ANACONDA SMELTER NPL SITE
ANACONDA REGIONAL WATER, WASTE, AND SOILS OPERABLE UNIT

2010 GROUNDWATER MONITORING PROGRAM

Prepared for:
Atlantic Richfield Company
U.S. Environmental Protection Agency
Montana Department of Environmental Quality

(Photo courtesy of World Museum of Mining, Butte, MT)

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ACM	Anaconda Copper Mining Company
AOC	Area of Concern
ARARs	Applicable or Relevant and Appropriate Requirements
AR	Atlantic Richfield Company
ARWWS	Anaconda Regional Water, Waste, and Soils
COCs	Contaminants of Concern
DAR	Data Analysis Report
DEQ	Montana Department of Environmental Quality
DO	Dissolved Oxygen
DSR	Data Summary Report
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
GWIC	Groundwater Information Center
HAA	High Arsenic Area
IC	Institutional Control
LTGWMP	Long-Term Groundwater Monitoring Program
MBMG	Montana Bureau of Mines and Geology
mg/L	Milligrams per Liter
NPL	National Priorities List
ORP	Oxidation-Reduction Potential
OU	Operable Unit
POC	Points of Compliance
RA	Remedial Action
RD	Remedial Design
RDU	Remedial Design Unit
RI	Remedial Investigation
RO	Reverse Osmosis
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SC	Specific Conductance
STGWMP	Short-Term Groundwater Monitoring Program
TI	Technical Impracticability
μg/L	Micrograms per Liter
WMA	Waste Management Area

ABSTRACT

The 2010 Anaconda Regional Water, Waste, and Soils (ARWWS) Groundwater Monitoring Program continued the transition from the Record of Decision (ROD)-implemented Short-Term Groundwater Monitoring and Sampling Program (STGWMP) toward the Long-Term Groundwater Monitoring and Sampling Program (LTGWMP) that began in 2009. The number of geographic areas where monitoring and sampling occurred was reduced from seven to three based upon the 2009 STGWMP. Springs and surface-water locations were not part of the 2010 monitoring program. The reduction in number of sites monitored and sampled is the result of the 2009 sampling events being the 5-year annual review period when additional sites (wells and springs) are sampled. There are fewer non-5-year review monitoring sites.

The defined domestic well sampling program was continued based upon U.S. Environmental Protection Agency (EPA) and Montana Department of Environmental Quality (DEQ) boundaries. Boundary adjustments resulted in a number of wells sampled outside the boundary; information from those wells was used as reference sites.

Arsenic is the primary contaminant of concern (COC) throughout this operable unit (OU), while cadmium, copper, lead, and zinc are also of concern in two of the three areas that constitute the 2010 program. Listed below are the seven geographical areas within the OU and the number of wells and COC exceedances during the 2010 sampling:

ARWWS Geographical Areas	No. Wells	No. Arsenic Exceedances	No. Other Exceedances
StuckyStucky Ridge/Lost Creek	No 2010 samples	—	—
Mount Haggin/Smelter Hill	No 2010 samples	—	—
Smelter Hill/Opportunity Ponds	12	2	0
Old Works	14	0	4
South Opportunity/Yellow Ditch	7	0	0
Blue Lagoon	No 2010 samples	—	—
Dutchman Creek	No 2010 samples	—	—
Totals	33	2	4

The two arsenic exceedances occurred within the Opportunity Ponds; the other COC exceedances (cadmium, copper, and zinc) were within the Red Sands area of the Old Works. The highest arsenic and cadmium concentrations in monitoring wells were 183 and 9 µg/L, respectively.

Twenty-four points of compliance (POC) monitoring wells are distributed throughout the ARWWS monitoring area to ensure no groundwater contamination migrates offsite from any of the primary source areas: fifteen were sampled in 2010, while the remaining 9 have yet to be installed. No COC exceedances were observed in the POC wells, and water-quality concentrations were below specified water-quality standards in all the POC sampled wells. Based upon the 2010 water-quality results, there are no indications that the area of historic contamination is spreading, or that contaminants are leaving the site.

Nearly 200 water-quality samples were collected from domestic wells throughout the OU, which identified 25 wells that need additional sampling and evaluation due to arsenic concentrations greater than 5 µg/L.

No replacement domestic wells were installed during 2010. Following the failed replacement well in 2009 and a greater number of deep domestic wells identified with elevated arsenic, a review of existing data and geologic conditions was undertaken. Bottled water was provided to all residences with arsenic concentrations above 10 µg/L.

ANACONDA SMELTER NPL SITE

1.0 Introduction

The Groundwater Monitoring and Sampling Program that was implemented in 2009 was a transition from the Short-Term Groundwater Monitoring and Sampling Program (STGWMP) toward the Long-Term Monitoring and Sampling Program (LTGWMP). The 1998 Record of Decision (ROD) specified the establishment of an interim groundwater program, which has been conducted by Atlantic Richfield Company (AR) seasonally since 2000. Results were presented in semi-annual Data Summary Reports (DSR), followed by an annual Data Analysis Report (DAR). A complete listing of the reports can be found in the Draft Final—2008 Short-Term Groundwater Monitoring, Low-Water Table Event, Data Summary Report (DSR) (Atlantic Richfield Company, 2009).

The monitoring conducted from 2000 through 2008 followed the objectives contained in the 2000 Anaconda Regional Water, Waste, and Soils (ARWWS) Operable Unit (OU) Short-Term Groundwater Monitoring Sampling and Analysis Plan (SAP). The objectives stated in this SAP were:

1. Assess current groundwater quality in areas where water quality must comply with the appropriate standards as specified in the ROD;
2. Assess current groundwater quality in plumes in areas of concern (AOC) identified in the ROD;
3. Monitor effectiveness of Remedial Actions (RAs) including reclamation and natural attenuation;
4. Evaluate changes in hydrologic conditions since the remedial investigation (RI) that may affect design of a long-term groundwater monitoring plan; and
5. For wells drilled in the last several years, provide data that will supplement the RI for developing a long-term groundwater monitoring plan.

To make the transition from the Short-Term Program to the Long-Term Program, Addendum No. 1 was prepared for the Short-Term SAP. The objectives of SAP Addendum No. 1 (Atlantic Richfield Company, 2009) were:

1. Modify the current monitoring well network (Short-Term Program, 2000) to be more consistent with the anticipated Long-Term Groundwater Monitoring Program (LTGWMP) well network;
2. Add monitoring of domestic wells to the network;
3. Add installation of new monitoring wells anticipated in the LTGWMP, so that monitoring can begin in 2009; and
4. Add replacement of domestic wells that exceed action levels contained in the 2000 SAP to the established monitoring program.

The 2009 monitoring program included all monitoring sites and coincides with the EPA 5-year site review (Table 1.0-1). Since 2009 the monitoring program has been conducted by the Montana Bureau of Mines and Geology (MBMG). Sample site information is contained in the MBMG online database, GWIC. Information for a particular site can be accessed using the site's unique identifier, referred to as the GWIC ID. The web address for GWIC is: http://www. mbmggwic.mtech.edu. The 2010 monitoring program contained a subset of wells (non 5-year review), shown in red in table 1.0-1 Table 1.0-1 also contains a listing of sites that constitute the current approved sampling program, the Groundwater Information Center (GWIC) identifier, and the sampling frequency. The sites are broken out into categories based upon Remedial Design Units (RDU) established for the ARWWS-OU.

Table 1.0-1. Summary of monitoring sites, sample frequency, and location.

STUCKY RIDGE/LOST CREEK EXPANSION AREA TI ZONE						
Well ID	**GWIC ID**	**Type**	**Purpose[1]**	**New Well**	**Frequency[2]**	**Location**
FH-2	121004	Well	5-year review		2 seasons each 5 years	Stucky Ridge
MW-248d	250004	Well	5-year review		2 seasons each 5 years	Stucky Ridge
MW-248e	250031	Well	5-year review		2 seasons each 5 years	Stucky Ridge
MW-248s	250007	Well	5-year review		2 seasons each 5 years	Stucky Ridge
SP97-20	249915	Spring	5-year review		1 season each 5 years	Stucky Ridge
SP98-26	249920	Spring	5-year review		1 season each 5 years	Lost Creek Expansion Area
SP98-27	249921	Spring	5-year review		1 season each 5 years	Lost Creek Expansion Area
SP98-28	249922	Spring	5-year review		1 season each 5 years	Stucky Ridge
SP98-30	249923	Spring	5-year review		1 season each 5 years	Lost Creek Expansion Area
SP98-31	249924	Spring	5-year review		1 season each 5 years	Lost Creek Expansion Area
SP98-32	249925	Spring	5-year review		1 season each 5 years	Stucky Ridge
SP98-34	249926	Spring	5-year review		1 season each 5 years	Stucky Ridge
SP99-01	249930	Spring	5-year review		1 season each 5 years	Stucky Ridge
MOUNT HAGGIN/SMELTER HILL HAA TI ZONE						
Well ID	**GWIC ID**	**Type**	**Purpose**	**New Well**	**Frequency[1]**	**Location**
F2-BR	51388	Well	5-year review		2 seasons each 5 years	Smelter Hill Loop Track
MW-233	138016	Well	5-year review		2 seasons each 5 years	Smelter Hill–Mill Creek
MW-245d	249966	Well	5-year review		2 seasons each 5 years	Weather Hill–Lost Horse Cr
MW-245e	250050	Well	5-year review		2 seasons each 5 years	Weather Hill–Lost Horse Cr
MW-245s	250003	Well	5-year review		2 seasons each 5 years	Weather Hill–Lost Horse Cr
MW-249d	250008	Well	5-year review		2 seasons each 5 years	Mill Creek–Cabbage Gulch
MW-249s	250009	Well	5-year review		2 seasons each 5 years	Mill Creek–Cabbage Gulch
MW-250d	249958	Well	5-year review		2 seasons each 5 years	Mill Creek–Joyner Gulch
MW-250s	249957	Well	5-year review		2 seasons each 5 years	Mill Creek–Joyner Gulch
NGP-1	250017	Well	5-year review		2 seasons each 5 years	Mt. Haggin/Smelter Hill TI Zone
WGP-1	250053	Well	5-year review		2 seasons each 5 years	Mt. Haggin/Smelter Hill TI Zone
SH-3	250052	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP97-12	249913	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP97-19	249914	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP97-31	249916	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP98-16	249917	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP98-20	249918	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP98-23	249919	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP98-36	249927	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP98-37	249928	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SP98-8	249929	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SST-1	249931	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SST-26	249932	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SST-29	249933	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone
SST-30	249934	Spring	5-year review		1 season each 5 years	Mt. Haggin/Smelter Hill TI Zone

Table 1.0-1. Summary of monitoring sites, sample frequency, and location. (continued)

