

16. CONCLUSION

The data collected in September 2009 for the ASARCO East Helena Post RI/FS Long Term Monitoring Program are deemed acceptable and can be used for the purposes they were intended, providing qualified data are used with caution.

Data Validation Report by: Linda L. Tangen

Client Review by: Jon Nickel

REFERENCES

ASARCO 2002. *Interim Measures Work Plan Addendum, East Helena Facility.* ASARCO Consulting Inc. Revised May.

ASARCO 2007. *Post RI/FS Long-Term Monitoring Program.* ASARCO LLC. April.

EPA 1983. *Methods for Chemical Analysis of Water and Wastes.* United States Environmental Protection Agency. March.

EPA 1986. *Test Method for Evaluating Solid Waste: Physical/Chemical Methods 3rd Ed. 4 Vols.* United States Environmental Protection Agency. November.

EPA 2001. *USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis.* United States Environmental Protection Agency. Document Number ILM05.2. December.

EPA 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* United States Environmental Protection Agency. Document Number OSWER 9240.1-45. EPA 540-R-04-004. October.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
A	Anomalous data. (Not an EPA code.)
J	The associated numerical value is an estimated quantity because quality control criteria were not met. A bias was not determined.
J-	The associated numerical value is estimated with a low bias because quality control criteria were not met.
J+	The associated numerical value is estimated with a high bias because quality control criteria were not met.
UJ	The true value may be less than the reported value because quality control criteria were not met. This qualifier is usually associated with either non-detected values or detected values that are linked to blank contaminates.
R	Quality control indicates that the data are unusable (compound may or may not be present).

Table 2. Summary of Qualified Data
ASARCO East Helena Private Wells
September 2009

Station Name / Field Sample ID / Parameter	Samp Date		Value	Unit	Flag	QC Type-Exceedance*
109 Gail						
EHR-0909-302	**9/4/2009**					
Cadmium (Cd) DIS		<	0.001	mg/L	J	Field Dup - 0.002 mg/L Diff
Chloride (Cl)			5	mg/L	UJ	Field Blank - Result (5 mg/L) > PDLG
Copper (Cu) DIS			0.002	mg/L	UJ	Field Blank - Result (0.018 mg/L) > PDLG
TDS (Measured at 180 C)			194	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
2540 Wylie Dr						
EHR-0909-300	**9/4/2009**					
Cadmium (Cd) DIS		<	0.001	mg/L	J	Field Dup - 0.002 mg/L Diff
Chloride (Cl)			7	mg/L	UJ	Field Blank - Result (5 mg/L) > PDLG
Copper (Cu) DIS		<	0.001	mg/L	J	Field Dup - 0.003 mg/L Diff
TDS (Measured at 180 C)			332	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
Zinc (Zn) DIS			0.02	mg/L	UJ	Field Blank - Result (0.06 mg/L) > PDLG
2540 Wylie Dr Irrig						
EHR-0909-301	**9/4/2009**					
Cadmium (Cd) DIS		<	0.001	mg/L	J	Field Dup - 0.002 mg/L Diff
Chloride (Cl)			6	mg/L	UJ	Field Blank - Result (5 mg/L) > PDLG
Copper (Cu) DIS		<	0.001	mg/L	J	Field Dup - 0.003 mg/L Diff
TDS (Measured at 180 C)			224	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
401 Gail						
EHR-0909-303	**9/4/2009**					
Cadmium (Cd) DIS			0.003	mg/L	J	Field Dup - 0.002 mg/L Diff
Copper (Cu) DIS		<	0.001	mg/L	J	Field Dup - 0.003 mg/L Diff
TDS (Measured at 180 C)			561	mg/L	UJ	Field Blank - Result (108 mg/L) > PDLG
Zinc (Zn) DIS			0.03	mg/L	UJ	Field Blank - Result (0.06 mg/L) > PDLG
EHR-0909-304	**9/4/2009**					
Cadmium (Cd) DIS		<	0.001	mg/L	J	Field Dup - 0.002 mg/L Diff
Copper (Cu) DIS			0.004	mg/L	UJ	Field Blank - Result (0.018 mg/L) > PDLG
Zinc (Zn) DIS			0.03	mg/L	UJ	Field Blank - Result (0.06 mg/L) > PDLG

***Notes: PDLG = Project Detection Limit Goal; Diff = Difference.**

Table 3. Historical Comparisons Summary~

Asarco East Helena Private Wells

September 2009

~Where this sampling event's data and historical mean difference is greater than three times the historical standard devation.

Station	This Sampling Event's Data		Historical Data					Comparison To Historical Data		
Parameter	Sample Date	Value	Cnt	Min	Max	Mean	Std Dev	# of Std Dev*	High or Low	Elev DL**
All units are in ppm unless noted otherwise.										
401 Gail	**9/4/2009**	**EHR-0909-303**								
Cadmium (Cd)	DIS	0.003	39	0.001	0.001	0.0010	0.0000	5180	Highest	

Notes:

* # of Std Dev (from historical mean) = Value and historical mean difference divided by the historical standard deviation.

**Elev DL = An elevated reporting limit was used for the sample's value. The true value may be less than the reporting limit and therefore the value and historical average difference may not be greater than three times the standard deviation; and/or the sample's value may not be the highest historical concentration.,

APPENDIX 2

DATABASE

ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Table of Contents by Station Type

Page	Station Type	Station Name
1	Domestic Wells	109Gail
1	Domestic Wells	203Gail
3	Domestic Wells	401Gail
1	Domestic Wells	2540 Wylie
3	Domestic Wells	2540WylIr
3	Field Quality Control	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 10/2/2009 5:22:20 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Table of Contents By Lab Sample ID

Page	Lab Sample ID	Sample ID	Sample Date	Station Name
1	EHR-0909-203Gail	EHR-0909-203Gail	9/4/2009	203Gail
1	H09090078-001	EHR-0909-300	9/4/2009	2540 Wylie
3	H09090078-002	EHR-0909-301	9/4/2009	2540WylIr
1	H09090078-003	EHR-0909-302	9/4/2009	109Gail
3	H09090078-004	EHR-0909-303	9/4/2009	401Gail
3	H09090078-005	EHR-0909-304	9/4/2009	401Gail
3	H09090078-006	EHR-0909-305	9/4/2009	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 10/2/2009 5:22:20 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Table of Contents by Sample ID

Page	Sample ID	Lab Sample ID	Sample Date	Station Name
1	EHR-0909-203Gail	EHR-0909-203Gail	9/4/2009	203Gail
1	EHR-0909-300	H09090078-001	9/4/2009	2540 Wylie
3	EHR-0909-301	H09090078-002	9/4/2009	2540WylIr
1	EHR-0909-302	H09090078-003	9/4/2009	109Gail
3	EHR-0909-303	H09090078-004	9/4/2009	401Gail
3	EHR-0909-304	H09090078-005	9/4/2009	401Gail
3	EHR-0909-305	H09090078-006	9/4/2009	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 10/2/2009 5:22:20 PM

