ANALYTICAL RESULTS FOR SURFACE WATER AND SEDIMENT MONITORING ACTIVITIES CONDUCTED SEPTEMBER AND NOVEMBER 2000

ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR UPPER SILVER CREEK WATERSHED

February 8, 2001

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1.0 INTRODUCTION

This report presents the results of a water quality assessment of the upper Silver Creek watershed that was conducted for the Upper Silver Creek Watershed Stakeholders Group (USCWSG) by United Park City Mines (UPCM). Resource Management Consultants (RMC) working for UPCM conducted the assessment. Surface water and sediment sampling was conducted on September 27 and 28, 2000. Five surface water sampling locations were resampled on November 7, 2000. Samples collected during September and November represent low flow conditions.

The water quality assessment was conducted in accordance with the Sample and Analysis Plan (SAP) for the USCWSC dated May 2, 2000 (RMC, 2000). The work was also conducted in accordance with the National Contingency Plan (NCP), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), with the oversight and approval of the United States Environmental Protection Agency (EPA) and the Utah Department of Environmental Response and Remediation (UDERR).

The EPA Project Manager, Jim Christiansen, and Alan Jones with UDERR provided oversight. Gary Colgan, the Quality Assurance official was present to observe some of the sample collection procedures.

In November of 1999, the USCWSG was formed to examine environmental concerns in the Silver Creek watershed. As part of that examination, the group has initiated an assessment of water quality in the upper Silver Creek watershed. This report presents water quality and limited quantity data as well as the results of sediment analysis for review and discussion by the USCWSG.

The objectives, as determined by the USCWSG, of the water quality assessment are stated in the SAP (RMC, May 2, 2000). In summary, the objectives of the were to collect samples to identify potential source areas that may adversely impact Silver Creek water quality, coordinate data collection activities, provide data for Total Maximum Daily Load

(TMDL) analyses, establish procedures for data analyses, define Quality Assurance/Quality Control measures, and establish Health and Safety procedures.

2.0 REPORT ORGANIZATION

The format of this report has been selected to present a narrative on the water and stream-bed sediment sample collection activities, briefly discuss the analytical results, note general observations and document the Quality Assurance/Quality Control (QAQC) review of the data. The QAQC data review is presented in Appendix A of this report. The laboratory analytical reports are in Appendix B. Figure 1 of this report graphically portrays locations of the sample stations. Tables 1 - 3 summarize the data collected in September and November.

3.0 WATER SAMPLE COLLECTION

Fourteen (14) surface water samples were collected during the field activities, stream flow measurements were conducted at seven (7) locations. In the May 2, 2000 SAP, there were thirty-one (31) sample locations selected to characterize water quality in the study area. Due to a lack of flow in September or November not all of the sampling locations defined in the SAP were sampled. The study area is shown on Figure 2.0 of the SAP and can be described as Silver Creek tributary drainages beginning south of Park City, Utah downstream to just below the Richardson Flat tailings impoundment. In addition the Thaynes Canyon drainage was also included in the study area it is a tributary of East Canyon Creek. Of the thirty-one (31) locations identified in the SAP ten (10) were sampled and four (4) opportunity samples were collected (see Table 1). Opportunity samples are identified in the SAP as those samples that are selected, in the field, by the sampling team based on observed conditions.

The sampling was conducted to collect water quality and quantity data during low flow conditions. Water was not present at any of the upper watershed locations (south of Park City).

Due to an incomplete laboratory analysis for mercury five (5) sample locations were resampled on November 7, 2000. The laboratory analyzing the September samples for mercury did not analyze the samples for dissolved concentrations of mercury. The samples were resampled in November and analyzed for both total and dissolved concentrations of mercury.

At each location field parameters, pH, conductivity, and temperature were measured. Where possible, flow data was collected using either a Parshall flume, flow meter, or calibrated bucket and stop watch. Water quality samples were collected and preserved, sealed with tamper tape and stored for that day in an ice-chest. At the end of the day the samples were either delivered directly to the analytical laboratory or stored in a secured refrigerator.

UDERR representatives collected duplicate samples at various locations, laboratory analytical data are pending and will be incorporated into this report when available.

3.1 WATER QUALITY AND QUANTITY RESULTS

Water quality samples were analyzed for inorganic parameters and at some sites for nutrient and sediment parameters. Table 1 presents a summary of field data collected during sampling activities. Table 2 presents a summary of the analytical data collected for this sampling event. Appendix A contains laboratory analytical data reports. Not all tributary drainages were sampled due to the low or non-existent flows in the ephemeral and intermittent drainages. As expected the flow data shows that stream flows decreased from the spring sampling event.

3.2 WATER QUALITY DATA VALIDATION

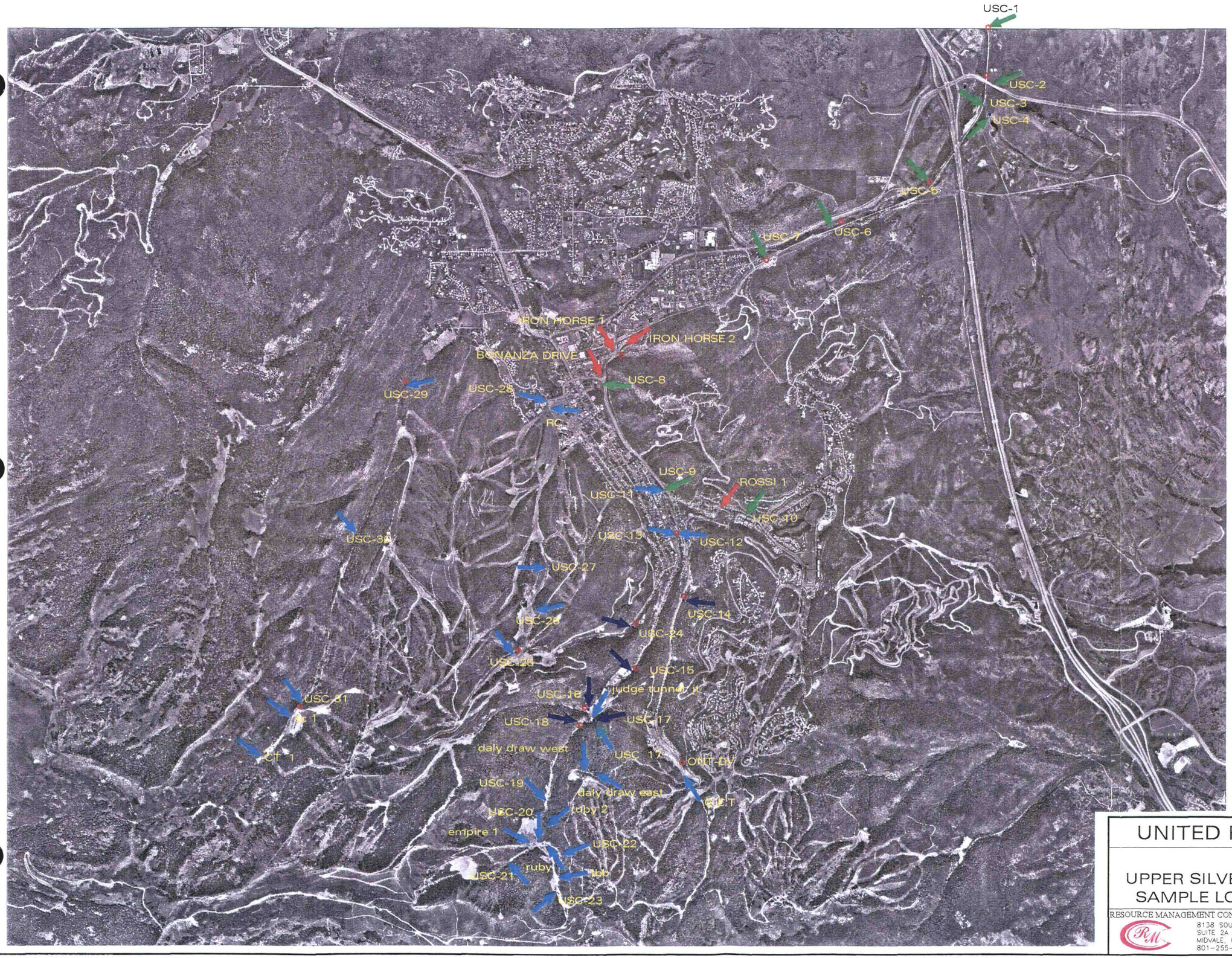
Appendix A contains the water quality data validation report. The data validation process evaluates if the specific requirements for the intended use have been fulfilled and ensures that the results conform to the user's needs. Overall, the data appear to be adequate for the intended use and of good quality.

4.0 STREAM –BED SEDIMENT SAMPLE COLLECTION

Stream-bed sediment samples were collected at sixteen (16) locations. Surface stream-bed sediment samples were collected at each of the sixteen locations. The surface stream-bed sediment samples were collected as composite samples consisting of ten (10) subsamples. At-depth stream-bed sediment samples were collected as discrete samples from the 0 to 12" depth interval at ten (10) locations.

4.1 STREAM-BED SEDIMENT SAMPLING RESULTS

Stream-bed sediment samples were analyzed for metals parameters. Table 3 presents a summary of the stream-bed sediment analytical data collected for this sampling event. Due to difficult ground conditions at-depth samples were not collected at all locations. Appendix C contains laboratory analytical data reports.



LEGEND

- PARSHALL FLUME LOCATION
- NON GAUGED SAMPLING LOCATION
- SEDIMENT SAMPLING LOCATION
- LOCATION SAMPLED FALL 2000
- OPPORTUNITY SAMPLE FALL 2000

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NOT TO SCALE

UNITED PARK CITY MINES

FIGURE 1
UPPER SILVER CREEK WATERSHED SAMPLE LOCATIONS, FALL 2000

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DECEMBER 2000

SAP-ANALYTICAL-table5-FALL-2000

Table 1, Upper Siver Creek Watershed Field Paramaters, Fall 2000

FIELD PARAMETERS					
LOCATION	FLOW (gpm)	PH	CONDUCTIVITY	TEMP (C)	COMMENTS
USC-1	842.01	7.33	1251	7.3	flowmeter 9/27/2000
USC-2	nfm	7.11	. 1158	6.5	
USC-3	746.18	7.64	1039	7.9	flowmeter 9/27/2000
USC-4	49.8	7.07	2090	9.7	18 inch flume reading 0.06'
USC-5	nfm	7.48	11.8	1023.0	
USC-6	nfm	7.46	1606	10.9	
USC-7	53.86	7.98	1369	8.0	flowmeter 9/27/00
USC-8	167.41	7.98	1346	15.1	flowmeter 9/27/00
USC-9	323.16	8.01	1091	13.5	flowmeter 9/27/00
USC-10	185.37	7.6	1079	13.5	flowmeter 9/27/00
RESAMPLE FOR HG TOTAL AND DISSOLVED					
USC-1	357.38	7.55	1565	0.1	RESAMPLE 11/7/00 FOR HG
USC-4	49.8	6.9	2070	5.2	RESAMPLE 11/7/00 - flume 0.06 FOR HG
USC-6	nfm	7.21	3010	2.0	RESAMPLE 11/7/00 FOR HG -
USC-7	nfm	7.67	10170	2.9	RESAMPLE 11/7/00 FOR HG
USC-8	nfm	7.76	9420	2.6	RESAMPLE 11/7/00 FOR HG
OPPORTUNITY SAMPLES					
IRONHORSE 1	nfm	8.11	1381	13	downstream of culvert across lower bonanza drive
IRONHORSE 2	nfm	8.12	1401	13.1	upsteam of culvert at bonanza drive intersection
BONANZA DRIVE	nfm	8.05	1390	13.7	bottom of culvert below usc-8, downstream side of street
ROSSI-1	nfm	7.65	1098	10.4	mouth of culvert @ deer valley drive and rossi hill-9/28/00
DV-3					split of rossi-1