OPPORTUNITY PONDS/SMELTER HILL WMA						
Well ID	**GWIC ID**	**Type**	**Purpose**	**New Well***	**Frequency[1]**	**Location**
A1-BR2	51384	Well	5-year review		2 seasons each 5 years	Smelter Hill
A2-BR	51383	Well	5-year review		2 seasons each 5 years	Smelter Hill
B4-BR	51382	Well	5-year review		2 seasons each 5 years	Smelter Hill
C2-AL1	249864	Well	5-year review		2 seasons each 5 years	Smelter Hill
D3-AL1	249866	Well	5-year review		2 seasons each 5 years	Smelter Hill
E2-AL1	249961	Well	5-year review		2 seasons each 5 years	Smelter Hill (northeast)
MW-210	138024	Well	5-year review		2 seasons each 5 years	Anaconda Ponds Northwest Toe
MW-211	138028	Well	5-year review		2 seasons each 5 years	Anaconda Ponds Northwest Toe
MW-212	**138007**	**Well**	**POC**		**Semi-annually**	**North of Triangle Waste**
MW-214	**138065**	**Well**	**POC**		**Semi-annually**	**North Toe of Opportunity Ponds**
MW-216	**137957**	**Well**	**POC**		**Semi-annually**	**East Toe of Opportunity Ponds**
MW-218d	138013	Well	5-year review		2 seasons each 5 years	Anaconda Ponds Middle Toe
MW-218s	138011	Well	5-year review		2 seasons each 5 years	Anaconda Ponds Middle Toe
MW-219	138015	Well	5-year review		2 seasons each 5 years	Anaconda Ponds Northeast Toe
MW-220	249963	Well	5-year review		2 seasons each 5 years	Anaconda Ponds–Toe East
NW-6s	**249909**	**Well**	**POC**	**Installed 2009**	**Semi-annually**	**Anaconda Ponds–Toe East**
MW-227	138026	Well	5-year review		2 seasons each 5 years	East Corner of Smelter Hill WMA
MW-244	249795	Well	5-year review		2 seasons each 5 years	Smelter Hill (Northwest)
MW-247	249806	Well	5-year review		2 seasons each 5 years	Smelter Hill (Northwest)
MW-243	249965	Well	5-year review		2 seasons each 5 years	Triangle Waste Area
MW-253	249847	Well	5-year review		2 seasons each 5 years	Triangle Waste Area
MW-254	249798	Well	5-year review		2 seasons each 5 years	Triangle Waste Area
MW-256	**249851**	**Well**	**POC**		**Semi-annually**	**Triangle Waste Area**
MW-26	**249793**	**Well**	**POC**		**Semi-annually**	**Northeast Toe of Opportunity Ponds**
MW-26M	**249790**	**Well**	**POC**		**Semi-annually**	**Northeast Toe of Opportunity Ponds**
MW-31	**249794**	**Well**	**5-year review**		**Semi-annual first 5 years after cover installed**	**East Toe of Opportunity Ponds**
MW-31M	**249785**	**Well**	**5-year review**		**Semi-annual first 5 years after cover installed**	**East Toe of Opportunity Ponds**
MW-82	**249840**	**Well**	**5-year review**		**Semi-annual first 5 years after cover installed**	**Inside East Toe of Opportunity Ponds**
MW-82M	249896	Well	5-year review	New well	Semi-annual first 5 years after cover installed	Inside East Toe of Opportunity Ponds
MW-85	**249843**	**Well**	**5-year review**		**Semi-annual first 5 years after cover installed**	**Interior of Opportunity Ponds**
MW-85M	249897	Well	5-year review	New well	Semi-annual first 5 years after cover installed	Interior of Opportunity Ponds
MW-90	**249844**	**Well**	**5-year review**		**Semi-annual first 5 years after cover installed**	**Interior of Opportunity Ponds**
MW-90M	249899	Well	5-year review	New well	Semi-annual first 5 years after cover installed	Interior of Opportunity Ponds
MW-5s	249942	Well	POC	New well	Semi-annually	Opportunity Ponds South Flank
NW-1-OPd	249901	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-1-OPs	249900	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-2-OPd	249903	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-2-OPs	249904	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-3-OPd	249905	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-3-OPs	249906	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-4-OPd	249907	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
NW-4-OPs	249908	Well	POC	New well	Semi-annually	East Toe of Opportunity Ponds
MW-24	249791	Well	5-year review		2 seasons each 5 years	North Toe of Opportunity Ponds
MW-25	249792	Well	5-year review		2 seasons each 5 years	North Toe of Opportunity Ponds

***New Well:** well to be installed as part of Long-Term Groundwater Monitoring Program (LTGWMP).

Table 1.0-1. Summary of monitoring sites, sample frequency, and location. (continued)

OLD WORKS WMA						
Well ID	**GWIC ID**	**Type**	**Purpose**	**New Well**	**Frequency[1]**	**Location**
IW-01	**250038**	**Well**	**Event-driven**		**Event-driven**	**NE Quarter Section 2**
IW-05	250039	Well	5-year review		2 seasons each 5 years	NE Quarter Section 2
LF-4	249800	Well	5-year review		2 seasons each 5 years	NW Quarter Section 1
MW-201	249804	Well	5-year review		2 seasons each 5 years	NE Quarter Section 2
MW-204	**250041**	**Well**	**Event-driven**		**Event-driven**	**Old Works Red Sands**
MW-205	249803	Well	5-year review		2 seasons each 5 years	NE Quarter Section 1
MW-206	**250042**	**Well**	**Event-driven**		**Event-driven**	**Section 1 West of Sewer Lagoons**
MW-206d	**250054**	**Well**	**Event-driven**		**Event-driven**	**Section 1 West of Sewer Lagoons**
MW-207	**250043**	**Well**	**POC/event-driven**		**Semi-annually/event-driven**	**SE Corner of Old Works WMA**
MW-208	**250044**	**Well**	**Event-driven**		**Event-driven**	**SE Quarter Section 31**
MW-209	**250045**	**Well**	**Event-driven**		**Event-driven**	**SE Quarter Section 31**
MW-213	**138022**	**Well**	**Event-driven**		**Event-driven**	**Old Works Red Sands**
MW-240	**250047**	**Well**	**Event-driven**		**Event-driven**	**SE Quarter Section 32**
MW-241	**250048**	**Well**	**Event-driven**		**Event-driven**	**SE Quarter Section 31**
MW-242	**250049**	**Well**	**Event-driven**		**Event-driven**	**West of Old Works WMA**
MW-251	**250014**	**Well**	**POC/event-driven**		**Semi-annually/event-driven**	**NE Corner of Old Works WMA**
MW-252	**249797**	**Well**	**POC/event-driven**		**Semi-annually/event-driven**	**West of Old Works WMA**
MW-255	**250055**	**Well**	**POC/event-driven**		**Semi-annually/event-driven**	**West of Old Works WMA**
MW-72	250051	Well	5-year review		2 seasons each 5 years	SW Quarter Section 31
TI-A	249801	Well	5-year review		2 seasons each 5 years	NW Quarter Section 2

Table 1.0-1. Summary of monitoring sites, sample frequency, and location. (continued)

Well ID	GWIC ID	Type	Purpose	New Well	Frequency[1]	Location
SOUTH OPPORTUNITY/YELLOW DITCH AREA OF CONCERN						
LTW-1-SOd	**249936**	**Well**	**POC**	**Installed 2009**	**Semi-annually**	**North of Hwy. 1, NE Section 16**
LTW-1-SOs	**249937**	**Well**	**POC**	**Installed 2009**	**Semi-annually**	**North of Hwy. 1, NE Section 16**
LTW-3-SOd	**249938**	**Well**	**POC**	**Installed 2009**	**Semi-annually**	**North of Hwy. 1, Section 15**
LTW-3-SOs	**249939**	**Well**	**POC**	**Installed 2009**	**Semi-annually**	**North of Hwy. 1, Section 15**
MW-225	249940	Well	5-year review		2 seasons each 5 years	SW Quarter Section 14
MW-232	249941	Well	5-year review		2 seasons each 5 years	Mount Haggin Ranch
MW-231	138061	Well	5-year review		2 seasons each 5 years	Willow Creek
MW-9 (Lab)	**249898**	**Well**	**Town of Opportunity**		**Semi-annually**	**West of Highway 1 and Fairmont Rd.**
LTW-4-SOd	**249940**	**Well**	**Town of Opportunity**	**Installed 2009**	**Semi-annually**	**Section 16–Hwy 1**
LTW-4-SOs	**249901**	**Well**	**Town of Opportunity**	**Installed 2009**	**Semi-annually**	**Section 16– Hwy 1**
OD-2D	249778	Well	Town of Opportunity		2 seasons each 5 years	Northeast of Opportunity
OD-2S	249799	Well	Town of Opportunity		2 seasons each 5 years	Northeast of Opportunity
OD-3D	249781	Well	Town of Opportunity		2 seasons each 5 years	East Opportunity near Willow Creek
OD-3S	249782	Well	Town of Opportunity		2 seasons each 5 years	East Opportunity near Willow Creek
WCT-27	249935	Surface expression of groundwater	Town of Opportunity		2 seasons each 5 years	South of Highway 1 at Opportunity
BLUE LAGOON AOC						
MW-235	250046	Well	5-year review		2 seasons each 5 years	Blue Lagoon
MW-257	250015	Well	5-year review		2 seasons each 5 years	Blue Lagoon
DUTCHMAN CREEK HIGH ARSENIC AREA						
SP-07-01	249910	Spring	5-year review		1 season each 5 years	North Opportunity
SP-07-02	249911	Spring	5-year review		1 season each 5 years	North Opportunity
SP-07-03	249912	Spring	5-year review		1 season each 5 years	North Opportunity
MW-224	138068	Well	5-year review		2 seasons each 5 years	North Opportunity
MW-230	128740	Well	5-year review		2 seasons each 5 years	North Opportunity

1. POC, Point of Compliance monitoring well.
2. New wells in new cover areas will be sampled semi-annually for 5 years, then semi-annually once every 5 years. New Town of Opportunity wells will be sampled semi-annually perpetually.

2.0 Historical Background

The town of Anaconda, Montana was founded by Marcus Daly on June 25, 1883 for the purpose of constructing a smelter to process ore being mined by Daly and his partners in Butte, 26 miles to the east (Morris, 1997). Daly chose this location due to the abundant supply of water from Warm Springs Creek. The mining company [Anaconda Copper Mining Company (ACM)] operated by Daly and his partners began construction of the first concentrator and smelter on the north side of Warm Springs Creek in 1883, with the facility put into operation in 1884. This facility was known as the Upper Works and consisted of the following facilities: concentrator, smelter buildings including roasters, reverberatory furnaces, long masonry flues, and two smokestacks measuring 115 and 175 ft in height (Shovers and others, 1991).

As ore production from the ACM mines in Butte increased, Daly built an additional smelter in 1897, which became known as the Lower Works. The Lower Works was located 1 mile east of the Upper Works facilities, again located adjacent to Warm Springs Creek (fig. 2.0-1).

ACM continued to add facilities at both the Upper and Lower Works to handle increased ore production from its Butte mines. In 1902, ACM moved their processing facilities to the south side of Warm Springs Creek with the construction of the Washoe Reduction Works. The Washoe facility was designed so that processing facilities could expand as needed. In 1902, when it was put into operation, it had a capacity of 4,800 tons per day, producing 600,000 pounds of copper in 1908; increases in capacity led to the production of 1,000,000 pounds of copper per day in 1933 (Shovers and others, 1991). Figure 2.0-2 shows the general layout of the Washoe Reduction Works, while figure 2.0-3 is a picture of the facility from the 1950s. Figure 2.0-4 shows the locations of the three smelter facilities and their proximity to the town of Anaconda.

By-products of the smelting process were slimes, slag, tailings, and airborne emissions of gases from the smelter stack. Tailings were sluiced to a series of ponds north of the town of Opportunity (which became known as the Opportunity Ponds), and beginning in 1947, to two ponds just below the concentrator, known as the Anaconda Ponds (Shovers and others, 1991).

Residual arsenic was one of the primary waste by-products, with large concentrations emitted from the stack. Originally, the Washoe Reduction Works had four small stacks, which were replaced by one larger 300-ft stack in 1904. This stack was replaced by a 585-ft stack in 1918. In addition to the new stack, which measured 75 ft at the base and 65 ft at the top, ACM constructed an electrostatic plant at the base of the stack to more efficiently remove flue dust and the associated arsenic from leaving the stack. According to Shovers and others (1991), this plant removed 90 percent of the dust leaving the plant. ACM continued to make modifications to the smelter operations through the 1970s until the plant closed in 1980.