C:\EnviroDataDB\Databases\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	109Gail	203Gail	2540 Wylie
Water	SAMPLE DATE	9/4/2009	9/4/2009	9/4/2009
	SAMPLE TIME	09:20	00:00	08:30
	LAB	ELI	Hydrometrics	ELI
	LAB NUMBER	H09090078-003	EHR-0909-203Gail	H09090078-001
	SAMPLE NUMBER	EHR-0909-302	EHR-0909-203Gail	EHR-0909-300
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells
	DESCRIPTION		No Sample-Vacant	
	REMARKS		No Sample	
Common Ions (mg/L): ppm unless noted				
	Bicarbonate (HCO3)	100		140
	Calcium (Ca) (DIS)	33		57
	Chloride (Cl)	5 UJ		7 UJ
	Magnesium (Mg) (DIS)	7		12
	Potassium (K) (DIS)	3		5
	Sodium (Na) (DIS)	13		18
	Sulfate (SO4)	56		110
	Total Alkalinity As CACO3	83		120
Metals (mg/L): ppm unless noted				
	Aluminum (Al) (DIS)	<0.1		<0.1
	Antimony (Sb) (DIS)	<0.005		<0.005
	Arsenic (As) (DIS)	<0.002		<0.002
	Barium (Ba) (DIS)	<0.1		<0.1
	Beryllium (Be) (DIS)	<0.001		<0.001
	Cadmium (Cd) (DIS)	<0.001 J		<0.001 J
	Chromium (Cr) (DIS)	<0.001		<0.001
	Cobalt (Co) (DIS)	<0.01		<0.01
	Copper (Cu) (DIS)	0.002 UJ		<0.001 J
	Gold (Au) (DIS)	<0.01		<0.01
	Iron (Fe) (DIS)	<0.02		0.02
	Lead (Pb) (DIS)	<0.005		<0.005
	Manganese (Mn) (DIS)	<0.01		<0.01
	Mercury (Hg) (DIS)	<0.001		<0.001
	Nickel (Ni) (DIS)	<0.01		<0.01
	Selenium (Se) (DIS)	0.002		0.003
	Silver (Ag) (DIS)	<0.005		<0.005
	Tellurium (Te) (DIS)	<0.1		<0.1
	Thallium (Tl) (DIS)	<0.001		<0.001
	Vanadium (V) (DIS)	<0.01		<0.01
	Zinc (Zn) (DIS)	<0.02		0.02 UJ
Other: ppm unless noted				
	No Analysis		0.0	
Physical/Fld-Lab: ppm unless noted				
	Oxygen (O) (DIS) (Fld)	8.79		6.61
	pH	7.4		7.4
	pH (Fld)	7.3		6.83
	SC (umhos/cm at 25 C) (Fld)	253		408
	SC (umhos/cm at 25 C)	302		479

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 10/2/2009 5:22:20 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	109Gall	2540 Wylie
Water	SAMPLE DATE	9/4/2009	9/4/2009
	SAMPLE TIME	09:20	08:30
	LAB	ELI	ELI
	LAB NUMBER	H09090078-003	H09090078-001
	SAMPLE NUMBER	EHR-0909-302	EHR-0909-300
	TYPE	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells
	DESCRIPTION		
	REMARKS		
Physical/Fld-Lab: ppm unless noted			
	Total Suspended Solids	<10	<10
	TDS (Measured at 180 C)	194 UJ	332 UJ
	Water Temperature (C) (Fld)	10.3	10.7

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2540Wyllr	401Gall	401Gall	FieldBlank
Water	SAMPLE DATE	9/4/2009	9/4/2009	9/4/2009	9/4/2009
	SAMPLE TIME	09:00	11:30	12:00	12:30
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09090078-002	H09090078-004	H09090078-005	H09090078-006
	SAMPLE NUMBER	EHR-0909-301	EHR-0909-303	EHR-0909-304	EHR-0909-305
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Field QC
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION				
	REMARKS			Field Duplicate	Blank
Common Ions (mg/L): ppm unless noted					
	Bicarbonate (HCO3)	100	150	150	5
	Calcium (Ca) (DIS)	35	105	104	<1
	Chloride (Cl)	6 UJ	27	29	2
	Magnesium (Mg) (DIS)	8	23	23	<1
	Potassium (K) (DIS)	3	6	6	<1
	Sodium (Na) (DIS)	19	26	26	3
	Sulfate (SO4)	75	240	260	<1
	Total Alkalinity As CACO3	84	120	120	4
Metals (mg/L): ppm unless noted					
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1
	Antimony (Sb) (DIS)	<0.005	<0.005	<0.005	<0.005
	Arsenic (As) (DIS)	<0.002	0.002	0.002	<0.002
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0.1
	Beryllium (Be) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cadmium (Cd) (DIS)	<0.001 J	0.003 J	<0.001 J	<0.001
	Chromium (Cr) (DIS)	<0.001	<0.001	<0.001	<0.001
	Cobalt (Co) (DIS)	<0.01	<0.01	<0.01	<0.01
	Copper (Cu) (DIS)	<0.001 J	<0.001 J	0.004 UJ	0.018
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01
	Iron (Fe) (DIS)	<0.02	0.04	0.04	<0.02
	Lead (Pb) (DIS)	<0.005	<0.005	<0.005	0.005
	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	<0.01
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.001
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.01
	Selenium (Se) (DIS)	0.007	0.026	0.023	<0.001
	Silver (Ag) (DIS)	<0.005	<0.005	<0.005	<0.005
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1
	Thallium (Tl) (DIS)	<0.001	<0.001	<0.001	<0.001
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	<0.01
	Zinc (Zn) (DIS)	<0.02	0.03 UJ	0.03 UJ	0.06
Physical/Fld-Lab: ppm unless noted					
	Oxygen (O) (DIS) (Fld)	5.9	5.86		
	pH	7.3	7.3	7.3	5.5
	pH (Fld)	6.94	6.8		
	SC (umhos/cm at 25 C) (Fld)	296	695		
	SC (umhos/cm at 25 C)	347	777	811	20

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 10/2/2009 5:22:20 PM

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ANALYSES SUMMARY REPORT

ASARCO East Helena Private Wells - September 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2540Wyllr	401Gall	401Gall	FieldBlank
Water	SAMPLE DATE	9/4/2009	9/4/2009	9/4/2009	9/4/2009
	SAMPLE TIME	09:00	11:30	12:00	12:30
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09090078-002	H09090078-004	H09090078-005	H09090078-006
	SAMPLE NUMBER	EHR-0909-301	EHR-0909-303	EHR-0909-304	EHR-0909-305
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Field QC
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION				
	REMARKS			Field Duplicate	Blank
Physical/Fld-Lab: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10
	TDS (Measured at 180 C)	224 UJ	561 UJ	588	108
	Water Temperature (C) (Fld)	10.7	11.9		

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

Run Time: 10/2/2009 5:22:20 PM

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APPENDIX 3

FIELD NOTES

SEPTEMBER 4, 2009
MONTHLY LONG-TERM RI/FS MONITORING PROGRAM - RESIDENTIAL WELLS

FIELD STANDARDIZATION OF HORIBA

	STANDARD VALUE	METER READING
ph	4.00 SU	4.00 SU
CONDUCTIVITY	4480 umhos/cm	4480 umhos/cm
SALINITY	0.2390	0.2390

SIMAC DRINKING WATER
2540 Wylie
EHR-0909-300
SAMPLE COLLECTED FROM ATTACHED EAST FACING SPIGOT

ph	6.83 SU
CONDUCTIVITY	408 umhos/cm
D.O.	6.61 mg/l
TEMP	10.7°C

SIMAC IRRIGATION WELL
2540 Wylie
EHR-0909-301
IRRIGATION SYSTEM WATER GLASS AT LEAST 10 MINUTES PRIOR TO SAMPLING FROM TANK HOUSE.

