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**Chemical analyses of major, minor, and trace elements including gold and the arsenic species, As(III) and As(V), in water samples collected along the Getchell Trend, Humboldt County, Nevada**

by

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## INTRODUCTION

The Getchell Trend, a 25 mile long northeast trending fault system, is located in north-central Nevada in Humboldt County about 45 miles northeast of Winnemucca, and contains several known buried disseminated gold deposits including the Pinson, Preble, Getchell, and Twin Creeks deposits (Fig. 1). The gold deposits are hosted primarily in sedimentary rocks of lower Ordovician age (Parratt and others, 1989), and the gold generally exists as sub-micron size particles of native gold. Other minerals associated with these Carlin-type gold deposits include orpiment, realgar, and stibnite.

A hydrogeochemical study was undertaken by the U.S. Geological Survey in 1989 to determine if the chemistry of ground water would reveal the presence of the concealed gold deposits along the Getchell Trend. Ground-water samples were collected from drill holes in the vicinity of the known gold deposits and from nearby wells and creeks. This report includes a map showing the location of water sample sites (plate 1), a table of the analytical methods used (table 1), and a tabulation of the hydrogeochemical data (table 2).

## SAMPLE COLLECTION

During the period 1989-1993, 282 ground-water samples were collected from 72 sample sites. The samples were collected primarily from drill holes during active drilling and from exploration drill holes that were several years old. The water samples collected during drilling were obtained from reverse-circulation rotary drill rigs. The samples were taken at 60- to 100-ft intervals during drill-pipe changes, immediately after water in the drill hole had been purged. No drilling mud was used in any of the drill holes sampled, and little, if any, injection water was added. The water samples from the old drill holes were collected at and below the water table using a custom-built double-check valve bailer with a maximum volume of 1.25 L. The bailer was lowered into the drill holes with nylon cord to sampling depths as great as 720 ft below the ground surface. The check-valve system of the bailer enabled water to be trapped and retrieved from any desired depth below the water table.

A 50-mL water sample from each sample location was filtered in the field through a 0.45-micron membrane filter and acidified to a pH less than 2 with five drops of concentrated nitric acid. Also, 2 untreated water samples with volumes of about 200 mL and 1000 mL were collected at each location. For samples selected for the determination of the arsenic species, arsenite [As(III)] and arsenate [As(V)], a 10-mL aliquot of water was filtered through a 0.45-micron filter and preserved with one

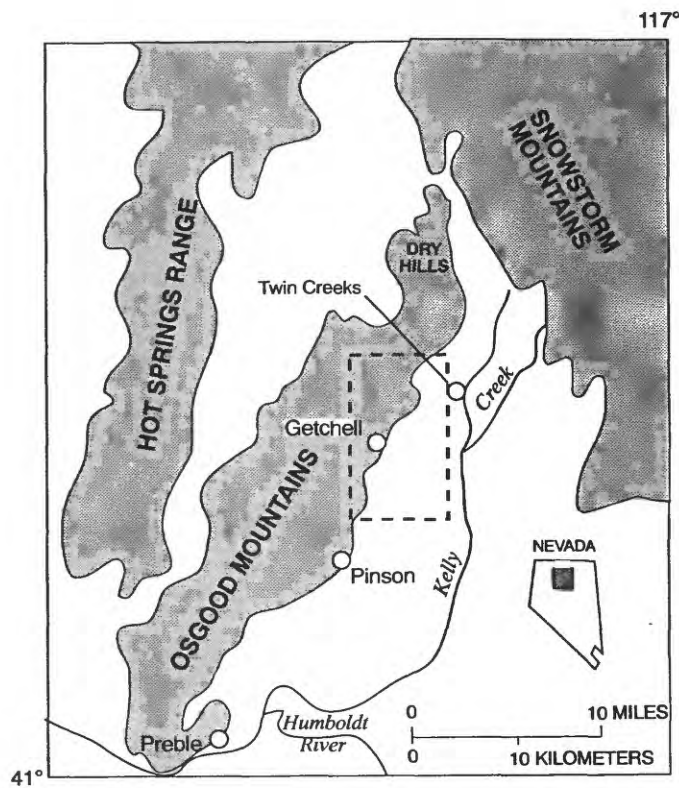


Figure 1. Index map showing the location of the Preble, Pinson, Getchell, and Twin Creeks disseminated gold deposits, Humboldt County, Nevada; the water sampling area is outlined

drop of concentrated hydrochloric acid. All the samples were stored in acid-rinsed polyethylene bottles. Temperature, alkalinity, specific conductance, and pH were measured at the sample site. The Eh of water samples collected with a bailer from the old drill holes was measured in the field using a platinum electrode. All other analytical constituents were determined at the Branch of Geochemistry, U.S. Geological laboratories in Denver, Colorado.

## ANALYTICAL METHODS

Gold was determined in the 1000-mL water samples after filtration and acidification in the laboratory using anion-exchange graphite-furnace atomic-absorption spectrometry. Arsenic, antimony, tungsten, and other trace elements were determined in the filtered, nitric acid acidified samples, by inductively coupled plasma-mass spectrometry (ICP-MS). Calcium, iron, magnesium, manganese, potassium, silica, and sodium were determined by flame atomic absorption spectroscopy using the same sample aliquot used for the ICP-MS analysis. Chloride, fluoride, nitrate, and sulfate were determined by an ion chromatography technique using the untreated sample. Concentrations of the arsenic species, As(III) and As(V), were determined by ion-exchange graphite-furnace atomic-absorption spectrometry. The concentrations of these two species of arsenic commonly provide an approximation of the relative oxidation-reduction conditions (redox potential) present at the depth of sample collection. The analytical methods used to measure each constituent in the water samples are listed in table 1.

## DESCRIPTION OF TABLE 2

Table 2 lists the field measurements and the chemical analyses for the water samples. The data are arranged so that column 1 contains the USGS-assigned sample numbers. These sample numbers correspond to the numbers shown on the site location map (plate 1). The sample numbers shown on table 2 are suffixed with the month and year of sample collection. Columns 2 and 3 list the latitude (north) and longitude (west) for each sample site in degrees, minutes, and seconds. Column 4 lists the depth of sample collection, measured in feet below the ground surface. Column 5 lists the depth to the water table at the time of sample collection. The remaining columns list analytical data. The concentrations of the arsenic species, arsenite [As(III)] and arsenate [As(V)], are listed in columns 9 and 10, respectively, and the total arsenic (As-T) concentrations are listed in column 11.

Gold concentrations are given in nanograms per liter (note: 1 ng/L equals 1-part-per-trillion). Fe, Mn, Ca, K, Mg, Na, Cl, NO<sub>3</sub>, SO<sub>4</sub>, F, and SiO<sub>2</sub> are given in milligrams

per liter (note: 1 mg/L equals 1-part-per-million). All other element concentrations are given in micrograms per liter (note: 1 µg/L equals 1-part-per-billion). The Eh values are given in millivolts (mV) and are not corrected for junction potential. The alkalinity (Alk) values are reported in milligrams per liter total alkalinity as calcium carbonate (CaCO<sub>3</sub>). Specific conductance (Cond) is given in microSiemens/cm (µS). If an element was analyzed but not detected in a sample, then a "less than" symbol was entered in the table followed by the lower limit of determination. The symbol "-" indicates the measurement was not made.

## **ACKNOWLEDGMENTS**

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Table 1 Analytical methods used for the analyses of water samples

Variable	Method	Reference
Alkalinity	Gran's plot potentiometric titration	Orion Research Inc. (1978)
Cl, F, NO <sub>3</sub> , SO <sub>4</sub>	Ion chromatography	Fishman and Pyen (1979)
Ca, Fe, K, Mg, Mn, Na, SiO <sub>2</sub>	Flame atomic absorption spectrophotometry	Perkin-Elmer Corp. (1976)
Ag, As, Cd, Co, Cr, Cu, Ge, Mo, Pb, Sb, W, Zn	Inductively coupled plasma-mass spectrometry	Grimes and others (1995)
Au	Anion exchange - flameless atomic absorption	McHugh (1986)
As species - As(III), As(V)	Anion exchange - flameless atomic absorption	Ficklin (1983)



Table 2. Analytical data for water samples collected near the Getchell Trend, Humboldt County, Nevada

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
88-100-A-FB91	41 13 57	117 12 28	290	284	7.0	165	28	<1	12	8	<0.8	<1	0.06	0.01	<0.1	4
88-100-B-FB91	41 13 57	117 12 28	450		7.0	182	3	-	-	2	<0.8	<1	0.05	0.18	<0.1	4
88-104-A-MR92	41 13 33	117 12 09	320	-	8.0	290	7	-	-	6	0.5	4	<0.01	0.26	<0.1	37
88-104-B-MR92	41 13 33	117 12 09	420		8.0	285	2	<5	<5	3	<0.2	1	0.01	0.04	<0.1	10
88-104-C-MR92	41 13 33	117 12 09	520		8.0	300	3	-	-	4	<0.2	1	<0.01	0.11	<0.1	11
88-108-A-FB91	41 14 24	117 12 04	350	341	6.5	-086	<1	-	-	3	<0.8	<1	1.51	0.35	<0.1	8
88-108-B-FB91	41 14 24	117 12 04	500		6.9	-090	<1	-	-	4	<0.8	<1	1.18	0.40	<0.1	6
88-108-C-FB91	41 14 24	117 12 04	600		6.8	-088	4	-	-	2	<0.8	<1	0.84	0.35	<0.1	5
88-117-A-FB91	41 14 35	117 12 04	370	360	6.7	-074	1	-	-	<1	<0.8	1	0.36	0.25	<0.1	2
88-117-B-FB91	41 14 35	117 12 04	450		6.6	-080	<1	-	-	1	<0.8	<1	0.36	0.25	<0.1	2
88-124-JN91	41 14 41	117 12 18	435	430	7.2	-210	7	11	30	29	0.5	6	0.04	0.86	0.2	<1
88-175-A-FB91	41 13 57	117 11 38	250	252	7.0	-117	4	30	9	42	<0.8	3	0.21	0.72	0.2	8
88-175-B-FB91	41 13 57	117 11 38	300		7.0	-116	2	38	10	44	<0.8	2	0.22	0.76	0.3	8

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
88-100-A-FB91	72	5.1	18	60	61	3.3	120	-	180	15	-	-	0.2	<0.2	1	<0.4	2	630	61.4
88-100-B-FB91	64	2.7	18	35	51	<0.1	91	-	180	14	-	-	0.8	<0.2	1	<0.4	2	480	61.9
88-104-A-MR92	48	5.1	14	45	27	<0.1	70	0.4	-	35	<0.1	<0.1	1.8	<0.3	<1	<0.1	14	550	65.9
88-104-B-MR92	45	5.3	14	38	19	<0.1	63	0.5	170	38	<0.1	<0.1	0.6	<0.3	<1	<0.1	4	500	63.0
88-104-C-MR92	48	5.0	14	41	25	<0.1	66	0.4	-	37	<0.1	<0.1	1.4	<0.3	<1	<0.1	17	520	62.9
88-108-A-FB91	53	2.7	43	86	24	0.6	192	-	300	11	-	-	0.2	<0.2	1	<0.4	3	720	62.4
88-108-B-FB91	54	3.1	43	83	28	1.4	180	-	300	13	-	-	0.3	<0.2	4	<0.4	6	730	64.3
88-108-C-FB91	55	3.4	40	82	26	<0.1	171	-	300	13	-	-	0.2	<0.2	1	<0.4	2	720	64.6
88-117-A-FB91	221	5.5	60	37	40	<0.1	195	-	210	15	-	-	0.8	<0.2	3	<0.4	8	1050	62.2
88-117-B-FB91	221	4.8	58	34	46	0.7	192	-	240	15	-	-	0.6	<0.2	3	<0.4	5	1040	61.8
88-124-JN91	92	11.0	25	67	61	<0.1	120	<0.1	800	28	<0.2	<0.1	1.3	<0.2	1	<1.0	6	1300	67.8
88-175-A-FB91	50	3.7	13	63	19	0.6	33	-	290	22	-	-	0.7	0.2	<1	<0.4	2	450	59.0
88-175-B-FB91	49	3.8	13	62	22	0.9	32	-	300	22	-	-	0.6	<0.2	<1	<0.4	2	440	59.7