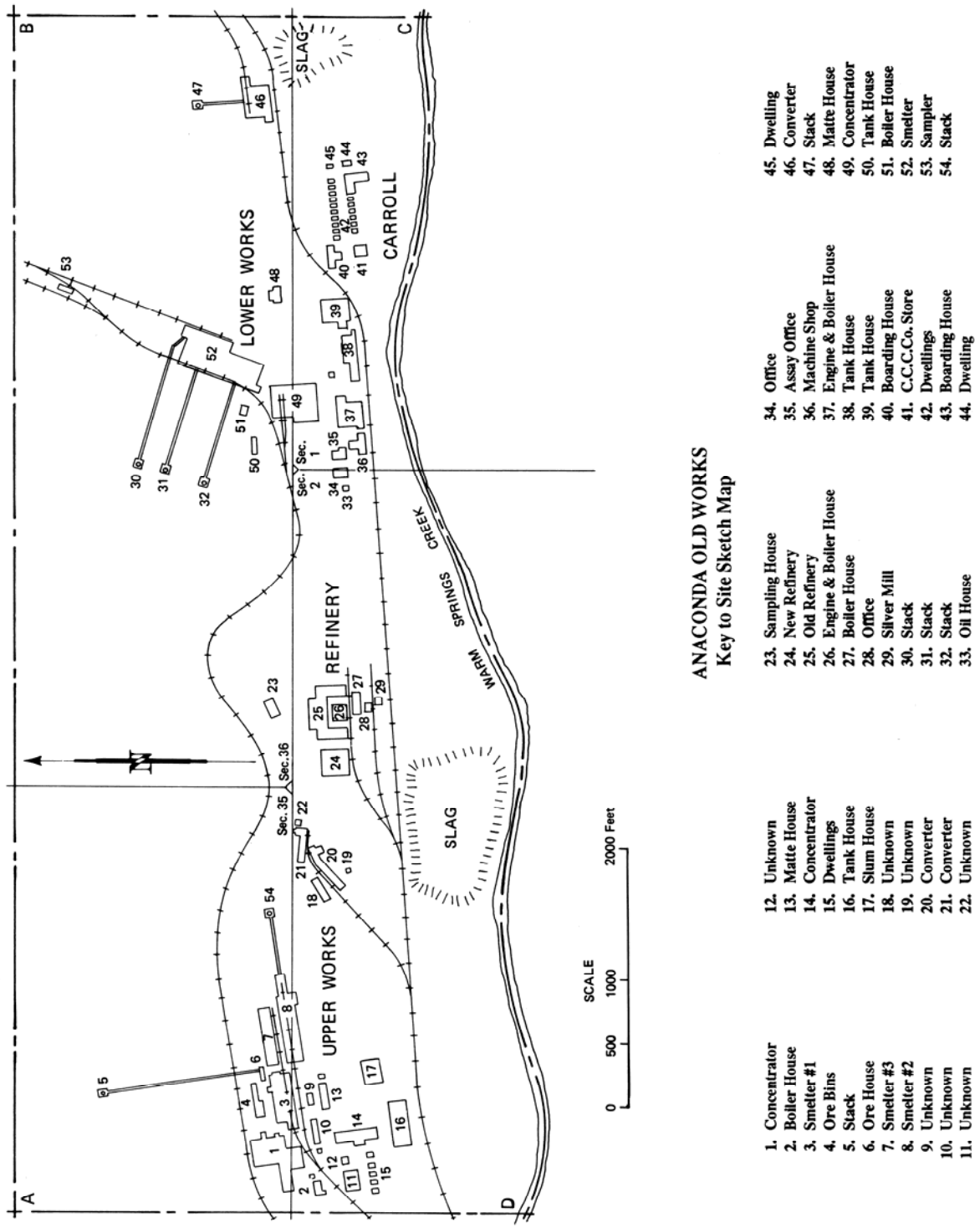

Figure 2.0-1. Location of Upper Works and Lower Works facilities that make up the Old Works Smelter Complex. Modified from Shovers and others, 1991.

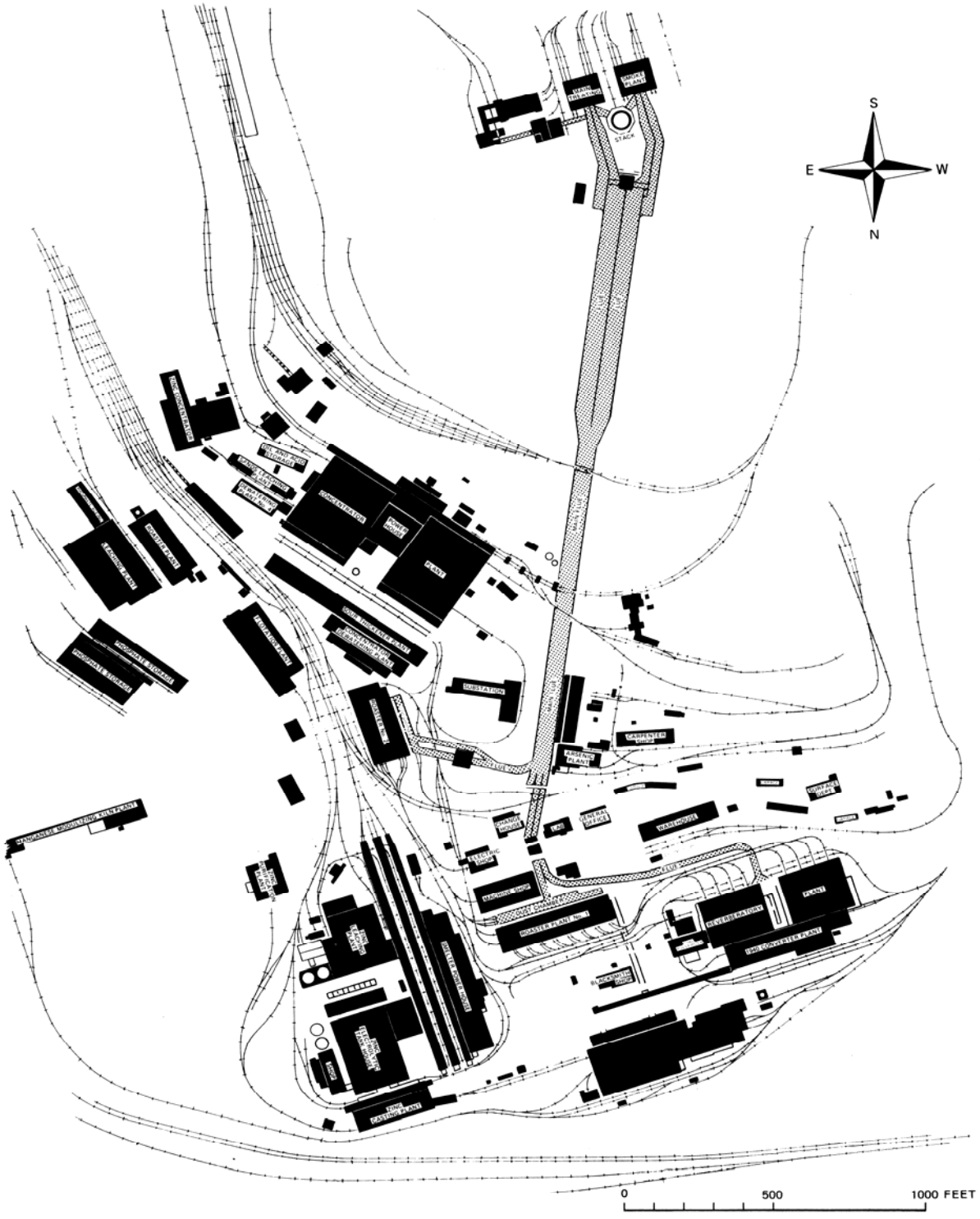

Figure 2.0-2. General layout of the Washoe Smelter facilities. Modified from Shovers and others, 1991.

Figure 2.0-3. View looking south towards the Washoe Smelter and associated facilities, circa 1950s. Photo courtesy of the World Museum of Mining.

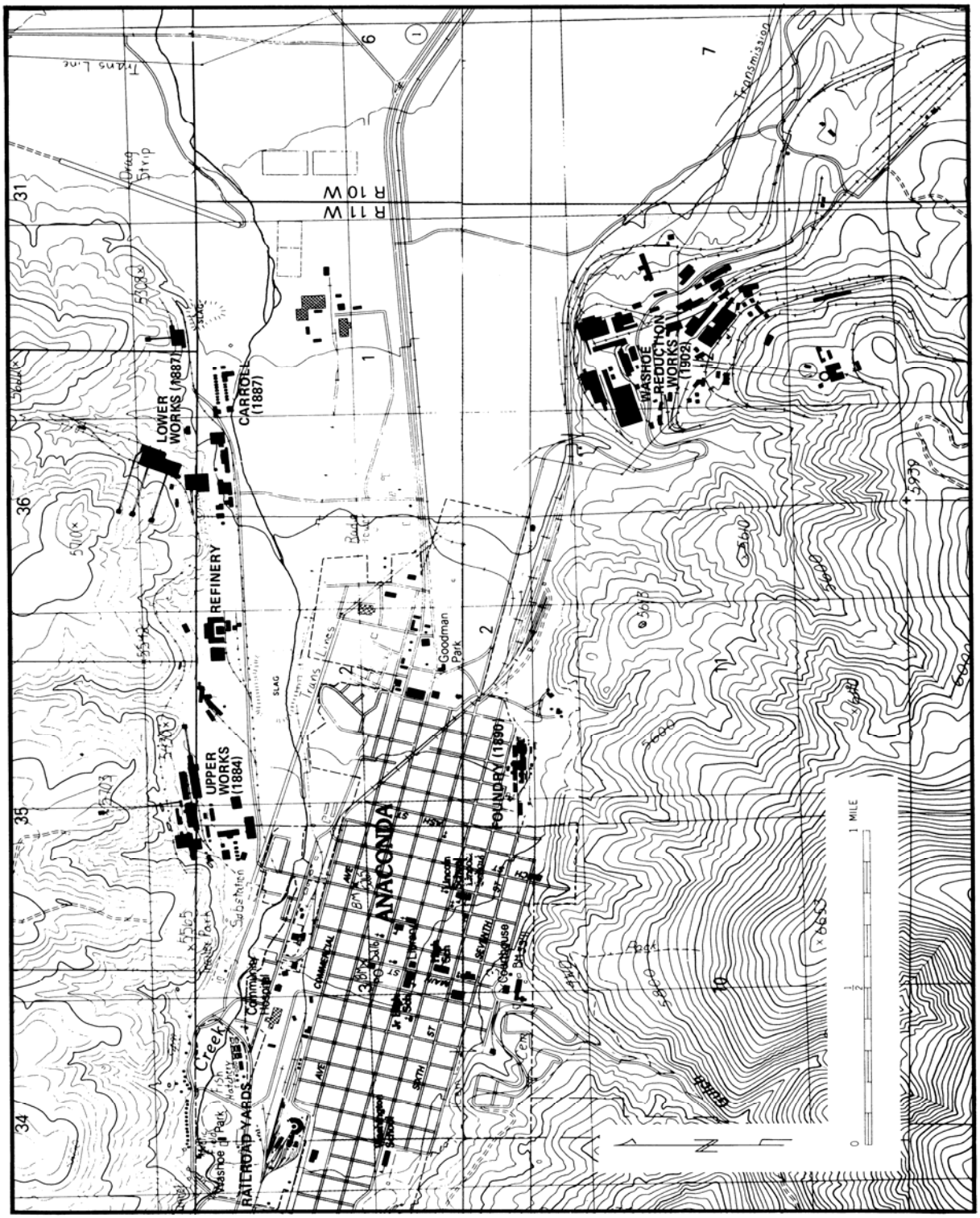

Figure 2.0-4. Locations of Upper Works, Lower Works, and Washoe Smelter in relationship to the town of Anaconda. Modified from Shovers and others, 1991.

Areas around the Washoe Reduction Works and other historic smelting facilities were placed on the U.S. Environmental Protection Agency's (EPA) National Priorities List (NPL) in September 1983. Since that time, AR has been actively involved with EPA and the Montana Department of Environmental Quality (DEQ) in conducting investigations to determine the extent of contamination from historic smelting and associated processes. Numerous response actions have taken place to limit exposure, i.e., the 1984 and 1986 Administrative Orders on Consent relating to the demolition of the Washoe Reduction Works and Mill Creek resident relocation activities. Upon completion of numerous investigations and several Remedial Investigation and Feasibility Study Reports (RI/FS), EPA issued the ROD for the Anaconda Regional Water, Waste, and Soils Operable Unit, Anaconda Smelter NPL site, in 1998. The ROD contained water-quality standards for groundwater and surface-water sites. Groundwater standards are based upon the dissolved portion of the sample, while surface-water standards are based upon the total recoverable concentration.