ph	6.94 SU
CONDUCTIVITY	296 umhos/cm
D.O	5.90 mg/l

NORDSTROM
109 GAIL STREET
EHR-0909-302
SAMPLE COLLECTED FROM GARDEN SPIGOT

ph	7.30 SU
CONDUCTIVITY	253 umhos/cm
D.O	8.79 mg/l
TEMP	10.3°C

FOLEY
203 GAIL STREET
HOUSE IS VACANT. NO FURNITURE OR OTHER SIGNS OF OCCUPANCY. POWER TO WELL DISCONNECTED. NO SAMPLE COLLECTED

JENSEN
401 GAIL STREET
[illegible] JENSEN PRESENT. OUTSIDE WATERING OF LAWN OCCURRING WHEN ARRIVED FOR SAMPLE COLLECTION
EHR-0909-303 ORIGINAL
EHR-0909-304 DUPLICATE

ph	6.80 SU
CONDUCTIVITY	6.95 umhos/cm
D.O	5.86 mg/l
TEMP	11.9°C

EHR-0909-305 FIELD BLANK

APPENDIX 4

CHAIN OF CUSTODIES

Chain of Custody and Analytical Request Record

Page 1 of 2

PLEASE PRINT- Provide as much information as possible.

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
ASARCO LLC	LONG-TERM R1/FS RESIDENTIAL WELLS - SEPTEMBER 2009	State: MT	Yes ☐ No ☐
Report Mail Address: P.O. BOX 1230 EAST HELENA, MT 59635	**Contact Name:** JON NICKEL **Phone/Fax:** 406-227-4529	**Email:**	**Sampler: (Please Print)** NICKEL
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ GSA ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____
☐ A2LA ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC

Number of Containers
Sample Type: A Air W Water S Soils/Solids V Vegetation B Bioassay O Other

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED: Common Ions	Physical Parameters	Metals	SEE ATTACHED	Normal Turnaround (TAT)
1 EHR-0909-300 RAW	9/4/2009	9:30	GW	X	X		X	X
2 EHR-0909-300 METAL		9:30				X		
3 EHR-0909-301 RAW		9:00		X	X			
4 EHR-0909-301 METAL		9:00				X		
5 EHR-0909-302 RAW		9:20		X	X			
6 EHR-0909-302 METAL		9:20				X		
7 EHR-0909-303 RAW		11:30		X	X			
8 EHR-0909-303 METAL		11:30				X		
9 EHR-0909-304 RAW		12:00		X	X			
10 EHR-0909-304 METAL		12:00				X		

RUSH

Contact ELI prior to *RUSH* sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: Hand
Cooler ID(s): _____
Receipt Temp: 11.4 °C
On Ice: Yes (No)
Custody Seal: Y N
Bottles/Coolers: B C
Intact: Y N
Signature Match: Y N

LABORATORY USE ONLY: 0909007B-001 ... -002 ... -003 ... -004 ... -005

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
JON NICKEL	9/4/2009 1330		Michelle Talseth	9-4-09	13:40
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Chain of Custody and Analytical Request Record

Page 2 of 2

PLEASE PRINT- Provide as much information as possible.

Company Name: ASARCO LLC	Project Name, PWS, Permit, Etc. LONG-TERM RI/FS RESIDENTIAL WELLS - SEPTEMBER 2009	Sample Origin State: MT	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. BOX 1230 EAST HELENA, MT 59635	Contact Name: JON NICKEL Phone/Fax: 406 227-4529	Email:	Sampler: (Please Print) NICKEL
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA
☐ GSA ☐ EDD/EDT (Electronic Data) Format: _____
☐ POTW/WWTP ☐ LEVEL IV
☐ State: _____ ☐ NELAC
☐ Other: _____

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	SEE ATTACHED	Normal Turnaround (TAT)
1 EHR-0909-305 RAW	9/4/2009	12:30	GW	X	X
2 EHR-0909-305 MATRIX	1	12:30	1	1	1
3					
4					
5					
6					
7					
8					
9					
10					

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: HDN
Cooler ID(s): —
Receipt Temp 11.4 °C
On Ice: Yes (No)
Custody Seal Y (N)
Bottles/Coolers B C
Intact Y N
Signature Match Y N

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print): JON NICKEL	Date/Time: 9/4/09 1330	Signature:	Received by (print): Michelle Tuis	Date/Time: 9/4/09 13:40	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: _____ Lab Disposal: _____			Received by Laboratory:	Date/Time:	Signature:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

TABLE 3. SEMI-ANNUAL/ANNUAL RESIDENTIAL/CAMU MONITORING PROGRAMS – GROUNDWATER AND SURFACE WATER PARAMETER LIST

Parameter	Analytical Technique	Analytical Method	Project Detection Limit (mg/L)
Physical Parameters			
PH	PH Meter	SM 4500H-B	
Specific Conductivity	SC Meter	SM 2510 B	10
TDS	Gravimetric	SM 2540C	10
TSS	Gravimetric	SM 2540D	
Common Ions			1
Alkalinity	Titrimetric	SM 2320 B	1
Bicarbonate	Titrimetric	SM 2320 B	1
Sulfate	Turbidimetric	SM 4500SO4 E	1
Chloride	Colorimetric	SM 4500 CL C	5
Calcium	ICP	200.7	5
Magnesium	ICP	200.7	5
Sodium	ICP	200.7	5
Potassium	ICP	200.7	5
Arsenic and Metals (Groundwater –Dissolved. Surface Water Dissolved and Total)			
Arsenic	ICP/ICP-MS	200.7/200.8	0.002
Cadmium	ICP/ICP-MS	200.7/200.8	0.001
Copper	ICP/ICP-MS	200.7/200.8	0.001
Iron	ICP/ICP-MS	200.7/200.8	0.02
Manganese	ICP/ICP-MS	200.7/200.8	0.01
Lead	ICP/ICP-MS	200.7/200.8	0.005
Selenium	ICP/ICP-MS	200.7/200.8	0.001
Zinc	ICP/ICP-MS	200.7/200.8	0.02
Supplemental Trace Metals (Groundwater –Dissolved. Surface water Dissolved and Total)			
Aluminum	ICP/ICP-MS	200.7/200.8	0.1
Antimony	ICP/ICP-MS	200.7/200.8	0.005
Barium	ICP/ICP-MS	200.7/200.8	0.1
Beryllium	ICP/ICP-MS	200.7/200.8	0.001
Chromium	ICP/ICP-MS	200.7/200.8	0.001
Cobalt	ICP/ICP-MS	200.7/200.8	0.01
Gold	ICP/ICP-MS	200.7/200.8	0.01
Mercury	ICP/ICP-MS	200.8/E245.1	0.001
Nickel	ICP/ICP-MS	200.7/200.8	0.01
Silver	ICP/ICP-MS	200.7/200.8	0.005
Tellurium	ICP/ICP-MS	200.7/200.8	0.1
Thallium	ICP/ICP-MS	200.7/200.8	0.001
Vanadium	ICP/ICP-MS	200.7/200.8	0.01
Field Parameters			
SWL	Electric Tape	HF-SOP-10	0.01 ft
Temperature	PH Meter	HF-SOP-20	NA
Dissolved Oxygen (DO)	DO Meter	HF-SOP-22	NA
PH	pH Meter	HF-SOP-20	NA
Specific Conductivity (SC)	SC Meter	HF-SOP-79	NA