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
88-179-A-JN91	41 13 58	117 11 18	260	228	8.4	150	5	-	-	5	0.4	1	0.01	0.22	<0.1	18
88-179-B-JN91	41 13 58	117 11 18	300		8.4	150	9	-	-	6	0.5	<1	<0.01	0.16	<0.1	17
88-179-C-JN91	41 13 58	117 11 18	400		8.3	150	9	-	-	12	0.4	5	<0.01	0.11	0.2	23
88-179-D-JN91	41 13 58	117 11 18	500		7.8	160	5	13	42	65	0.6	7	0.01	0.08	0.9	11
88-179-E-JN91	41 13 58	117 11 18	600		8.0	68	2	14	40	65	0.4	7	0.01	0.10	0.9	8
88-179-F-JN91	41 13 58	117 11 18	700		7.8	17	1	10	25	43	0.3	9	0.01	0.08	1.0	6
88-179-G-JN91	41 13 58	117 11 18	780		7.8	120	2	<2	25	32	0.4	8	0.01	0.13	0.6	13
88-181-A-FB91	41 14 07	117 11 28	255	258	7.2	96	1	<1	12	9	<0.8	2	0.03	0.10	0.1	10
88-181-B-FB91	41 14 07	117 11 28	350		7.2	74	1	<1	13	13	<0.8	1	0.04	0.01	0.2	8
88-181-C-FB91	41 14 07	117 11 28	450		7.2	29	3	<1	14	14	<0.8	1	0.03	0.02	0.2	9
88-181-D-FB91	41 14 07	117 11 28	550		7.3	90	1	<1	14	14	<0.8	2	0.04	0.05	0.2	9
88-181-E-FB91	41 14 07	117 11 28	650		7.3	0	1	18	17	14	<0.8	2	0.03	0.12	0.2	9
88-181-F-FB91	41 14 07	117 11 28	750		7.4	-049	2	15	17	30	<0.8	5	0.03	0.06	0.3	8
88-183-A-FB91	41 13 59	117 10 45	200	199	7.3	127	11	<1	35	24	<0.8	4	0.03	<0.01	0.3	8
88-183-B-FB91	41 13 59	117 10 45	280		7.3	142	15	<1	35	38	<0.8	2	0.03	<0.01	0.2	3

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
88-179-A-JN91	29	2.8	18	30	25	1.7	48	-	185	15	<0.2	<0.1	1.2	<0.2	2	<1.0	6	460	-
88-179-B-JN91	28	2.3	17	30	25	<0.1	46	-	190	16	<0.2	<0.1	1.2	<0.2	2	<1.0	27	450	-
88-179-C-JN91	50	3.9	22	37	42	<0.1	92	-	205	14	<0.2	<0.1	1.2	<0.2	4	<1.0	7	620	-
88-179-D-JN91	48	4.1	22	38	39	<0.1	82	-	240	14	<0.2	<0.1	2.4	<0.2	3	<1.0	4	620	67.0
88-179-E-JN91	48	5.4	24	42	41	<0.1	78	-	245	14	<0.2	<0.1	1.6	<0.2	4	<1.0	29	630	67.9
88-179-F-JN91	50	3.6	24	38	35	<0.1	110	<0.1	240	14	<0.2	<0.1	1.4	<0.2	3	<1.0	7	630	68.1
88-179-G-JN91	48	4.0	22	38	40	<0.1	85	-	245	14	<0.2	<0.1	1.3	<0.2	4	<1.0	4	630	69.3
88-181-A-FB91	33	3.7	20	50	76	<0.1	61	-	245	16	-	-	0.6	0.3	1	<0.4	2	430	59.8
88-181-B-FB91	32	3.1	20	48	30	<0.1	58	-	240	16	-	-	0.2	<0.2	<1	<0.4	2	410	61.3
88-181-C-FB91	34	5.1	20	48	19	<0.1	56	-	240	16	-	-	0.1	<0.2	<1	<0.4	3	420	61.0
88-181-D-FB91	33	2.8	20	47	28	<0.1	55	-	250	16	-	-	0.3	<0.2	<1	<0.4	1	410	63.1
88-181-E-FB91	33	2.8	20	45	38	<0.1	56	-	210	16	-	-	0.3	<0.2	1	<0.4	1	420	63.7
88-181-F-FB91	33	2.9	20	44	11	<0.1	55	-	210	16	-	-	0.5	<0.2	1	<0.4	2	410	63.0
88-183-A-FB91	45	3.2	23	46	41	0.6	111	-	170	18	-	-	0.3	<0.2	<1	<0.4	2	490	58.0
88-183-B-FB91	47	3.3	25	46	51	1.2	115	-	170	19	-	-	0.7	0.3	1	<0.4	4	510	58.3

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
88-184-A-JN91	41 14 07	117 11 08	280	226	8.2	90	2	15	15	38	5.6	1	0.01	0.14	<0.1	31
88-184-B-JN91	41 14 07	117 11 08	400		7.8	120	2	14	9	24	5.9	<1	<0.01	0.13	<0.1	12
88-184-C-JN91	41 14 07	117 11 08	500		8.0	150	1	35	32	84	11.0	<1	<0.01	0.12	<0.1	17
88-184-D-JN91	41 14 07	117 11 08	600		8.0	160	<1	24	24	40	5.0	<1	<0.01	0.13	<0.1	10
88-184-E-JN91	41 14 07	117 11 08	720		8.0	100	1	8	7	16	1.3	<1	<0.01	0.11	<0.1	5
88-184-F-JN91	41 14 07	117 11 08	800		7.9	200	2	8	12	20	27.0	1	0.01	0.12	<0.1	22
88-MW1-JN91	41 13 57	117 13 28	100	86	7.2	82	<1	-	-	2	<0.2	<1	0.08	<0.01	<0.1	1
88-MW2-JN91	41 13 53	117 12 54	220	182	7.7	-087	9	-	-	4	1.1	<1	0.46	0.45	<0.1	12
88-MW5-JN91	41 14 00	117 12 46	150	150	7.6	190	200	-	-	<1	0.2	<1	0.01	<0.01	<0.1	2
88-MW6-JN91	41 14 04	117 12 42	155	126	7.7	240	38	-	-	<1	0.5	<1	<0.01	<0.01	<0.1	2
89-36-APR91	41 14 12	117 10 48	210	205	7.7	280	11	<5	40	36	<0.5	2	0.01	<0.01	0.6	3
89-42-FB91	41 14 16	117 12 08	350	331	7.2	-123	2	-	-	3	<0.8	1	0.13	0.27	<0.1	4

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
88-184-A-JN91	43	2.9	27	33	34	<0.1	97	<0.1	220	13	<0.2	<0.1	2.8	<0.2	4	<1.0	6	610	-
88-184-B-JN91	45	2.5	28	33	53	<0.1	92	<0.1	235	13	<0.2	<0.1	1.9	<0.2	4	<1.0	17	620	68.0
88-184-C-JN91	45	3.0	30	38	40	<0.1	83	-	240	14	<0.2	0.3	4.3	<0.2	4	<1.0	5	620	68.9
88-184-D-JN91	45	2.6	28	33	37	<0.1	79	-	240	15	<0.2	<0.1	2.4	<0.2	4	<1.0	7	630	69.2
88-184-E-JN91	45	2.5	28	33	36	<0.1	100	0.2	240	15	<0.2	<0.1	1.0	<0.2	4	<1.0	6	610	70.6
88-184-F-JN91	45	3.2	28	33	40	<0.1	97	0.1	240	14	<0.2	<0.1	1.6	<0.2	3	<1.0	5	630	71.3
88-MW1-JN91	205	5.8	59	41	68	<0.1	433	-	420	18	<0.2	<0.1	1.4	<0.2	14	<1.0	10	1300	58.1
88-MW2-JN91	76	2.3	28	34	100	0.7	85	-	250	17	<0.2	<0.1	1.2	<0.2	3	<1.0	3	780	58.2
88-MW5-JN91	104	2.2	19	31	130	14.0	128	<0.1	180	16	<0.2	<0.1	3.1	<0.2	5	<1.0	6	840	57.6
88-MW6-JN91	91	2.7	18	32	81	12.0	128	-	190	16	<0.2	<0.1	1.8	<0.2	5	<1.0	9	730	59.6
89-36-APR91	51	4.0	26	41	45	1.6	120	-	200	20	-	-	0.9	0.8	3	0.7	9	500	57.7
89-42-FB91	34	2.4	30	20	25	9.3	4	-	240	12	-	-	0.7	1.1	<1	<0.4	3	410	61.3

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
89-51-FB91	41 14 08	117 12 17	350	329	6.9	117	2	-	-	2	<0.8	<1	0.05	0.01	<0.1	2
89-120-A-JN90	41 14 33	117 15 54	44	44	6.9	265	6	<1	18	13	0.3	<1	0.01	<0.01	<0.1	7
89-120-B-JN90	41 14 33	117 15 54	100		6.9	201	2	<1	20	13	0.6	<1	0.04	<0.01	<0.1	9
89-203-A-MR92	41 13 35	117 12 15	300	-	8.0	-	15	-	-	9	0.2	1	0.01	0.15	<0.1	26
89-203-B-MR92	41 13 35	117 12 15	400		8.0	-	6	-	-	14	<0.1	<1	<0.01	0.16	0.2	9
89-203-C-MR92	41 13 35	117 12 15	500		7.9	-	5	-	-	84	<0.1	1	<0.01	0.42	0.7	38
89-211-A-JN91	41 13 40	117 10 51	185	175	7.3	200	4	<2	52	64	0.2	5	<0.01	<0.01	0.5	4
89-211-B-JN91	41 13 40	117 10 51	315		7.0	220	4	<2	47	63	0.2	4	<0.01	<0.01	0.6	3
89-211-C-JN91	41 13 40	117 10 51	400		6.9	210	6	<2	53	68	0.2	4	<0.01	<0.01	0.7	3
89-211-D-JN91	41 13 40	117 10 51	500		7.0	210	6	-	-	73	0.2	4	0.01	<0.01	0.7	3
89-211-E-JN91	41 13 40	117 10 51	600		7.1	220	5	-	-	70	<0.2	4	<0.01	<0.01	0.7	3

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
89-51-FB91	53	3.0	28	42	84	26.8	61	-	180	16	-	-	0.2	<0.2	1	<0.4	5	540	60.5
89-120-A-JN90	136	6.9	13	22	31	<0.1	240	-	160	31	-	-	0.8	<0.2	8	<0.3	17	740	56.8
89-120-B-JN90	151	6.1	15	23	37	0.1	350	-	140	30	-	-	0.9	<0.2	8	<0.3	15	790	56.2
89-203-A-MR92	42	4.0	14	39	37	<0.1	55	0.4	-	17	<0.1	<0.2	1.3	<0.1	<1	<0.1	210	510	-
89-203-B-MR92	43	3.7	15	33	27	2.9	47	0.5	180	17	<0.1	<0.2	1.3	<0.1	<1	<0.1	220	490	-
89-203-C-MR92	42	4.0	15	45	11	<0.1	73	1.0	-	16	<0.1	0.2	1.5	<0.1	<1	<0.1	40	520	-
89-211-A-JN91	43	2.3	16	31	40	<0.1	77	-	175	17	<0.2	<0.1	0.5	<0.2	4	<1.0	6	540	63.0
89-211-B-JN91	45	2.4	17	31	36	1.0	91	<0.1	180	17	<0.2	<0.1	0.4	<0.2	2	<1.0	4	540	61.2
89-211-C-JN91	47	2.5	17	32	36	0.8	81	0.1	175	18	<0.2	<0.1	0.5	<0.2	3	<1.0	4	530	62.1
89-211-D-JN91	45	2.4	17	30	36	0.8	76	-	190	17	<0.2	<0.1	0.5	<0.2	3	<1.0	3	540	62.2
89-211-E-JN91	46	2.4	18	31	34	0.9	95	<0.1	185	17	<0.2	<0.1	0.5	<0.2	3	<1.0	4	540	62.5