Groundwater contaminants of concern (COC) standards listed in the ROD, based upon Circular DEQ-7 limits, are shown below:

COC	DEQ-7 Standard Drinking Water (1998 ROD)
Arsenic	18 µg/L
Beryllium	4 µg/L
Cadmium	5 µg/L
Copper	1,000 µg/L
Iron	300 µg/L
Lead	15 µg/L
Zinc	5,000 µg/L

Since the issuance of the ROD in 1998, DEQ-7 standards for arsenic, copper, and zinc have changed, based upon changes made nationwide by EPA. The 2008 arsenic and zinc standards are more stringent than those contained in the ROD, while the copper standard is less stringent.

The current DEQ-7 standards are shown for these three affected COCs:

COC	DEQ-7 Standard Drinking Water (2008 Standard)
Arsenic	10 µg/L
Copper	1,300 µg/L
Zinc	2,000 µg/L

The ROD listed the following COCs and their respective water-quality standard based upon Circular DEQ-7 for surface water:

COC	DEQ-7 Standard Surface Water (1998 ROD)
Arsenic	18 µg/L
Cadmium[1]	1.1 µg/L
Copper[1]	12.0 µg/L
Iron	300 µg /L
Lead[1]	3.2 µg/L
Zinc[1]	100 µg/L

[1]Cadmium, copper, lead, and zinc concentrations are calculated at a hardness of 100 mg/L $CaCO_3$ equivalent.

3.0 Description of Long-Term Groundwater Monitoring Program (LTGWMP)

The Monitoring Program described in the Short-Term Groundwater Monitoring (STGWM)-Sampling and Analysis Plan (SAP) Addendum No. 1 (Atlantic Richfield, 2009) consisted of the following components:

1. Groundwater-well monitoring, including the installation of new monitoring wells;
2. Groundwater expression (springs) sampling; and
3. Domestic well program, including the installation of new replacement wells.

Table 1.0-1 contains the 2010 groundwater monitoring wells and their sampling frequency. Plate 1 shows the locations of the 2010 monitoring sites. Prior to water-quality sampling, during each sampling event of the monitoring wells, a synoptic series of water levels from each well location was measured. Plates 2 and 3 show 2009 groundwater contours and flow direction based upon water-level monitoring during each sampling event; plate 2 is based on information from the 2009 low-flow event, while plate 3 is based on the 2009 high-flow event monitoring. Too few wells were monitored during the 2010 program to adequately produce new groundwater flow maps.

The following field parameters were measured during monitoring well sampling:

1. water level;
2. pH;
3. specific conductance (SC);
4. temperature;
5. oxidation-reduction potential (ORP); and
6. dissolved oxygen (DO).

Water-quality samples were collected from monitoring wells during both low-water and high-water conditions, with the exception of 10 wells that were sampled when groundwater levels exceeded a predetermined elevation. Water-quality samples were submitted to the MBMG analytical lab for analysis. Sample results from 2010 activities and previous sampling events are available through GWIC.

Low-water samples were timed to be collected during the period of lowest water levels, while high-water samples were collected during periods of peak, or maximum, water levels. Based upon historic water-level data, it was determined that low-water conditions occur from

February through April, while high-water conditions occur from June through August (Atlantic Richfield Company, 2009). The seven additional wells installed during 2009 were sampled during both 2010 events.

The 2010 sampling program consisted of a reduced subset of the sites listed in table 1.0-1 and shown in red. No springs or surface-water sites were sampled nor were the 12 monitoring wells yet installed within the Opportunity Ponds. The installation of those wells was delayed due to ongoing construction activities.

4.0 Monitoring Program—2010 Non-5-Year Review

The current groundwater and surface-water monitoring program contains sites divided among seven different geographical areas and describes the sampling frequency and location for each site. Sampling frequency is broken down into five categories: (1) semi-annual; (2) event-driven; (3) semi-annual 5 years after ground cover installed, then semi-annual every fifth year; (4) semi-annual every fifth year; and (5) annual every fifth year. The monitoring program was designed so that all monitoring sites are sampled every fifth year to coincide with the EPA Superfund 5-Year Site Review. The 2009 sampling program comprised the 5-year sample cycle; therefore the 2010 monitoring program consisted of the semi-annual, semi-annual for 5 years after cover established, and event-driven sites. The 2010 sites are contained within only three of the seven geographical areas; the number of wells and springs in each area sampled during 2010 is shown in Table 4.0-1. The geographic areas correspond to RDU's Waste Management Areas (WMAs) or Technical Impracticability (TI) zones. Monitoring results are discussed based upon their geographical area.

Table 4.0-1. Breakdown of monitoring wells and springs by geographic area sampled in 2010.

Geographic Area	No. of Wells	No. of Springs
Opportunity Ponds/Smelter Hill WMA	12	0
Old Works WMA	14	0
South Opportunity/ Yellow Ditch Area of Concern (AOC)	7	0
Total number	33	0

4.1 Smelter Hill/Opportunity Ponds Waste Management Area

The Smelter Hill/Opportunity Ponds WMA contains 44 wells, 12 of which were part of the 2010 monitoring program monitoring (fig. 4.1-1). An additional 12 wells have not yet been installed. All but one of the 2010 monitoring wells are located within the Opportunity Ponds portion of the WMA, including the 12 wells still to be installed. The 12 wells are located in areas under construction/reclamation; wells will be installed once work is complete. Currently there is one pair of nested wells within this WMA. Table 4.1-1 lists well information and COCs for this group of wells. Wells within this WMA have a broader list of primary COCs, including cadmium (Cd), copper (Cu), lead (Pb), and zinc (Zn). Table 4.1-2 contains a summary of water type, 2010 arsenic concentrations, and general water-quality conditions for wells in this WMA; appendix A contains water-quality results from 2010 sampling activities.

4.1.1 Smelter Hill/Opportunity Ponds Well Water-Quality Results

The Smelter Hill/Opportunity Ponds portion of this WMA contains 24 potential monitoring wells; however, wells have not been installed at 12 locations due to continued reclamation activities. All of the current wells are installed in valley-fill material. During the 2010 sampling program, samples were collected from 12 wells. Arsenic exceeded DEQ-7 standards in 2 wells. Iron and manganese exceeded standards in 4 and 5 wells, respectively.

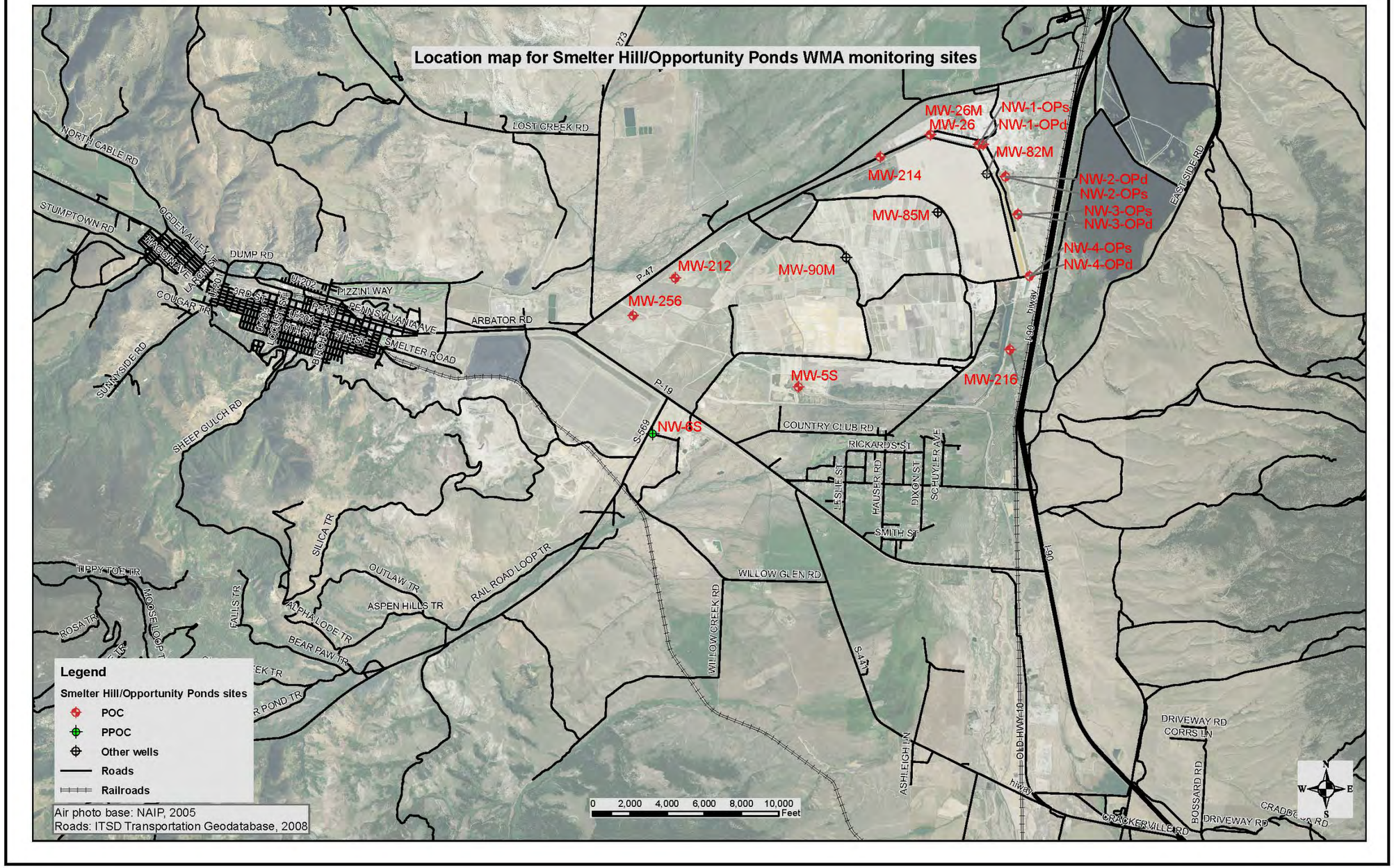

Figure 4.1-1. Location map for Smelter Hill/Opportunity Ponds WMA.

Table 4.1.1. Smelter Hill/Opportunity Ponds Waste Management Area monitoring wells.

Well ID	GWIC ID	Total Depth (ft)	Screen Interval (ft)	Water-Quality Analytes
Smelter Hill Sites				
NW-6S	249909	98	78–98	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
Opportunity Ponds Sites				
MW-212	138007	62	39.3–53.7	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-214	138065	15	5.6–15	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-216	137957	15	5–14.3	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-256	249851	95	75–94.7	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-26	249793	15	5–15	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-26M	249790	71	60.5–70.5	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-31	249794	15	5–15	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-31M	249785	88.5	78–88	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-82	249840	50	40–50	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-82M	249896	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-85	249843	56	45–55	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-85M	249897	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-90	249844	66	56–66	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-90M	249899	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-5S	249942	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-1-OPs	249901	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-1-OPd	249900	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-2-OPs	249904	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-2-OPd	249903	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-3-OPs	249906	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-3-OPd	249905	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-4-OPs	249908	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
NW-4-OPd	249907	New well		As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness

Table 4.1-2. Smelter Hill/Opportunity Ponds Waste Management Area monitoring well summary.

Well ID	Screen Interval (ft)	Water Type	2010 Low-Water Arsenic (µg/L)	2010 High-Water Arsenic (µg/L)	Long-Term Average Arsenic (µg/L)	Comment
Smelter Hill Site						
NW-6S	78–98	Ca-HCO_3	0.69	0.69	0.67	Well installed spring 2009—No DEQ-7 exceedances.
Opportunity Ponds Sites						
MW-212	39.3–53.7	Ca-HCO_3	0.69	0.65	1.15	No COC exceedances; slight As decline over time.
MW-214	5.6–15	Ca-SO_4	0.99	1.05	1.52	No COC exceedances; slight As decline over time.
MW-216	5–14.3	Ca-SO_4	1.99	2.20	3.69	No COC exceedances.
MW-256	75–94.7	Ca-HCO_3	0.62	0.54	0.87	No COC exceedances; slight As decline over time.
MW-26	5–15	Ca-SO_4	0.59	0.40	1.26	Fe and Mn exceed DEQ-7 standards. Slight As decrease over time; no seasonal trend.
MW-26M	60.5–70.5	Ca-SO_4	0.70	0.60	1.16	Mn COC exceeded DEQ-7 standard. Highest As concentrations usually during high-water sampling events.
MW-31	5–15	Ca-SO_4	3.5	4.13	2.21	No COC exceedances or seasonal trends.
MW-31M	78–88	Ca-SO_4	1.57	1.59	1.77	No COC exceedances. Long-term As concentration decreasing, no seasonal trend.
MW-82	40-50	Ca-SO_4	0.88	0.73	2.63	Fe and Mn exceed DEQ-7 standards.
MW-85	45–55	Ca-SO_4	62.4	61.6	66.6	Limited data. Fe, Mn, and As exceed DEQ-7 standards.
MW-90	56–66	Ca-SO_4	183	183	235	Fe, Mn, and As exceed DEQ-7 standards. Slight As decrease over time; no seasonal trend.