APPENDIX 5

LABORATORY REPORT

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

ANALYTICAL SUMMARY REPORT

September 23, 2009

Jon Nickel
Asarco LLC
PO Box 1230
East Helena, MT 59635-

Workorder No.: H09090078 Quote ID: H330 - Residential Well

Project Name: RI/FS Long Term Residential Wells-September

Energy Laboratories Inc received the following 6 samples for Asarco LLC on 9/4/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H09090078-001	EHR-0909-300	09/04/09 8:30	09/04/09	Groundwater	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved Solids, Total Suspended
H09090078-002	EHR-0909-301	09/04/09 9:00	09/04/09	Groundwater	Same As Above
H09090078-003	EHR-0909-302	09/04/09 9:20	09/04/09	Groundwater	Same As Above
H09090078-004	EHR-0909-303	09/04/09 11:30	09/04/09	Groundwater	Same As Above
H09090078-005	EHR-0909-304	09/04/09 12:00	09/04/09	Groundwater	Same As Above
H09090078-006	EHR-0909-305	09/04/09 12:30	09/04/09	Groundwater	Same As Above

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Jonathan D. Hager
Digitally signed by Jonathan D. Hager
DN: cn=Jonathan D. Hager, o=Energy Laboratory-Helena, ou=Assistant Lab Manager, email=jhager@energylab.com, c=US
Date: 2009.09.23 09:53:45 -06'00'

Report Approved By:

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-300
Lab ID: H09090078-001
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 08:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	09/08/09 10:58 / hm		PH_090908A	3	090908A-PH-W
Conductivity	479	umhos/cm		1		A2510 B	09/08/09 10:51 / hm		COND_090908A	9	90908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:09 / JG		SOLIDS_090908A	5	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	332	mg/L		10		A2540 C	09/08/09 15:49 / JG		SOLIDS_090908B	5	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 11:42 / JG		TITTR_090909A	4	090909A-ALK-W
Bicarbonate as HCO3	140	mg/L		1		A2320 B	09/09/09 11:42 / JG		TITTR_090909A	4	090909A-ALK-W
Chloride	7	mg/L		1		E300.0	09/08/09 22:25 / hm		IC101-H_090908A	38	R56461
Sulfate	110	mg/L		1		E300.0	09/08/09 22:25 / hm		IC101-H_090908A	38	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Arsenic	ND	mg/L		0.002		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Calcium	57	mg/L		1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Copper	ND	mg/L		0.001		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Iron	0.02	mg/L		0.02		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Magnesium	12	mg/L		1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Potassium	5	mg/L		1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Selenium	0.003	mg/L		0.001		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-300
Lab ID: H09090078-001
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 08:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	18	mg/L		1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:14 / eli-b		SUB-B135794	74	B_R135794
Zinc	0.02	mg/L		0.02		E200.8	09/12/09 01:17 / eli-b		SUB-B135917	11	B_R135917

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-301
Lab ID: H09090078-002
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 09:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:00 / hm		PH_090908A	4	090908A-PH-W
Conductivity	347	umhos/cm		1		A2510 B	09/08/09 10:52 / hm		COND_090908A	1	090908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:10 / JG		SOLIDS_090908A	6	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	224	mg/L		10		A2540 C	09/08/09 15:50 / JG		SOLIDS_090908B	6	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	84	mg/L		1		A2320 B	09/09/09 11:47 / JG		TITTR_090909A	5	090909A-ALK-W
Bicarbonate as HCO3	100	mg/L		1		A2320 B	09/09/09 11:47 / JG		TITTR_090909A	5	090909A-ALK-W
Chloride	6	mg/L		1		E300.0	09/08/09 23:15 / hm		IC101-H_090908A	41	R56461
Sulfate	75	mg/L		1		E300.0	09/08/09 23:15 / hm		IC101-H_090908A	41	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Arsenic	ND	mg/L		0.002		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Calcium	35	mg/L		1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Copper	ND	mg/L		0.001		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Iron	ND	mg/L		0.02		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Magnesium	8	mg/L		1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Potassium	3	mg/L		1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Selenium	0.007	mg/L		0.001		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-301
Lab ID: H09090078-002
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 09:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	19	mg/L		1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:18 / eli-b		SUB-B135794	75	B_R135794
Zinc	ND	mg/L		0.02		E200.8	09/12/09 01:21 / eli-b		SUB-B135917	12	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-302
Lab ID: H09090078-003
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 09:20 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	09/08/09 11:01 / hm		PH_090908A	5	090908A-PH-W
Conductivity	302	umhos/cm		1		A2510 B	09/08/09 10:54 / hm		COND_090908A	1	190908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:10 / JG		SOLIDS_090908A	7	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	194	mg/L		10		A2540 C	09/08/09 15:58 / JG		SOLIDS_090908B	7	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	83	mg/L		1		A2320 B	09/09/09 11:54 / JG		TITTR_090909A	7	090909A-ALK-W
Bicarbonate as HCO3	100	mg/L		1		A2320 B	09/09/09 11:54 / JG		TITTR_090909A	7	090909A-ALK-W
Chloride	5	mg/L		1		E300.0	09/08/09 23:31 / hm		IC101-H_090908A	42	R56461
Sulfate	56	mg/L		1		E300.0	09/08/09 23:31 / hm		IC101-H_090908A	42	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Arsenic	ND	mg/L		0.002		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Calcium	33	mg/L		1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Copper	0.002	mg/L		0.001		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Iron	ND	mg/L		0.02		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Magnesium	7	mg/L		1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Potassium	3	mg/L		1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Selenium	0.002	mg/L		0.001		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-302
Lab ID: H09090078-003
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 09:20 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	13	mg/L		1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:30 / eli-b		SUB-B135794	76	B_R135794
Zinc	ND	mg/L		0.02		E200.8	09/12/09 01:41 / eli-b		SUB-B135917	13	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303
Lab ID: H09090078-004
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:03 / hm		PH_090908A	6	090908A-PH-W
Conductivity	777	umhos/cm		1		A2510 B	09/08/09 10:55 / hm		COND_090908A	1	290908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	9	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	561	mg/L		10		A2540 C	09/08/09 16:00 / JG		SOLIDS_090908B	10	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:10 / JG		TITTR_090909A	10	090909A-ALK-W
Chloride	27	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
Sulfate	240	mg/L		1		E300.0	09/09/09 00:20 / hm		IC101-H_090908A	45	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Cadmium	0.003	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Calcium	105	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Copper	ND	mg/L		0.001		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Selenium	0.026	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-303
Lab ID: H09090078-004
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 11:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:38 / eli-b		SUB-B135794	77	B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:45 / eli-b		SUB-B135917	14	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304
Lab ID: H09090078-005
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	09/08/09 11:04 / hm		PH_090908A	7	090908A-PH-W
Conductivity	811	umhos/cm		1		A2510 B	09/08/09 10:59 / hm		COND_090908A	1	490908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	10	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	588	mg/L		10		A2540 C	09/08/09 16:01 / JG		SOLIDS_090908B	11	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A	11	090909A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	09/09/09 12:20 / JG		TITTR_090909A	11	090909A-ALK-W
Chloride	29	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A	46	R56461
Sulfate	260	mg/L		1		E300.0	09/09/09 00:37 / hm		IC101-H_090908A	46	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Arsenic	0.002	mg/L		0.002		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Calcium	104	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Copper	0.004	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Iron	0.04	mg/L		0.02		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Lead	ND	mg/L		0.005		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Magnesium	23	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Potassium	6	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Selenium	0.023	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-304
Lab ID: H09090078-005
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:00 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	26	mg/L		1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:50 / eli-b		SUB-B135794	78	B_R135794
Zinc	0.03	mg/L		0.02		E200.8	09/12/09 01:49 / eli-b		SUB-B135917	15	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-305
Lab ID: H09090078-006
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.5	s.u.		0.1		A4500-H B	09/08/09 11:06 / hm		PH_090908A	8	090908A-PH-W
Conductivity	20	umhos/cm		1		A2510 B	09/08/09 11:01 / hm		COND_090908A	1	590908A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/08/09 16:11 / JG		SOLIDS_090908A	11	090908A-SLDS-TSS-
Solids, Total Dissolved TDS @ 180 C	108	mg/L		10		A2540 C	09/08/09 16:01 / JG		SOLIDS_090908B	12	090908A-SLDS-TDS-
INORGANICS											
Alkalinity, Total as CaCO3	4	mg/L		1		A2320 B	09/09/09 12:22 / JG		TITTR_090909A	12	090909A-ALK-W
Bicarbonate as HCO3	5	mg/L		1		A2320 B	09/09/09 12:22 / JG		TITTR_090909A	12	090909A-ALK-W
Chloride	2	mg/L		1		E300.0	09/09/09 00:53 / hm		IC101-H_090908A	47	R56461
Sulfate	ND	mg/L		1		E300.0	09/09/09 00:53 / hm		IC101-H_090908A	47	R56461
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Antimony	ND	mg/L		0.005		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Arsenic	ND	mg/L		0.002		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Barium	ND	mg/L		0.1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Beryllium	ND	mg/L		0.001		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Cadmium	ND	mg/L		0.001		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Calcium	ND	mg/L		1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Chromium	ND	mg/L		0.001		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Cobalt	ND	mg/L		0.01		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Copper	0.018	mg/L		0.001		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Gold	ND	mg/L		0.01		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Iron	ND	mg/L		0.02		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Lead	0.005	mg/L		0.005		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Magnesium	ND	mg/L		1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Manganese	ND	mg/L		0.01		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Mercury	ND	mg/L		0.001		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Nickel	ND	mg/L		0.01		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Potassium	ND	mg/L		1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Selenium	ND	mg/L		0.001		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Silver	ND	mg/L		0.005		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0909-305
Lab ID: H09090078-006
Matrix: Groundwater