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
89-212-A-AUG90	41 13 53	117 11 19	208	220	7.0	137	1500	<2	40	41	0.1	<3	<0.01	<0.01	0.6	2
89-212-B-AUG90	41 13 53	117 11 19	310		7.3	120	1600	<2	39	39	0.2	<3	<0.01	<0.01	0.7	2
89-212-C-AUG90	41 13 53	117 11 19	410		7.3	141	2000	<2	39	42	0.2	<3	<0.01	<0.01	0.7	2
89-212-D-AUG90	41 13 53	117 11 19	510		7.3	160	1700	<2	38	41	0.1	<3	<0.01	<0.01	0.6	2
89-212-E-AUG90	41 13 53	117 11 19	610		7.3	194	1600	<2	95	45	0.2	4	0.01	<0.01	0.6	2
89-212-A-MY92	41 13 53	117 11 19	250	226	7.3	320	1300	<5	42	32	<0.1	4	<0.01	<0.01	0.7	2
89-212-B-MY92	41 13 53	117 11 19	450		7.4	300	1350	<5	40	31	<0.1	5	<0.01	<0.01	0.7	2
89-214-A-JN90	41 11 32	117 13 08	211	211	7.1	192	6	<1	29	23	<0.1	2	0.02	<0.01	<0.1	16
89-214-B-JN90	41 11 32	117 13 08	265		7.2	204	7	<1	22	25	<0.1	2	0.04	0.01	<0.1	16
89-215-A-AUG90	41 13 48	117 11 14	194	203	7.4	144	1600	<2	34	40	0.2	4	0.01	<0.01	0.6	2
89-215-B-AUG90	41 13 48	117 11 14	420		7.4	145	1800	<2	32	40	0.2	4	<0.01	<0.01	0.6	2
89-215-A-MY92	41 13 48	117 11 14	250	210	7.4	320	1280	<5	39	29	0.1	6	<0.01	<0.01	0.6	2
89-215-B-MY92	41 13 48	117 11 14	350		7.4	330	1310	<5	37	28	0.1	6	<0.01	<0.01	0.5	2
89-215-C-MY92	41 13 48	117 11 14	450		7.4	280	1300	<5	35	29	0.1	7	<0.01	<0.01	0.6	2
89-224-AUG90	41 15 28	117 10 59	423	423	6.5	67	3	100	110	220	24.0	<3	0.21	0.30	0.1	15

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
89-212-A-AUG90	78	3.6	25	45	130	2.4	130	-	180	16	-	-	5.1	0.3	7	<0.3	9	650	61.1
89-212-B-AUG90	77	3.7	25	44	88	1.7	140	-	160	16	-	-	5.2	1.5	7	<0.3	9	650	64.9
89-212-C-AUG90	76	3.8	23	43	81	2.3	130	-	160	15	-	-	5.1	<0.1	7	<0.3	9	650	62.7
89-212-D-AUG90	77	3.5	25	44	82	2.3	130	-	150	16	-	-	5.0	0.2	7	<0.3	8	650	65.2
89-212-E-AUG90	77	4.1	28	43	83	1.7	130	-	160	16	-	-	4.9	0.2	7	<0.3	7	650	65.0
89-212-A-MY92	76	3.7	29	48	93	2.8	141	0.5	170	16	<0.1	<0.2	3.2	0.2	1	<0.2	3	870	63.5
89-212-B-MY92	77	3.7	29	48	94	2.8	143	0.5	160	17	<0.1	<0.2	3.2	<0.1	1	<0.2	2	880	64.5
89-214-A-JN90	57	4.4	10	41	34	4.6	37	-	180	39	-	-	0.5	0.2	3	<0.3	9	490	61.8
89-214-B-JN90	57	2.9	10	41	33	3.3	39	-	180	39	-	-	0.4	0.3	2	<0.3	12	490	62.8
89-215-A-AUG90	78	4.2	23	45	78	2.6	120	-	150	17	-	-	4.9	0.7	24	<0.3	14	650	63.6
89-215-B-AUG90	78	3.4	23	44	78	2.0	120	-	160	16	-	-	4.8	0.2	7	<0.3	8	630	64.7
89-215-A-MY92	75	3.6	27	47	92	2.4	136	0.5	160	18	<0.1	<0.2	3.2	<0.1	<1	<0.2	3	860	64.7
89-215-B-MY92	77	3.6	27	47	93	2.1	136	0.5	-	17	<0.1	<0.2	3.3	0.5	1	0.5	39	860	64.7
89-215-C-MY92	77	3.6	27	47	90	2.0	137	0.5	160	18	<0.1	0.2	3.2	0.3	1	<0.2	4	860	64.6
89-224-AUG90	163	4.2	50	33	22	<0.1	370	-	350	9	-	-	3.5	<0.1	23	<0.3	150	910	63.7

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
90-2-AUG90	41 15 33	117 11 03	469	469	6.9	-058	-	760	170	930	1.4	<3	0.16	0.21	0.2	5
90-3-JN90	41 15 19	117 11 15	520	427	7.7	92	<1	<1	30	24	18.0	1	0.01	0.03	<0.1	5
90-5-JN90	41 15 18	117 10 55	370	364	7.1	-085	1	340	40	340	10.0	9	0.45	0.16	0.2	33
90-137-MR92	41 13 13	117 12 00	600	-	7.7	360	3100	-	-	45	5.8	62	<0.01	0.25	0.1	20
91-79-A-APR91	41 13 56	117 11 24	240	-	8.3	220	2	-	-	2	<0.5	5	<0.01	0.07	<0.5	28
91-79-B-APR91	41 13 56	117 11 24	300	-	8.4	160	59	-	-	3	<0.5	3	0.01	0.96	<0.5	140
91-79-C-APR91	41 13 56	117 11 24	360	-	8.2	170	8	-	-	4	<0.5	5	0.03	0.17	<0.5	42
91-79-D-APR91	41 13 56	117 11 24	500	-	8.2	210	200	-	-	10	<0.5	8	0.03	0.14	<0.5	11
91-79-E-APR91	41 13 56	117 11 24	600	-	8.2	140	58	-	-	17	<0.5	14	0.01	0.12	0.5	21
91-79-F-APR91	41 13 56	117 11 24	700	-	8.2	150	43	<2	22	17	<0.5	35	<0.01	0.08	0.7	10
91-79-G-APR91	41 13 56	117 11 24	800	-	8.2	160	9	-	-	19	<0.5	33	<0.01	0.08	0.7	9
91-79-H-APR91	41 13 56	117 11 24	900	-	7.9	-	3	-	-	8	2.9	28	<0.01	0.15	0.6	37
91-79-I-APR91	41 13 56	117 11 24	1000	-	7.9	-	1	-	-	5	2.2	31	0.01	0.12	<0.5	44

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
90-2-AUG90	54	4.9	23	27	22	5.1	48	-	240	12	-	-	2.4	<0.1	3	<0.3	11	470	63.7
90-3-JN90	47	6.5	28	35	110	20.0	25	-	140	20	-	-	0.4	0.2	2	<0.3	9	600	66.8
90-5-JN90	69	4.7	28	27	11	0.9	100	-	230	12	-	-	1.1	<0.2	3	<0.3	5	620	65.7
90-137-MR92	112	4.6	37	62	143	<0.1	232	0.5	150	17	<0.1	<0.2	10.0	<0.1	<1	<0.1	2	1120	68.0
91-79-A-APR91	21	5.2	8	52	20	<0.1	38	-	140	14	-	-	0.5	<0.5	1	<0.5	<1	320	-
91-79-B-APR91	31	5.3	16	42	31	<0.1	62	-	170	8	-	-	2.3	<0.5	2	<0.5	4	440	-
91-79-C-APR91	40	7.8	20	53	37	<0.1	100	-	150	9	-	-	0.9	<0.5	3	<0.5	4	520	-
91-79-D-APR91	50	6.3	23	45	43	<0.1	120	-	190	13	-	-	1.8	0.8	3	<0.5	2	550	-
91-79-E-APR91	49	12.0	21	43	41	<0.1	95	-	200	13	-	-	1.2	<0.5	3	<0.5	2	540	-
91-79-F-APR91	57	7.4	27	46	51	0.8	130	-	210	12	-	-	2.0	0.7	4	<0.5	2	580	-
91-79-G-APR91	57	6.1	27	46	50	0.9	130	-	210	13	-	-	2.0	0.8	4	<0.5	2	590	-
91-79-H-APR91	58	10.0	27	46	53	0.8	140	-	210	11	-	-	1.2	0.6	3	<0.5	2	650	-
91-79-I-APR91	57	6.8	28	46	54	0.6	140	-	210	10	-	-	1.1	<0.5	3	<0.5	1	650	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
91-124-A-JN91	41 13 50	117 11 23	240	220	8.4	95	2	-	-	4	1.0	12	0.01	0.05	<0.1	65
91-124-B-JN91	41 13 50	117 11 23	300		8.4	150	6	<5	16	12	1.3	36	0.02	0.06	<0.1	25
91-124-C-JN91	41 13 50	117 11 23	380		8.0	220	3200	-	-	5	0.2	20	0.01	0.23	<0.1	7
91-124-D-JN91	41 13 50	117 11 23	440		7.8	290	2500	-	-	5	0.2	26	0.01	0.22	0.1	12
91-124-E-JN91	41 13 50	117 11 23	500		8.0	290	3000	-	-	11	0.2	67	0.02	0.10	0.3	5
91-124-F-JN91	41 13 50	117 11 23	560		7.9	190	2300	<2	13	8	0.3	40	<0.01	0.14	0.2	10
91-124-G-JN91	41 13 50	117 11 23	620		7.8	150	2600	-	-	8	0.4	18	<0.01	0.11	0.2	7
91-124-H-JN91	41 13 50	117 11 23	680		7.8	100	1500	-	-	7	0.3	9	0.01	0.11	0.3	7
91-124-I-JN91	41 13 50	117 11 23	700		7.9	75	1800	-	-	5	0.2	12	0.01	0.12	0.3	12
91-127-A-JN91	41 13 49	117 11 27	300	214	8.0	210	1300	<2	14	31	2.0	35	<0.01	<0.01	0.2	21
91-127-B-JN91	41 13 49	117 11 27	360		8.3	240	1300	-	-	9	2.6	54	0.01	0.19	<0.1	30
91-127-C-JN91	41 13 49	117 11 27	420		8.3	230	1600	-	-	5	1.3	20	0.01	0.25	0.1	14
91-127-D-JN91	41 13 49	117 11 27	480		8.4	290	1500	-	-	6	1.2	23	<0.01	0.15	0.2	8
91-127-E-JN91	41 13 49	117 11 27	540		7.9	-	1800	-	-	13	0.6	41	0.01	0.28	<0.1	24
91-127-F-JN91	41 13 49	117 11 27	600		7.9	-	2200	-	-	25	0.7	47	0.01	0.01	<0.1	14
91-127-G-JN91	41 13 49	117 11 27	700		7.9	-	1400	-	-	5	0.3	27	<0.01	0.50	<0.1	50