Notes: nfm - no flow measurement

Table 2, Upper Silver Creek Watershed Water Analytical Results, Fall 2000

All values in ppm unless specified

Date	Sample #	AG	AG(D)	AL	AL(D)	ALK.	AS	AS(D)	CA	CAT/AN	CD	CD(D)	CL-	CO3	CR	CR(D)	CU	CU(D)	FE	FE(D)	HARD	HCO3	HG	HG (D)	K	MG	MN	MN(D)	NA	NH3/N	NO2/NO3	PB	PB(D)	PH	PO4-P	SB	SB(D)	SE	SE(D)	SO4=	TDS	TSS	ZN	ZN(D)
																							ppt	ppt																					
27-Sep-00	USC-1	<.005	<.005	0.056	<.050	158	<.005	0.006	163	4	<.005	<.005	87	<1	<.010	<.010	0.012	<.005	0.18	<.1	583	159			2.5	42	0.21	0.21	48	<.1	0.1	0.016	<.005		<.1	0.008	0.008	<.005	<.005	534	902	1.2	0.72	0.72
27-Sep-00	USC-2	0.007	<.005	<.050	<.050	160	<.005	0.007	154	2.2	<.005	<.005	67	<1	<.010	<.010	<.005	<.005	<.1	0.33	552	160			2.6	41	0.25	0.26	38	<.1	<.1	<.005	0.012		<.1	0.008	0.008	<.005	<.005	370	647	1.4	0.63	0.71
27-Sep-00	USC-3	<.005	<.005	<.050	0.17	151	0.006	0.005	138	0.3	<.005	<.005	48	<1	<.010	<.010	0.007	<.005	0.3	<.1	504	151			<2	38	0.26	0.25	33	<.1	<.1	0.019	<.005		<.1	0.009	0.007	<.005	<.005	363	756	1.8	1.2	1.1
27-Sep-00	USC-4	<.005	<.005	<.050	<.050	236	0.008	<.005	363	-1	<.005	<.005	98	<1	<.010	0.038	0.008	<.005	<.1	<.1	1212	236			2.5	74	3.8	4.1	56	<.1	0.55	<.005	<.005		<.1	<.005	<.005	<.005	<.005	1004	1931	<1	0.088	0.055
27-Sep-00	USC-5	<.005	<.005	<.050	<.050	142	<.005	0.005	140	4.1	0.006	<.005	46	<1	<.010	<.010	0.009	<.005	0.69	0.12	505	142			<2	38	0.46	0.48	34	<.1	0.13	0.019	<.005		<.1	0.013	0.006	<.005	<.005	340	350	2.4	1.9	2
27-Sep-00	USC-6	<.005	<.005	<.050	<.050	127	0.019	0.008	153	2.2	<.005	<.005	274	<1	<.010	<.010	0.006	<.005	0.32	<.1	495	127			4.3	27	0.43	0.43	142	<.1	0.13	0.012	<.005		<.1	0.023	0.01	<.005	<.005	271	896	2.2	0.68	0.64
27-Sep-00	USC-7	<.005	<.005	0.089	<.050	146	<.005	0.005	118	6.2	<.005	<.005	227	6	<.010	<.010	0.005	<.005	0.24	<.1	406	140			3.3	27	0.17	0.15	130	<.1	0.12	0.011	<.005		<.1	0.005	<.005	<.005	<.005	160	852	2.4	0.52	0.46
27-Sep-00	USC-7 State Split	<0.002	<0.002				<0.005	<0.005			0.0022	<0.001			<0.005	<0.005	<0.012	<0.012	0.209	0.218							0.183	0.141				0.0088	<0.003									0.499	0.406
27-Sep-00	USC-30	<.005	<.005	<.050	<.050	131	0.008	0.008	160	4.2	<.005	<.005	267	<1	<.010	<.010	0.006	<.005	0.32	<.1	514	131			4.1	28	0.45	0.44	142	<.1	0.12	0.014	<.005		<.1	0.011	0.01	<.005	<.005	267	1027	1.8	0.7	0.84
27-Sep-00	USC-8	<.005	<.005	0.11	<.050	146	<.005	0.005	113	2.5	<.005	<.005	266	4	<.010	<.010	0.006	<.005	0.14	<.1	391	142			3.8	27	0.14	0.016	134	<.1	0.14	0.008	<.005		<.1	<.005	<.005	<.005	<.005	151	811	3.5	0.088	0.067
27-Sep-00	USC-9	<.005	<.005	0.47	<.050	138	<.005	<.005	100	3.6	<.005	<.005	177	<1	<.010	<.010	<.005	<.005	0.5	<.1	358	138			3	26	0.34	0.15	89	<.1	0.2	0.006	<.005		<.1	<.005	<.005	<.005	<.005	148	665	11	0.11	0.037
27-Sep-00	USC-10	<.005	<.005	0.53	<.050	128	<.005	<.005	102	3.1	<.005	<.005	163	<1	<.010	<.010	<.005	<.005	0.45	<.1	384	128			2.9	26	0.53	0.15	82	0.12	0.12	0.006	<.005		<.1	0.007	<.005	<.005	<.005	170	658	13	0.11	0.056
27-Sep-00	IRON HORSE 1										<.005	<.005																				0.007	<.005										0.11	0.085
27-Sep-00	IRON HORSE 2										<.005	<.005																				0.009	<.005										0.091	0.059
27-Sep-00	BONANZA DR.										<.005	<.005																				0.006	<.005										0.086	0.057
28-Sep-00	ROSS 1										<.005	<.005																				<.005	<.005										0.089	0.033
28-Sep-00	DV-3										<.005	<.005																				0.007	<.005										0.097	0.045
07-Nov-00	USC-1	<.005	<.005	0.35	<.050		<.005	<.005			<.005	<.005			<.010	<.010	0.008	<.005	0.88	<.1			51.5 (1)	2.24 (1)			0.84	0.84				0.039	<.005	8.2		0.009	0.009	<.005	<.005		983	11	1.1	1
07-Nov-00	USC-4	<.005	<.005	<.050	<.050		<.005	<.005			<.005	<.005			<.010	<.010	<.005	<.005	<.1	<.1			2.08 (1)	0.97(1)			2.2	2.2				<.005	<.005	7.6		<.005	<.005	<.005	<.005		1838	1	0.11	0.1
07-Nov-00	USC-6	<.005	<.005	<.050	<.050		<.005	<.005			<.005	<.005			<.010	<.010	0.005	<.005	0.53	<.1			22.2(1)	4.06 (1)			0.72	0.73				0.011	<.005	8		0.009	0.015	<.005	<.005		1817	2	1.4	1.4
07-Nov-00	USC-7	<.005	<.005	0.71	<.050		<.005	<.005			0.01	0.007			<.010	<.010	0.018	0.012	0.77	<.1			32.2(1)	4.07(1)			0.88	0.85				0.021	<.005	7.9		0.009	<.005	<.005	<.005		5607	57	2.5	2.1
07-Nov-00	USC-8	<.005	<.005	0.46	<050		<.005	<.005			0.005	0.005			<.010	<.010	0.012	0.007	0.52	<.1			37.4 (1)	10.0 (1)			0.56	0.57				0.012	<.005	8.3		0.006	0.012	<.005	<.005		5257	14	0.41	0.36

(1): the following samples were also analyzed by AEC Laboratories for T and D Hg as part of quarterly sampling.

Table 3, Upper Silver Creek Watershed Sediment Analytical Results, Fall 2000

(all values in ppm, unless noted)

Date	Sample #	Description	AG	AL	AS	CD	CR	CU	FE	HG	PB	SB	SE	ZN
27-Sep-00	USC-1	SURFACE	49	9969	341	50	21	766	66340	0.11	11130	140.*	11	11730
27-Sep-00	USC-1	0-12"	28	11250	332	29	30	602	65540	0.44	5960	122.*	11	6796
27-Sep-00	USC-2	SURFACE	35	8943	177	37	26	430	30900	0.18	4861	97.*	5	6780
27-Sep-00	USC-2	0-12"	40	11590	271	58	32	588	55160	0.25	6942	137.*	10	11950
27-Sep-00	USC-5	SURFACE	48	9308	393	65	22	1380	69730	0.49	11190	175.*	16	12270
27-Sep-00	USC-5	0-12"	19	15220	203	19	31	563	47710	0.41	5794	76.*	<5.0	6624
27-Sep-00	USC-6	SURFACE	81	4930	669	104	15	1115	156800	0.18	12440	232.*	32	15880
27-Sep-00	USC-6	0-12"	136	3181	1735	179	12	2559	110700	1.6	42990	889.*	26	44560
27-Sep-00	USC-7	SURFACE	51	12630	76	27	33	652	21220	<0.1	1320	39.*	16	4231
27-Sep-00	USC-7 State Split	SURFACE*	3.33		<33	14	36.1	47.6	19900	0.4	641		<33.5	2330
27-Sep-00	USC-7	0-12"	20	14720	105	28	42	450	27170	0.83	2656	64.*	<5.0	4619
27-Sep-00	USC-8	SURFACE	17	9296	110	26	33	280	20720	<.01	3132	57.*	5.8	4591
27-Sep-00	USC-8	0-12"	17	10590	115	13	36	275	22450	0.24	3006	58.*	<5.0	3235
27-Sep-00	USC-9	SURFACE	5.4	9986	32	7.2	21	124	18660	0.13	735	15.*	<5.0	1124
27-Sep-00	USC-9	0-12"	16	11230	40	11	55	1600	28510	<0.1	789	24.*	8	2078
28-Sep-00	ONT-DV	SURFACE	<5.0	8502	43	<5.0	19	156	20490	<0.1	227	7.7*	<5.0	292
28-Sep-00	ONT-DV	0-12"	<5.	11750	38	<5.0	30	232	22140	0.24	296	7.6*	<5.0	363
28-Sep-00	ONT-SED	SURFACE	12	6258	64	<5.0	19	157	21180	0.14	484	18.*	<5.0	635
28-Sep-00	CYN.FLUME	SURFACE	138	11310	513	60	40	1540	33600	0.56	12310	258.*	<5.0	10960
28-Sep-00	WOODFLUME	SURFACE	52	8445	419	39	30	616	42120	0.24	11370	226.*	14	6800
28-Sep-00	WOODFLUME	0-12"	51	6423	391	49	26	643	49210	0.16	12770	218.*	16	7565
28-Sep-00	TC-NORTH	SURFACE	<5.0	13880	28	13	25	300	23860	<0.1	845	6.1*	<5.0	2243
28-Sep-00	TC-1	SURFACE	18	12000	149	46	27	1247	39650	<0.1	8383	18.*	13	11440
28-Sep-00	UPPERWOOD	SURFACE	<5.0	9749	31	<5.0	20	259	19460	<0.1	672	14.*	<5.0	495
28-Sep-00	UPPERWOOD	0-12"	<5.0	11710	28	<5.0	26	290	22230	<0.1	551	12.*	<5.0	443
28-Sep-00	GULCHFLUME	SURFACE	28	10540	78	60	17	343	32310	<0.1	17120	95.*	5.2	11680
28-Sep-00	DAILYFLUME	SURFACE	55	8067	187	57	26	569	29290	0.46	9025	84.*	<5.0	9838
28-Sep-00	DAILYFLUME State Split	SURFACE	58.9		117	55.3	33.9	192	17500	2.75	7890		<28.2	10600

APPENDIX A

DATA REVIEW REPORT

Upper Silver Creek Watershed Stakeholders Group
Sampling Round 2

INTRODUCTION

This report presents the results of the validation of analytical data for surface water and sediment samples collected September 27 and 28, 2000 and November 7, 2000 along Upper Silver Creek, near Park City, Utah. The samples collected on November 7, 2000 were repeat samples collected because the original samples for mercury analysis were analyzed for total mercury only, not both total and dissolved mercury. In addition to total and dissolved mercury, the November 7th samples were analyzed for List 2 parameters (except for hardness).

American Environmental Consultants (AEC) Laboratory in Salt Lake City and Frontier Geosciences Inc. (mercury only) performed the analyses. Tables 1 and 2 summarize the samples collected, sample dates, parameters analyzed, and laboratory sample numbers and related laboratory QC batch numbers. The laboratory analytical reports, including the laboratory quality control data, are provided in Appendix A.

The data validation process evaluates whether the specific requirements for an intended use have been fulfilled and ensures that the results conform to the user's needs. This report summarizes the review of sampling and analysis to assess conformance with QC requirements for this project. This data evaluation is presented in terms of the PARCC criteria and is based on the *U.S. EPA Functional Guidelines for Inorganic Data Review* (U.S. EPA, 1994), on the quality control limits established by the analytical laboratory or as specified by the specific analytical method, and on the *Upper Silver Creek Watershed Stakeholders Group Sampling and Analysis Plan (SAP)* (Environmental Resource Management Consultants dba RMC, 2000, revised September 24, 2000). The analytical results were evaluated against data quality objectives (DQOs), which are quantitative and qualitative statements that specify data quality and are expressed in terms of precision, accuracy, representativeness, comparability, and completeness (PARCC). Tables 1 and 3 of the SAP describe the DQOs and QA/QC goals for this project. Table 4 of the SAP presents the data validation and verification requirements for this project.

Twenty-one surface water samples (19 samples plus two duplicates) were analyzed for the parameters noted in Table 1. Twenty-six sediment samples were analyzed for the parameters noted in Table 2. The analytical data were validated and qualified based on the results of the following data evaluation parameters or quality control (QC) samples:

- Appropriate methods run
- Extraction and analytical holding times
- Matrix spike (MS) and matrix spike duplicate (MSD) samples
- Method blank samples
- Laboratory control samples
- Duplicate samples
- Reporting limits
- Cation/anion balances (for water samples).

The next section of this report summarizes the data validation results following the list of data validation and verification requirements in Table 4 of the SAP. The third and final section of this report summarizes the data validation results in terms of PARCC criteria, including completeness calculations expressing the percent complete of valid data compared to the total number of samples collected. This section also makes recommendations for suggested alterations to the sampling and analysis program to improve data collection and analytical protocols in the event additional sampling is conducted.

DATA VALIDATION RESULTS

Sampling Locations and Frequencies

Although it was not possible to collect samples at all sample stations listed in Table 5 of the SAP because of low stream-flow conditions at the time of sample collection, samples and quality control (QC) samples were collected at selected stations and as opportunity samples where possible. At the other stations listed on Table 5 of the SAP, samples were not collected because water was not present.

Sample Collection and Handling

Samples were collected and handled in accordance with the procedures described in the SAP. Sample collection and handling procedures were verified in the field by the Project QA Officer and members of the Stakeholders Group. Sample collection and handling procedures were documented in field notes and chain-of-custody/laboratory request forms. Frontier Geosciences reported that the November 7, 2000 samples they received for mercury analysis were 8.7 °C compared to the less than 4 °C specified in the SAP. The slightly elevated temperature of these samples should not compromise the quality of the samples and analyses.

Analytical Methods

The EPA-approved analytical methods listed in Table 2 of the updated SAP (RMC, 2000) were used in all cases. The laboratory performed internal laboratory calibration checks according to the method-specified protocols. Case narratives were compiled in the analyst's logbook, in digestion logs, and as raw data. All required analytical methods specified in the SAP were run.

Holding Times

Holding time reflects the length of time after sample collection that a sample or extract remains representative of environmental conditions. Holding times were compared to standard method-specific holding times accepted by the EPA as listed in Table 2 of the SAP. Data for samples that were extracted and analyzed within holding time criteria are considered representative. For samples that were extracted or analyzed outside of holding criteria, the sample data are qualitatively evaluated to determine the potential effect of the holding time violation on sample representativeness. All holding times were met for all analytical parameters during Round 2.

Reporting Limits

The reporting limits specified in the SAP (Table 2) were met in all cases by the laboratories.

Duplicates Samples

Two types of duplicate samples were collected during the second sampling round: blind field duplicates and splits collected by the Utah DEQ.

Blind Field Duplicates. Two sets of blind field duplicates of water samples were collected during Round 2: USC-30 was collected as a duplicate of USC-6; and DV3 was collected as a duplicate of ROSS1. This equates to one duplicate per ten samples analyzed for List 1 parameters and one duplicate for every four samples analyzed for only total and dissolved cadmium, lead, and zinc (a 25 percent duplicate rate, which is substantially greater than the 10 percent goal specified in the SAP. Overall, an adequate number of duplicates were collected for water samples on September 27-28, 2000. However, no duplicate sediment samples were collected, no duplicate samples were submitted to Frontier Geosciences for mercury analysis, and no duplicate samples were collected during the supplemental water sampling November 7, 2000.

Table 3 summarizes the relative percent difference (RPD) calculations for the duplicates collected of water samples. For the USC-6/USC-30 duplicate set, the calculated RPDs are generally excellent, all less than 20 percent compared to the QA/QC goal of 35 percent (if > 5 times LRL) or +/- LRL (if < 5 times LRL) except for total arsenic and total antimony where the RPDs were not within the +/- LRL goal. Since the reporting limits for both these parameters is 0.005 µg/l, the RPD for the reported arsenic and antimony values was closer to +/- three times the LRL. Since the dissolved results for arsenic and antimony for this duplicate pair were identical, the discrepancy appears to be caused by a uneven distribution of suspended sediments between the duplicate samples. The sample with the higher total arsenic and antimony values had 2.2 ppm total suspended solids (TSS), while the sample with the lower values had 1.8 ppm TSS. For the ROSS1/DV3 duplicate set, the calculated RPDs are excellent, with identical results for all reported duplicate values.

State Splits. The Utah DEQ collected one split of a water sample and two splits of surface sediment samples. Table 4 compares the results of water sample USC-7 with the state split. Table 5 compares the results of the two sets of sediment samples.