Well NW-6S was installed during 2009 and is located to the east (downgradient) of the East Anaconda Tailings Pond. The well is 98 ft deep with the screened interval from 78 to 98 ft. It is completed in valley-fill material (table 4.1-1). Arsenic concentrations were below 1 µg/L, while the other COCs were below DEQ-7 standards.

Wells MW-212 and MW-256 are upgradient of current reclamation activities. Well depths vary from 50 to 90 ft within the valley-fill material (table 4.1-1). The long-term average arsenic concentrations were well below DEQ-7 standards (fig. 4.1-2). None of the other COCs were exceeded in the 2010 samples for these two wells.

Groundwater samples were collected three times each in 1992 and 1993 and once in 1995 from well MW-212. Samples have been collected semi-annually since 2000 from this well. MW-256 has a shorter period of record, with the first sample collected in 2004 and semi-annually from 2005 to 2010.

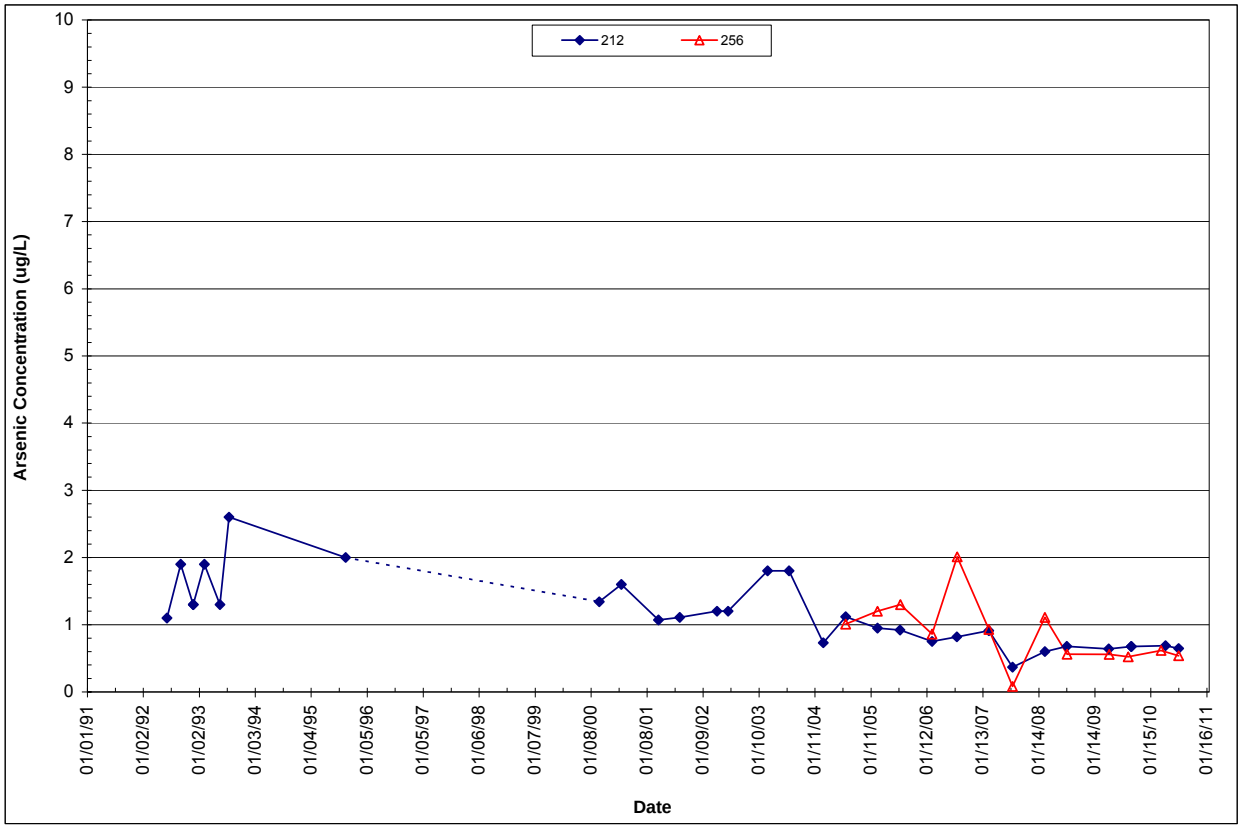

Figure 4.1-2 Arsenic concentrations over time for wells MW-212 and MW-256, located in the Opportunity Ponds.

Well MW-214 is located along the northeast boundary of the Opportunity Ponds WMA at depth of 15 ft (fig. 4.1-1). Water-quality samples were collected three times each in 1992 and 1993 and semi-annually since 2000. Arsenic and COC concentrations were well below DEQ-7 standards in all samples (fig. 4.1-3).

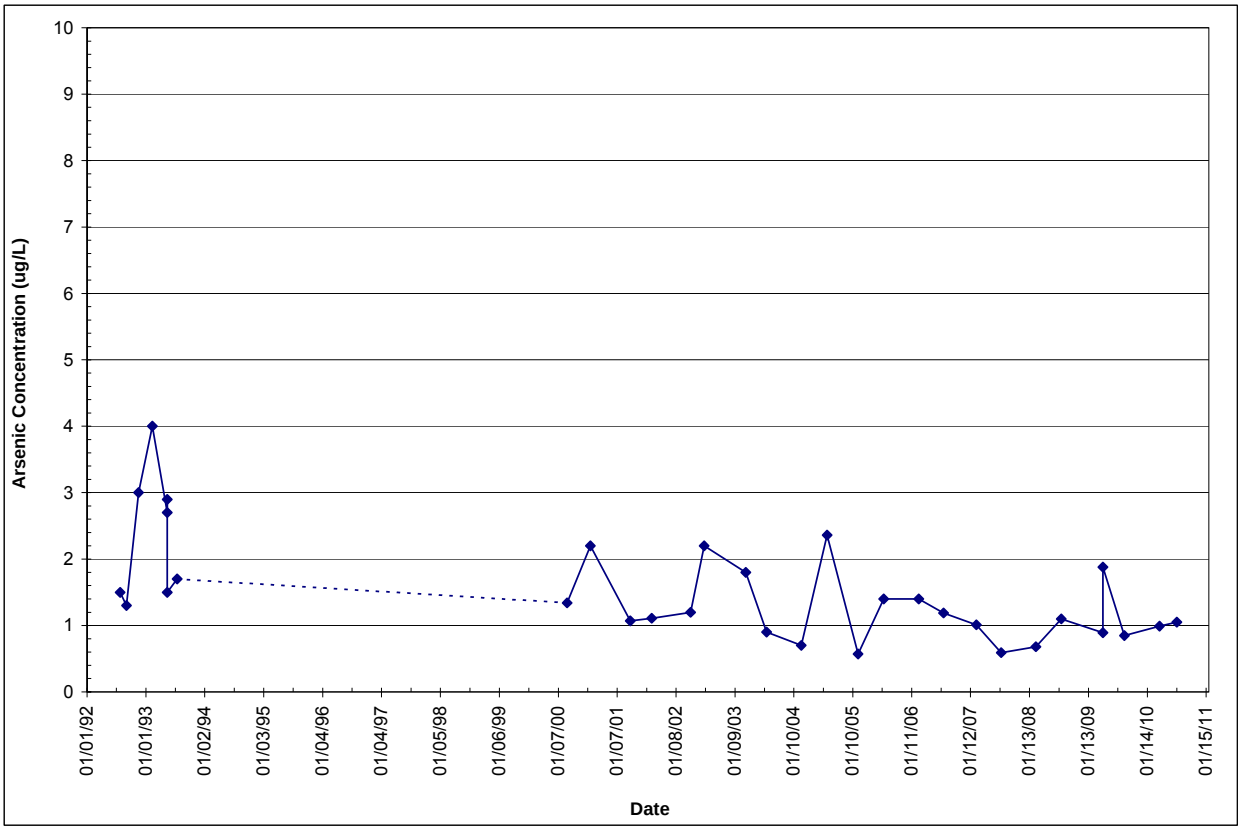

Figure 4.1-3. Arsenic concentrations over time for well MW-214, located in the Opportunity Ponds.

Wells MW-26 and MW-26M are nested wells, located in the far northeast corner of the WMA (fig. 4.1-1). Well MW-26 is a shallow well (screened interval from 5 to 15 ft), while MW-26M was completed moderately deep (screened interval 60–70 ft; table 4.3-2). Both wells have a similar water type (Ca-SO_4), with arsenic concentrations below DEQ-7 standards (fig. 4.1-4). Iron and manganese concentrations exceeded DEQ-7 standards in well MW-26, while manganese concentrations exceeded standards in well MW-26M in the 2010 samples. Groundwater samples were first collected in 1985 (twice) and semi-annually from 2000 to 2010 in well MW-26; the first samples were collected in 1995 (twice) from well MW-26M, followed by semi-annual samples since 2000.

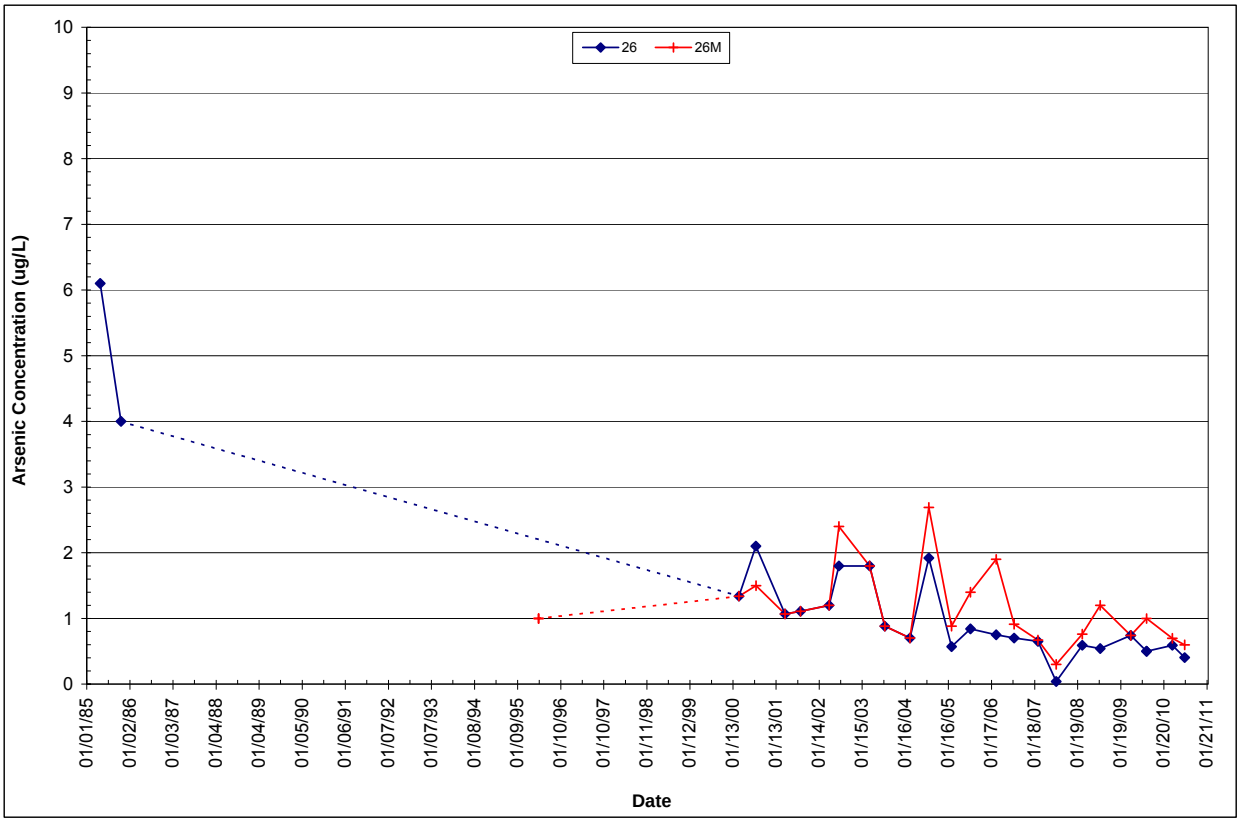

Figure 4.1-4. Arsenic concentrations over time for nested wells MW-26 and MW-26M, located in the Opportunity Ponds.