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
91-124-A-JN91	22	11.0	5	34	17	<0.1	22	0.7	180	10	<0.2	<0.1	0.3	<0.2	1	<1.0	<2	390	75.8
91-124-B-JN91	24	11.0	9	30	18	<0.1	17	-	155	14	<0.2	<0.1	0.5	<0.2	1	<1.0	3	380	75.3
91-124-C-JN91	81	3.6	28	43	82	2.6	153	<0.1	190	15	<0.2	<0.1	5.2	6.7	6	<1.0	6	850	-
91-124-D-JN91	72	4.4	24	40	84	2.3	147	<0.1	200	14	<0.2	<0.1	4.8	<0.2	7	<1.0	5	740	65.7
91-124-E-JN91	77	4.4	28	47	73	2.4	145	<0.1	190	15	<0.2	<0.1	4.4	<0.2	6	<1.0	6	810	-
91-124-F-JN91	72	4.4	25	40	69	2.0	132	<0.1	205	15	<0.2	<0.1	4.1	<0.2	5	<1.0	5	760	67.3
91-124-G-JN91	74	4.6	25	42	86	2.4	144	-	210	15	<0.2	<0.1	4.4	<0.2	5	<1.0	4	780	66.3
91-124-H-JN91	77	5.1	27	43	88	2.7	149	<0.1	210	15	<0.2	<0.1	4.4	<0.2	6	<1.0	5	790	66.5
91-124-I-JN91	77	3.8	26	43	70	2.4	134	-	210	15	<0.2	<0.1	4.4	<0.2	5	<1.0	5	750	65.5
91-127-A-JN91	60	4.2	20	41	88	2.4	130	<0.1	185	15	<0.2	<0.1	3.8	<0.2	5	<1.0	6	750	71.1
91-127-B-JN91	60	4.2	20	38	52	1.2	105	-	190	15	<0.2	<0.1	4.0	<0.2	4	<1.0	4	680	67.2
91-127-C-JN91	68	4.7	25	45	75	2.6	123	-	210	15	<0.2	<0.1	3.9	<0.2	5	<1.0	5	760	68.5
91-127-D-JN91	71	4.1	25	45	75	2.3	126	-	210	14	<0.2	<0.1	3.7	<0.2	5	<1.0	12	760	68.9
91-127-E-JN91	66	3.6	25	39	104	2.2	182	-	180	13	<0.2	<0.1	3.4	<0.2	5	<1.0	50	750	-
91-127-F-JN91	74	3.5	25	42	91	1.0	145	-	170	14	<0.2	0.6	4.2	<0.2	6	<1.0	45	800	-
91-127-G-JN91	71	5.0	27	42	88	2.5	160	<0.1	160	12	<0.2	0.1	3.8	<0.2	6	<1.0	5	800	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
91-158-A-JL91	41 16 38	117 15 41	795	-	8.2	-	-	-	-	3	0.9	3	<0.01	0.58	<0.1	56
91-158-C-JL91	41 16 38	117 15 41	815		8.2	-	-	-	-	1	0.5	3	<0.01	1.00	0.1	50
91-158-E-JL91	41 16 38	117 15 41	835		8.1	-	-	-	-	3	0.5	2	<0.01	1.20	0.1	50
91-162-A-JL91	41 13 50	117 11 31	260	220	8.7	133	4	-	-	3	0.8	7	<0.01	0.05	<0.1	30
91-162-B-JL91	41 13 50	117 11 31	300		8.8	240	5	-	-	2	0.8	5	<0.01	0.24	<0.1	190
91-162-C-JL91	41 13 50	117 11 31	360		8.5	240	6	<5	14	11	0.2	33	0.01	0.17	0.4	8
91-162-D-JL91	41 13 50	117 11 31	420		8.4	190	8	<5	17	19	0.1	64	<0.01	0.08	0.4	8
91-162-E-JL91	41 13 50	117 11 31	480		8.4	190	6	<5	21	19	0.1	50	0.01	0.08	0.4	10
91-162-F-JL91	41 13 50	117 11 31	540		8.3	180	7	<5	15	13	0.2	26	0.01	0.11	0.3	10
91-162-G-JL91	41 13 50	117 11 31	600		8.4	330	2	23	77	99	0.3	120	<0.01	0.08	1.0	9
91-162-H-JL91	41 13 50	117 11 31	660		8.3	320	2	23	63	90	1.0	120	<0.01	0.04	1.0	5
91-162-I-JL91	41 13 50	117 11 31	700		8.3	320	2	<5	31	35	1.4	88	<0.01	0.11	0.5	15
91-163-A-JL91	41 13 44	117 11 28	260	214	8.7	290	14	-	-	2	0.4	4	0.01	0.06	<0.1	15
91-163-B-JL91	41 13 44	117 11 28	320		8.4	290	800	-	-	3	0.3	8	<0.01	0.11	0.2	9
91-163-C-JL91	41 13 44	117 11 28	380		8.3	280	1300	-	-	4	0.3	10	<0.01	0.11	0.2	8
91-163-D-JL91	41 13 44	117 11 28	440		8.3	280	1400	-	-	4	0.2	6	0.01	0.10	0.2	6

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
91-158-A-JL91	32	2.9	8	30	23	<0.1	23	-	140	10	<0.2	<0.1	1.2	<0.2	2	<1.0	120	400	-
91-158-C-JL91	64	3.2	11	25	50	<0.1	72	-	140	12	<0.2	<0.1	2.3	<0.2	3	<1.0	10	550	-
91-158-E-JL91	74	3.2	12	24	60	<0.1	96	-	140	13	<0.2	<0.1	3.1	<0.2	4	<1.0	87	640	-
91-162-A-JL91	22	3.1	10	33	19	<0.1	17	-	130	13	<0.2	<0.1	0.4	<0.2	2	<1.0	2	370	81.1
91-162-B-JL91	20	3.7	10	34	30	<0.1	64	-	130	7	<0.2	<0.1	0.5	<0.2	1	<1.0	2	390	64.5
91-162-C-JL91	39	3.2	17	44	31	<0.1	64	-	180	16	<0.2	<0.1	2.1	<0.2	2	<1.0	5	530	70.0
91-162-D-JL91	40	3.5	18	45	30	<0.1	61	-	200	15	<0.2	<0.1	0.8	<0.2	3	<1.0	18	580	68.2
91-162-E-JL91	43	3.8	20	48	31	<0.1	58	-	205	14	<0.2	<0.1	0.8	<0.2	3	<1.0	2	620	69.0
91-162-F-JL91	41	4.3	19	44	31	<0.1	58	-	200	15	<0.2	<0.1	1.0	2.0	3	8.0	2	610	68.3
91-162-G-JL91	47	3.6	18	41	33	<0.1	67	-	200	16	<0.2	<0.1	1.0	<0.2	3	<1.0	2	600	68.1
91-162-H-JL91	53	3.5	20	40	42	<0.1	85	-	205	16	<0.2	<0.1	0.8	<0.2	4	<1.0	5	650	69.2
91-162-I-JL91	48	4.9	20	43	36	<0.1	72	-	205	16	<0.2	<0.1	1.1	<0.2	3	<1.0	4	640	70.1
91-163-A-JL91	24	3.0	9	29	20	0.5	18	-	130	15	<0.2	<0.1	0.8	<0.2	2	<1.0	4	360	77.3
91-163-B-JL91	55	3.2	19	37	57	1.0	85	-	150	14	<0.2	<0.1	4.4	<0.2	4	<1.0	6	670	72.3
91-163-C-JL91	70	3.7	23	42	79	2.7	126	-	180	15	<0.2	<0.1	5.8	<0.2	5	<1.0	7	810	-
91-163-D-JL91	72	3.5	26	42	83	2.3	132	-	160	15	<0.2	<0.1	5.5	<0.2	5	<1.0	6	840	71.2



Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
91-163-E-JL91	41 13 44	117 11 28	500		8.4	180	1500	-	-	4	0.2	8	<0.01	0.16	0.2	8
91-163-F-JL91	41 13 44	117 11 28	560		8.4	250	1500	-	-	1	0.1	6	<0.01	0.16	0.2	12
91-163-G-JL91	41 13 44	117 11 28	620		8.3	210	1600	-	-	1	0.3	8	0.01	0.16	0.2	12
91-163-H-JL91	41 13 44	117 11 28	680		8.2	-	37	<5	22	19	0.3	20	<0.01	0.02	0.4	5
91-163-I-JL91	41 13 44	117 11 28	740		8.3	310	300	-	-	4	0.4	13	<0.01	0.08	0.3	20
91-163-J-JL91	41 13 44	117 11 28	760		8.3	260	600	-	-	2	0.3	12	<0.01	0.14	0.2	26
91-169-A-JL91	41 13 17	117 11 53	360	220	8.5	250	8	-	-	2	1.0	43	<0.01	0.08	0.1	260
91-169-B-JL91	41 13 17	117 11 53	420		8.4	-	3100	-	-	4	0.3	14	<0.01	0.17	0.2	7
91-169-C-JL91	41 13 17	117 11 53	480		8.3	250	1500	-	-	3	0.2	25	<0.01	0.21	0.1	14
91-169-D-JL91	41 13 17	117 11 53	560		7.8	-	2200	-	-	9	0.4	15	<0.01	0.22	0.2	26
91-169-E-JL91	41 13 17	117 11 53	620		7.5	-	4500	-	-	9	0.2	8	0.01	0.04	0.3	12
91-169-F-JL91	41 13 17	117 11 53	680		7.3	-	1900	-	-	5	0.8	16	<0.01	0.04	0.2	31
91-340-A-DEC91	41 10 51	117 14 58	120	-	8.8	290	320	-	-	9	54.0	10	0.70	0.05	<0.6	36
91-340-B-DEC91	41 10 51	117 14 58	160		8.0	260	16	<5	22	18	8.8	4	<0.01	0.07	<0.6	28
91-340-C-DEC91	41 10 51	117 14 58	200		7.8	110	16	<5	20	18	5.8	3	0.01	0.05	<0.6	24

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
91-163-E-JL91	74	4.0	27	43	93	2.7	149	-	160	15	<0.2	<0.1	6.6	<0.2	5	<1.0	4	870	69.5
91-163-F-JL91	78	3.6	30	45	98	2.1	156	-	160	13	<0.2	<0.1	6.1	<0.2	6	<1.0	7	890	-
91-163-G-JL91	78	4.1	27	44	96	2.5	153	-	150	14	<0.2	<0.1	6.0	<0.2	6	<1.0	4	900	70.4
91-163-H-JL91	57	3.2	22	38	55	0.5	95	-	180	14	<0.2	<0.1	1.7	<0.2	4	<1.0	4	690	-
91-163-I-JL91	62	4.4	23	40	71	0.5	118	-	170	11	<0.2	<0.1	2.8	<0.2	4	<1.0	3	740	-
91-163-J-JL91	67	4.9	24	41	75	0.5	123	-	160	12	<0.2	<0.1	3.7	<0.2	5	<1.0	3	780	-
91-169-A-JL91	24	3.9	4	50	30	<0.1	46	-	130	13	<0.2	0.3	0.7	<0.2	3	<1.0	10	460	-
91-169-B-JL91	103	3.7	32	51	130	3.8	208	-	160	14	<0.2	<0.1	10.0	<0.2	7	<1.0	8	1100	-
91-169-C-JL91	72	3.8	28	46	116	3.3	179	-	160	14	<0.2	<0.1	7.2	<0.2	6	<1.0	5	950	-
91-169-D-JL91	90	3.6	30	44	122	3.4	191	-	160	11	<0.2	<0.1	7.6	0.2	20	<1.0	160	1100	-
91-169-E-JL91	106	4.2	35	58	144	3.4	257	-	120	12	<0.2	<0.1	10.0	0.2	30	<1.0	5	1100	-
91-169-F-JL91	110	4.6	36	60	144	3.5	264	-	90	12	<0.2	<0.1	8.5	<0.2	30	<1.0	6	1300	-
91-340-A-DEC91	55	4.1	10	30	19	<0.1	74	-	170	13	<0.1	0.2	5.2	<0.3	4	<1.0	24	420	55.5
91-340-B-DEC91	52	3.8	8	23	19	<0.1	35	-	170	25	<0.1	<0.1	1.3	<0.3	5	<1.0	5	430	57.4
91-340-C-DEC91	55	3.4	7	22	19	<0.1	36	-	160	26	<0.1	0.1	0.9	<0.3	3	<1.0	5	420	58.2

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
91-342-A-DEC91	41 10 54	117 14 58	80	-	8.0	310	4700	<5	24	23	77.0	38	<0.01	0.11	<0.6	98
91-342-B-DEC91	41 10 54	117 14 58	120		7.8	290	1100	10	31	40	65.0	22	<0.01	0.07	<0.6	49
91-342-C-DEC91	41 10 54	117 14 58	160		7.9	310	640	9	52	68	180.0	23	<0.01	0.06	<0.6	39
91-342-D-DEC91	41 10 54	117 14 58	200		8.0	310	370	10	25	44	250.0	24	<0.01	0.08	<0.6	37
91-342-E-DEC91	41 10 54	117 14 58	220		8.0	330	320	<5	23	21	69.0	12	<0.01	0.07	<0.6	34
91-346-A-DEC91	41 13 48	117 11 30	260	-	7.9	230	27	-	-	9	0.9	3	<0.01	0.16	<0.6	34
91-346-B-DEC91	41 13 48	117 11 30	320		7.7	150	6	-	-	10	1.0	<2	<0.01	0.16	<0.6	36
91-346-C-DEC91	41 13 48	117 11 30	380		8.1	210	28	-	-	10	0.6	44	<0.01	0.19	<0.6	18
91-346-D-DEC91	41 13 48	117 11 30	440		8.1	250	16	<5	23	20	0.3	39	<0.01	0.11	<0.6	7
91-346-E-DEC91	41 13 48	117 11 30	500		7.9	270	2	<5	24	22	0.3	25	<0.01	0.15	<0.6	24
91-346-F-DEC91	41 13 48	117 11 30	560		8.0	280	4	<5	21	20	0.3	26	<0.01	0.16	<0.6	16
91-346-G-DEC91	41 13 48	117 11 30	620		7.9	260	4	<5	19	20	0.3	26	<0.01	0.12	<0.6	12
91-346-H-DEC91	41 13 48	117 11 30	680		7.9	330	3	24	26	47	0.4	59	<0.01	0.07	<0.6	8
92-6-A-MR92	41 10 37	117 14 51	220	-	7.9	-	-	-	-	11	26.0	25	0.01	0.07	<0.1	69
92-6-B-MR92	41 10 37	117 14 51	280		8.0	-	10	-	-	55	110.0	100	0.01	0.10	<0.1	150
92-6-C-MR92	41 10 37	117 14 51	340		8.0	-	12	-	-	33	18.0	210	0.07	0.11	<0.1	88