The results for the water splits (Table 4) indicate excellent accuracy and precision, with calculated RPDs all less than the QA/QC goals. The results for the two sets of sediment splits (Table 5) indicate a somewhat wide range of variation, with calculated RPDs ranging from 3.0 to 175.5 percent. A comparison between the two sets of splits of RPDs for specific metals indicates that there is no apparent consistency in which metals have high RPDs (e.g., for the USC-7 set, the RPD calculated for silver is 175.5 percent compared to a calculated RPD of 6.8 percent for the Daily Flume set). Incomplete homogenization in the field or differences in the preparation, digestion or analytical methods used at AEC Laboratory and the State Laboratory may account for some of the differences. However, the wide range in differences between the results is not surprising given the heterogeneous nature of the samples (i.e., coarse grained materials mixed with finer soils and tailings) and the difficulty in homogenizing such samples in the field. Given the differences between the splits, the sediment results should probably be considered as order-of-magnitude estimates of metals concentrations.

Laboratory QC Samples

AEC Laboratory analyzed matrix spike/matrix spike duplicate, method (prep) blank, and lab control samples for each sample batch to evaluate data quality. The frequency of MS/MSD samples met the goal of five percent specified in the revised SAP.
Frontier Geosciences analyzed matrix spike and matrix spike duplicate, method blank, and lab control samples for the single batch of five samples for mercury analysis to evaluate data quality.

Laboratory Control Samples. Laboratory control samples were analyzed for each laboratory sample batch by each laboratory. All of the recoveries for the laboratory control samples were within method-specified control limits with two exceptions: the recovery of antimony in the two LCSs associated with the sediment samples were 137 and 139 percent compared to the method-specified control limits of 80 to 120 percent. However, this level of recovery is typical for antimony and is well within the 95% confidence limit determined from round robin studies of standard reference soil using the 3050 digestion method. For EPA's 3050 digestion, the 95% confidence interval is 18.8 to 119 µg/g while the actual antimony concentration is 198 µg/g (based on a complete digestion) (Vince Keller, AEC Laboratory, personal communication). AEC measured 95.5 µg/g compared to the certified value of 68.9 µg/g. Although this value is greater than the certified value, it is well within the 95% confidence interval. Therefore, the LCS results are considered acceptable.

Matrix Spike Samples. A matrix spike sample was analyzed for each laboratory sample batch by AEC Laboratory. All of the spike recoveries for matrix spike samples were within method-specified control limits with two exceptions: the matrix spike results for antimony in sediments were outside the acceptance limits (40 to 60% recovery compared to a lower acceptance limit of 80%). According to AEC Laboratory (Vince Keller, personal communication), low spike recovery is not atypical of antimony results using the 3050 digestion method, and in fact, the method description indicates that 50 to 60% recovery is typical for antimony using this digestion method. Although the results are probably typical for antimony and reasonably accurate, the data should be considered estimated values based on the spike recoveries. Antimony data for sediment samples should remain qualified, as reported by the laboratory, as estimated values (flagged with a "J"). Laboratory RPDs for MS/MSDs were all well within method-specified control limits indicating good precision.

One set of matrix spike and matrix spike duplicate samples was analyzed for the batch of five samples analyzed by Frontier Geosciences, a frequency of 20 percent. All of the spike recoveries and MS/MSD RPDs were well within method-specified control limits.

Method (Prep) Blanks. A method or prep blank sample was analyzed for each laboratory sample batch. No analytes were detected in any of the method blanks analyzed by AEC Laboratories indicating that no laboratory contamination was present. Only extremely low concentrations of mercury were detected in method blanks analyzed by Frontier Geosciences. The mean concentration of mercury in three blanks analyzed was 0.07 ng/l (ppt) compared to the EPA 1631 MDL of 0.20 ng/l (ppt).

Cation/Anion Balance

AEC Laboratory calculated cation/anion balances for all samples where List 1 parameters were analyzed. The cation/anion balances for these 12 samples ranged from –1.0 to 6.2

percent, indicating good major ion balances. This result indicates that the major ion data can be used with a high degree of confidence.

Data Reduction

For the purposes of developing a database and preparing summary tables for reports, all laboratory data will be transferred from the laboratory to United Park City Mines in both paper and electronic form. UPCM will ensure that the data is forwarded to the stakeholders group.

DATA VALIDATION SUMMARY

This section summarizes the data validation results in terms of PARCC (Precision, Accuracy, Representativeness, Comparability, and Completeness) criteria, including completeness calculations expressing the percent complete of valid data compared to the total number of samples collected. These results are then compared to the project QA/QC goals (Table 3 of SAP).

PARCC Criteria Summary

Precision. Based on the results of the field duplicates, laboratory duplicates, and matrix spike results, the water data are precise. Based on the state split results, the sediment results should be considered as order-of-magnitude estimates of metals concentrations. The available data along with other measurements of precision indicate that the data can be used with a high degree of confidence.

Accuracy. Based on the percent recoveries of the MS/MSD and laboratory control samples, the data are generally accurate. The data can be used with a high degree of confidence with the exception of antimony values for sediments which should be treated as estimated or "J" flagged values.

Representativeness. Based on the results of the holding time review, method blank data, and blind duplicate sample data evaluation, the water data for this project can be considered representative of water quality conditions along Upper Silver Creek. Based on the state split results, the sediment results should be considered as order-of-magnitude estimates of metals concentrations.

Comparability. Standard methods of sample collection and standard units of measure were used during this project. The analyses performed by the laboratory were in accordance with current SW-846 and other U.S. EPA methodology. Results of field and laboratory duplicate analyses were excellent.

Completeness. Based on the results of the data validation, all data are considered valid without qualification except for the antimony values for sediment samples which should be "J" flagged as estimated values. Although these antimony values are flagged, they are still considered valid data that can be used to interpret environmental conditions. Therefore, sampling and analytical completeness is 100 percent, indicating that the completeness goal of 90 percent was met for the project.

Table 1
Summary of Water Samples Collected

Sample Name	Sample Location	Data Collected	Analytes	AEC Lab No.	AEC Lab QC No.
USC-1	North Rail	09/27/2000	List 1 + Hg	L001608-001	WG000958
USC-1	North Rail	11/07/2000	List 2 + Hg except hardness	L001854-003	WG001107
USC-2	RF- 8	09/27/2000	List 1	L001608-002	WG000958
USC-3	RF- 7	09/27/2000	List 1	L001608-003	WG000958
USC-4	RF- 6	09/27/2000	List 1 + Hg	L001608-004	WG000958
USC-4	RF- 6	11/07/2000	List 2 + Hg except hardness	L001854-004	WG001107
USC-5	RF Road North	09/27/2000	List 1	L001608-005	WG000958
USC-6	SM Down	09/27/2000	List 1 + Hg	L001608-006	WG000958
USC-6	SM Down	11/07/2000	List 2 + Hg except hardness	L001854-002	WG001107
USC-7	SM Up	09/27/2000	List 1 + Hg	L001608-007	WG000958
USC-7	SM Up	11/07/2000	List 2 + Hg except hardness	L001854-006	WG001107
USC-8	SC Mid	09/27/2000	List 1 + Hg	L001608-011	WG000958
USC-8	SC Mid	11/07/2000	List 2 + Hg except hardness	L001854-007	WG001107
USC-9	DV Lower	09/27/2000	List 1	L001608-009	WG000958
USC-10	DV Mid	09/27/2000	List 1	L001608-010	WG000958
USC-29		09/28/2000	List 1	L001608-016	WG000958
USC-30	Dup of USC-6	09/27/2000	List 1	L001608-008	WG000958
Iron Horse 1		09/27/2000	total & dissolved Cd, Pb, Zn	L001608-012	WG000958
Iron Horse 2		09/27/2000	total & dissolved Cd, Pb, Zn	L001608-013	WG000958
Bonanza Dr.		09/27/2000	total & dissolved Cd, Pb, Zn	L001608-014	WG000958
Ross 1		09/28/2000	total & dissolved Cd, Pb, Zn	L001608-015	WG000958
DV3		09/28/2000	total & dissolved Cd, Pb, Zn	L001608-017	WG000958

List 1 Analytes: TSS, TDS, Hardness, Cat/Anion Bal, Alk, pH, NO3, NO2, NH3, PO4, Ca, Mg, Al, Al-d, Cu, Cu-d, Zn, Zn-d, Ag, Ag-d, As, As-d, Sb, Sb-d, Se, Se-d, Cd, Cd-d, Pb, Pb-d, SO4, Fe, Fe-d, Mn,Mn-d, K, Na, Cl, Cr, Cr-d, CO3, HCO3

List 2 Analytes: TSS, TDS, pH, Hardness, Ag, Ag-d, Al, Al-d, As, As-d, Cd, Cd-d, Cu, Cu-d, Fe, Fe-d, Mn, Mn-d, Pb, Pb-d, Sb, Sb-d, Se, Se-d, Zn, Zn-d

List 3 Analytes: TSS, TDS, pH, hardness, Cd, Cd-d, Fe, Fe-d, Pb, Pb-d, Mn, Mn-d, Zn, Zn-d

List 4 Analytes: TSS,TDS, pH, Cd, Cd-d, Pb, Pb-d, Zn, Zn-d

Table 2
Summary of Sediment Samples Collected

Sample Name	Sample Location	Data Collected	Analytes	AEC Lab No.	AEC Lab QC No.
USC-1 (SURFACE)	North Rail	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-012	WG000948
USC-1 (0-12")	North Rail	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-014	WG000948
USC-2 (SURFACE)	RF- 8	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-011	WG000948
USC-2 (0-12")	RF- 8	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-013	WG000948
USC-5 (SURFACE)	RF Road North	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-005	WG000948
USC-5 (0-12")	RF Road North	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-006	WG000948
USC-6 (SURFACE)	SM Down	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-007	WG000948
USC-6 (0-12")	SM Down	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-004	WG000948
USC-7 (SURFACE)	SM Up	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-001	WG000948
USC-7 (0-12")	SM Up	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-003	WG000948
USC-8 (SURFACE)	SC Mid	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-008	WG000948
USC-8 (0-12")	SC Mid	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-009	WG000948
USC-9 (SURFACE)	DV Lower	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	LQ01618-010	WG000948
USC-9 (0-12")	DV Lower	27-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-002	WG000948
CANYON FLUME SURFACE		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-016	WG000948
DAILY FLUME SURFACE		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-024	WG000948
GULCH FLUME SURFACE		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-023	WG000948
ONT-DV (SURFACE)		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-017	WG000948
ONT-DV (0-12")		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-022	WG000948
ONT-SED SURFACE		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-026	WG000948
TC-1 (SURFACE)		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-015	WG000948
TC-NORTH (SURFACE)		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-019	WG000948
UPPER WOOD SURFACE		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-025	WG000948
UPPER WOOD (0-12")		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-021	WG000948
WOOD FLUME (SURFACE)		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-018	WG000948
WOOD FLUME (0-12")		28-Sep-00	Ag, Al, As, Cd, Cr, Cu, Fe, Hg, Pb, Sb, Se, Zn	L001618-020	WG000948

Table 3
Field Duplicate Summary

Parameter	Units	Sample	Duplicate	RPD (%)
		USC-6	USC-30	
AG	ppm	<.005	<.005	NC
AG(D)	ppm	<.005	<.005	NC
AL	ppm	<.050	<.050	NC
AL(D)	ppm	<.050	<.050	NC
ALK.	ppm CaCO3	127.	131.	3.1
AS	ppm	.019	.006	104.0
AS(D)	ppm	.008	.008	0.0
CA	ppm	153.	160.	4.5
CAT/AN BAL.		+2.2	+4.2	NC
CD	ppm	<.005	<.005	NC
CD(D)	ppm	<.005	<.005	NC
CL-	ppm	274.	267.	2.6
CO3	ppm CaCO3	<1	<1	NC
CR	ppm	<.010	<.010	NC
CR(D)	ppm	<.010	<.010	NC
CU	ppm	.006	.006	0.0
CU(D)	ppm	<.005	<.005	NC
FE	ppm	.32	.32	0.0
FE(D)	ppm	<.1	<.1	NC
HARD	ppm CaCO3	495.	514.	3.8
HCO3	ppm CaCO3	127.	131.	3.1
K	ppm	4.3	4.1	4.8
MG	ppm	27.	28.	3.6
MN	ppm	.43	.45	4.5
MN(D)	ppm	.43	.44	2.3
NA	ppm	142.	142.	0.0
NH3/N	ppm	<.1	<.1	NC
NO2/NO3	ppm	.13	.12	8.0
PB	ppm	.012	.014	15.4
PB(D)	ppm	<.005	<.005	NC
PO4-P	ppm	<.1	<.1	NC
SB	ppm	.023	.011	70.6
SB(D)	ppm	.010	.010	0.0
SE	ppm	<.005	<.005	NC
SE(D)	ppm	<.005	<.005	NC
SO4=	ppm	271.	267.	1.5
TDS	ppm	896.	1027.	13.6
TSS	ppm	2.2	1.8	20.0
ZN	ppm	.68	.70	2.9
ZN(D)	ppm	.64	.64	0.0
		ROSS 1	DV3	
CD	ppm	<.005	<.005	NC
CD(D)	ppm	<.005	<.005	NC
PB	ppm	<.005	<.005	NC
PB(D)	ppm	<.005	<.005	NC
ZN	ppm	.089	.089	0.0
ZN(D)	ppm	.033	.033	0.0

NC-Not Calculated

Table 4
Comparison of Water Sample USC-7 to State Split

Parameter	Units	Sample	Duplicate	RPD (%)
		USC-7	USC-7 (State Split)	
AG	ppm	<.005	<0.002	NC
AG(D)	ppm	<.005	<0.002	NC
AS	ppm	<.005	<0.005	NC
AS(D)	ppm	0.005	<0.005	NC
CD	ppm	<.005	0.0022	NC
CD(D)	ppm	<.005	<0.001	NC
CR	ppm	<.010	<0.005	NC
CR(D)	ppm	<.010	<0.005	NC
CU	ppm	0.005	<0.012	NC
CU(D)	ppm	<.005	<0.012	NC
FE	ppm	0.24	0.209	13.8
FE(D)	ppm	<.1	0.218	NC
MN	ppm	0.17	0.163	4.2
MN(D)	ppm	0.15	0.141	6.2
PB	ppm	0.011	0.0088	22.2
PB(D)	ppm	<.005	<0.003	NC
ZN	ppm	0.52	0.499	4.1
ZN(D)	ppm	0.46	0.406	12.5

NC-Not Calculated

Table 5
Comparison of Sediment Samples to State Splits

Parameter	Units	Sample	Duplicate	RPD (%)
		USC-7 (Surface)	**USC-7 State Split**	
Ag	ppm	51	3.33	175.5
As	ppm	76	<33	NC
Cd	ppm	27	14	63.4
Cr	ppm	33	36.1	9.0
Cu	ppm	652	47.6	172.8
Fe	ppm	21220	19900	6.4
Hg	ppm	<0.1	0.4	NC
Pb	ppm	1320	641	69.3
Se	ppm	16	<33.5	NC
Zn	ppm	4231	2330	57.9
		DAILY FLUME (Surface)	**DAILY FLUME (Surface) State Split**	
Ag	ppm	55	58.9	6.8
As	ppm	187	117	46.1
Cd	ppm	57	55.3	3.0
Cr	ppm	26	33.9	26.4
Cu	ppm	569	192	99.1
Fe	ppm	29290	17500	50.4
Hg	ppm	0.46	2.75	142.7
Pb	ppm	9025	7890	13.4
Se	ppm	<5.0	<28.2	NC
Zn	ppm	9838	10600	7.5

NC - Not Calculated

APPENDIX B

AEC

AMERICAN ENVIRONMENTAL CONSULTANTS LABORATORY
3422 South 700 West Salt Lake City, Utah 84119-4191
(801) 261-1426 • FAX (801) 264-9838

October 31, 2000

MR. Kerry Gee
UNITED PARK CITY MINES
Box 1450
Park City, Utah 84060

Please find attached the analytical results for the SILVER CREEK WATERSHED water samples collected on September 27, 2000.