Project: RI/FS Long Term Residential Wells-September
Collection Date: 09/04/09 12:30 **DateReceived:** 09/04/09
Report Date: 09/23/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	3	mg/L		1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Tellurium	ND	mg/L		0.1		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Thallium	ND	mg/L		0.001		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917
Vanadium	ND	mg/L		0.01		E200.7	09/10/09 16:54 / eli-b		SUB-B135794	79	B_R135794
Zinc	0.06	mg/L		0.02		E200.8	09/12/09 01:53 / eli-b		SUB-B135917	16	B_R135917

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: *23-Sep-09*

BatchID: 090908A-COND-PROBE

Run ID :Run Order: **COND_090908A: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090908A** Method: **A2510 B**
Analysis Date: **09/08/09 10:29** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1400	1.0	1412		99	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **COND_090908A: 13** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV1_090908A** Method: **A2510 B**
Analysis Date: **09/08/09 10:58** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	718	1.0	718		100	90	110				

Associated samples: **H09090078-005A; H09090078-006A**

Run ID :Run Order: **COND_090908A: 16** SampType: **Sample Duplicate** Sample ID: **H09090078-006ADUP** Method: **A2510 B**
Analysis Date: **09/08/09 11:02** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	19.2	1.0						20.19	4.8	10	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: 090908A-PH-W

Run ID :Run Order: **PH_090908A: 1** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090908A** Method: **A4500-H B**

Analysis Date: **09/08/09 10:50** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.02	0.10	7		100	99	101				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **PH_090908A: 9** SampType: **Sample Duplicate** Sample ID: **H09090078-006ADUP** Method: **A4500-H B**

Analysis Date: **09/08/09 11:07** Units: **s.u.** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	5.54	0.10						5.5	0.7	2	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: *23-Sep-09*

BatchID: 090908A-SLDS-TDS-W

Run ID :Run Order: **SOLIDS_090908B: 1** SampType: **Method Blank** Sample ID: **MBLK1_090908A** Method: **A2540 C**
Analysis Date: **09/08/09 15:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	ND	1.0									

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **SOLIDS_090908B: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090908A** Method: **A2540 C**
Analysis Date: **09/08/09 15:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	985	10	1000		99	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **SOLIDS_090908B: 8** SampType: **Sample Matrix Spike** Sample ID: **H09090078-003AMS** Method: **A2540 C**
Analysis Date: **09/08/09 15:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2160	10	2000	194	98	80	120				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **SOLIDS_090908B: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09090078-003AMSD** Method: **A2540 C**
Analysis Date: **09/08/09 15:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2150	10	2000	194	98	80	120	2162	0.4	10	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **SOLIDS_090908B: 13** SampType: **Sample Duplicate** Sample ID: **H09090078-006ADUP** Method: **A2540 C**
Analysis Date: **09/08/09 16:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	112	10						108	3.6	20	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: 090908A-SLDS-TSS-W

Run ID :Run Order: **SOLIDS_090908A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090908A** Method: **A2540 D**
Analysis Date: **09/08/09 16:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1									

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **SOLIDS_090908A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090908A** Method: **A2540 D**
Analysis Date: **09/08/09 16:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	1950	10	2000		98	70	130				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **SOLIDS_090908A: 8** SampType: **Sample Duplicate** Sample ID: **H09090078-003ADUP** Method: **A2540 D**
Analysis Date: **09/08/09 16:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	10								10	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: 090909A-ALK-W

Run ID :Run Order: **TITTR_090909A: 1** SampType: **Method Blank** Sample ID: **MBLK1_090909A** Method: **A2320 B**
Analysis Date: **09/09/09 11:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	1									

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **TITTR_090909A: 2** SampType: **Laboratory Control Sample** Sample ID: **LCS1_090909A** Method: **A2320 B**
Analysis Date: **09/09/09 11:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	570	4.0	600		96	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **TITTR_090909A: 6** SampType: **Sample Duplicate** Sample ID: **H09090078-002ADUP** Method: **A2320 B**
Analysis Date: **09/09/09 11:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	85	4.0						84.45	1.2	20	
Bicarbonate as HCO3	100	4.0						103	1.2	20	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **TITTR_090909A: 8** SampType: **Sample Matrix Spike** Sample ID: **H09090078-003AMS** Method: **A2320 B**
Analysis Date: **09/09/09 11:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	650	4.0	600	83.47	94	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **TITTR_090909A: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09090078-003AMSD** Method: **A2320 B**
Analysis Date: **09/09/09 12:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	650	4.0	600	83.47	94	90	110	647.1	0.2	20	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135794

Run ID :Run Order: **SUB-B135794: 20** SampType: **Method Blank** Sample ID: **MB-SPDIS090910A** Method: **E200.7**

Analysis Date: **09/10/09 10:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	ND	0.02									
Aluminum	ND	0.008									
Barium	ND	0.0001									
Beryllium	0.0003	9E-05									
Cadmium	0.001	0.0009									
Calcium	ND	0.009									
Cobalt	ND	0.001									
Copper	0.001	0.0009									
Gold	ND	0.004									
Iron	ND	0.002									
Magnesium	ND	0.01									
Manganese	0.0008	0.0003									
Nickel	ND	0.002									
Potassium	ND	0.01									
Silver	ND	0.002									
Sodium	ND	0.03									
Vanadium	ND	0.003									