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
91-342-A-DEC91	54	5.4	11	35	19	<0.1	68	-	180	27	<0.1	0.1	15.0	<0.3	6	<1.0	15	520	57.0
91-342-B-DEC91	48	5.5	10	30	19	<0.1	41	-	170	28	<0.1	<0.1	6.4	<0.3	4	<1.0	9	420	60.2
91-342-C-DEC91	48	5.0	10	30	19	<0.1	41	-	170	29	<0.1	0.2	3.9	<0.3	3	<1.0	5	430	60.1
91-342-D-DEC91	47	4.2	8	28	17	<0.1	32	-	160	30	<0.1	<0.1	2.8	<0.3	3	<1.0	5	420	61.5
91-342-E-DEC91	48	4.9	8	27	16	<0.1	32	-	180	30	<0.1	<0.1	1.7	<0.3	3	<1.0	4	420	59.6
91-346-A-DEC91	69	6.1	29	49	45	<0.1	155	-	210	28	<0.1	0.2	1.7	0.5	10	<1.0	6	750	61.7
91-346-B-DEC91	88	11.0	30	53	55	<0.1	201	-	220	35	<0.1	<0.1	2.4	0.6	13	<1.0	6	850	63.9
91-346-C-DEC91	52	4.4	21	49	36	<0.1	84	-	210	15	<0.1	0.2	1.0	0.4	6	<1.0	5	620	65.9
91-346-D-DEC91	47	4.4	21	49	34	<0.1	71	-	210	13	<0.1	0.1	0.6	0.6	6	<1.0	5	570	65.1
91-346-E-DEC91	47	4.6	23	49	35	<0.1	77	-	210	17	<0.1	<0.1	1.6	0.7	6	<1.0	4	570	64.0
91-346-F-DEC91	48	4.8	23	49	35	<0.1	78	-	200	17	<0.1	<0.1	1.8	0.5	6	<1.0	4	630	64.1
91-346-G-DEC91	47	5.3	22	49	35	<0.1	76	-	210	17	<0.1	<0.1	1.4	0.5	6	<1.0	3	610	64.9
91-346-H-DEC91	50	5.0	21	50	35	<0.1	73	-	210	15	<0.1	<0.1	0.5	0.6	6	<1.0	3	590	66.1
92-6-A-MR92	50	5.0	8	26	13	<0.1	47	0.1	-	20	<0.1	0.2	1.1	<0.3	<1	<0.1	3	420	-
92-6-B-MR92	51	3.6	8	23	15	<0.1	43	0.1	-	24	<0.1	0.4	1.5	<0.3	<1	<0.1	5	390	-
92-6-C-MR92	49	4.6	7	24	15	<0.1	42	0.2	-	28	<0.1	0.3	1.2	<0.3	<1	0.1	13	390	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
92-6-D-MR92	41 10 37	117 14 51	400		7.8	-	100	-	-	24	17.0	140	0.15	0.15	0.1	74
92-6-E-MR92	41 10 37	117 14 51	460		7.8	-	140	-	-	33	38.0	260	0.11	0.15	0.1	92
92-6-F-MR92	41 10 37	117 14 51	520		7.7	-	-	-	-	5	48.0	500	0.01	0.17	0.2	690
92-11-A-MR92	41 13 07	117 12 12	180	-	8.1	-	15	-	-	7	0.7	25	<0.01	0.08	<0.1	48
92-11-B-MR92	41 13 07	117 12 12	280		8.1	-	10	-	-	5	0.7	30	<0.01	0.05	<0.1	57
92-11-C-MR92	41 13 07	117 12 12	380		8.1	350	6	-	-	2	0.6	27	<0.01	0.12	<0.1	110
92-11-D-MR92	41 13 07	117 12 12	420		8.1	220	6300	<5	<5	5	<0.2	13	<0.01	0.11	<0.1	12
92-11-E-MR92	41 13 07	117 12 12	500		8.2	250	700	-	-	27	<0.2	9	0.07	0.09	<0.1	31
92-11-F-MR92	41 13 07	117 12 12	600		8.1	-	3300	-	-	16	<0.2	5	0.01	0.07	<0.1	17
92-11-G-MR92	41 13 07	117 12 12	700		8.1	290	1900	-	-	26	<0.2	15	<0.01	0.14	<0.1	11
92-54-A-MY92	41 13 23	117 12 20	300	-	7.4	-	16	-	-	1	9.6	10	<0.01	0.22	<0.1	370
92-54-B-MY92	41 13 23	117 12 20	400		7.8	240	19	<5	<5	5	12.0	9	<0.01	0.23	<0.1	360
92-54-C-MY92	41 13 23	117 12 20	500		8.0	410	7	-	-	17	7.3	80	<0.01	0.10	1.8	31
92-54-D-MY92	41 13 23	117 12 20	600		7.9	-	15	-	-	18	12.0	75	<0.01	0.26	1.6	66
92-54-E-MY92	41 13 23	117 12 20	700		8.0	370	35	8	7	10	38.0	20	0.01	0.28	0.2	330
92-54-F-MY92	41 13 23	117 12 20	800		8.0	320	10	47	21	45	190.0	300	0.01	0.08	3.6	47

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
92-6-D-MR92	49	3.7	8	25	-	-	-	-	-	25	<0.1	0.2	1.1	<0.3	<1	0.1	6	390	-
92-6-E-MR92	51	6.5	8	23	15	<0.1	50	0.2	-	23	<0.1	0.3	1.4	<0.3	<1	0.0	10	400	-
92-6-F-MR92	55	6.1	8	23	14	<0.1	104	0.3	160	8	<0.1	1.7	0.7	<0.3	1	<0.1	30	440	-
92-11-A-MR92	42	5.5	13	49	36	<0.1	60	0.6	190	28	<0.1	<0.1	1.0	<0.3	<1	<0.1	14	550	-
92-11-B-MR92	42	5.8	14	44	37	<0.1	61	1.0	-	24	<0.1	0.2	0.5	<0.3	<1	<0.1	14	550	-
92-11-C-MR92	36	5.3	12	36	31	<0.1	69	0.5	-	15	<0.1	0.3	0.9	<0.3	<1	0.2	3	510	69.7
92-11-D-MR92	77	4.7	27	42	62	<0.1	140	0.4	180	13	<0.1	<0.1	4.1	<0.3	1	<0.1	4	750	68.0
92-11-E-MR92	47	2.9	14	44	37	<0.1	65	0.5	-	21	<0.1	<0.1	1.5	<0.3	5	1.1	120	560	62.4
92-11-F-MR92	59	5.1	22	37	45	<0.1	93	1.0	-	17	<0.1	<0.1	2.1	<0.3	1	<0.1	2	690	-
92-11-G-MR92	53	7.6	20	40	32	<0.1	72	0.5	200	18	<0.1	<0.1	1.6	<0.3	<1	<0.1	2	650	69.4
92-54-A-MY92	85	6.2	24	43	54	3.1	197	0.4	150	8	<0.1	0.6	0.9	<0.1	<1	<0.2	10	780	-
92-54-B-MY92	85	5.8	23	37	45	1.5	179	0.3	150	16	<0.1	0.6	0.8	<0.1	3	<0.2	56	730	70.4
92-54-C-MY92	47	6.1	14	57	17	<0.1	46	1.2	-	22	<0.1	0.2	0.7	<0.1	<1	<0.2	2	600	69.6
92-54-D-MY92	47	7.1	14	60	15	-	48	1.3	-	23	<0.1	0.3	0.7	<0.1	1	<0.2	1	580	-
92-54-E-MY92	81	7.1	19	43	34	-	138	1.1	180	25	<0.1	0.5	1.2	<0.1	1	<0.2	3	760	70.0
92-54-F-MY92	44	7.5	13	63	16	-	45	2.7	240	20	<0.1	0.3	0.8	<0.1	<1	<0.2	2	590	73.2

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
92-66-A-JN92	41 13 27	117 12 21	360	-	-	-	5	-	-	4	0.8	7	<0.01	0.50	<0.2	70
92-66-B-JN92	41 13 27	117 12 21	460	-	-	-	2	-	-	1	0.3	2	<0.01	0.28	<0.2	68
92-66-C-JN92	41 13 27	117 12 21	560	-	-	-	10	-	-	5	1.0	10	<0.01	0.29	<0.2	86
92-66-D-JN92	41 13 27	117 12 21	660	-	-	-	33	-	-	4	0.7	10	<0.01	0.25	<0.2	74
92-66-E-JN92	41 13 27	117 12 21	760	-	-	-	2	-	-	6	1.7	18	<0.01	0.23	0.4	43
92-78-A-JN92	41 16 39	117 15 53	175	-	-	-	45	-	-	5	1.2	11	<0.01	0.25	0.8	110
92-78-B-JN92	41 16 39	117 15 53	275	-	-	-	8	-	-	1	0.4	5	<0.01	0.23	<0.2	130
92-78-C-JN92	41 16 39	117 15 53	375	-	-	-	8	-	-	1	0.6	1	<0.01	0.77	<0.2	100
92-78-D-JN92	41 16 39	117 15 53	475	-	-	-	8	-	-	1	0.3	1	<0.01	0.48	<0.2	58
92-241-A-OCT92	41 13 20	117 12 24	280	-	7.6	-	<20	-	-	6	3.6	13	0.04	0.29	0.1	60
92-241-B-OCT92	41 13 20	117 12 24	300	-	7.7	-	<20	-	-	4	6.5	7	0.02	0.23	0.1	52
92-241-C-OCT92	41 13 20	117 12 24	400	-	7.7	-	1100	-	-	7	2.0	7	0.06	0.07	<0.1	10
92-241-D-OCT92	41 13 20	117 12 24	500	-	7.9	-	120	-	-	6	4.2	7	0.06	0.07	0.2	19
92-241-E-OCT92	41 13 20	117 12 24	600	-	8.0	-	120	-	-	36	5.4	71	0.06	0.12	0.5	16
92-241-F-OCT92	41 13 20	117 12 24	700	-	7.9	-	190	-	-	7	7.2	35	0.03	0.33	0.3	54
92-241-G-OCT92	41 13 20	117 12 24	800	-	7.9	-	160	-	-	<4	23.0	32	0.03	0.23	0.2	40