Wells MW-90 and MW-85 are located in the north-central area of the Opportunity Ponds WMA, at the toe of cells B-2 and C-2, respectively, separating different cells (fig. 4.1-1). Both wells were completed (screened) in the 45–65 ft range and have a similar water type (Ca-SO_4; table 4.1-2). Arsenic, iron, and manganese concentrations exceeded DEQ-7 standards in the long-term average for both wells.

Well MW-90 had a noticeable downward trend in arsenic concentrations, while there are too few samples from well MW-85 to determine a trend (fig. 4.1-5). Well MW-85 was sampled twice in 1985 and semi-annually since 2009, while well MW-90 was sampled twice in 1985, three times in 1991, four times in 1992, three times in 1993, and semi-annually from 2000 to 2010.

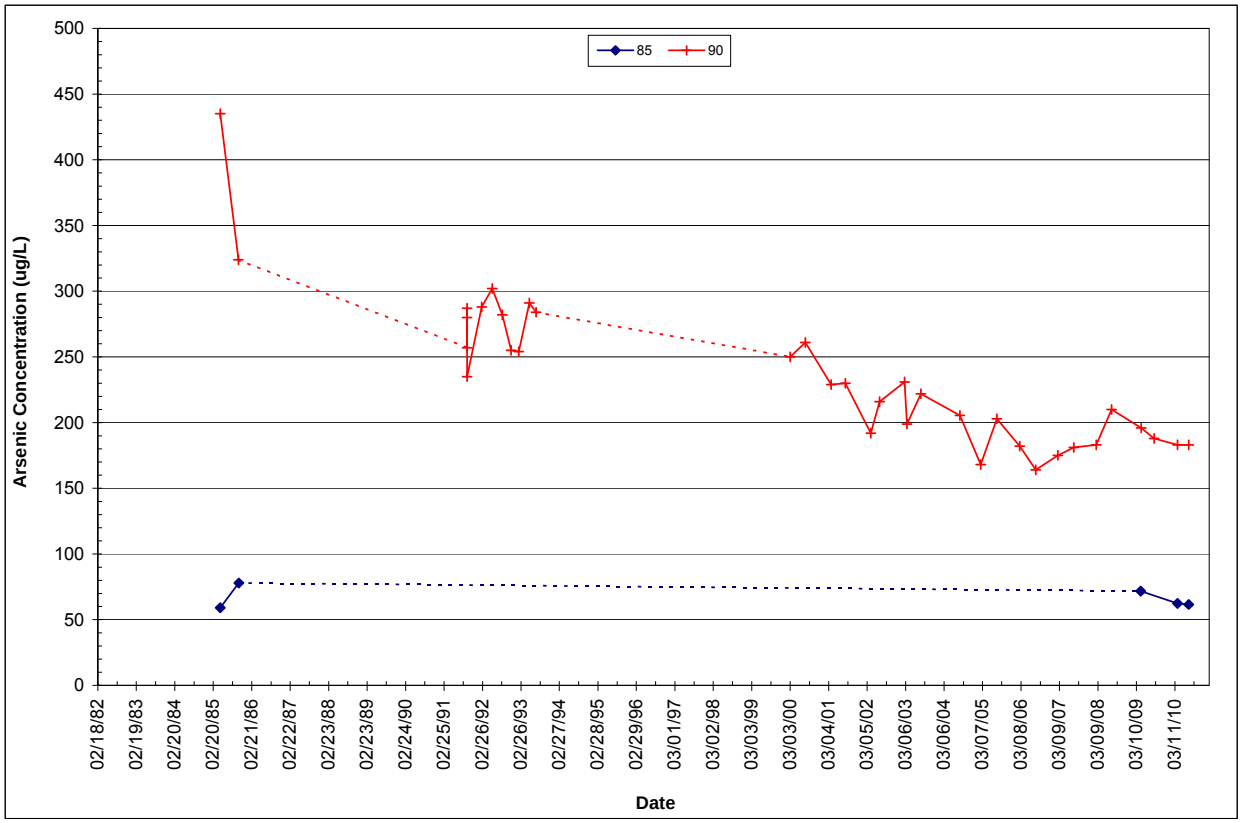

Figure 4.1-5. Arsenic concentrations over time for wells MW-85 and MW-90, located in the Opportunity Ponds.

Wells MW-82, MW-31, MW-31M, and MW-216 are located on the north and northeast end of the ponds at the base of cells D-1 and D-2. Wells MW-31 and MW-216 are shallow-completed wells, with screen intervals between 5 and 15 ft; wells MW-82 and MW-31M are completed at depths from 40 to 50 ft and 78 to 88 ft, respectively (table 4.1-2). Wells MW-31 and MW-31M are a nested pair. All four wells have a similar water type, Ca-SO_4. Iron and manganese exceeded standards in well MW-82; none of the COCs were exceeded in the 2010 samples in the other three wells. Long-term arsenic concentrations are shown in figures 4.1-6 and 4.1-7. With one exception, groundwater samples have been collected with the same frequency in wells MW-31 and MW-82: two samples in 1985 and semi-annually since 2000. Well MW-31M had semi-annual samples collected in 1995 and from 2000 through 2010, while well MW-216 had three samples collected in 1992, two in 1993, and twice yearly from 2000 to 2010.

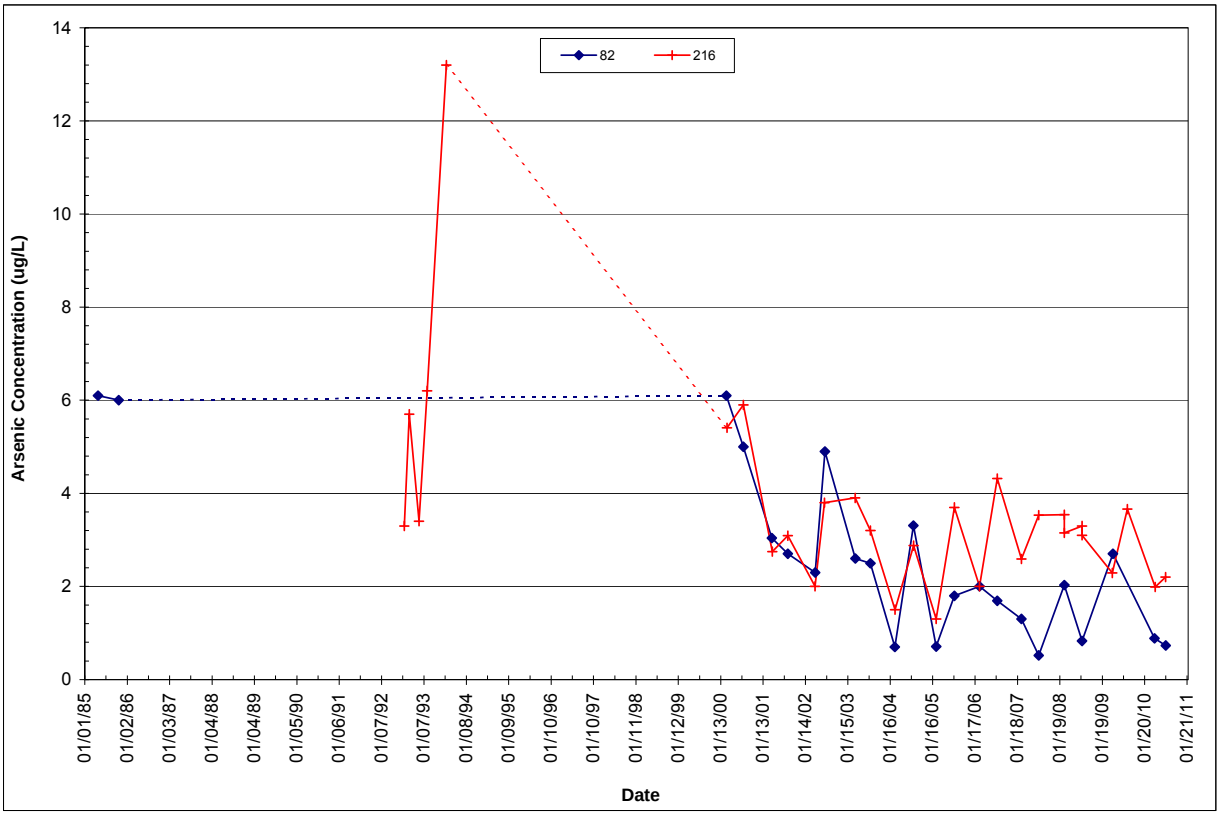

Figure 4.1-6. Arsenic concentrations over time for wells MW-82 and MW-216, located in the Opportunity Ponds.

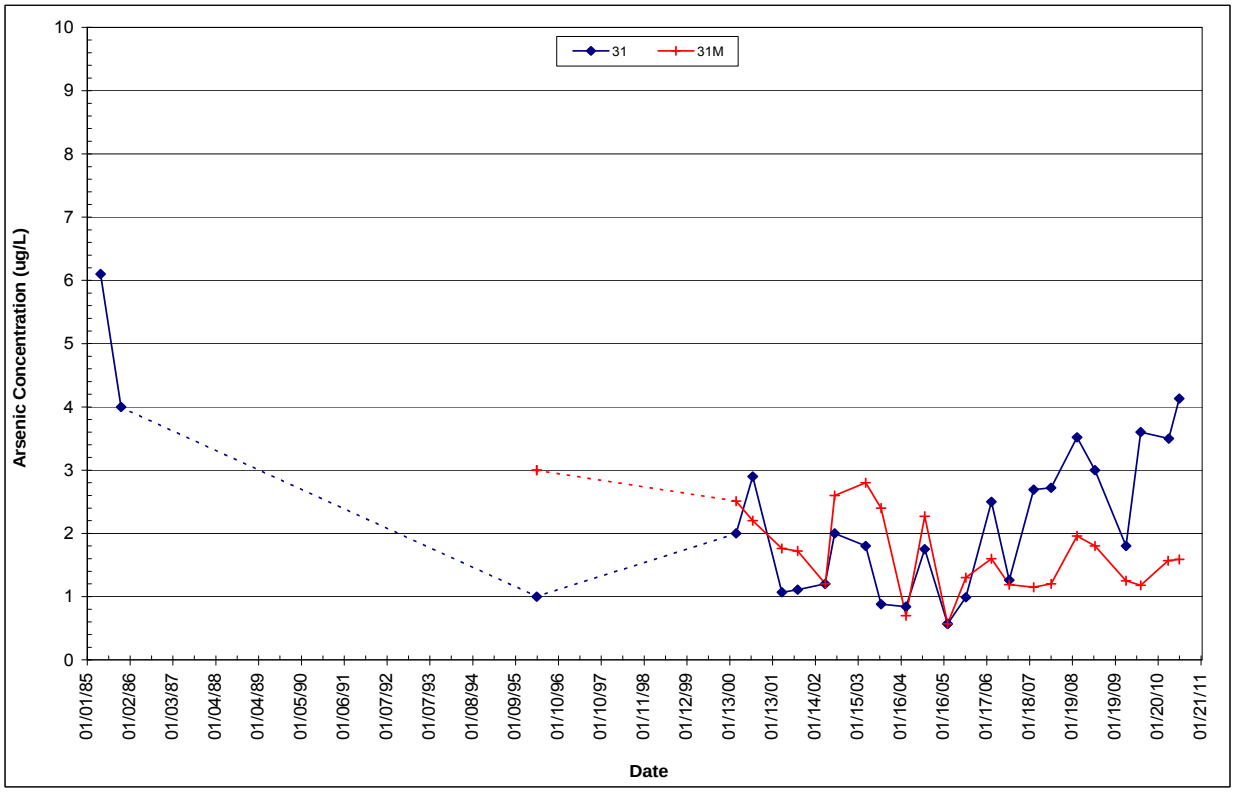

Figure 4.1-7. Arsenic concentrations over time for wells MW-31 and MW-31M, located in the Opportunity Ponds.