The laboratory received the sample September 29, 2000.

Sincerely,

Duane Coble
Laboratory/Environmental
Technician

Cc: JFricke

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-001	27-SEP-00	USC-1	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	.056	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	158.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.006	ppm	CH	06-OCT-00	180	200.8
			CA	163.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+4.					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	87.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.012	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.18	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	583.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	158.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	2.5	ppm	MK	05-OCT-00	180	200.7
			MG	42.	ppm	MK	05-OCT-00	180	200.7
			MN	.21	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.21	ppm	MK	05-OCT-00	180	200.7
			NA	48.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.10	ppm	JN	29-SEP-00	28	353.2
			PB	.016	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.008	ppm	CH	27-OCT-00	180	200.8
			SB(D)	.006	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	364.	ppm	JN	11-OCT-00	28	9036
			TDS	902.	ppm	DC	02-OCT-00	7	160.1
			TSS	1.2	ppm	DC	02-OCT-00	7	160.2
			ZN	.72	ppm	MK	05-OCT-00	180	200.7

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-001	27-SEP-00	USC-1	ZN(D)	.72	ppm	MK	05-OCT-00	180	200.7
L001608-002	27-SEP-00	USC-2	AG	.007	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	<.050	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	160.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.007	ppm	CH	06-OCT-00	180	200.8
			CA	154.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+2.2					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	67.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	<.005	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	<.1	ppm	MK	05-OCT-00	180	200.7
			FE(D)	.33	ppm	MK	05-OCT-00	180	200.7
			HARD	552.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	160.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	2.6	ppm	MK	05-OCT-00	180	200.7
			MG	41.	ppm	MK	05-OCT-00	180	200.7
			MN	.25	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.26	ppm	MK	05-OCT-00	180	200.7
			NA	38.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	<.1	ppm	JN	29-SEP-00	28	353.2
			PB	<.005	ppm	CH	27-OCT-00	180	200.8
			PB(D)	.012	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.008	ppm	CH	27-OCT-00	180	200.8
			SB(D)	.006	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	370.	ppm	JN	11-OCT-00	28	9036
			TDS	847.	ppm	DC	02-OCT-00	7	160.1

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-002	27-SEP-00	USC-2	TSS	1.4	ppm	DC	02-OCT-00	7	160.2
			ZN	.63	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.71	ppm	MK	05-OCT-00	180	200.7
L001608-003	27-SEP-00	USC-3	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	<.050	ppm	MK	05-OCT-00	180	200.7
			AL(D)	.17	ppm	MK	05-OCT-00	180	200.7
			ALK.	151.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	.006	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.005	ppm	CH	06-OCT-00	180	200.8
			CA	138.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+.3					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	48.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.007	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.30	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	504.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	151.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	<2	ppm	MK	05-OCT-00	180	200.7
			MG	38.	ppm	MK	05-OCT-00	180	200.7
			MN	.26	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.25	ppm	MK	05-OCT-00	180	200.7
			NA	33.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	<.1	ppm	JN	29-SEP-00	28	353.2
			PB	.019	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.009	ppm	CH	27-OCT-00	180	200.8
			SB(D)	.007	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

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United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-003	27-SEP-00	USC-3	SO4=	363.	ppm	JN	11-OCT-00	28	9036
			TDS	756.	ppm	DC	02-OCT-00	7	160.1
			TSS	1.8	ppm	DC	02-OCT-00	7	160.2
			ZN	1.2	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	1.1	ppm	MK	05-OCT-00	180	200.7
L001608-004	27-SEP-00	USC-4	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	<.050	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	236.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	.006	ppm	CH	27-OCT-00	180	200.8
			AS(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CA	363.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	-1.					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	88.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	.036	ppm	CH	06-OCT-00	180	200.8
			CU	.006	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	<.1	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	1212.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	236.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	2.5	ppm	MK	05-OCT-00	180	200.7
			MG	74.	ppm	MK	05-OCT-00	180	200.7
			MN	3.8	ppm	MK	05-OCT-00	180	200.7
			MN(D)	4.1	ppm	MK	05-OCT-00	180	200.7
			NA	56.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.55	ppm	JN	29-SEP-00	28	353.2
			PB	<.005	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	<.005	ppm	CH	27-OCT-00	180	200.8
			SB(D)	<.005	ppm	CH	06-OCT-00	180	200.8

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ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-004	27-SEP-00	USC-4	SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	1004.	ppm	JN	11-OCT-00	28	9036
			TDS	1831.	ppm	DC	02-OCT-00	7	160.1
			TSS	<1	ppm	DC	02-OCT-00	7	160.2
			ZN	.088	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.055	ppm	MK	05-OCT-00	180	200.7
L001608-005	27-SEP-00	USC-5	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	<.050	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	142.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.005	ppm	CH	06-OCT-00	180	200.8
			CA	140.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+4.1					
			CD	.006	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	46.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.009	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.68	ppm	MK	05-OCT-00	180	200.7
			FE(D)	.12	ppm	MK	05-OCT-00	180	200.7
			HARD	505.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	142.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	<2	ppm	MK	05-OCT-00	180	200.7
			MG	38.	ppm	MK	05-OCT-00	180	200.7
			MN	.46	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.48	ppm	MK	05-OCT-00	180	200.7
			NA	34.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.13	ppm	JN	29-SEP-00	28	353.2
			PB	.019	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1

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ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-005	27-SEP-00	USC-5	SB	.013	ppm	CH	27-OCT-00	180	200.8
			SB(D)	.006	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	340.	ppm	JN	11-OCT-00	28	9036
			TDS	350.	ppm	DC	02-OCT-00	7	160.1
			TSS	2.4	ppm	DC	02-OCT-00	7	160.2
			ZN	1.9	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	2.0	ppm	MK	05-OCT-00	180	200.7
L001608-006	27-SEP-00	USC-6	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	<.050	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	127.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	.019	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.008	ppm	CH	06-OCT-00	180	200.8
			CA	153.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+2.2					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	274.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.006	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.32	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	495.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	127.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	4.3	ppm	MK	05-OCT-00	180	200.7
			MG	27.	ppm	MK	05-OCT-00	180	200.7
			MN	.43	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.43	ppm	MK	05-OCT-00	180	200.7
			NA	142.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.13	ppm	JN	29-SEP-00	28	353.2
			PB	.012	ppm	CH	27-OCT-00	180	200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-006	27-SEP-00	USC-6	PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.023	ppm	CH	27-OCT-00	180	200.8
			SB(D)	.010	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	271.	ppm	JN	11-OCT-00	28	9036
			TDS	896.	ppm	DC	02-OCT-00	7	160.1
			TSS	2.2	ppm	DC	02-OCT-00	7	160.2
			ZN	.68	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.64	ppm	MK	05-OCT-00	180	200.7
L001608-007	27-SEP-00	USC-7	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	.089	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	146.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.005	ppm	CH	06-OCT-00	180	200.8
			CA	118.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+6.2					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	227.	ppm	JN	07-OCT-00	28	325.2
			CO3	6.0	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.005	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.24	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	406.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	140.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	3.3	ppm	MK	05-OCT-00	180	200.7
			MG	27.	ppm	MK	05-OCT-00	180	200.7
			MN	.17	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.15	ppm	MK	05-OCT-00	180	200.7
			NA	130.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1

AMERICAN ENVIRONMENTAL CONSULTANTS

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United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-007	27-SEP-00	USC-7	NO2/NO3	.12	ppm	JN	29-SEP-00	28	353.2
			PB	.011	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.005	ppm	CH	27-OCT-00	180	200.8
			SB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	160.	ppm	JN	11-OCT-00	28	9036
			TDS	852.	ppm	DC	02-OCT-00	7	160.1
			TSS	2.4	ppm	DC	02-OCT-00	7	160.2
			ZN	.52	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.46	ppm	MK	05-OCT-00	180	200.7
L001608-008	27-SEP-00	USC-30	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	<.050	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	131.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	.006	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.008	ppm	CH	06-OCT-00	180	200.8
			CA	160.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+4.2					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	267.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.006	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.32	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	514.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	131.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	4.1	ppm	MK	05-OCT-00	180	200.7
			MG	28.	ppm	MK	05-OCT-00	180	200.7
			MN	.45	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.44	ppm	MK	05-OCT-00	180	200.7

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LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-008	27-SEP-00	USC-30	NA	142.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.12	ppm	JN	29-SEP-00	28	353.2
			PB	.014	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.011	ppm	CH	27-OCT-00	180	200.8
			SB(D)	.010	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	267.	ppm	JN	11-OCT-00	28	9036
			TDS	1027.	ppm	DC	02-OCT-00	7	160.1
			TSS	1.8	ppm	DC	02-OCT-00	7	160.2
			ZN	.70	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.64	ppm	MK	05-OCT-00	180	200.7
L001608-009	27-SEP-00	USC-9	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	.47	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	138.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	<.005	ppm	CH	31-OCT-00	180	200.8
			CA	100.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+3.5					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	177.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	<.005	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.50	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	358.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	138.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	3.0	ppm	MK	05-OCT-00	180	200.7
			MG	26.	ppm	MK	05-OCT-00	180	200.7

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(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-009	27-SEP-00	USC-9	MN	.34	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.15	ppm	MK	05-OCT-00	180	200.7
			NA	89.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.20	ppm	JN	29-SEP-00	28	353.2
			PB	.006	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	<.005	ppm	CH	27-OCT-00	180	200.8
			SB(D)	<.005	ppm	CH	31-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	148.	ppm	JN	11-OCT-00	28	9036
			TDS	665.	ppm	DC	02-OCT-00	7	160.1
			TSS	11.	ppm	DC	02-OCT-00	7	160.2
			ZN	.11	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.037	ppm	MK	05-OCT-00	180	200.7
L001608-010	27-SEP-00	USC-10	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	.53	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	128.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CA	102.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+3.1					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	163.	ppm	JN	07-OCT-00	28	325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	<.005	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.45	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7
			HARD	364.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	128.	ppm CaCO3	DC	10-OCT-00	14	310.1

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-010	27-SEP-00	USC-10	K	2.9	ppm	MK	05-OCT-00	180	200.7
			MG	26.	ppm	MK	05-OCT-00	180	200.7
			MN	.53	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.15	ppm	MK	05-OCT-00	180	200.7
			NA	82.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	.12	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.12	ppm	JN	29-SEP-00	28	353.2
			PB	.006	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	.007	ppm	CH	27-OCT-00	180	200.8
			SB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	170.	ppm	JN	11-OCT-00	28	9036
			TDS	658.	ppm	DC	02-OCT-00	7	160.1
			TSS	13.	ppm	DC	02-OCT-00	7	160.2
			ZN	.11	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.056	ppm	MK	05-OCT-00	180	200.7
L001608-011	27-SEP-00	USC-8	AG	<.005	ppm	CH	27-OCT-00	180	200.8
			AG(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			AL	.11	ppm	MK	05-OCT-00	180	200.7
			AL(D)	<.050	ppm	MK	05-OCT-00	180	200.7
			ALK.	146.	ppm CaCO3	DC	10-OCT-00		310.1
			AS	<.005	ppm	CH	27-OCT-00	180	200.8
			AS(D)	.005	ppm	CH	06-OCT-00	180	200.8
			CA	113.	ppm	MK	05-OCT-00	180	200.7
			CAT/AN BAL	+2.5					
			CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			CL-	266.	ppm	JN	07-OCT-00	28	325.2
			CO3	4.0	ppm CaCO3	DC	10-OCT-00	14	310.1
			CR	<.010	ppm	CH	27-OCT-00	180	200.8
			CR(D)	<.010	ppm	CH	06-OCT-00	180	200.8
			CU	.006	ppm	CH	27-OCT-00	180	200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	.14	ppm	MK	05-OCT-00	180	200.7
			FE(D)	<.1	ppm	MK	05-OCT-00	180	200.7

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-011	27-SEP-00	USC-8	HARD	391.	ppm CaCO3	DC	05-OCT-00		2340B
			HCO3	142.	ppm CaCO3	DC	10-OCT-00	14	310.1
			K	3.8	ppm	MK	05-OCT-00	180	200.7
			MG	27.	ppm	MK	05-OCT-00	180	200.7
			MN	.14	ppm	MK	05-OCT-00	180	200.7
			MN(D)	.016	ppm	MK	05-OCT-00	180	200.7
			NA	134.	ppm	MK	05-OCT-00	180	200.7
			NH3/N	<.1	ppm	JN	04-OCT-00	28	350.1
			NO2/NO3	.14	ppm	JN	29-SEP-00	28	353.2
			PB	.008	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	<.005	ppm	CH	27-OCT-00	180	200.8
			SB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SE	<.005	ppm	CH	27-OCT-00	180	200.8
			SE(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			SO4=	151.	ppm	JN	11-OCT-00	28	9036
			TDS	811.	ppm	DC	02-OCT-00	7	160.1
			TSS	3.5	ppm	DC	02-OCT-00	7	160.2
			ZN	.088	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.067	ppm	MK	05-OCT-00	180	200.7
L001608-012	27-SEP-00	IRON HORSE 1	CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PB	.007	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			ZN	.11	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.065	ppm	MK	05-OCT-00	180	200.7
L001608-013	27-SEP-00	IRON HORSE 2	CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PB	.009	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			ZN	.091	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.059	ppm	MK	05-OCT-00	180	200.7
L001608-014	27-SEP-00	BONANZA DRIVE	CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PB	.006	ppm	CH	27-OCT-00	180	200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: L001608

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001608-014	27-SEP-00	BONANZA DRIVE	PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			ZN	.086	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.067	ppm	MK	05-OCT-00	180	200.7
L001608-015	28-SEP-00	ROSS 1	CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PB	<.005	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			ZN	.089	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.033	ppm	MK	05-OCT-00	180	200.7
L001608-016	28-SEP-00	USC-29	CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PB	.006	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			ZN	.094	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.039	ppm	MK	05-OCT-00	180	200.7
L001608-017	28-SEP-00	DV-3	CD	<.005	ppm	CH	27-OCT-00	180	200.8
			CD(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			PB	.007	ppm	CH	27-OCT-00	180	200.8
			PB(D)	<.005	ppm	CH	06-OCT-00	180	200.8
			ZN	.097	ppm	MK	05-OCT-00	180	200.7
			ZN(D)	.045	ppm	MK	05-OCT-00	180	200.7

DIGESTION-200.7, 200.8
SSR>4XSA=SPIKE NOT EVALUATED -SAMPLE RESULT>4X
SPIKE ADDED.