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135794: 21** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090910A** Method: **E200.7**

Analysis Date: **09/10/09 10:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	1.05	0.10	1		105	85	115				
Aluminum	4.88	0.10	5		98	85	115				
Barium	0.992	0.10	1		99	85	115				
Beryllium	0.516	0.010	0.5	0.0003	103	85	115				
Cadmium	0.503	0.010	0.5	0.00102	100	85	115				
Calcium	51.7	1.0	50		103	85	115				
Cobalt	1.02	0.020	1		102	85	115				
Copper	0.984	0.010	1	0.00123	98	85	115				
Gold	0.956	0.0045	1		96	85	115				
Iron	4.99	0.030	5		100	85	115				
Magnesium	50.3	1.0	50		101	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
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N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: *23-Sep-09*

BatchID: B_R135794

Run ID :Run Order: **SUB-B135794: 21** SampType: **Laboratory Fortified Blank** Sample ID: **LFB-SPDIS090910A** Method: **E200.7**

Analysis Date: **09/10/09 10:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	5.08	0.010	5	0.00077	102	85	115				
Nickel	1.01	0.050	1		101	85	115				
Potassium	49.5	1.0	50		99	85	115				
Silver	0.448	0.010	0.5		90	85	115				
Sodium	50.6	1.0	50		101	85	115				
Vanadium	1.01	0.10	1		101	85	115				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135794: 24** SampType: **Continuing Calibration Verification Standard** Sample ID: **ICV** Method: **E200.7**

Analysis Date: **09/10/09 13:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tellurium	2.62	0.10	2.5		105	95	105				
Aluminum	2.45	0.10	2.5		98	95	105				
Barium	2.53	0.10	2.5		101	95	105				
Beryllium	1.29	0.010	1.25		103	95	105				
Cadmium	2.53	0.010	2.5		101	95	105				
Calcium	25.8	1.0	25		103	95	105				
Cobalt	2.52	0.020	2.5		101	95	105				
Copper	2.41	0.010	2.5		96	95	105				
Gold	2.47	0.0043	2.5		99	95	105				
Iron	2.51	0.030	2.5		100	95	105				
Magnesium	24.5	1.0	25		98	95	105				
Manganese	2.52	0.010	2.5		101	95	105				
Nickel	2.50	0.050	2.5		100	95	105				
Potassium	24.7	1.0	25		99	95	105				
Silver	0.489	0.010	0.5		98	95	105				
Sodium	25.3	1.0	25		101	95	105				
Vanadium	2.50	0.10	2.5		100	95	105				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Qualifiers:
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ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135794

Run ID :Run Order: **SUB-B135794: 66** SampType: **Sample Matrix Spike** Sample ID: **B09090836-010BMS2** Method: **E200.7**

Analysis Date: **09/10/09 17:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.93	0.10	5		99	70	130				
Barium	1.03	0.10	1		103	70	130				
Beryllium	0.491	0.0010	0.5		98	70	130				
Cadmium	0.504	0.0010	0.5		101	70	130				
Calcium	49.7	1.0	50		99	70	130				
Cobalt	1.02	0.010	1		102	70	130				
Copper	0.974	0.010	1		97	70	130				
Gold	0.927	0.010	1		93	70	130				
Iron	5.01	0.030	5		100	70	130				
Magnesium	49.9	1.0	50		100	70	130				
Manganese	4.97	0.010	5		99	70	130				
Nickel	1.02	0.010	1		102	70	130				
Potassium	49.4	1.0	50		99	70	130				
Silver	0.0544	0.0050	0.5		11	70	130				S
Sodium	50.2	1.0	50		100	70	130				
Tellurium	1.03	0.021	1		103	70	130				
Vanadium	1.01	0.10	1		101	70	130				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135794: 67** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09090836-010BMSD2** Method: **E200.7**

Analysis Date: **09/10/09 17:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.83	0.10	5		97	70	130	4.932	2	20	
Barium	1.01	0.10	1		101	70	130	1.03	2.2	20	
Beryllium	0.489	0.0010	0.5		98	70	130	0.4914	0.4	20	
Cadmium	0.493	0.0010	0.5		99	70	130	0.5044	2.3	20	
Calcium	49.0	1.0	50		98	70	130	49.68	1.5	20	
Cobalt	0.997	0.010	1		100	70	130	1.019	2.1	20	
Copper	0.958	0.010	1		96	70	130	0.9744	1.7	20	
Gold	0.897	0.010	1		90	70	130	0.927	3.3	20	
Iron	4.91	0.030	5		98	70	130	5.007	1.9	20	
Magnesium	48.8	1.0	50		98	70	130	49.85	2.1	20	
Manganese	4.91	0.010	5		98	70	130	4.97	1.3	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135794

Run ID :Run Order: **SUB-B135794: 67** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09090836-010BMSD2** Method: **E200.7**

Analysis Date: **09/10/09 17:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	1.01	0.010	1		101	70	130	1.022	1.6	20	
Potassium	51.6	1.0	50		103	70	130	49.41	4.3	20	
Silver	0.0705	0.0050	0.5		14	70	130	0.05437	26	20	SR
Sodium	50.0	1.0	50		100	70	130	50.2	0.3	20	
Tellurium	0.995	0.021	1		99	70	130	1.033	3.8	20	
Vanadium	0.989	0.10	1		99	70	130	1.006	1.8	20	

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135794: 68** SampType: **Sample Matrix Spike** Sample ID: **B09090939-001BMS2** Method: **E200.7**

Analysis Date: **09/10/09 18:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10.2	0.10	10		102	70	130				
Barium	2.71	0.10	2	0.651	103	70	130				
Beryllium	1.03	0.0010	1		103	70	130				
Cadmium	1.02	0.0016	1		102	70	130				
Calcium	145	1.0	100	44.4	101	70	130				
Cobalt	2.06	0.010	2		103	70	130				
Copper	2.01	0.010	2	0.00356	100	70	130				
Gold	1.95	0.010	2		98	70	130				
Iron	10.2	0.030	10	0.05122	102	70	130				
Magnesium	119	1.0	100	17.52	102	70	130				
Manganese	10.1	0.010	10	0.0533	101	70	130				
Nickel	2.07	0.010	2		103	70	130				
Potassium	114	1.4	100	11.74	102	70	130				
Silver	0.511	0.0050	1		51	70	130				S
Sodium	601	1.0	100	492.6		70	130				A
Tellurium	2.06	0.041	2		103	70	130				
Vanadium	2.04	0.10	2		102	70	130				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Qualifiers:
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R - RPD outside accepted recovery limits
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ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135794

Run ID :Run Order: **SUB-B135794: 69** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09090939-001BMSD2** Method: **E200.7**