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
92-66-A-JN92	45	4.1	14	44	44	1.5	75	0.4	210	14	<0.1	<1.0	1.4	<2.0	3	0.2	310	590	-
92-66-B-JN92	46	3.4	16	35	28	<0.1	88	0.3	-	12	<0.1	<1.0	0.8	<2.0	<1	<0.1	6	550	-
92-66-C-JN92	45	4.1	15	44	30	<0.1	97	0.5	180	13	<0.1	<1.0	0.4	<2.0	<1	<0.1	<4	580	-
92-66-D-JN92	43	4.1	16	44	28	<0.1	98	0.6	-	13	<0.1	<1.0	0.5	<2.0	<1	<0.1	<4	570	-
92-66-E-JN92	47	4.3	17	46	28	<0.1	99	0.8	190	13	<0.1	<1.0	0.4	<2.0	<1	<0.1	4	560	-
92-78-A-JN92	20	5.4	3	53	28	<0.1	97	0.8	120	10	<0.1	<1.0	0.2	<2.0	<1	<0.1	<4	420	-
92-78-B-JN92	23	6.5	4	53	49	<0.1	25	1.2	-	8	<0.1	<1.0	0.2	<2.0	<1	<0.1	5	450	-
92-78-C-JN92	37	4.6	9	47	48	<0.1	69	0.3	150	6	<0.1	<1.0	0.7	<2.0	<1	<0.1	16	520	-
92-78-D-JN92	20	5.2	4	43	48	<0.1	53	0.9	72	4	<0.1	<1.0	0.2	<2.0	<1	<0.1	<4	380	-
92-241-A-OCT92	54	4.3	17	39	39	<0.1	109	<0.1	160	13	<0.1	0.8	1.0	<0.8	<1	<0.7	8	580	-
92-241-B-OCT92	56	5.6	15	41	36	<0.1	96	<0.1	-	14	<0.1	0.7	1.7	<0.8	2	6.7	120	610	-
92-241-C-OCT92	69	3.7	27	43	49	<0.1	158	<0.1	190	15	<0.1	<0.7	1.6	<0.8	2	0.8	17	740	-
92-241-D-OCT92	43	4.8	19	52	22	<0.1	94	<0.1	-	14	<0.1	<0.7	1.4	<0.8	2	6.5	81	570	-
92-241-E-OCT92	47	4.6	13	53	26	<0.1	76	<0.1	230	26	<0.1	<0.7	0.6	<0.8	<1	<0.7	11	580	-
92-241-F-OCT92	42	8.4	17	53	30	<0.1	104	1.6	-	9	<0.1	0.7	0.8	<0.8	1	7.9	38	600	-
92-241-G-OCT92	49	6.8	18	55	30	<0.1	106	1.1	220	10	<0.1	<0.7	1.3	<0.8	1	7.7	64	640	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
92-241-H-OCT92	41 13 20	117 12 24	860		7.9	-	100	-	-	12	49.0	160	0.04	0.11	0.5	23
92-248-A-OCT92	41 15 18	117 10 55	720	-	7.9	-	<1	-	-	140	350.0	59	0.04	0.06	0.4	9
92-248-B-OCT92	41 15 18	117 10 55	820		7.5	-	<1	-	-	54	2400.0	28	0.05	0.31	0.2	110
92-248-C-OCT92	41 15 18	117 10 55	920		7.4	-	<1	-	-	12	1200.0	23	0.07	0.20	0.1	48
92-304-A-DEC92	41 13 25	117 12 28	140	-	8.0	-	1	-	-	<4	5.3	2	<0.01	0.03	<0.3	49
92-304-B-DEC92	41 13 25	117 12 28	460		8.1	-	370	-	-	<4	27.0	14	<0.01	0.33	<0.3	680
92-304-C-DEC92	41 13 25	117 12 28	520		8.2	110	1100	-	-	<4	14.0	11	<0.01	0.23	<0.3	190
92-304-D-DEC92	41 13 25	117 12 28	580		8.2	30	1100	-	-	<4	8.8	6	0.02	0.09	<0.3	130
92-304-E-DEC92	41 13 25	117 12 28	640		8.1	56	1300	-	-	<4	11.0	7	0.01	0.07	<0.3	150
92-304-F-DEC92	41 13 25	117 12 28	700		8.2	50	1500	-	-	<4	5.9	7	0.02	0.08	<0.3	84
92-304-G-DEC92	41 13 25	117 12 28	760		8.1	90	1600	-	-	7	7.7	7	<0.01	0.07	<0.3	100
92-304-H-DEC92	41 13 25	117 12 28	800		8.1	150	1600	-	-	<4	2.0	4	0.02	0.07	<0.3	6
92-320-A-DEC92	41 13 21	117 12 34	240	-	8.0	-	<25	-	-	9	7.8	2	<0.01	0.15	<0.3	290
92-320-B-DEC92	41 13 21	117 12 34	400		-	-	<25	-	-	<4	86.0	6	<0.01	0.07	<0.3	1200
92-320-C-DEC92	41 13 21	117 12 34	500		7.9	-	1400	-	-	18	9.3	10	<0.01	0.19	<0.3	71

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
92-241-H-OCT92	43	9.3	16	63	20	<0.1	98	3.0	-	16	<0.1	<0.7	0.6	<0.8	1	<0.7	5	620	-
92-248-A-OCT92	46	3.4	19	28	9	<0.1	65	<0.1	240	15	<0.1	<0.7	1.7	<0.8	<1	<0.7	10	500	-
92-248-B-OCT92	52	3.5	21	26	8	<0.1	93	<0.1	240	10	<0.1	1.0	6.2	<0.8	<1	<0.7	39	540	-
92-248-C-OCT92	52	4.7	21	27	10	<0.1	89	<0.1	220	8	<0.1	<0.7	2.8	<0.8	<1	<0.7	4	540	-
92-304-A-DEC92	45	3.9	11	34	17	-	94	-	-	15	<0.1	1.0	1.1	0.4	<2	<0.6	4	460	-
92-304-B-DEC92	75	6.3	26	43	19	-	90	-	160	10	<0.1	12.0	3.2	0.5	<2	<0.6	7	750	-
92-304-C-DEC92	77	4.6	28	43	39	-	174	-	210	15	<0.1	3.8	7.8	0.5	<2	<0.6	6	780	64.1
92-304-D-DEC92	76	3.9	29	43	37	-	174	-	215	15	<0.1	2.6	4.6	0.6	<2	<0.6	7	780	65.4
92-304-E-DEC92	77	4.4	29	43	35	-	165	-	215	15	<0.1	2.8	5.5	0.6	<2	<0.6	7	780	64.2
92-304-F-DEC92	76	3.9	29	44	35	-	163	-	-	15	<0.1	1.6	4.7	0.6	<2	<0.6	6	780	65.0
92-304-G-DEC92	76	4.2	29	44	37	-	158	-	200	15	<0.1	2.2	4.7	0.5	<2	<0.6	5	790	66.2
92-304-H-DEC92	75	4.2	29	44	31	-	150	-	210	14	<0.1	<0.4	4.6	0.6	<2	<0.6	4	770	65.3
92-320-A-DEC92	63	15.0	19	45	32	<0.1	162	<0.1	-	8	<0.1	6.3	5.6	0.5	<2	<0.6	170	700	-
92-320-B-DEC92	73	5.6	18	29	22	<0.1	148	<0.1	110	14	<0.1	23.0	4.2	0.5	<2	0.8	24	620	-
92-320-C-DEC92	57	3.8	28	37	31	<0.1	104	<0.1	-	11	<0.1	1.7	4.1	0.4	<2	<0.6	150	680	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
92-320-D-DEC92	41 13 21	117 12 34	600		7.9	-	480	-	-	<4	9.8	2	<0.01	0.04	<0.3	68
92-320-E-DEC92	41 13 21	117 12 34	700		-	-	800	-	-	<4	3.0	2	<0.01	0.07	<0.3	24
92-320-F-DEC92	41 13 21	117 12 34	800		7.8	-	16	-	-	<4	3.0	2	<0.01	0.13	<0.3	25
93-25-A-MR93	41 13 37	117 13 10	280	-	7.2	-	-	-	-	2	3.0	2	<0.01	0.88	<0.6	37
93-25-B-MR93	41 13 37	117 13 10	300		7.2	-	-	-	-	<2	3.1	1	<0.01	1.50	<0.6	27
93-25-C-MR93	41 13 37	117 13 10	400		7.2	-	<1	-	-	<2	1.0	1	<0.01	1.60	<0.6	60
93-25-D-MR93	41 13 37	117 13 10	500		7.2	-	<1	-	-	<2	3.0	<1	0.01	0.29	<0.6	11
93-25-E-MR93	41 13 37	117 13 10	600		7.2	-	<1	-	-	<2	5.2	<1	0.02	0.23	<0.6	12
93-25-F-MR93	41 13 37	117 13 10	690		7.2	-	<1	-	-	<2	6.5	<1	<0.01	0.41	<0.6	24
93-35-A-MR93	41 13 36	117 13 05	265	-	7.6	-	-	-	-	4	0.7	7	<0.01	0.23	<0.6	57
93-35-B-MR93	41 13 36	117 13 05	300		7.6	-	-	-	-	<2	5.1	1	<0.01	0.02	<0.6	85
93-35-C-MR93	41 13 36	117 13 05	400		7.6	-	1	-	-	<2	2.0	1	<0.01	0.07	<0.6	47
93-35-D-MR93	41 13 36	117 13 05	500		7.6	-	1	-	-	<2	80.0	1	<0.01	0.29	<0.6	65
93-35-E-MR93	41 13 36	117 13 05	600		7.6	-	1	-	-	<2	12.0	1	<0.01	0.25	<0.6	12
93-35-F-MR93	41 13 36	117 13 05	700		7.6	-	1	-	-	<2	16.0	1	<0.01	0.30	<0.6	8

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
92-320-D-DEC92	37	2.0	14	19	14	<0.1	48	<0.1	95	10	<0.1	1.5	1.8	0.9	<2	<0.6	6	410	-
92-320-E-DEC92	52	2.5	20	26	20	<0.1	67	<0.1	-	11	<0.1	<0.4	2.6	1.0	<2	<0.6	6	550	-
92-320-F-DEC92	64	4.2	28	37	30	<0.1	97	<0.1	180	12	<0.1	<0.4	3.2	1.1	<2	<0.6	32	720	-
93-25-A-MR93	34	18.0	9	39	-	-	-	-	-	8	<0.1	0.4	2.2	<0.5	<2	<2.0	74	400	-
93-25-B-MR93	38	16.0	10	47	-	-	-	-	160	9	<0.1	0.4	4.1	<0.5	<2	<2.0	89	510	-
93-25-C-MR93	98	10.0	25	190	185	<0.1	360	2.5	190	8	<0.1	0.7	6.6	0.8	<2	<2.0	97	1540	-
93-25-D-MR93	240	6.5	64	66	260	<0.1	540	<1.0	-	9	<0.1	0.2	3.4	<0.5	<2	<2.0	5	1790	-
93-25-E-MR93	220	5.8	60	62	225	<0.1	510	<1.0	190	10	<0.1	<0.2	2.6	<0.5	<2	<2.0	8	1660	-
93-25-F-MR93	220	6.2	61	59	220	<0.1	490	<0.1	-	9	<0.1	0.3	4.5	0.5	<2	<2.0	10	1690	-
93-35-A-MR93	23	15.0	5	33	-	-	-	-	-	12	<0.1	0.3	1.3	<0.5	<2	<2.0	7	350	-
93-35-B-MR93	26	9.1	8	34	21	<0.1	29	0.9	-	8	<0.1	0.5	0.9	<0.5	<2	<2.0	5	350	-
93-35-C-MR93	24	12.0	5	56	19	<0.1	28	1.0	200	7	<0.1	0.3	0.9	<0.5	<2	<2.0	6	420	-
93-35-D-MR93	83	5.0	23	110	65	<0.1	360	<0.1	170	8	<0.1	0.6	2.4	<0.5	<2	<2.0	20	1080	-
93-35-E-MR93	170	5.2	42	44	82	<0.1	450	<0.1	-	9	<0.1	0.2	2.3	0.5	<2	<2.0	24	1230	-
93-35-F-MR93	180	6.0	44	45	94	<0.1	460	<0.1	170	10	<0.1	<0.2	2.9	<0.5	<2	<2.0	10	1300	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
93-37-A-MR93	41 13 36	117 13 00	345	-	7.4	-	-	-	-	3	5.6	1	4.30	0.26	0.6	10
93-37-B-MR93	41 13 36	117 13 00	400	-	7.4	-	-	-	-	<2	3.1	<1	<0.01	0.04	<0.6	34
93-37-C-MR93	41 13 36	117 13 00	500	-	8.5	-	-	-	-	<2	3.9	<1	<0.01	<0.01	<0.6	29
93-37-D-MR93	41 13 36	117 13 00	600	-	7.9	-	-	-	-	6	3.7	1	48.00	0.27	4.2	7
93-37-E-MR93	41 13 36	117 13 00	700	-	7.6	-	-	-	-	3	42.0	6	<0.01	0.20	<0.6	47
93-40-A-MR93	41 13 36	117 12 55	575	-	7.7	-	-	-	-	<2	<0.6	<1	<0.01	0.24	<0.6	60
93-40-B-MR93	41 13 36	117 12 55	600	-	7.6	-	<1	-	-	<2	1.0	1	<0.01	0.97	<0.6	58
93-40-C-MR93	41 13 36	117 12 55	700	-	7.6	-	<1	-	-	<2	0.8	<1	<0.01	0.85	<0.6	46
93-40-D-MR93	41 13 36	117 12 55	800	-	7.7	-	<1	-	-	4	1.0	3	<0.01	0.42	<0.6	13
93-42-A-MR93	41 13 27	117 12 57	525	-	7.8	-	-	-	-	<2	2.0	4	<0.01	0.11	<0.6	28
93-42-B-MR93	41 13 27	117 12 57	600	-	7.7	-	1	-	-	<2	0.9	2	<0.01	0.35	<0.6	43
93-42-C-MR93	41 13 27	117 12 57	700	-	7.8	-	2	-	-	<2	7.0	3	<0.01	0.13	<0.6	48
93-43-A-MR93	41 13 26	117 13 04	575	-	7.5	-	-	-	-	<2	10.0	1	<0.01	0.40	<0.6	57
93-43-B-MR93	41 13 26	117 13 04	600	-	7.5	-	<1	-	-	<2	4.6	1	<0.01	0.37	<0.6	57
93-43-C-MR93	41 13 26	117 13 04	700	-	7.6	-	<1	-	-	<2	2.0	2	<0.01	0.71	<0.6	85