Approved

Reviewer

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: WG000958

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000958-1		Matrix Spike	AG	94	%Recovery	CH	27-OCT-00		200.8
			AG(D)	92	%Recovery	CH	06-OCT-00		200.8
			AL	95	%Recovery	MK	05-OCT-00		200.7
			AL(D)	88	%Recovery	MK	05-OCT-00		200.7
			AS	111	%Recovery	CH	27-OCT-00		200.8
			AS(D)	107	%Recovery	CH	06-OCT-00		200.8
			CA	sr>4xsa	%Recovery	MK	05-OCT-00		200.7
			CD	104	%Recovery	CH	27-OCT-00		200.8
			CD(D)	101	%Recovery	CH	06-OCT-00		200.8
			CL-	91.	%Recovery	JN	07-OCT-00		325.2
			CR	98	%Recovery	CH	27-OCT-00		200.8
			CR(D)	99	%Recovery	CH	06-OCT-00		200.8
			CU	96	%Recovery	CH	27-OCT-00		200.8
			CU(D)	97	%Recovery	CH	06-OCT-00		200.8
			FE	111	%Recovery	MK	05-OCT-00		200.7
			FE(D)	95	%Recovery	MK	05-OCT-00		200.7
			K	98	%Recovery	MK	05-OCT-00		200.7
			MG	sr>4xsa	%Recovery	MK	05-OCT-00		200.7
			MN	97	%Recovery	MK	05-OCT-00		200.7
			MN(D)	97	%Recovery	MK	05-OCT-00		200.7
			NA	sr>4xsa	%Recovery	MK	05-OCT-00		200.7
			NH3/N	71	%Recovery	JN	04-OCT-00		350.1
			NO2/NO3	100	%Recovery	JN	29-SEP-00		353.2
			PB	96	%Recovery	CH	27-OCT-00		200.8
			PB(D)	100	%Recovery	CH	06-OCT-00		200.8
			PO4-P	88	%Recovery	JN	29-SEP-00		365.1
			SB	108	%Recovery	CH	27-OCT-00		200.8
			SB(D)	106	%Recovery	CH	06-OCT-00		200.8
			SE	115	%Recovery	CH	27-OCT-00		200.8
			SE(D)	108	%Recovery	CH	06-OCT-00		200.8
			SO4=	103	%Recovery	JN	11-OCT-00		9036
			ZN	90	%Recovery	MK	05-OCT-00		200.7
			ZN(D)	84	%Recovery	MK	05-OCT-00		200.7
WG000958-2		Prep Blank	AG	<.005	ppm	CH	27-OCT-00		200.8
			AG(D)	<.005	ppm	CH	06-OCT-00		200.8
			AL	<.05	ppm	MK	05-OCT-00		200.7
			AL(D)	<.05	ppm	MK	05-OCT-00		200.7
			ALK.	<1	ppm CaCO3	DC	10-OCT-00		310.1

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: WG000958

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000958-2		Prep Blank	AS	<.005	ppm	CH	27-OCT-00		200.8
			AS(D)	<.005	ppm	CH	06-OCT-00		200.8
			CA	<2	ppm	MK	05-OCT-00		200.7
			CD	<.005	ppm	CH	27-OCT-00		200.8
			CD(D)	<.005	ppm	CH	06-OCT-00		200.8
			CL-	<1	ppm	JN	07-OCT-00		325.2
			CO3	<1	ppm CaCO3	DC	10-OCT-00		310.1
			CR	<.01	ppm	CH	27-OCT-00		200.8
			CR(D)	<.01	ppm	CH	06-OCT-00		200.8
			CU	<.005	ppm	CH	27-OCT-00		200.8
			CU(D)	<.005	ppm	CH	06-OCT-00		200.8
			FE	<.1	ppm	MK	05-OCT-00		200.7
			FE(D)	<.1	ppm	MK	05 OCT-00		200.7
			HCO3	<1	ppm CaCO3	DC	10-OCT-00		310.1
			K	<2	ppm	MK	05-OCT-00		200.7
			MG	<2	ppm	MK	05-OCT-00		200.7
			MN	<.005	ppm	MK	05-OCT-00		200.7
			MN(D)	<.005	ppm	MK	05-OCT-00		200.7
			NA	<2	ppm	MK	05-OCT-00		200.7
			NH3/N	<.1	ppm	JN	04-OCT-00		350.1
			NO2/NO3	<.1	ppm	JN	29-SEP-00		353.2
			PB	<.005	ppm	CH	27-OCT-00		200.8
			PB(D)	<.005	%Recovery	CH	06-OCT-00		200.8
			PO4-P	<.1	ppm	JN	29-SEP-00		365.1
			SB	<.005	ppm	CH	27-OCT-00		200.8
			SB(D)	<.005	ppm	CH	06-OCT-00		200.8
			SE	<.005	ppm	CH	27-OCT-00		200.8
			SE(D)	<.005	ppm	CH	06-OCT-00		200.8
			SO4=	<2	ppm	JN	11-OCT-00		9036
			TDS	<10	ppm	DC	02-OCT-00		160.1
			TSS	<1	ppm	DC	02-OCT-00		160.2
			ZN	<.01	ppm	MK	05-OCT-00		200.7
			ZN(D)	<.01	ppm	MK	05-OCT-00		200.7
WG000958-3		Lab Control Sample	AG	95	%Recovery	CH	27-OCT-00		200.8
			AG(D)	97	%Recovery	CH	06-OCT-00		200.8
			AL	99	%Recovery	MK	05-OCT-00		200.7
			AL(D)	94	%Recovery	MK	05-OCT-00		200.7
			ALK.	93	%Recovery	DC	10-OCT-00		310.1

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: WG000958

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000958-3		Lab Control Sample	AS	102	%Recovery	CH	27-OCT-00		200.8
			AS(D)	92	%Recovery	CH	06-OCT-00		200.8
			CA	104	%Recovery	MK	05-OCT-00		200.7
			CD	99	%Recovery	CH	27-OCT-00		200.8
			CD(D)	96	%Recovery	CH	06-OCT-00		200.8
			CL-	94	%Recovery	JN	07-OCT-00		325.2
			CR	100	%Recovery	CH	27-OCT-00		200.8
			CR(D)	106	%Recovery	CH	06-OCT-00		200.8
			CU	100	%Recovery	CH	27-OCT-00		200.8
			CU(D)	106	%Recovery	CH	06-OCT-00		200.8
			FE	118	%Recovery	MK	05-OCT-00		200.7
			FE(D)	100	%Recovery	MK	05-OCT-00		200.7
			K	105	%Recovery	MK	05-OCT-00		200.7
			MG	95	%Recovery	MK	05-OCT-00		200.7
			MN	99	%Recovery	MK	05-OCT-00		200.7
			MN(D)	99	%Recovery	MK	05-OCT-00		200.7
			NA	110	%Recovery	MK	05-OCT-00		200.7
			NH3/N	97	%Recovery	JN	04-OCT-00		350.1
			NO2/NO3	101	%Recovery	JN	29-SEP-00		353.2
			PB	95	%Recovery	CH	27-OCT-00		200.8
			PB(D)	101	%Recovery	CH	06-OCT-00		200.8
			PO4-P	99	%Recovery	JN	29-SEP-00		365.1
			SB	104	%Recovery	CH	27-OCT-00		200.8
			SB(D)	105	%Recovery	CH	06-OCT-00		200.8
			SE	107	%Recovery	CH	27-OCT-00		200.8
			SE(D)	88	%Recovery	CH	06-OCT-00		200.8
			SO4=	100	%Recovery	JN	11-OCT-00		9036
			TDS	101	%Recovery	DC	02-OCT-00		160.1
			TSS	108	%Recovery	DC	02-OCT-00		160.2
			ZN	92	%Recovery	MK	05-OCT-00		200.7
			ZN(D)	85	%Recovery	MK	05-OCT-00		200.7
WG000958-4		Duplicate	ALK.	1.3	% RPD	DC	10-OCT-00		310.1
			CL-	4.4	% RPD	JN	07-OCT-00		325.2
			NH3/N	<1	% RPD	JN	04-OCT-00		350.1
			NO2/NO3	3.7	% RPD	JN	29-SEP-00		353.2
			PO4-P	+-pql	% RPD	JN	29-SEP-00		365.1
			SO4=	1.7	% RPD	JN	11-OCT-00		9036
			TDS	13.	% RPD	DC	02-OCT-00		160.1

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: WG000958

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000958-4		Duplicate	TSS	5.5	% RPD	DC	02-OCT-00		160.2
WG000958-5		Matrix Spike Duplicate	AG	<1	% RPD	CH	27-OCT-00		200.8
			AG(D)	<1	% RPD	CH	06-OCT-00		200.8
			AL	<1	% RPD	MK	05-OCT-00		200.7
			AL(D)	5.5	% RPD	MK	05-OCT-00		200.7
			AS	1.1	% RPD	CH	27-OCT-00		200.8
			AS(D)	<1	% RPD	CH	06-OCT-00		200.8
			CA	5.2	% RPD	MK	05-OCT-00		200.7
			CD	<1	% RPD	CH	27-OCT-00		200.8
			CD(D)	<1	% RPD	CH	06-OCT-00		200.8
			CR	<1	% RPD	CH	27-OCT-00		200.8
			CR(D)	<1	% RPD	CH	06-OCT-00		200.8
			CU	1.4	% RPD	CH	27-OCT-00		200.8
			CU(D)	<1	% RPD	CH	06-OCT-00		200.8
			FE	9.7	% RPD	MK	05-OCT-00		200.7
			FE(D)	4.7	% RPD	MK	05-OCT-00		200.7
			K	9.6	% RPD	MK	05-OCT-00		200.7
			MG	2.1	% RPD	MK	05-OCT-00		200.7
			MN	<1	% RPD	MK	05-OCT-00		200.7
			MN(D)	<1	% RPD	MK	05-OCT-00		200.7
			NA	<1	% RPD	MK	05-OCT-00		200.7
			PB	<1	% RPD	CH	27-OCT-00		200.8
			PB(D)	<1	% RPD	CH	06-OCT-00		200.8
			SB	1.5	% RPD	CH	27-OCT-00		200.8
			SB(D)	<1	% RPD	CH	06-OCT-00		200.8
			SE	1.6	% RPD	CH	27-OCT-00		200.8
			SE(D)	<1	% RPD	CH	06-OCT-00		200.8
			ZN	1.5	% RPD	MK	05-OCT-00		200.7
			ZN(D)	2.5	% RPD	MK	05-OCT-00		200.7
WG000958-6		Reporting Limit	AG	.005	ppm				200.8
			AG(D)	.005	ppm				200.8
			AL	.05	ppm				200.7
			AL(D)	.05	ppm				200.7
			ALK.	1.	ppm CaCO3				310.1
			AS	.005	ppm				200.8
			AS(D)	.005	ppm				200.8
			CA	2.	ppm				200.7

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHED)

Batch No: WG000958

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000958-6		Reporting Limit	CD	.005	ppm				200.8
			CD(D)	.005	ppm				200.8
			CL-	1.	ppm				325.2
			CO3	1.	ppm CaCO3				310.1
			CR	.01	ppm				200.8
			CR(D)	.01	ppm				200.8
			CU	.005	ppm				200.8
			CU(D)	.005	ppm				200.8
			FE	.1	ppm				200.7
			FE(D)	.1	ppm				200.7
			HCO3	1.	ppm CaCO3				310.1
			K	2.	ppm				200.7
			MG	2.	ppm				200.7
			MN	.005	ppm				200.7
			MN(D)	.005	ppm				200.7
			NA	2.	ppm				200.7
			NH3/N	.1	ppm				350.1
			NO2/NO3	.1	ppm				353.2
			PB	.005	ppm				200.8
			PB(D)	.005	ppm				200.8
			PO4-P	.1	ppm				365.1
			SB	.005	ppm				200.8
			SB(D)	.005	ppm				200.8
			SE	.005	ppm				200.8
			SE(D)	.005	ppm				200.8
			SO4=	2.	ppm				9036
			TDS	10.	ppm				160.1
			TSS	1.	ppm				160.2
			ZN	.01	ppm				200.7
			ZN(D)	.01	ppm				200.7

Approved

Reviewer

AEC

AMERICAN ENVIRONMENTAL CONSULTANTS LABORATORY
3422 South 700 West Salt Lake City, Utah 84119-4191
(801) 261-1426 • FAX (801) 264-9838

December 18, 2000

MR. Kerry Gee
UNITED PARK CITY MINES
Box 1450
Park City, Utah 84060

Please find attached the analytical results for the SILVER CREEK WATERSHED water samples collected on November 07, 2000.

The laboratory received the samples November 07, 2000.