Analysis Date: **09/10/09 18:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10.1	0.10	10		101	70	130	10.18	0.5	20	
Barium	2.84	0.10	2	0.651	109	70	130	2.707	4.7	20	
Beryllium	1.02	0.0010	1		102	70	130	1.026	0.5	20	
Cadmium	1.00	0.0016	1		100	70	130	1.022	1.7	20	
Calcium	146	1.0	100	44.4	101	70	130	145.4	0.1	20	
Cobalt	2.02	0.010	2		101	70	130	2.056	1.5	20	
Copper	1.96	0.010	2	0.00356	98	70	130	2.011	2.5	20	
Gold	1.96	0.010	2		98	70	130	1.951	0.3	20	
Iron	9.94	0.030	10	0.05122	99	70	130	10.23	2.9	20	
Magnesium	118	1.0	100	17.52	101	70	130	119.3	0.7	20	
Manganese	10.00	0.010	10	0.0533	99	70	130	10.11	1.2	20	
Nickel	2.04	0.010	2		102	70	130	2.066	1.1	20	
Potassium	112	1.4	100	11.74	100	70	130	114.1	2	20	
Silver	0.517	0.0050	1		52	70	130	0.5114	1	20	S
Sodium	605	1.0	100	492.6		70	130	600.7	0.6	20	A
Tellurium	2.05	0.041	2		102	70	130	2.058	0.6	20	
Vanadium	2.00	0.10	2		100	70	130	2.037	1.8	20	

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135794: 80** SampType: **Sample Matrix Spike** Sample ID: **H09090078-002B** Method: **E200.7**

Analysis Date: **09/10/09 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.96	0.10	5		99	70	130				
Barium	1.06	0.10	1	0.03538	103	70	130				
Beryllium	0.504	0.0010	0.5		101	70	130				
Cadmium	0.505	0.0010	0.5		101	70	130				
Calcium	85.0	1.0	50	34.62	101	70	130				
Cobalt	1.02	0.010	1		102	70	130				
Copper	0.971	0.010	1		97	70	130				
Gold	0.880	0.010	1		88	70	130				
Iron	4.96	0.030	5	0.00807	99	70	130				
Magnesium	57.5	1.0	50	8.18	99	70	130				
Manganese	5.01	0.010	5	0.00091	100	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135794

Run ID :Run Order: **SUB-B135794: 80** SampType: **Sample Matrix Spike** Sample ID: **H09090078-002B** Method: **E200.7**
Analysis Date: **09/10/09 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	1.03	0.010	1		103	70	130				
Potassium	53.9	1.0	50	2.835	102	70	130				
Silver	0.0433	0.0050	0.5		9	70	130				S
Sodium	70.0	1.0	50	19.3	101	70	130				
Tellurium	1.02	0.021	1		102	70	130				
Vanadium	1.00	0.10	1		100	70	130				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135794: 81** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09090078-002B** Method: **E200.7**
Analysis Date: **09/10/09 16:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.77	0.10	5		95	70	130	4.959	3.9	20	
Barium	1.05	0.10	1	0.03538	101	70	130	1.062	1.2	20	
Beryllium	0.490	0.0010	0.5		98	70	130	0.5045	2.9	20	
Cadmium	0.488	0.0010	0.5		98	70	130	0.5048	3.5	20	
Calcium	82.4	1.0	50	34.62	96	70	130	84.98	3.1	20	
Cobalt	0.992	0.010	1		99	70	130	1.024	3.2	20	
Copper	0.953	0.010	1		95	70	130	0.9713	1.9	20	
Gold	0.855	0.010	1		85	70	130	0.8796	2.9	20	
Iron	4.90	0.030	5	0.00807	98	70	130	4.962	1.3	20	
Magnesium	56.4	1.0	50	8.18	97	70	130	57.47	1.8	20	
Manganese	4.91	0.010	5	0.00091	98	70	130	5.007	2	20	
Nickel	0.993	0.010	1		99	70	130	1.026	3.3	20	
Potassium	53.0	1.0	50	2.835	100	70	130	53.87	1.5	20	
Silver	0.0601	0.0050	0.5		12	70	130	0.04332	32	20	SR
Sodium	69.9	1.0	50	19.3	101	70	130	70.04	0.1	20	
Tellurium	1.00	0.021	1		100	70	130	1.018	1.6	20	
Vanadium	0.984	0.10	1		98	70	130	1.003	2	20	

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135917

Run ID :Run Order: **SUB-B135917: 2** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, 080814C** Method: **E200.8**

Analysis Date: **09/11/09 09:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0460	0.050	0.05		92	90	110				
Arsenic	0.0500	0.0050	0.05		100	90	110				
Cadmium	0.0259	0.0010	0.025		103	90	110				
Chromium	0.0508	0.010	0.05		102	90	110				
Copper	0.0515	0.010	0.05		103	90	110				
Lead	0.0500	0.010	0.05		100	90	110				
Mercury	0.00181	0.0010	0.002		91	90	110				
Selenium	0.0506	0.0050	0.05		101	90	110				
Thallium	0.0500	0.10	0.05		100	90	110				
Zinc	0.0509	0.010	0.05		102	90	110				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 6** SampType: **Method Blank** Sample ID: **LRB** Method: **E200.8**

Analysis Date: **09/11/09 12:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	5E-05									
Arsenic	ND	3E-05									
Cadmium	ND	1E-05									
Chromium	ND	0.0002									
Copper	ND	8E-05									
Lead	ND	8E-06									
Mercury	1E-05	8E-06									
Selenium	ND	0.0002									
Thallium	3E-05	8E-06									
Zinc	0.0010	0.0001									

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 7** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**

Analysis Date: **09/11/09 12:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0504	0.050	0.05		101	85	115				

Qualifiers:
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: *23-Sep-09*

BatchID: B_R135917

Run ID :Run Order: **SUB-B135917: 7** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E200.8**
Analysis Date: **09/11/09 12:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0508	0.0050	0.05		102	85	115				
Cadmium	0.0516	0.0010	0.05		103	85	115				
Chromium	0.0510	0.010	0.05		102	85	115				
Copper	0.0530	0.010	0.05		106	85	115				
Lead	0.0522	0.010	0.05		104	85	115				
Mercury	0.00102	0.0010	0.001	0.00001	101	85	115				
Selenium	0.0512	0.0050	0.05		102	85	115				
Thallium	0.0515	0.10	0.05	0.00003	103	85	115				
Zinc	0.0521	0.010	0.05	0.00096	102	85	115				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 8** SampType: **Sample Matrix Spike** Sample ID: **B09090724-001AMS** Method: **E200.8**
Analysis Date: **09/11/09 20:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0482	0.0030	0.05		96	70	130				
Arsenic	0.0493	0.0010	0.05	0.00031	98	70	130				
Cadmium	0.0512	0.0010	0.05		102	70	130				
Chromium	0.0539	0.010	0.05	0.00097	106	70	130				
Copper	0.0640	0.010	0.05	0.0122	104	70	130				
Lead	0.0536	0.0010	0.05	0.00153	104	70	130				
Mercury	0.00102	0.00020	0.001		102	70	130				
Selenium	0.0514	0.0050	0.05	0.00105	101	70	130				
Thallium	0.0509	0.0010	0.05		102	70	130				
Zinc	0.183	0.010	0.05	0.1317	103	70	130				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09090724-001AMSD** Method: **E200.8**
Analysis Date: **09/11/09 20:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0515	0.0030	0.05		103	70	130	0.04824	6.6	20	
Arsenic	0.0521	0.0010	0.05	0.00031	104	70	130	0.04934	5.5	20	
Cadmium	0.0511	0.0010	0.05		102	70	130	0.0512	0.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135917

Run ID :Run Order: **SUB-B135917: 9** SampType: **Sample Matrix Spike Duplicate** Sample ID: **B09090724-001AMSD** Method: **E200.8**