Groundwater wells within the Opportunity Ponds portion of the Smelter Hill/Opportunity Ponds WMA exhibit two different water types, Ca-HCO_3 and Ca-SO_4. The wells that would be considered upgradient of the ponds are characterized as Ca-HCO_3 water and have very low concentrations of arsenic and the other COCs. The other nine wells are Ca-SO_4 type waters, indicating an influence from mining and smelting wastes. This WMA contains seven POC wells whose water-quality concentrations were all below DEQ-7 standards. Arsenic concentrations exceeded DEQ-7 standards in two wells, both of which are in the interior of the pond system (MW-85 and MW-90). Iron and/or manganese concentrations exceeded DEQ-7 standards in a total of 5 wells. None of the other COCs exceeded standards.

4.1.2 Smelter Hill/Opportunity Ponds Groundwater-Level Observations

This site contains the greatest number of monitoring wells, distributed between Smelter Hill to the southwest of Highway 1 and the Opportunity Ponds to the northeast of Highway 1 (fig. 4.1-1). Monitoring activities during 2010 consisted of one site associated with the Smelter Hill portion of the WMA, with the remainder of the sites within the Opportunity Ponds portion of the WMA. Table 4.1-3 shows the net water-level variations for the wells in this WMA. Changes range from a rise of 8 ft in the Smelter Hill well (NW-6S), to a decline of almost 4.2 ft, to a rise of 18 ft in the Opportunity Ponds wells.

Plates 2 and 3 show the general groundwater flow direction for the spring (low-water) and summer (high-water) sampling events (2009 data). Groundwater flows from the south to the north on the west side of Smelter Hill and from the southwest to the northeast on the east side of Smelter Hill. Once it reaches the valley floor it takes a more west to east and southwest to northeast flow direction, paralleling Warm Springs Creek.

Table 4.1-3. Smelter Hill/Opportunity Ponds WMA 2010 monitoring well summary and net water-level change.

Well ID	Total Depth (ft)	Screen Interval (ft)	Aquifer	Net Water-Level Change (ft)
Smelter Hill Sites				
NW-6S	98	78–98	Valley-fill coarse	8.26
Opportunity Pond Sites				
MW-212	62	39.3–53.7	Valley-fill coarse	18.71
MW-214	15	5.6–15	Valley-fill coarse	-0.07
MW-216	15	5–14.3	Valley-fill coarse	-1.13
MW-256	95	75–94.7	Valley-fill med-fine	12.42
MW-26	15	5–15	Valley-fill coarse	-4.12
MW-26M	71	60.5–70.5	Valley-fill med-fine	0.03
MW-31	15	5–15	Valley-fill coarse	-2.42
MW-31M	88.5	78–88	Valley-fill med-fine	-0.56
MW-82	50	40–50	Valley-fill coarse	-3.86
MW-82M	New well			—
MW-85	56	45–55	Valley-fill coarse	-1.89
MW-85M	New well			—
MW-90	66	56–66	Valley-fill coarse	-1.85
MW-90M	New well			—
NW-1-OPs	New well			—
NW-1-OPd	New well			—
NW-2-OPs	New well			—
NW-2-OPd	New well			—
NW-3-OPs	New well			—
NW-3-OPd	New well			—
NW-4-OPs	New well			—
NW-4-OPd	New well			—
MW-5s	New well			—

Well NW-6S was installed in 2009 and therefore has limited water-level data. No trend is reliable based upon such few measurements; however, information contained in the 2009 report (Duaime and Icopini, 2011) showed that water levels begin to rise in March, reaching their peak in late July, before declining through late summer and winter. This trend is harder to depict in wells with semi-annual measurements (fig. 4.1-8).

The Opportunity Ponds are downgradient from the Smelter Hill site and the regional groundwater flow direction is from the west to the northeast (plate 3). Of the 11 wells in the pond area, 8 are completed in the coarse valley-fill material, while the others are completed in the medium fine-grained fill. Wells along the southwest side of the ponds have exhibited the largest net water-level increase, ranging between 12 and 18 ft (fig. 4.1-9). Wells located along the toe of various cells within the pond system have exhibited the greatest water-level decline, ranging from 2 to 4 ft over time (fig. 4.1-10). This may be reflective of ongoing reclamation and capping activities in this portion of the site.

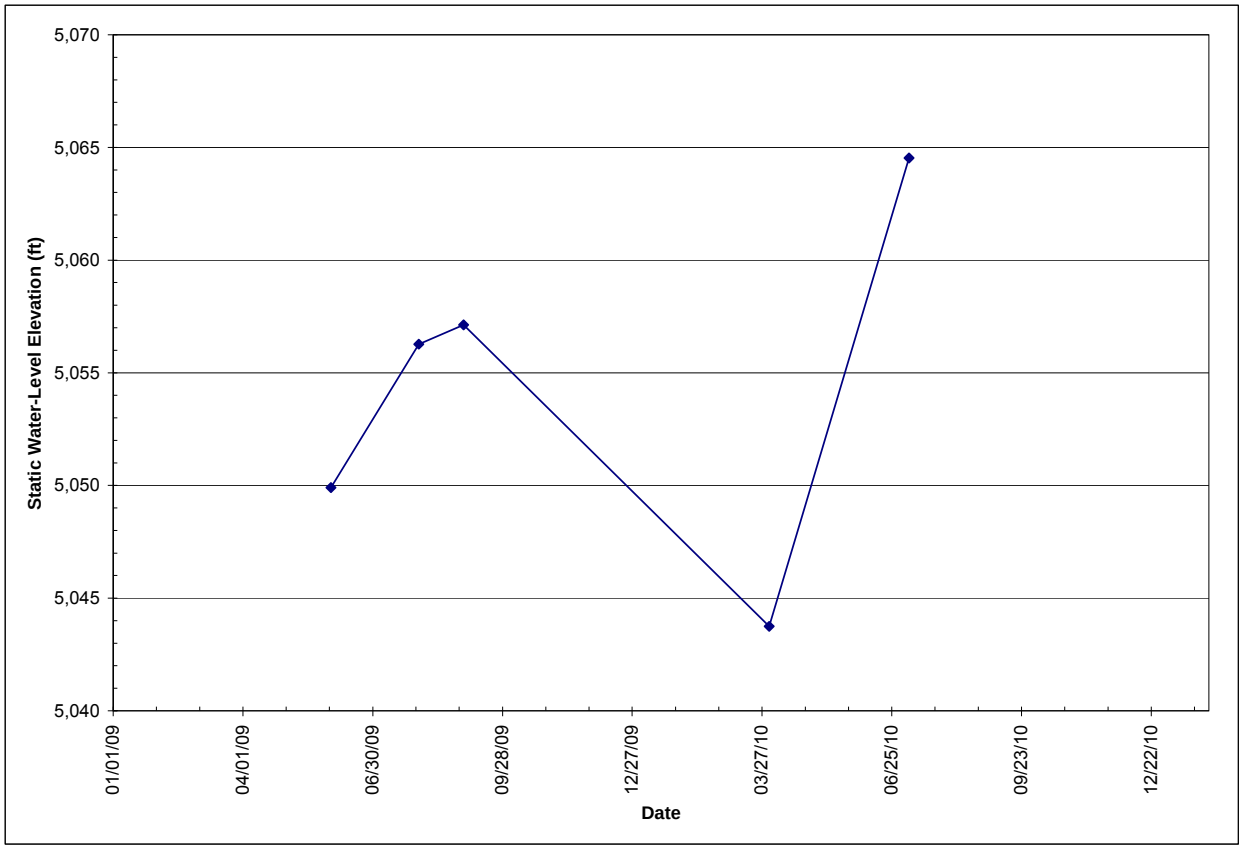

Figure 4.1-8. Water-level hydrograph for well NW-6S based upon semi-annual water-level measurements, 2009–2010.

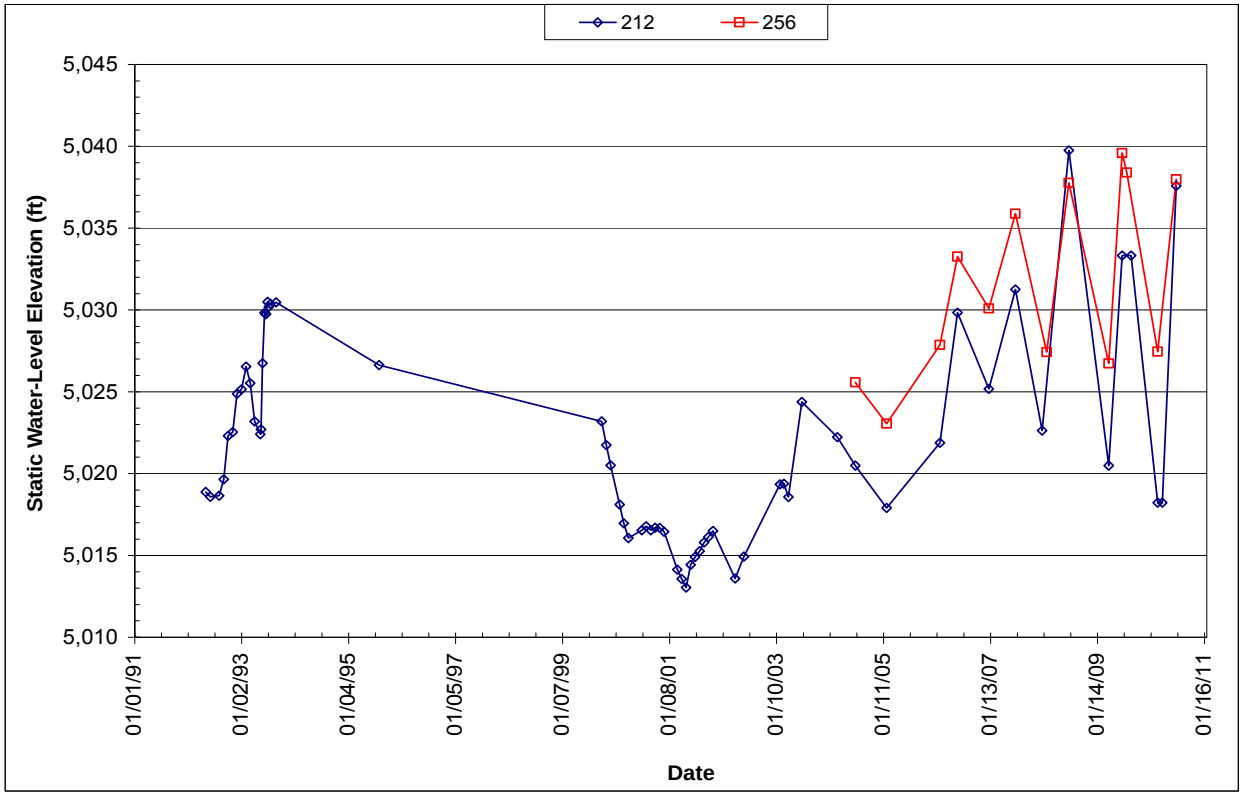

Figure 4.1-9. Water-level hydrographs for wells MW-212 and MW-256, located upgradient of the Opportunity Ponds.