Sincerely,

Duane Coble

Duane Coble
Laboratory/Environmental
Technician

cc: JFricke

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: L001854

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001854-001	07-NOV-00	RF-7	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			AL	<.050	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8
			AS(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			CD	<.005	ppm	CH	15-DEC-00	180	200.8
			CD(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	13-DEC-00	180	200.8
			CU	.006	ppm	MK	09-NOV-00		200.7
			CU(D)	<.005	ppm	MK	09-NOV-00	14	200.7
			FE	.39	ppm	MK	09-NOV-00	180	200.7
			FE(D)	<.1	ppm	MK	09-NOV-00	180	200.7
			MN	.34	ppm	MK	09-NOV-00	180	200.7
			MN(D)	.35	ppm	MK	09-NOV-00	180	200.7
			PB	.029	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			PH	8.1	pH	DC	09-NOV-00		150.1
			SB	.011	ppm	CH	15-DEC-00	180	200.8
			SB(D)	.008	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8
			SE(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			TDS	809.	ppm	BD	10-NOV-00	7	160.1
			TSS	2.6	ppm	BD	09-NOV-00		160.2
			ZN	1.6	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	1.7	ppm	MK	09-DEC-00	180	200.7
L001854-002	07-NOV-00	USC-6	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			AL	<.050	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8
			AS(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			CD	<.005	ppm	CH	15-DEC-00	180	200.8
			CD(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	13-DEC-00	180	200.8
			CU	.005	ppm	MK	09-NOV-00		200.7

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: L001854

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001854-002	07-NOV-00	USC-6	CU(D)	<.005	ppm	MK	09-NOV-00	14	200.7
			FE	.53	ppm	MK	09-NOV-00	180	200.7
			FE(D)	<.1	ppm	MK	09-NOV-00	180	200.7
			MN	.72	ppm	MK	09-NOV-00	180	200.7
			MN(D)	.73	ppm	MK	09-NOV-00	180	200.7
			PB	.011	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			PH	8.0	pH	DC	09-NOV-00		150.1
			SB	.009	ppm	CH	15-DEC-00	180	200.8
			SB(D)	.015	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8
			SE(D)	<.005	ppm	CH	13-DEC-00	180	200.8
			TDS	1817.	ppm	BD	10-NOV-00	7	160.1
			TSS	2.0	ppm	BD	09-NOV-00		160.2
			ZN	1.4	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	1.4	ppm	MK	09-DEC-00	180	200.7
L001854-003	07-NOV-00	USC-1	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			AL	.35	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8
			AS(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CD	<.005	ppm	CH	15-DEC-00	180	200.8
			CD(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	15-DEC-00	180	200.8
			CU	.008	ppm	MK	09-NOV-00		200.7
			CU(D)	<.005	ppm	MK	09-NOV-00	14	200.7
			FE	.88	ppm	MK	09-NOV-00	180	200.7
			FE(D)	<.1	ppm	MK	09-NOV-00	180	200.7
			MN	.84	ppm	MK	09-NOV-00	180	200.7
			MN(D)	.84	ppm	MK	09-NOV-00	180	200.7
			PB	.039	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			PH	8.2	pH	DC	09-NOV-00		150.1
			SB	.009	ppm	CH	15-DEC-00	180	200.8
			SB(D)	.009	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: L001854

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001854-003	07-NOV-00	USC-1	SE(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			TDS	983.	ppm	BD	10-NOV-00	7	160.1
			TSS	11.	ppm	BD	09-NOV-00		160.2
			ZN	1.1	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	1.0	ppm	MK	09-DEC-00	180	200.7
L001854-004	07-NOV-00	USC-4	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			AL	<.050	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8
			AS(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CD	<.005	ppm	CH	15-DEC-00	180	200.8
			CD(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	15-DEC-00	180	200.8
			CU	<.005	ppm	MK	09-NOV-00		200.7
			CU(D)	<.005	ppm	MK	09-NOV-00	14	200.7
			FE	<.1	ppm	MK	09-NOV-00	180	200.7
			FE(D)	<.1	ppm	MK	09-NOV-00	180	200.7
			MN	2.2	ppm	MK	09-NOV-00	180	200.7
			MN(D)	2.2	ppm	MK	09-NOV-00	180	200.7
			PB	<.005	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			PH	7.6	pH	DC	09-NOV-00		150.1
			SB	<.005	ppm	CH	15-DEC-00	180	200.8
			SB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8
			SE(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			TDS	1838.	ppm	BD	10-NOV-00	7	160.1
			TSS	1.0	ppm	BD	09-NOV-00		160.2
			ZN	.11	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	.10	ppm	MK	09-DEC-00	180	200.7
L001854-005	07-NOV-00	RF-8	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			AL	.096	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: L001854

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001854-005	07-NOV-00	RF-8	AS(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CD	<.005	ppm	CH	15-DEC-00	180	200.8
			CD(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	15-DEC-00	180	200.8
			CU	<.005	ppm	MK	09-NOV-00		200.7
			CU(D)	<.005	ppm	MK	09-NOV-00	14	200.7
			FE	.71	ppm	MK	09-NOV-00	180	200.7
			FE(D)	.38	ppm	MK	09-NOV-00	180	200.7
			MN	.58	ppm	MK	09-NOV-00	180	200.7
			MN(D)	.59	ppm	MK	09-NOV-00	180	200.7
			PB	.011	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			PH	8.0	pH	DC	09-NOV-00		150.1
			SB	.008	ppm	CH	15-DEC-00	180	200.8
			SB(D)	.007	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8
			SE(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			TDS	883.	ppm	BD	10-NOV-00	7	160.1
			TSS	1.7	ppm	BD	09-NOV-00		160.2
			ZN	1.1	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	1.1	ppm	MK	09-DEC-00	180	200.7
L001854-006	07-NOV-00	USC-7	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			AL	.71	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8
			AS(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CD	.010	ppm	CH	15-DEC-00	180	200.8
			CD(D)	.007	ppm	CH	15-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	15-DEC-00	180	200.8
			CU	.018	ppm	MK	09-NOV-00		200.7
			CU(D)	.012	ppm	MK	09-NOV-00	14	200.7
			FE	.77	ppm	MK	09-NOV-00	180	200.7
			FE(D)	<.1	ppm	MK	09-NOV-00	180	200.7
			MN	.88	ppm	MK	09-NOV-00	180	200.7
			MN(D)	.85	ppm	MK	09-NOV-00	180	200.7

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: L001854

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001854-006	07-NOV-00	USC-7	PB	.021	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			PH	7.9	pH	DC	09-NOV-00		150.1
			SB	.009	ppm	CH	15-DEC-00	180	200.8
			SB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8
			SE(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			TDS	5607.	ppm	BD	10-NOV-00	7	160.1
			TSS	27.	ppm	BD	09-NOV-00		160.2
			ZN	2.5	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	2.1	ppm	MK	09-DEC-00	180	200.7
L001854-007	07-NOV-00	USC-8	AG	<.005	ppm	CH	15-DEC-00	180	200.8
			AG(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			AL	.46	ppm	MK	09-NOV-00	180	200.7
			AL(D)	<.050	ppm	MK	09-NOV-00	180	200.7
			AS	<.005	ppm	CH	15-DEC-00	180	200.8
			AS(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			CD	.007	ppm	CH	15-DEC-00	180	200.8
			CD(D)	.005	ppm	CH	15-DEC-00	180	200.8
			CR	<.010	ppm	CH	15-DEC-00	180	200.8
			CR(D)	<.010	ppm	CH	15-DEC-00	180	200.8
			CU	.012	ppm	MK	09-NOV-00		200.7
			CU(D)	.007	ppm	MK	09-NOV-00	14	200.7
			FE	.52	ppm	MK	09-NOV-00	180	200.7
			FE(D)	<.1	ppm	MK	09-NOV-00	180	200.7
			MN	.56	ppm	MK	09-NOV-00	180	200.7
			MN(D)	.57	ppm	MK	09-NOV-00	180	200.7
			PB	.012	ppm	CH	15-DEC-00	180	200.8
			PB(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			PH	8.3	pH	DC	09-NOV-00		150.1
			SB	.006	ppm	CH	15-DEC-00	180	200.8
			SB(D)	.012	ppm	CH	15-DEC-00	180	200.8
			SE	<.005	ppm	CH	15-DEC-00	180	200.8
			SE(D)	<.005	ppm	CH	15-DEC-00	180	200.8
			TDS	5257.	ppm	BD	10-NOV-00	7	160.1
			TSS	14.	ppm	BD	09-NOV-00		160.2
			ZN	.41	ppm	MK	09-DEC-00	180	200.7
			ZN(D)	.36	ppm	MK	09-DEC-00	180	200.7

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: L001854

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

DIGESTION METHOD-200.7,200.8
PH IS A FIELD PARAMETER THEREFORE THE HOLDING TIME
CANNOT BE MET BY THE LABORATORY.

Approved

Reviewer

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: WG001107

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001107-1		Matrix Spike	AG	94	%Recovery	CH	15-DEC-00		200.8
			AG(D)	96	%Recovery	CH	13-DEC-00		200.8
			AL	96	%Recovery	MK	09-NOV-00		6010
			AL(D)	94	%Recovery	MK	09-NOV-00		6010
			AS	101	%Recovery	CH	15-DEC-00		200.8
			AS(D)	98	%Recovery	CH	13-DEC-00		200.8
			CD	94	%Recovery	CH	15-DEC-00		200.8
			CD(D)	96	%Recovery	CH	13-DEC-00		200.8
			CR	100	%Recovery	CH	15-DEC-00		200.8
			CR(D)	103	%Recovery	CH	13-DEC-00		200.8
			CU	98	%Recovery	MK	09-NOV-00		200.7
			CU(D)	97	%Recovery	MK	09-NOV-00		200.7
			FE	94	%Recovery	MK	09-NOV-00		6010
			FE(D)	98	%Recovery	MK	09-NOV-00		6010
			MN	95	%Recovery	MK	09-NOV-00		200.7
			MN(D)	94	%Recovery	MK	09-NOV-00		200.7
			PB	96	%Recovery	CH	15-DEC-00		200.8
			PB(D)	95	%Recovery	CH	13-DEC-00		200.8
			SB	98	%Recovery	CH	15-DEC-00		200.8
			SB(D)	103	%Recovery	CH	15-DEC-00		200.8
			SE	96	%Recovery	CH	15-DEC-00		200.8
			SE(D)	91	%Recovery	CH	13-DEC-00		200.8
			ZN	90	%Recovery	MK	09-DEC-00		200.7
			ZN(D)	88	%Recovery	MK	09-DEC-00		200.7
WG001107-2		Prep Blank	AG	<.005	ppm	CH	15-DEC-00		200.8
			AG(D)	<.005	ppm	CH	13-DEC-00		200.8
			AL	<.05	ppm	MK	09-NOV-00		6010
			AL(D)	<.05	ppm	MK	09-NOV-00		6010
			AS	<.005	ppm	CH	15-DEC-00		200.8
			AS(D)	<.005	ppm	CH	13-DEC-00		200.8
			CD	<.005	ppm	CH	15-DEC-00		200.8
			CD(D)	<.005	ppm	CH	13-DEC-00		200.8
			CR	<.01	ppm	CH	15-DEC-00		200.8
			CR(D)	<.01	ppm	CH	13-DEC-00		200.8
			CU	<.005	ppm	MK	09-NOV-00		200.7
			CU(D)	<.005	ppm	MK	09-NOV-00		200.7
			FE	<.1	ppm	MK	09-NOV-00		6010
			FE(D)	<.1	ppm	MK	09-NOV-00		6010

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: WG001107

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001107-2		Prep Blank	MN	<.005	ppm	MK	09-NOV-00		200.7
			MN(D)	<.005	ppm	MK	09-NOV-00		200.7
			PB	<.005	ppm	CH	15-DEC-00		200.8
			PB(D)	<.005	ppm	CH	13-DEC-00		200.8
			SB	<.005	ppm	CH	15-DEC-00		200.8
			SB(D)	<.005	ppm	CH	15-DEC-00		200.8
			SE	<.005	ppm	CH	15-DEC-00		200.8
			SE(D)	<.005	ppm	CH	13-DEC-00		200.8
			TDS	<10	ppm	BD	10-NOV-00		160.1
			TSS	<1	ppm	BD	09-NOV-00		160.2
			ZN	<.01	ppm	MK	09-DEC-00		200.7
			ZN(D)	<.01	ppm	MK	09-DEC-00		200.7
WG001107-3		Lab Control Sample	AG	101	%Recovery	CH	15-DEC-00		200.8
			AL	99	%Recovery	MK	09-NOV-00		6010
			AS	101	%Recovery	CH	15-DEC-00		200.8
			CD	99	%Recovery	CH	15-DEC-00		200.8
			CR	110	%Recovery	CH	15-DEC-00		200.8
			CU	102	%Recovery	MK	09-NOV-00		200.7
			FE	106	%Recovery	MK	09-NOV-00		6010
			MN	98	%Recovery	MK	09-NOV-00		200.7
			PB	100	%Recovery	CH	15-DEC-00		200.8
			SB	103	%Recovery	CH	15-DEC-00		200.8
			SE	98	%Recovery	CH	15-DEC-00		200.8
			TDS	97	%Recovery	BD	10-NOV-00		160.1
			TSS	104	%Recovery	BD	09-NOV-00		160.2
			ZN	91	%Recovery	MK	09-DEC-00		200.7
WG001107-4		Duplicate	TDS	<1	% RPD	BD	10-NOV-00		160.1
			TSS	2.1	% RPD	BD	09-NOV-00		160.2
WG001107-5		Matrix Spike Duplicate	AG	<1	% RPD	CH	15-DEC-00		200.8
			AG(D)	1.2	% RPD	CH	13-DEC-00		200.8
			AL	2.5	% RPD	MK	09-NOV-00		6010
			AL(D)	<1	% RPD	MK	09-NOV-00		6010
			AS	<1	% RPD	CH	15-DEC-00		200.8
			AS(D)	2.1	% RPD	CH	13-DEC-00		200.8
			CD	<1	% RPD	CH	15-DEC-00		200.8
			CD(D)	<1	% RPD	CH	13-DEC-00		200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: WG001107

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001107-5		Matrix Spike Duplicate	CR	3.	% RPD	CH	15-DEC-00		200.8
			CR(D)	1.5	% RPD	CH	13-DEC-00		200.8
			CU	<1	% RPD	MK	09-NOV-00		200.7
			CU(D)	<1	% RPD	MK	09-NOV-00		200.7
			FE	<1	% RPD	MK	09-NOV-00		6010
			FE(D)	<1	% RPD	MK	09-NOV-00		6010
			MN	<1	% RPD	MK	09-NOV-00		200.7
			MN(D)	<1	% RPD	MK	09-NOV-00		200.7
			PB	1.4	% RPD	CH	15-DEC-00		200.8
			PB(D)	1.9	% RPD	CH	13-DEC-00		200.8
			SB	10.	% RPD	CH	15-DEC-00		200.8
			SB(D)	1.4	% RPD	CH	15-DEC-00		200.8
			SE	1.4	% RPD	CH	15-DEC-00		200.8
			SE(D)	2.7	% RPD	CH	13-DEC-00		200.8
			ZN	1.5	% RPD	MK	09-DEC-00		200.7
			ZN(D)	<1	% RPD	MK	09-DEC-00		200.7
WG001107-6		Reporting Limit	AG	.005	ppm				200.8
			AG(D)	.005	ppm				200.8
			AL	.05	ppm				6010
			AL(D)	.05	ppm				6010
			AS	.005	ppm				200.8
			AS(D)	.005	ppm				200.8
			CD	.005	ppm				200.8
			CD(D)	.005	ppm				200.8
			CR	.01	ppm				200.8
			CR(D)	.01	ppm				200.8
			CU	.005	ppm				200.7
			CU(D)	.005	ppm				200.7
			FE	.1	ppm				6010
			FE(D)	.1	ppm				6010
			MN	.005	ppm				200.7
			MN(D)	.005	ppm				200.7
			PB	.005	ppm				200.8
			PB(D)	.005	ppm				200.8
			SB	.005	ppm				200.8
			SB(D)	.005	ppm				200.8
			SE	.005	ppm				200.8
			SE(D)	.005	ppm				200.8

AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

United Park City Mines

(Project AG CREEK WATERSHEAD)

Batch No: WG001107

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001107-6		Reporting Limit	TDS	10.	ppm				160.1
			TSS	1.	ppm				160.2
			ZN	.01	ppm				200.7
			ZN(D)	.01	ppm				200.7

Approved

Reviewer

AEC LABORATORIES

Laboratory Services Request Form

I. CLIENT INFORMATION

Client Name: United Park City Mines
Client Address: P. O. Box 1450
Park City, Utah 84060
Client Phone: 435-649-8011
Client Fax: 435-649-8035

SEND REQUESTS TO:

AEC LABORATORIES
3422 South 700 West
Salt Lake City, UT
84119
Your Customer Service Representative is:
Maureen Ottley
Phone # (801) 261-1426
Fax # (801) 264-9838

II. ACCOUNT INFORMATION

Account Name: Same As Above
Account Address:

P.O. No: Silver Creek

III. REPORT INSTRUCTIONS

Report Results To: **Kerry Gee**
Report Address: Same As Above
Please Forward Results By: US Mail (X) Fed Ex ( ) Fax (X) Other kcgee@xmission.com
Services Requested below are required no later than _____ (date)

IV. TYPE OF SERVICE REQUESTED

Please analyze the enclosed environmental samples for:

Lab Use Only Lab No.	Field Sample No./Description	Date	Sampling Date & Time	No. of Cont.	Analysis Requested
	RF-7	11-7-00	12:00 P	3	List 1 metals T+D, TSS, TDS
	USC-0		1:00	3	
	USC-1		11:00	3	
	USC-4		11.30	3	
	RF-6		12:30	3	
	USC-7		13:30	3	
	USC-8		14:20	3	

Please send the following supplies:
( ) Laboratory Request Forms ( ) Sampling Media (please specify) _____
( ) Other

V. CHAIN OF CUSTODY RECORD

Dispatched by:	Date	Time	Courier Co. Name
Relinquished by:	Date 11/7/00	Time	Airbill #
Received by:	Date	Time	Custody Seal Intact?
Received for lab by:	Date 11.7.00	Time 1621	Yes No

Total Mercury in Water-EPA Method 1631

United Park City Mines c/o Kerry Gee

analyzed by:
Frontier Geosciences, Inc.
414 Pontius Avenue North, Suite B, Seattle, WA 98109
phone: (206) 622-6960 fax: (206) 622-6870

Samples analyzed: December 4, 2000 (THG6-001204-1)

Sample Identification	Date Collected	Total Hg, ng/L (ppt)*	Diss. Hg, ng/L (ppt)*
USC-6	11/7/00	22.2	4.06
USC-1	11/7/00	51.5	2.24
USC-8	11/7/00	37.4	10.0
USC-4	11/7/00	2.08	0.97
USC-7	11/7/00	32.2	4.07

*Blank and dilution corrected

Frontier Geosciences Inc.

Kerry Gee
United Park City Mines
Box 1450
Park City, UT 84060
(435) 649-8011
fax (435) 649-8035

December 5, 2000

Dear Mr. Gee,

Enclosed are our results for total and dissolved Hg in water samples collected on November 7, 2000. The sample was received in good condition on November 8, 2000. Immediately after the samples arrived at Frontier, the bottles for dissolved analysis were filtered through a pre-cleaned 0.45-μm filter unit. After sample login, the samples were preserved with 1% (v/v) 0.2N BrCl. All samples are oxidized overnight prior to analysis. An aliquot of each sample was analyzed by $SnCl_2$ reduction, dual gold amalgamation, and cold vapor atomic fluorescence (CVAFS) detection (EPA Method 1631).

Please Note: The analysis method employed by Frontier Geosciences Inc. is compliant with EPA Method 1631 Revision B. However, sample results may not be EPA Method 1631 compliant in terms of reporting for regulatory purposes. Section 9.4.3.1 states "Analyze the field blank(s) shipped with each set of samples (samples collected from the same site at the same time, to maximum of 10 samples). Analyze the blank immediately before analyzing the samples in the batch." If your sample batch did not contain one field blank for every 10 samples or less, then your results may not be EPA Method 1631 compliant. Please check with your regulating entity to find out what is required in terms of field blanks to ensure compliance. Any QC parameter in section is mandatory and may not be omitted. Please Note: Field blanks are considered a sample for billing purposes. You will be charged for analysis of blanks.

Note: Upon receipt of your samples, the temperature was documented as being 8.7° C. According to EPA Method 1631 – Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry, samples should be "Tightly capped and maintained at 0-4° C from the time of collection until preservation". Frontier recommends that our clients adhere to this procedure with every project they send in.

No analytical difficulties were encountered. Please feel free to call me if you have any questions.

Best Wishes,

Anne Fowler
Project Manager
annef@frontier.wa.com

Total Mercury in Water-EPA Method 1631

United Park City Mines c/o Kerry Gee

analyzed by:
Frontier Geosciences, Inc.
414 Pontius Avenue North, Suite B, Seattle, WA 98109
phone: (206) 622-6960 fax: (206) 622-6870

Samples analyzed: December 4, 2000 (THG6-001204-1)

Sample Identification	Total Hg, ng/L (ppt)

Method blanks

Blank-1	0.15
Blank-2	0.04
Blank-3	0.01
Std Dev (1% BrCl)	**0.08**
Mean (1% BrCl)	**0.07**
Estimated MDL (1% BrCl)	**0.23**
EPA 1631 MDL	**0.20**

Estimated MDL = 3 x standard deviation of the method blanks

Standard Reference Material

NIST-1641d	1,634 ug/L
recovery	**102.8%**
reference value	1,590 µg/L

Acceptance limit: 75-125%

Total Mercury in Water-EPA Method 1631

United Park City Mines c/o Kerry Gee

analyzed by:
Frontier Geosciences, Inc.
414 Pontius Avenue North, Suite B, Seattle, WA 98109
phone: (206) 622-6960 fax: (206) 622-6870

Samples analyzed: December 4, 2000 (THG6-001204-1)

Sample Identification	Total Hg, ng/L (ppt)

Matrix Spikes

USC-1	51.46
Sample MS	261.5
spiking level	202.0
net	210.0
recovery	**104.0%**
Sample MSD	243.5
spiking level	202.0
net	192.0
recovery	**95.0%**
RPD	**7.1**

Acceptance limit: 75-125%

MS-matrix spike

MSD-matrix spike duplicate

Frontier Geosciences Inc.

Environmental Research & Specialty Analytical Laboratory

414 Pontius Avenue North Seattle WA 98109
(206) 622-6960 fax (206) 622 -6870 Info@Frontier.WA.Com

Chain of Custody Record & Laboratory Analysis Request

Date: 11-7-00 Page: 1 of 1

Client Company: UPCM
Address: P.O. 12450
Park City, UT 84060
CONTACT: Kerry Gee
Phone: 435-655-7410 Fax: 435-649-8035
Email: KCGee@unitedpark.com
Project Name: Silver Creek Watershed
Contract/PO #:

Frontier Project Manager: Anne
Guaranteed Turnaround Time:
Confirmation of Sample Arrival at Frontier: ☐ YES ☐ NO
Quality Assurance Level: ☐ Standard ☐ High
Disposal*: ☐ FGS Dispose ☐ Return to Client ☐ Ship to 3rd Party**
*All samples are held for at least 2 months after date of receipt.
Please note that after this time they are disposed of or returned to the client.
Clients may request a longer holding time by writing to the Frontier Project Manager.
**Please discuss this with the Frontier Project Manager.
Carrier Information: FED EX ☐ UPS ☒ Other ☐ Tracking # FB728879XDW

Bottle #	Sample ID	Matrix	Date/Time Sampled	Collected by	Preservation	Analysis Required/Comments
2- 250ml	USC-6		11/7/00 13:00	T.Leeds	none	Total + Diss. Hg ep. 245.1
1- 1l •	USC-1		11:00	↓	↓	↓
2- 250ml •	USC-8		14:20			0.0002 LRL
1- 1l •	USC-4		11:30			
2- 250ml •	USC-7		13:30			

Sample Receipt	Relinquished by:	Relinquished by:	Relinquished by:
C.O.C. Seal Intact? ☐ YES ☐ NO	Print name: Todd Leeds	Print name:	Print name:
Cooler Temperature: 3.7 °C	Company: RNL	Company:	Company:
Comments: Blue ice used	Date: 11/7/00 Time: 15:10	Date: Time:	Date: Time:
	Received by: Julie Zamora	Received by: Jennifer Kass	Received by:
	Print name: Julie Zamora	Print name: Jennifer Kass	Print name:
	Company: United Park City Mines CO.	Company: RGS	Company:
VTSR: 0930	Date: 11-7-00 Time: 3:15	Date: 11/8/00 Time: 1155	Date: Time:

APPENDIX C

AEC

AMERICAN ENVIRONMENTAL CONSULTANTS LABORATORY
3422 South 700 West Salt Lake City, Utah 84119-4191
(801) 261-1426 • FAX (801) 264-9838

October 12, 2000

Mr. Kerry Gee
United Park City Mines
P.O.Box 1450
Park City, Utah 84060

Attached are the analytical results and quality control data for (26), twenty six soil samples collected between September 27, and September 28, 2000, in association with the Park City Watershed Project and received by our laboratory on September 29, 2000.

Please note that Hg was analyzed on samples as received, while all other metals were analyzed on oven dried samples sieved through a 230 mesh sieve, and digested using EPA method 3050.

If you need further information, please call at (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

AKH
Attach.

cc: GRStanga (w/attach.)

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

United Park City Mines

(Project WATERSHED)

Batch No: L001618

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001618-001	27-SEP-00	USC-7 (SURFACE)	AG	51.	ppm	MDK	11-OCT-00		6010
			AL	12630.	ppm	MDK	11-OCT-00		6010
			AS	76.	ppm	MDK	11-OCT-00		6010
			CD	27.	ppm	MDK	11-OCT-00		6010
			CR	33.	ppm	MDK	11-OCT-00		6010
			CU	652.	ppm	MDK	11-OCT-00		6010
			FE	21220.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	1320.	ppm	MDK	11-OCT-00		6010
			SB	39.*	ppm	MDK	11-OCT-00		6010
			SE	16.	ppm	MDK	11-OCT-00		6010
			ZN	4231.	ppm	MDK	11-OCT-00		6010
L001618-002	27-SEP-00	USC-9 (0-12")	AG	16.	ppm	MDK	11-OCT-00		6010
			AL	11230.	ppm	MDK	11-OCT-00		6010
			AS	40.	ppm	MDK	11-OCT-00		6010
			CD	11.	ppm	MDK	11-OCT-00		6010
			CR	55.	ppm	MDK	11-OCT-00		6010
			CU	1600.	ppm	MDK	11-OCT-00		6010
			FE	28510.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	789.	ppm	MDK	11-OCT-00		6010
			SB	24.*	ppm	MDK	11-OCT-00		6010
			SE	8.0	ppm	MDK	11-OCT-00		6010
			ZN	2078.	ppm	MDK	11-OCT-00		6010
L001618-003	27-SEP-00	USC-7 (0-12")	AG	20.	ppm	MDK	11-OCT-00		6010
			AL	14720.	ppm	MDK	11-OCT-00		6010
			AS	105.	ppm	MDK	11-OCT-00		6010
			CD	28.	ppm	MDK	11-OCT-00		6010
			CR	42.	ppm	MDK	11-OCT-00		6010
			CU	450.	ppm	MDK	11-OCT-00		6010
			FE	27170.	ppm	MDK	11-OCT-00		6010
			HG	0.83	ppm	EH	03-OCT-00		7471
			PB	2656.	ppm	MDK	11-OCT-00		6010
			SB	64.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	4619.	ppm	MDK	11-OCT-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

United Park City Mines

(Project WATERSHED)

Batch No: L001618

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001618-004	27-SEP-00	USC-6 (0-12")	AG	136.	ppm	MDK	11-OCT-00		6010
			AL	3181.	ppm	MDK	11-OCT-00		6010
			AS	1735.	ppm	MDK	11-OCT-00		6010
			CD	179.	ppm	MDK	11-OCT-00		6010
			CR	12.	ppm	MDK	11-OCT-00		6010
			CU	2559.	ppm	MDK	11-OCT-00		6010
			FE	110700.	ppm	MDK	11-OCT-00		6010
			HG	1.6	ppm	EH	03-OCT-00		7471
			PB	42990.	ppm	MDK	11-OCT-00		6010
			SB	889.*	ppm	MDK	11-OCT-00		6010
			SE	26.	ppm	MDK	11-OCT-00		6010
			ZN	44560.	ppm	MDK	11-OCT-00		6010
L001618-005	27-SEP-00	USC-5 (SURFACE)	AG	48.	ppm	MDK	11-OCT-00		6010
			AL	9308.	ppm	MDK	11-OCT-00		6010
			AS	393.	ppm	MDK	11-OCT-00		6010
			CD	65.	ppm	MDK	11-OCT-00		6010
			CR	22.	ppm	MDK	11-OCT-00		6010
			CU	1380.	ppm	MDK	11-OCT-00		6010
			FE	69730.	ppm	MDK	11-OCT-00		6010
			HG	0.49	ppm	EH	03-OCT-00		7471
			PB	11190.	ppm	MDK	11-OCT-00		6010
			SB	175.*	ppm	MDK	11-OCT-00		6010
			SE	16.	ppm	MDK	11-OCT-00		6010
			ZN	12270.	ppm	MDK	11-OCT-00		6010
L001618-006	27-SEP-00	USC-5 (0-12")	AG	19.	ppm	MDK	11-OCT-00		6010
			AL	15220.	ppm	MDK	11-OCT-00		6010
			AS	203.	ppm	MDK	11-OCT-00		6010
			CD	19.	ppm	MDK	11-OCT-00		6010
			CR	31.	ppm	MDK	11-OCT-00		6010
			CU	563.	ppm	MDK	11-OCT-00		6010
			FE	47710.	ppm	MDK	11-OCT-00		6010
			HG	0.41	ppm	EH	03-OCT-00		7471
			PB	5794.	ppm	MDK	11-OCT-00		6010
			SB	76.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	6624.	ppm	MDK	11-OCT-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

United Park City Mines

(Project WATERSHED)