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
93-37-A-MR93	-	-	-	44	-	-	-	-	-	-	<0.1	0.6	3.5	2.0	3	3	500	460	-
93-37-B-MR93	24	29.0	7	58	-	-	-	-	-	7	<0.1	0.2	1.1	0.8	<2	<2.0	20	460	-
93-37-C-MR93	10	18.0	5	42	22	<0.1	28	1.1	130	6	<0.1	<0.2	0.6	<0.5	<2	<2.0	<4	330	-
93-37-D-MR93	37	6.3	8	69	25	2.2	70	0.9	140	16	<0.1	0.5	2.8	2.0	12	5	430	510	-
93-37-E-MR93	140	9.9	42	44	65	<0.1	350	0.7	170	6	<0.1	0.5	6.0	0.6	2	<2.0	5	1110	-
93-40-A-MR93	99	6.4	40	43	104	460.0	316	<0.1	-	7	<0.1	0.4	2.4	<0.5	<2	<2.0	20	980	-
93-40-B-MR93	97	6.8	38	43	76	17.0	280	4.7	140	5	<0.1	0.4	2.7	0.5	<2	<2.0	20	980	-
93-40-C-MR93	110	6.4	38	44	63	<0.1	270	<0.1	-	6	<0.1	0.3	3.9	<0.5	<2	<2.0	27	980	-
93-40-D-MR93	96	4.9	33	42	43	<0.1	230	<0.1	175	10	<0.1	<0.2	4.8	<0.5	<2	<2.0	320	890	-
93-42-A-MR93	25	9.4	12	51	20	<0.1	33	0.8	-	8	<0.1	0.2	1.2	0.7	<2	<2.0	20	460	-
93-42-B-MR93	32	7.4	14	40	30	<0.1	51	0.8	170	9	<0.1	0.3	2.0	0.6	<2	<2.0	22	490	-
93-42-C-MR93	42	21.0	24	46	37	<0.1	98	1.2	175	9	<0.1	0.2	1.2	0.5	<2	<2.0	<4	680	-
93-43-A-MR93	140	7.5	48	73	130	15.0	340	<0.1	-	9	<0.1	0.4	7.6	0.8	<2	<2.0	5	1350	-
93-43-B-MR93	150	6.4	50	74	140	17.0	350	<0.1	190	9	<0.1	0.3	7.4	0.5	<2	<2.0	20	1380	-
93-43-C-MR93	150	9.5	45	83	150	15.0	330	<0.1	210	9	<0.1	0.5	7.6	0.5	<2	<2.0	20	1420	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
93-44-A-MR93	41 13 26	117 13 10	465	-	7.4	-	-	-	-	<2	29.0	1	<0.01	0.17	<0.6	10
93-44-B-MR93	41 13 26	117 13 10	500		7.4	-	<1	-	-	<2	26.0	<1	<0.01	0.39	<0.6	16
93-44-C-MR93	41 13 26	117 13 10	600		7.5	-	<1	-	-	<2	7.1	1	<0.01	0.04	<0.6	32
93-44-D-MR93	41 13 26	117 13 10	665		7.6	-	<1	-	-	4	5.0	<1	<0.01	0.09	<0.6	26
93-46-A-MR93	41 13 06	117 13 31	305	-	7.5	-	-	-	-	11	52.0	4	<0.01	0.26	<0.6	17
93-46-B-MR93	41 13 06	117 13 31	400		7.7	-	<1	-	-	15	200.0	4	<0.01	0.14	<0.6	20
93-46-C-MR93	41 13 06	117 13 31	500		7.7	-	1	-	-	6	88.0	3	<0.01	0.12	<0.6	23
93-46-D-MR93	41 13 06	117 13 31	530		7.7	-	1	-	-	5	96.0	3	<0.01	0.19	<0.6	55
93-48-A-MR93	41 13 05	117 13 27	360	-	7.6	-	<1	-	-	10	79.0	4	<0.01	0.13	<0.6	10
93-48-B-MR93	41 13 05	117 13 27	400		7.7	-	1	-	-	4	80.0	4	<0.01	0.13	<0.6	47
93-48-C-MR93	41 13 05	117 13 27	500		7.7	-	1	-	-	6	96.0	3	<0.01	0.27	<0.6	48
93-49-A-MR93	41 13 08	117 13 19	355	-	7.5	-	-	-	-	<2	4.1	<1	0.03	0.42	<0.6	18
93-49-B-MR93	41 13 08	117 13 19	400		7.7	-	<1	-	-	6	42.0	1	<0.01	0.13	<0.6	17
93-49-C-MR93	41 13 08	117 13 19	500		7.7	-	1	-	-	5	18.0	4	<0.01	0.15	<0.6	12

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
93-44-A-MR93	180	6.1	43	49	70	<0.1	417	<0.1	-	8	<0.1	<0.2	3.7	0.6	<2	<2.0	190	1270	-
93-44-B-MR93	180	6.4	44	47	67	<0.1	440	<0.1	180	6	<0.1	0.3	4.5	0.6	2	<2.0	6	1300	-
93-44-C-MR93	120	17.0	41	46	54	<0.1	320	<0.1	-	8	<0.1	0.2	2.3	0.5	<2	<2.0	<4	1100	-
93-44-D-MR93	140	10.0	42	46	63	<0.1	380	<0.1	175	10	<0.1	<0.2	2.6	<0.5	<2	<2.0	<4	1210	-
93-46-A-MR93	150	9.2	35	40	70	<0.1	385	0.6	-	14	<0.1	<0.2	3.1	0.7	<2	<2.0	7	1100	-
93-46-B-MR93	140	6.0	34	40	66	<0.1	362	0.6	160	16	<0.1	0.2	2.4	0.6	<2	<2.0	9	1110	-
93-46-C-MR93	130	6.9	32	40	66	<0.1	347	0.6	-	13	<0.1	<0.2	2.1	0.7	<2	<2.0	<4	1070	-
93-46-D-MR93	150	11.0	36	44	73	<0.1	408	0.6	160	12	<0.1	0.3	2.8	0.7	<2	<2.0	6	1170	-
93-48-A-MR93	130	5.5	33	39	64	<0.1	336	0.6	-	12	<0.1	<0.2	2.4	0.7	<2	<2.0	51	1060	-
93-48-B-MR93	120	24.0	30	46	63	<0.1	334	0.6	170	6	<0.1	0.3	2.1	0.6	<2	<2.0	<4	1080	-
93-48-C-MR93	130	7.4	33	39	65	<0.1	347	0.6	140	10	<0.1	0.2	2.9	0.5	<2	<2.0	4	1060	-
93-49-A-MR93	220	9.8	96	47	215	<0.1	396	<1.0	-	5	<0.1	0.2	7.5	0.6	<2	<2.0	8	1980	-
93-49-B-MR93	93	6.8	32	36	52	<0.1	214	<1.0	160	12	<0.1	0.2	2.1	0.6	<2	<2.0	10	870	-
93-49-C-MR93	120	6.4	33	39	65	<0.1	313	<1.0	150	15	<0.1	<0.2	2.6	0.8	<2	<2.0	<4	950	-



Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
93-54-A-MY93	41 13 42	117 11 36	170	-	8.2	-	-	-	-	10	2.6	9	0.01	0.04	<0.4	40
93-54-B-MY93	41 13 42	117 11 36	300	-	8.2	-	-	-	-	30	4.4	23	0.01	0.28	<0.4	41
93-54-C-MY93	41 13 42	117 11 36	400	-	8.0	-	-	-	-	9	2.1	4	0.01	0.01	<0.4	29
93-54-D-MY93	41 13 42	117 11 36	420	-	8.2	-	280	-	-	28	0.9	10	<0.01	0.13	<0.4	7
93-54-E-MY93	41 13 42	117 11 36	500	-	8.3	210	870	1	6	11	1.4	12	<0.01	0.07	<0.4	9
93-54-F-MY93	41 13 42	117 11 36	600	-	8.3	240	220	12	17	42	1.1	10	<0.01	0.10	0.4	8
93-54-G-MY93	41 13 42	117 11 36	700	-	8.1	220	64	<1	36	42	3.6	48	<0.01	0.01	0.4	7
93-54-H-MY93	41 13 42	117 11 36	740	-	8.3	210	58	<1	27	31	1.0	9	<0.01	0.04	<0.4	3
93-82-A-MY93	41 13 46	117 11 43	300	-	8.1	-	14	-	-	38	11.0	6	<0.01	0.15	<0.4	46
93-82-B-MY93	41 13 46	117 11 43	400	-	8.0	-	10	-	-	14	5.6	5	<0.01	0.08	<0.4	31
93-82-C-MY93	41 13 46	117 11 43	500	-	8.0	-	-	-	-	41	5.0	4	<0.01	0.15	<0.4	23
93-82-D-MY93	41 13 46	117 11 43	600	-	8.0	-	-	-	-	51	1.2	23	<0.01	0.04	<0.4	8
93-82-E-MY93	41 13 46	117 11 43	700	-	8.0	-	5	-	-	20	0.6	20	<0.01	0.03	<0.4	12
93-83-A-MY93	41 13 40	117 11 52	90	-	8.3	-	-	-	-	5	1.6	5	<0.01	0.07	<0.4	45
93-83-B-MY93	41 13 40	117 11 52	300	-	8.4	-	18	-	-	19	0.5	16	<0.01	0.07	<0.4	16
93-83-C-MY93	41 13 40	117 11 52	480	-	8.4	-	1	-	-	28	1.0	8	<0.01	0.18	<0.4	15