Analysis Date: **09/11/09 20:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.0530	0.010	0.05	0.00097	104	70	130	0.05386	1.5	20	
Copper	0.0632	0.010	0.05	0.0122	102	70	130	0.06396	1.2	20	
Lead	0.0539	0.0010	0.05	0.00153	105	70	130	0.05359	0.6	20	
Mercury	0.00102	0.00020	0.001		102	70	130	0.00102	0.5	20	
Selenium	0.0540	0.0050	0.05	0.00105	106	70	130	0.05138	5	20	
Thallium	0.0516	0.0010	0.05		103	70	130	0.05087	1.5	20	
Zinc	0.180	0.010	0.05	0.1317	96	70	130	0.183	1.9	20	

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 17** SampType: **Initial Calibration Verification Standard** Sample ID: **QCS - 090602A,090609B, ME080814C** Method: **E200.8**

Analysis Date: **09/11/09 23:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0464	0.050	0.05		93	90	110				
Arsenic	0.0504	0.0050	0.05		101	90	110				
Cadmium	0.0260	0.0010	0.025		104	90	110				
Chromium	0.0516	0.010	0.05		103	90	110				
Copper	0.0523	0.010	0.05		105	90	110				
Lead	0.0501	0.010	0.05		100	90	110				
Mercury	0.00186	0.0010	0.002		93	90	110				
Selenium	0.0513	0.0050	0.05		103	90	110				
Thallium	0.0503	0.10	0.05		101	90	110				
Zinc	0.0515	0.010	0.05		103	90	110				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 18** SampType: **Sample Matrix Spike** Sample ID: **H09090078-006B** Method: **E200.8**

Analysis Date: **09/12/09 01:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0498	0.0050	0.05	0.0002	99	70	130				
Arsenic	0.0516	0.0050	0.05	0.00074	102	70	130				
Cadmium	0.0508	0.0010	0.05		102	70	130				
Chromium	0.0514	0.010	0.05		103	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: B_R135917

Run ID :Run Order: **SUB-B135917: 18** SampType: **Sample Matrix Spike** Sample ID: **H09090078-006B** Method: **E200.8**

Analysis Date: **09/12/09 01:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0735	0.010	0.05	0.02116	105	70	130				
Lead	0.0559	0.010	0.05	0.00534	101	70	130				
Mercury	0.000970	0.0010	0.001		97	70	130				
Selenium	0.0522	0.0050	0.05	0.00023	104	70	130				
Thallium	0.0504	0.0050	0.05		101	70	130				
Zinc	0.114	0.010	0.05	0.06221	104	70	130				

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Run ID :Run Order: **SUB-B135917: 19** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09090078-006B** Method: **E200.8**

Analysis Date: **09/12/09 02:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0479	0.0050	0.05	0.0002	95	70	130	0.04976	3.7	20	
Arsenic	0.0492	0.0050	0.05	0.00074	97	70	130	0.05156	4.7	20	
Cadmium	0.0504	0.0010	0.05		101	70	130	0.05081	0.8	20	
Chromium	0.0508	0.010	0.05		102	70	130	0.05138	1	20	
Copper	0.0736	0.010	0.05	0.02116	105	70	130	0.07349	0.1	20	
Lead	0.0555	0.010	0.05	0.00534	100	70	130	0.05594	0.8	20	
Mercury	0.000962	0.0010	0.001		96	70	130	0.00097		20	
Selenium	0.0500	0.0050	0.05	0.00023	99	70	130	0.05217	4.3	20	
Thallium	0.0494	0.0050	0.05		99	70	130	0.05038	2	20	
Zinc	0.114	0.010	0.05	0.06221	104	70	130	0.114	0.2	20	

Associated samples: **H09090078-001B; H09090078-002B; H09090078-003B; H09090078-004B; H09090078-005B; H09090078-006B**

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: R56461

Run ID :Run Order: **IC101-H_090908A: 13** SampType: **Initial Calibration Verification Standard** Sample ID: **ICV** Method: **E300.0**
Analysis Date: **09/08/09 15:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2.5	1.0	2.5		102	90	110				
Sulfate	9.7	1.0	10		97	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **IC101-H_090908A: 14** SampType: **Laboratory Control Sample** Sample ID: **LCS** Method: **E300.0**
Analysis Date: **09/08/09 15:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	88	1.0	87.47		101	90	110				
Sulfate	28	1.0	28.53		97	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **IC101-H_090908A: 15** SampType: **Laboratory Fortified Blank** Sample ID: **LFB** Method: **E300.0**
Analysis Date: **09/08/09 15:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.8	1.0	5		97	90	110				
Sulfate	9.9	1.0	10		99	90	110				

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **IC101-H_090908A: 16** SampType: **Method Blank** Sample ID: **MBLK** Method: **E300.0**
Analysis Date: **09/08/09 16:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Run ID :Run Order: **IC101-H_090908A: 30** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **09/08/09 19:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23	1.0	25		94	90	110				
Sulfate	49	1.0	50		99	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
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A - Analyte concentration greater than three times the spike amount

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Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: 23-Sep-09

BatchID: R56461

Run ID :Run Order: **IC101-H_090908A: 30** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **09/08/09 19:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: H09090078-001A; H09090078-002A; H09090078-003A

Run ID :Run Order: **IC101-H_090908A: 39** SampType: **Sample Matrix Spike** Sample ID: **H09090078-001A MS** Method: **E300.0**
Analysis Date: **09/08/09 22:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	32	1.0	25	6.584	102	90	110				
Sulfate	170	1.0	50	114	106	90	110				

Associated samples: H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A

Run ID :Run Order: **IC101-H_090908A: 40** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09090078-001A MSD** Method: **E300.0**
Analysis Date: **09/08/09 22:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	31	1.0	25	6.584	99	90	110	32.02	2.3	20	
Sulfate	170	1.0	50	114	105	90	110	166.8	0.2	20	

Associated samples: H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A

Run ID :Run Order: **IC101-H_090908A: 43** SampType: **Continuing Calibration Verification Standard** Sample ID: **CCV** Method: **E300.0**
Analysis Date: **09/08/09 23:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	24	1.0	25		94	90	110				
Sulfate	49	1.0	50		98	90	110				

Associated samples: H09090078-004A; H09090078-005A; H09090078-006A

Run ID :Run Order: **IC101-H_090908A: 48** SampType: **Sample Matrix Spike** Sample ID: **H09090078-006A MS** Method: **E300.0**
Analysis Date: **09/09/09 01:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.704	96	90	110				
Sulfate	50	1.0	50	0.547	99	90	110				

Associated samples: H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

Client: Asarco LLC
Work Order: H09090078
Project: RI/FS Long Term Residential Wells-Septem

ANALYTICAL QC SUMMARY REPORT

Date: *23-Sep-09*

BatchID: R56461

Run ID :Run Order: **IC101-H_090908A: 49** SampType: **Sample Matrix Spike Duplicate** Sample ID: **H09090078-006A MSD** Method: **E300.0**

Analysis Date: **09/09/09 01:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26	1.0	25	1.704	96	90	110	25.82	0.9	20	
Sulfate	50	1.0	50	0.547	99	90	110	50.15	0.6	20	

Associated samples: **H09090078-001A; H09090078-002A; H09090078-003A; H09090078-004A; H09090078-005A; H09090078-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

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Energy Laboratories Inc
Workorder Receipt Checklist

H09090078

Asarco LLC

Login completed by: Amanda B. Blackburn
Date and Time Received: 9/4/2009 1:40 PM

Reviewed by: BL2000\wjohnson
Received by: mrt

Reviewed Date: 9/8/2009 8:34:24 AM
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	11.4°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None