Batch No: L001618

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001618-007	27-SEP-00	USC-6 (SURFACE)	AG	81.	ppm	MDK	11-OCT-00		6010
			AL	4930.	ppm	MDK	11-OCT-00		6010
			AS	669.	ppm	MDK	11-OCT-00		6010
			CD	104.	ppm	MDK	11-OCT-00		6010
			CR	15.	ppm	MDK	11-OCT-00		6010
			CU	1115.	ppm	MDK	11-OCT-00		6010
			FE	156800.	ppm	MDK	11-OCT-00		6010
			HG	0.18	ppm	EH	03-OCT-00		7471
			PB	12440.	ppm	MDK	11-OCT-00		6010
			SB	232.*	ppm	MDK	11-OCT-00		6010
			SE	32.	ppm	MDK	11-OCT-00		6010
			ZN	15880.	ppm	MDK	11-OCT-00		6010
L001618-008	27-SEP-00	USC-8 (SURFACE)	AG	17.	ppm	MDK	11-OCT-00		6010
			AL	9296.	ppm	MDK	11-OCT-00		6010
			AS	110.	ppm	MDK	11-OCT-00		6010
			CD	26.	ppm	MDK	11-OCT-00		6010
			CR	33.	ppm	MDK	11-OCT-00		6010
			CU	280.	ppm	MDK	11-OCT-00		6010
			FE	20720.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	3132.	ppm	MDK	11-OCT-00		6010
			SB	57.*	ppm	MDK	11-OCT-00		6010
			SE	5.8	ppm	MDK	11-OCT-00		6010
			ZN	4591.	ppm	MDK	11-OCT-00		6010
L001618-009	27-SEP-00	USC-8 (0-12")	AG	17.	ppm	MDK	11-OCT-00		6010
			AL	10590.	ppm	MDK	11-OCT-00		6010
			AS	115.	ppm	MDK	11-OCT-00		6010
			CD	13.	ppm	MDK	11-OCT-00		6010
			CR	36.	ppm	MDK	11-OCT-00		6010
			CU	275.	ppm	MDK	11-OCT-00		6010
			FE	22450.	ppm	MDK	11-OCT-00		6010
			HG	0.24	ppm	EH	03-OCT-00		7471
			PB	3006.	ppm	MDK	11-OCT-00		6010
			SB	58.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	3235.	ppm	MDK	11-OCT-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

United Park City Mines

(Project WATERSHED)

Batch No: L001618

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001618-010	27-SEP-00	USC-9 (SURFACE)	AG	5.4	ppm	MDK	11-OCT-00		6010
			AL	9986.	ppm	MDK	11-OCT-00		6010
			AS	32.	ppm	MDK	11-OCT-00		6010
			CD	7.2	ppm	MDK	11-OCT-00		6010
			CR	21.	ppm	MDK	11-OCT-00		6010
			CU	124.	ppm	MDK	11-OCT-00		6010
			FE	18660.	ppm	MDK	11-OCT-00		6010
			HG	0.13	ppm	EH	03-OCT-00		7471
			PB	735.	ppm	MDK	11-OCT-00		6010
			SB	15.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	1124.	ppm	MDK	11-OCT-00		6010
L001618-011	27-SEP-00	USC-2 (SURFACE)	AG	35.	ppm	MDK	11-OCT-00		6010
			AL	8943.	ppm	MDK	11-OCT-00		6010
			AS	177.	ppm	MDK	11-OCT-00		6010
			CD	37.	ppm	MDK	11-OCT-00		6010
			CR	26.	ppm	MDK	11-OCT-00		6010
			CU	430.	ppm	MDK	11-OCT-00		6010
			FE	30900.	ppm	MDK	11-OCT-00		6010
			HG	0.18	ppm	EH	03-OCT-00		7471
			PB	4861.	ppm	MDK	11-OCT-00		6010
			SB	97.*	ppm	MDK	11-OCT-00		6010
			SE	5.0	ppm	MDK	11-OCT-00		6010
			ZN	6780.	ppm	MDK	11-OCT-00		6010
L001618-012	27-SEP-00	USC-1 (SURFACE)	AG	49.	ppm	MDK	11-OCT-00		6010
			AL	9969.	ppm	MDK	11-OCT-00		6010
			AS	341.	ppm	MDK	11-OCT-00		6010
			CD	50.	ppm	MDK	11-OCT-00		6010
			CR	21.	ppm	MDK	11-OCT-00		6010
			CU	766.	ppm	MDK	11-OCT-00		6010
			FE	66340.	ppm	MDK	11-OCT-00		6010
			HG	0.11	ppm	EH	03-OCT-00		7471
			PB	11130.	ppm	MDK	11-OCT-00		6010
			SB	140.*	ppm	MDK	11-OCT-00		6010
			SE	11.	ppm	MDK	11-OCT-00		6010
			ZN	11730.	ppm	MDK	11-OCT-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

United Park City Mines

(Project WATERSHED)

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LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001618-013	27-SEP-00	USC-2 (0-12")	AG	40.	ppm	MDK	11-OCT-00		6010
			AL	11590.	ppm	MDK	11-OCT-00		6010
			AS	271.	ppm	MDK	11-OCT-00		6010
			CD	58.	ppm	MDK	11-OCT-00		6010
			CR	32.	ppm	MDK	11-OCT-00		6010
			CU	588.	ppm	MDK	11-OCT-00		6010
			FE	55160.	ppm	MDK	11-OCT-00		6010
			HG	0.25	ppm	EH	03-OCT-00		7471
			PB	6942.	ppm	MDK	11-OCT-00		6010
			SB	137.*	ppm	MDK	11-OCT-00		6010
			SE	10.	ppm	MDK	11-OCT-00		6010
			ZN	11950.	ppm	MDK	11-OCT-00		6010
L001618-014	27-SEP-00	USC-1 (0-12")	AG	28.	ppm	MDK	11-OCT-00		6010
			AL	11250.	ppm	MDK	11-OCT-00		6010
			AS	332.	ppm	MDK	11-OCT-00		6010
			CD	29.	ppm	MDK	11-OCT-00		6010
			CR	30.	ppm	MDK	11-OCT-00		6010
			CU	602.	ppm	MDK	11-OCT-00		6010
			FE	65540.	ppm	MDK	11-OCT-00		6010
			HG	0.44	ppm	EH	03-OCT-00		7471
			PB	5960.	ppm	MDK	11-OCT-00		6010
			SB	122.*	ppm	MDK	11-OCT-00		6010
			SE	11.	ppm	MDK	11-OCT-00		6010
			ZN	6796.	ppm	MDK	11-OCT-00		6010
L001618-015	28-SEP-00	TC-1 (SURFACE)	AG	18.	ppm	MDK	11-OCT-00		6010
			AL	12000.	ppm	MDK	11-OCT-00		6010
			AS	149.	ppm	MDK	11-OCT-00		6010
			CD	46.	ppm	MDK	11-OCT-00		6010
			CR	27.	ppm	MDK	11-OCT-00		6010
			CU	1247.	ppm	MDK	11-OCT-00		6010
			FE	39650.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	8383.	ppm	MDK	11-OCT-00		6010
			SB	18.*	ppm	MDK	11-OCT-00		6010
			SE	13.	ppm	MDK	11-OCT-00		6010
			ZN	11440.	ppm	MDK	11-OCT-00		6010

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LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001618-016	28-SEP-00	CANYON FLUME SURFACE	AG	138.	ppm	MDK	11-OCT-00		6010
			AL	11310.	ppm	MDK	11-OCT-00		6010
			AS	513.	ppm	MDK	11-OCT-00		6010
			CD	60.	ppm	MDK	11-OCT-00		6010
			CR	40.	ppm	MDK	11-OCT-00		6010
			CU	1540.	ppm	MDK	11-OCT-00		6010
			FE	33600.	ppm	MDK	11-OCT-00		6010
			HG	0.56	ppm	EH	03-OCT-00		7471
			PB	12310.	ppm	MDK	11-OCT-00		6010
			SB	258.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	10960.	ppm	MDK	11-OCT-00		6010
L001618-017	28-SEP-00	ONT-DV (SURFACE)	AG	<5.0	ppm	MDK	11-OCT-00		6010
			AL	8502.	ppm	MDK	11-OCT-00		6010
			AS	43.	ppm	MDK	11-OCT-00		6010
			CD	<5.0	ppm	MDK	11-OCT-00		6010
			CR	19.	ppm	MDK	11-OCT-00		6010
			CU	156.	ppm	MDK	11-OCT-00		6010
			FE	20490.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	227.	ppm	MDK	11-OCT-00		6010
			SB	7.7*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	292.	ppm	MDK	11-OCT-00		6010
L001618-018	28-SEP-00	WOOD FLUME (SURFACE)	AG	52.	ppm	MDK	11-OCT-00		6010
			AL	8445.	ppm	MDK	11-OCT-00		6010
			AS	419.	ppm	MDK	11-OCT-00		6010
			CD	39.	ppm	MDK	11-OCT-00		6010
			CR	30.	ppm	MDK	11-OCT-00		6010
			CU	616.	ppm	MDK	11-OCT-00		6010
			FE	42120.	ppm	MDK	11-OCT-00		6010
			HG	0.24	ppm	EH	03-OCT-00		7471
			PB	11370.	ppm	MDK	11-OCT-00		6010
			SB	226.*	ppm	MDK	11-OCT-00		6010
			SE	14.	ppm	MDK	11-OCT-00		6010
			ZN	6800.	ppm	MDK	11-OCT-00		6010

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L001618-019	28-SEP-00	TC-NORTH (SURFACE)	AG	<5.0	ppm	MDK	11-OCT-00		6010
			AL	13880.	ppm	MDK	11-OCT-00		6010
			AS	28.	ppm	MDK	11-OCT-00		6010
			CD	13.	ppm	MDK	11-OCT-00		6010
			CR	25.	ppm	MDK	11-OCT-00		6010
			CU	300.	ppm	MDK	11-OCT-00		6010
			FE	23860.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	845.	ppm	MDK	11-OCT-00		6010
			SB	6.1*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	2243.	ppm	MDK	11-OCT-00		6010
L001618-020	28-SEP-00	WOOD FLUME (0-12")	AG	51.	ppm	MDK	11-OCT-00		6010
			AL	6423.	ppm	MDK	11-OCT-00		6010
			AS	391.	ppm	MDK	11-OCT-00		6010
			CD	49.	ppm	MDK	11-OCT-00		6010
			CR	26.	ppm	MDK	11-OCT-00		6010
			CU	643.	ppm	MDK	11-OCT-00		6010
			FE	49210.	ppm	MDK	11-OCT-00		6010
			HG	0.16	ppm	EH	03-OCT-00		7471
			PB	12770.	ppm	MDK	11-OCT-00		6010
			SB	218.*	ppm	MDK	11-OCT-00		6010
			SE	16.	ppm	MDK	11-OCT-00		6010
			ZN	7565.	ppm	MDK	11-OCT-00		6010
L001618-021	28-SEP-00	UPPER WOOD (0-12")	AG	<5.0	ppm	MDK	11-OCT-00		6010
			AL	11710.	ppm	MDK	11-OCT-00		6010
			AS	28.	ppm	MDK	11-OCT-00		6010
			CD	<5.0	ppm	MDK	11-OCT-00		6010
			CR	26.	ppm	MDK	11-OCT-00		6010
			CU	290.	ppm	MDK	11-OCT-00		6010
			FE	22230.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	551.	ppm	MDK	11-OCT-00		6010
			SB	12.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	443.	ppm	MDK	11-OCT-00		6010

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L001618-022	28-SEP-00	ONT-DV (0-12")	AG	<5.0	ppm	MDK	11-OCT-00		6010
			AL	11750.	ppm	MDK	11-OCT-00		6010
			AS	38.	ppm	MDK	11-OCT-00		6010
			CD	<5.0	ppm	MDK	11-OCT-00		6010
			CR	30.	ppm	MDK	11-OCT-00		6010
			CU	232.	ppm	MDK	11-OCT-00		6010
			FE	22140.	ppm	MDK	11-OCT-00		6010
			HG	0.24	ppm	EH	03-OCT-00		7471
			PB	296.	ppm	MDK	11-OCT-00		6010
			SB	7.6*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	363.	ppm	MDK	11-OCT-00		6010
L001618-023	28-SEP-00	GULCH FLUME SURFACE	AG	28.	ppm	MDK	11-OCT-00		6010
			AL	10540.	ppm	MDK	11-OCT-00		6010
			AS	78.	ppm	MDK	11-OCT-00		6010
			CD	60.	ppm	MDK	11-OCT-00		6010
			CR	17.	ppm	MDK	11-OCT-00		6010
			CU	343.	ppm	MDK	11-OCT-00		6010
			FE	32310.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	17120.	ppm	MDK	11-OCT-00		6010
			SB	95.*	ppm	MDK	11-OCT-00		6010
			SE	5.2	ppm	MDK	11-OCT-00		6010
			ZN	11680.	ppm	MDK	11-OCT-00		6010
L001618-024	28-SEP-00	DAILY FLUME SURFACE	AG	55.	ppm	MDK	11-OCT-00		6010
			AL	8067.	ppm	MDK	11-OCT-00		6010
			AS	187.	ppm	MDK	11-OCT-00		6010
			CD	57.	ppm	MDK	11-OCT-00		6010
			CR	26.	ppm	MDK	11-OCT-00		6010
			CU	569.	ppm	MDK	11-OCT-00		6010
			FE	29290.	ppm	MDK	11-OCT-00		6010
			HG	0.46	ppm	EH	03-OCT-00		7471
			PB	9025.	ppm	MDK	11-OCT-00		6010
			SB	84.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	9838.	ppm	MDK	11-OCT-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

United Park City Mines

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L001618-025	28-SEP-00	UPPER WOOD SURFACE	AG	<5.0	ppm	MDK	11-OCT-00		6010
			AL	9749.	ppm	MDK	11-OCT-00		6010
			AS	31.	ppm	MDK	11-OCT-00		6010
			CD	<5.0	ppm	MDK	11-OCT-00		6010
			CR	20.	ppm	MDK	11-OCT-00		6010
			CU	259.	ppm	MDK	11-OCT-00		6010
			FE	19460.	ppm	MDK	11-OCT-00		6010
			HG	<0.1	ppm	EH	03-OCT-00		7471
			PB	672.	ppm	MDK	11-OCT-00		6010
			SB	14.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	495.	ppm	MDK	11-OCT-00		6010
L001618-026	28-SEP-00	ONT-SED SURFACE	AG	12.	ppm	MDK	11-OCT-00		6010
			AL	6258.	ppm	MDK	11-OCT-00		6010
			AS	64.	ppm	MDK	11-OCT-00		6010
			CD	<5.0	ppm	MDK	11-OCT-00		6010
			CR	19.	ppm	MDK	11-OCT-00		6010
			CU	157.	ppm	MDK	11-OCT-00		6010
			FE	21180.	ppm	MDK	11-OCT-00		6010
			HG	0.14	ppm	EH	03-OCT-00		7471
			PB	484.	ppm	MDK	11-OCT-00		6010
			SB	18.*	ppm	MDK	11-OCT-00		6010
			SE	<5.0	ppm	MDK	11-OCT-00		6010
			ZN	635.	ppm	MDK	11-OCT-00		6010

(*) Quality control data indicates a possible bias. See QC report for details.

Approved

Reviewer