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
93-54-A-MY93	57	5.6	13	46	42	<0.1	94	0.8	-	21	<0.2	<1.0	1.2	<0.7	<2	<0.8	9	600	-
93-54-B-MY93	68	7.1	17	39	42	<0.1	100	<0.1	-	33	<0.2	<1.0	6.8	<0.7	1	<0.8	<4	630	-
93-54-C-MY93	58	17.0	19	40	43	<0.1	101	0.6	200	31	<0.2	<1.0	1.4	<0.7	1	<0.8	<4	660	-
93-54-D-MY93	60	4.3	20	44	44	1.0	102	<0.1	-	23	<0.2	<1.0	3.6	<0.7	1	<0.8	4	670	-
93-54-E-MY93	61	5.0	22	47	51	1.5	115	<0.1	200	18	<0.2	<1.0	3.4	<0.7	<1	<0.8	<4	710	67.3
93-54-F-MY93	59	4.6	21	48	50	0.9	110	<0.1	-	18	<0.2	<1.0	3.0	<0.7	<1	<0.8	7	670	67.5
93-54-G-MY93	58	5.0	23	48	46	0.1	110	0.5	210	14	<0.2	<1.0	1.4	<0.7	1	<0.8	<4	690	69.0
93-54-H-MY93	59	4.2	23	48	49	<0.1	110	<0.1	-	12	<0.2	<1.0	1.6	<0.7	<1	<0.8	<4	710	70.4
93-82-A-MY93	62	7.1	19	39	45	<0.1	84	<0.1	-	31	<0.2	<1.0	2.6	<0.7	2	<0.8	5	620	-
93-82-B-MY93	56	5.2	21	40	46	<0.1	85	<0.1	190	32	<0.2	<1.0	1.5	<0.7	1	<0.8	<4	630	-
93-82-C-MY93	59	5.5	18	39	46	<0.1	89	<0.1	-	32	<0.2	<1.0	1.7	<0.7	1	<0.8	22	610	-
93-82-D-MY93	41	4.5	17	50	18	<0.1	54	0.9	215	18	<0.2	<1.0	0.9	<0.7	<1	<0.8	4	510	-
93-82-E-MY93	39	4.6	17	49	18	1.0	50	0.8	-	17	<0.2	<1.0	0.9	<0.7	1	<0.8	<4	520	-
93-83-A-MY93	55	6.4	11	52	53	<0.1	90	<0.1	-	17	<0.2	<1.0	1.2	<0.7	1	<0.8	<4	620	-
93-83-B-MY93	49	4.1	14	45	36	2.0	68	<0.1	-	23	<0.2	<1.0	1.5	<0.7	1	<0.8	33	560	-
93-83-C-MY93	59	4.9	16	37	39	1.4	73	<0.1	200	30	<0.2	<1.0	2.4	<0.7	<1	<0.8	<4	600	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
93-83-D-MY93	41 13 40	117 11 52	600		8.4	-	<1	-	-	14	0.4	4	<0.01	0.07	<0.4	7
93-83-E-MY93	41 13 40	117 11 52	700		8.4	-	10	<1	20	24	0.3	30	<0.01	0.06	1.0	8
93-84-A-JN93	41 13 52	117 11 53	150	-	7.8	-	-	-	-	34	2.4	12	<0.01	0.01	<0.4	69
93-84-B-JN93	41 13 52	117 11 53	400		7.7	-	11	-	-	36	1.8	6	<0.01	0.08	<0.4	16
93-84-C-JN93	41 13 52	117 11 53	500		7.6	-	7	-	-	44	0.6	1	<0.01	0.15	<0.4	19
93-84-D-JN93	41 13 52	117 11 53	600		7.6	-	2	-	-	2	0.4	3	<0.01	0.28	<0.4	40
93-84-E-JN93	41 13 52	117 11 53	700		7.7	-	1	-	-	10	1.2	17	<0.01	0.17	<0.4	28
93-85-A-JN93	41 13 12	117 12 40	100	-	7.8	-	<50	-	-	26	0.8	19	0.01	0.10	<0.4	160
93-85-B-JN93	41 13 12	117 12 40	520		7.5	-	4500	-	-	<1	0.4	1	<0.01	0.74	<0.4	24
93-85-C-JN93	41 13 12	117 12 40	600		7.7	-	<50	-	-	5	0.9	6	<0.01	0.84	<0.4	59
93-85-D-JN93	41 13 12	117 12 40	700		7.6	-	<50	-	-	3	0.8	7	<0.01	1.60	<0.4	46
93-85-E-JN93	41 13 12	117 12 40	800		7.7	-	<1	-	-	1	3.8	0	<0.01	0.08	<0.4	7

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
93-83-D-MY93	47	3.8	14	36	25	2.3	48	<0.1	-	23	<0.2	<1.0	1.5	<0.7	<1	<0.8	<4	500	-
93-83-E-MY93	41	4.4	16	46	19	1.2	53	<0.1	-	15	<0.2	<1.0	1.2	<0.7	<1	<0.8	<4	530	68.8
93-84-A-JN93	31	8.0	14	120	50	<0.1	143	3.0	-	41	<0.1	0.7	2.0	3.0	2	<1.0	4	850	-
93-84-B-JN93	69	5.2	19	39	37	<0.1	73	<0.1	-	34	<0.1	<0.6	3.0	1.0	<2	<1.0	44	660	-
93-84-C-JN93	54	4.8	19	42	29	<0.1	55	<0.1	200	25	<0.1	<0.6	1.0	1.0	<2	<1.0	7	600	-
93-84-D-JN93	48	4.4	18	40	26	0.2	45	<0.1	-	15	<0.1	<0.6	1.0	0.9	<2	<1.0	11	560	-
93-84-E-JN93	43	5.0	17	42	22	0.2	39	<0.1	190	16	<0.1	<0.6	2.0	1.0	<2	<1.0	<3	520	-
93-85-A-JN93	38	14.0	12	95	49	<0.1	150	4.9	-	14	<0.1	2.1	2.0	2.0	<2	<1.0	4	760	-
93-85-B-JN93	69	4.4	40	51	90	<0.1	138	<0.1	-	10	<0.1	<0.6	7.3	2.0	<2	<1.0	39	870	-
93-85-C-JN93	39	11.0	23	40	48	<0.1	91	3.1	-	8	<0.1	<0.6	3.0	2.0	<2	<1.0	5	590	-
93-85-D-JN93	66	5.0	32	48	69	<0.1	133	<0.1	-	10	<0.1	0.6	4.0	2.0	<2	<1.0	27	770	-
93-85-E-JN93	61	3.4	35	40	47	<0.1	98	<0.1	210	24	<0.1	<0.6	2.0	2.0	<2	<1.0	16	750	-

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
93-94-A-MY93	41 11 23	117 14 31	295	-	8.4	-	1	-	-	9	1.3	36	<0.01	0.23	<0.4	42
93-94-B-MY93	41 11 23	117 14 31	375		8.4	-020	2	-	-	5	<0.3	4	0.06	0.10	<0.4	16
93-94-C-MY93	41 11 23	117 14 31	455		8.0	017	5	-	-	<2	<0.3	2	0.04	0.22	<0.4	33
93-94-D-MY93	41 11 23	117 14 31	495		8.4	060	4	-	-	<2	1.5	4	<0.01	0.19	<0.4	24
93-95-A-MY93	41 11 13	117 14 29	255	-	8.3	-	3	-	-	15	0.8	9	<0.01	0.15	<0.4	27
93-95-B-MY93	41 11 13	117 14 29	315		8.4	-	2	4	17	27	1.1	12	0.02	0.13	<0.4	20
93-95-C-JN93	41 11 13	117 14 29	435		7.5	-	2	-	-	2	1.9	11	<0.01	0.16	<0.4	36
93-95-D-JN93	41 11 13	117 14 29	495		7.7	-	1	-	-	<1	3.1	23	<0.01	0.06	<0.4	64
93-118-A-JN93	41 13 17	117 12 47	350	325	7.7	260	3100	-	-	3	<0.2	<1	0.01	0.13	<0.1	4
93-118-B-JN93	41 13 17	117 12 47	500		7.6	220	3300	-	-	5	<0.2	1	0.02	0.07	<0.1	3
93-118-C-JN93	41 13 17	117 12 47	600		7.7	-	4300	-	-	3	<0.3	3	0.01	0.26	<0.4	28
93-118-D-JN93	41 13 17	117 12 47	700		7.7	-	4300	-	-	3	<0.3	1	<0.01	0.83	<0.4	43
93-118-E-JN93	41 13 17	117 12 47	800		7.7	-	4400	-	-	<1	0.4	1	<0.01	0.60	<0.4	52
93-272-A-SEP93	41 13 13	117 12 57	400	373	8.5	139	380	-	-	<1	0.7	1	<0.01	0.17	<0.1	22
93-272-B-SEP93	41 13 13	117 12 57	550		8.2	-040	250	-	-	<1	0.2	1	0.23	0.20	<0.1	16

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
93-94-A-MY93	62	13.0	12	36	67	2.4	84	0.8	140	23	<0.2	<1.0	1.9	<0.7	1	<0.8	<4	630	-
93-94-B-MY93	100	4.7	14	35	84	13.0	98	<0.1	150	31	<0.2	<1.0	2.2	<0.7	1	<0.8	<4	810	59.0
93-94-C-MY93	96	4.8	13	35	89	12.0	93	<0.1	-	29	<0.2	<1.0	2.4	<0.7	<1	<0.8	4	810	-
93-94-D-MY93	70	4.3	10	37	73	6.1	84	0.7	95	23	<0.2	<1.0	1.9	<0.7	<1	<0.8	10	650	61.2
93-95-A-MY93	81	5.4	15	40	63	5.3	73	<0.1	-	35	<0.2	<1.0	2.1	<0.7	<1	<0.8	7	690	-
93-95-B-MY93	81	4.9	17	40	68	6.9	75	<0.1	-	37	<0.2	<1.0	2.5	<0.7	1	<0.8	<4	730	-
93-95-C-JN93	74	4.5	16	38	63	4.5	39	<0.1	-	31	<0.1	0.6	3.0	2.0	<2	<1.0	54	680	-
93-95-D-JN93	56	5.4	17	35	60	<0.1	31	<0.1	160	31	<0.1	0.6	4.2	2.0	<2	<1.0	<3	610	-
93-118-A-JN93	63	4.2	39	46	59	0.1	97	<0.1	200	21	<0.1	<0.4	3.2	0.6	2	<0.2	6	780	62.2
93-118-B-JN93	63	3.9	39	46	59	0.1	95	<0.1	190	22	<0.1	<0.4	2.8	0.5	1	<0.2	5	820	63.9
93-118-C-JN93	67	4.8	38	46	81	<0.1	134	<0.1	180	21	<0.1	<0.6	6.0	2.0	<2	<1.0	71	860	-
93-118-D-JN93	66	6.2	40	48	86	<0.1	138	<0.1	-	15	<0.1	<0.6	5.8	2.0	<2	<1.0	5	880	-
93-118-E-JN93	65	19.0	36	48	80	<0.1	135	<0.1	190	19	<0.1	<0.6	4.4	2.0	<2	<1.0	<3	880	-
93-272-A-SEP93	67	4.5	41	49	73	0.1	180	5.1	140	16	<0.1	<0.2	1.3	<0.4	1	<0.2	6	880	60.5
93-272-B-SEP93	69	4.0	41	50	73	0.3	180	0.5	140	15	<0.1	<0.2	1.2	<0.4	<2	<0.2	4	850	62.2

Table 2. Continued

Sample #	Latitude	Longitude	Sample Depth (Ft.)	Water Table Depth (Ft.)	pH	Eh mV	Au ng/L	As(III) µg/L	As(V) µg/L	As-T µg/L	Sb µg/L	W µg/L	Fe mg/L	Mn mg/L	Ge µg/L	Mo µg/L
GET-2-JN89	41 11 47	117 15 02	CREEK	-	8.1	147	20	<2	17	15	0.4	2	0.01	0.02	-	27
GET-3-JN89	41 11 48	117 15 17	CREEK	-	8.1	87	1	-	-	4	0.2	2	<0.01	0.01	-	25
GET-4-JN89	41 12 19	117 15 47	CREEK	-	8.2	105	1	-	-	5	0.1	1	<0.01	0.01	-	7
GET-5-OCT89	41 13 25	117 15 57	CREEK	-	7.3	2	1	78	13	91	0.9	2	0.93	0.74	-	6
SUM-1-JN89	41 11 08	117 15 14	CREEK	-	7.3	200	<1	-	-	3	0.1	3	<0.01	<0.01	-	20

Sample #	Ca mg/L	K mg/L	Mg mg/L	Na mg/L	Cl mg/L	NO3 mg/L	SO4 mg/L	F mg/L	Alk. mg/L	SiO2 mg/L	Ag µg/L	Cd µg/L	Co µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Zn µg/L	Cond. µS	Temp. °F
GET-2-JN89	43	3.5	8	33	34	<0.1	42	0.3	160	42	-	-	0.4	1.2	7	0.3	8	420	66.0
GET-3-JN89	39	3.1	8	31	13	<0.1	33	0.3	160	42	-	-	<0.1	1.2	8	1.1	12	390	60.0
GET-4-JN89	31	3.1	7	28	13	<0.1	27	0.3	140	40	-	-	0.1	1.5	2	<0.2	2	330	73.0
GET-5-OCT89	142	3.0	17	22	23	<0.1	290	0.3	201	21	-	-	1.2	0.5	7	<0.2	1100	910	55.0
SUM-1-JN89	37	2.5	6	26	16	<0.1	26	0.3	140	40	-	-	0.3	1.1	1	<0.2	2	340	54.0