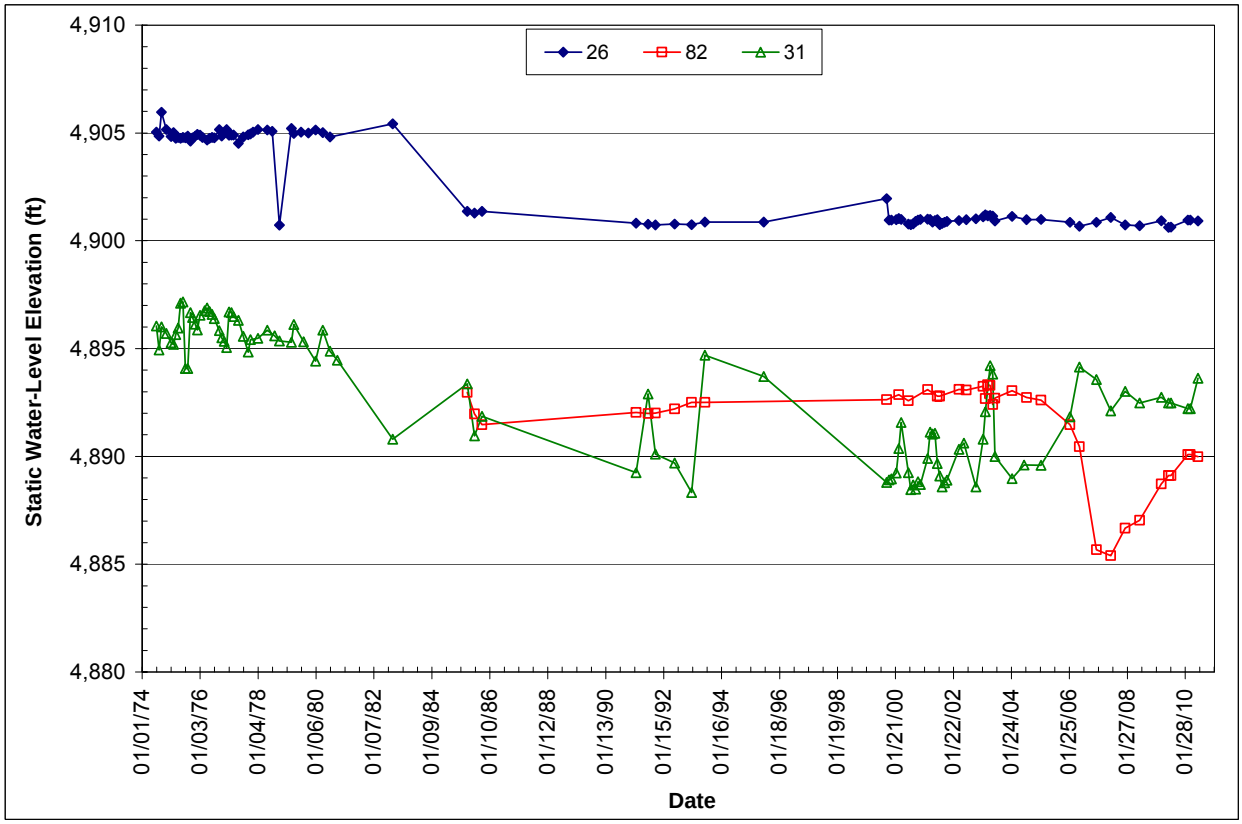

Figure 4.1-10. Water-level hydrographs for wells MW-26, MW-82, and MW-31, located along the northeast toe of the Opportunity Ponds.

4.2 Old Works Waste Management Area

The Old Works WMA contains 20 wells, 14 of which were monitored in 2010 (fig. 4.2-1), all completed in valley-fill. Major features within the WMA are: Old Works Golf Course, former Arbiter Plant, Anaconda–Deer Lodge Landfill, wastewater treatment plant, and Lost Creek Raceway. There is waste from the historic Old Works Smelter within the approximate 2.2 square miles that constitute the WMA.

Table 4.2-1 contains a listing of wells within the WMA monitored in 2010, along with well completion details and a listing of COCs for this group of wells. Four wells (POCs) were monitored during both 2010 sample events while the other 10 wells were sampled during event-driven monitoring (high water). Additional sampling of selected site wells is required when the water level reaches a predetermined elevation in monitoring well MW-213. This is discussed in section 4.2.3.

The COCs for this group of wells is more comprehensive and includes Cd, Cu, Pb, and Zn. Due to the nature of waste and historic processing facilities, Cd levels are a concern during periods of increased water levels. Table 4.2-2 contains a general summary of water-quality conditions for each of the wells within the WMA. Arsenic concentrations for the 2010 sampling are shown, along with the long-term average for each well. COCs that exceeded DEQ-7 water-quality standards are also noted. Appendix B contains 2010 water-quality data for sites in this WMA. The WMA contains one nested pair of wells.

4.2.1 Old Works Wells Water-Quality Results

Arsenic concentrations were below DEQ-7 standards in both 2010 sample events and the long-term average for all wells in this WMA. However, cadmium concentrations exceeded the standard in the long-term average for four wells and in the 2010 sample results. Copper concentrations exceeded the standard in one well for both the long-term average and the 2010 sample, while zinc concentrations exceeded the standard in one 2010 sample and the long-term average in one well.

Figure 4.2-1. Location map for Old Works Waste Management Area monitoring sites.

Table 4.2-1. Old Works Waste Management Area monitoring wells, 2010.

Well ID	GWIC ID	Total Depth (ft)	Screen Interval (ft)	Water-Quality Analytes
Old Works				
IW-01	250038	46	22–42	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-204	250041	44.5	32–42	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-206	250042	50	28–43	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-206d	254054	76	53–73	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-207	250043	103	77–92	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-208	250044	70	47–67	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-209	250045	70	49–69	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-213	138022	42	31–41	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-240	250047	87	77–87	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-241	250048	60	50–60	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-242	250049	67	57–67	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-251	250014	77	55–75	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-252	249797	76	55–75	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-255	250055	95	75–95	As, Cd, Cu, Pb, Zn, Ca, Mg, Na, K, Fe, Mn, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness

Table 4.2-2. Old Works Waste Management Area water-quality summary.

Well ID	GWIC ID	Screen Interval (ft)	Water Type	2010 Low-Water Arsenic (µg/L)	2010 High-Water Arsenic (µg/L)	Long-Term Average Arsenic (µg/L)	Comment
Old Works							
IW-01(EDW)	250038	22–42	Ca-SO_4	—	0.83	1.05	
MW-204(EDW)	250041	32–42	Ca-HCO_3	—	0.62	1.23	
MW-206(EDW)	250042	28–43	Ca-HCO_3	—	0.56	1.31	Cd exceeded DEQ-7 standards.
MW-206d(EDW)	254054	53–73	Ca-HCO_3	—	0.54	1.02	Cd exceeded DEQ-7 standards.
MW-207	250043	77–92	Ca-HCO_3	0.81	0.77	1.18	
MW-208(EDW)	250044	47–67	Ca-HCO_3	—	0.70	1.32	
MW-209(EDW)	250045	49–69	Ca-HCO_3	—	0.37	1.10	Cd exceeded DEQ-7 standards.
MW-213(EDW)	138022	31–41	Ca-SO_4	—	<0.20	1.00	Cd 6.87 ppb during event sampling. Cd, Cu, and Zn averages exceeded DEQ-7 standards. Cu and Mn exceeded standards in 2010 sample.
MW-240(EDW)	250047	77–87	Ca-HCO_3	—	0.72	0.87	
MW-241(EDW)	250048	50–60	Ca-HCO_3	—	0.35	0.82	
MW-242(EDW)	250049	57–67	Ca-HCO_3	—	0.46	0.87	
MW-251	250014	55–75	Ca-SO_4	0.48	0.42	0.83	
MW-252	249797	55–75	Ca-HCO_3	0.49	0.44	0.70	
MW-255	250055	75–95	Ca-HCO_3	0.77	0.71	0.76	

Note. EDW, well sampled when triggered by water-level elevation in MW-213.

Well MW-207 is located in the southeast corner of this WMA and is completed at intermediate depth with screen intervals between 77 and 92 ft. The well has a Ca-HCO_3 water type with no COC exceedances in the 2010 samples or long-term averages. Arsenic concentrations exhibited occasional seasonal variations; since 2008, seasonal variations have not occurred and concentrations have been consistently less than 1 µg/L (fig. 4.2-2). Samples were collected once each in 1991 and1995, with samples collected three times a year in 1992 and 1993. Beginning in 2000 through 2010, samples were collected semi-annually.

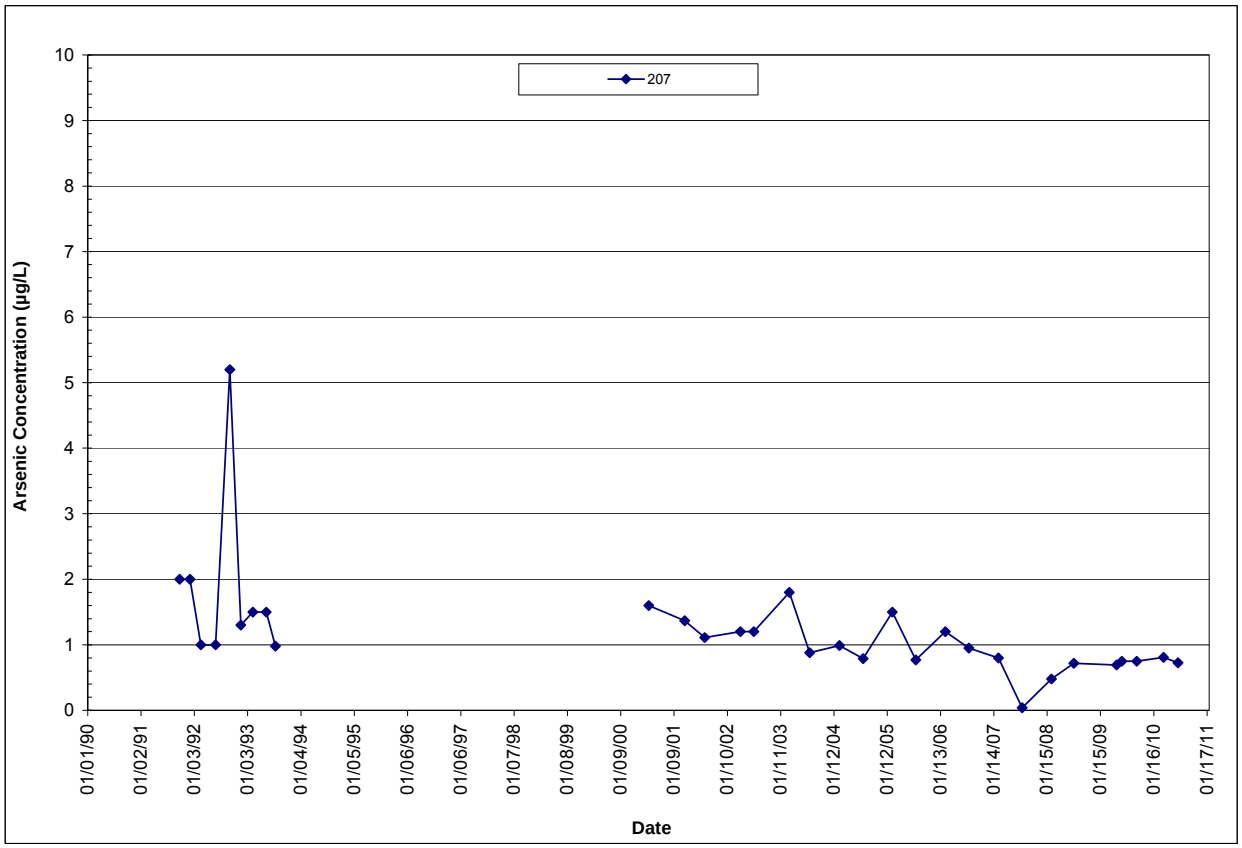

Figure 4.2-2. Arsenic concentrations over time for well MW-207.

Well MW-251 is located in the northeast corner of the Lost Creek Raceway and is completed at a depth of 77 ft, with the screen interval between 55 and 75 ft. The well water has a Ca-SO_4 type water. Figure 4.2-3 shows arsenic concentrations over time. None of the COC concentrations in well MW-251 exceeded DEQ-7 standards.

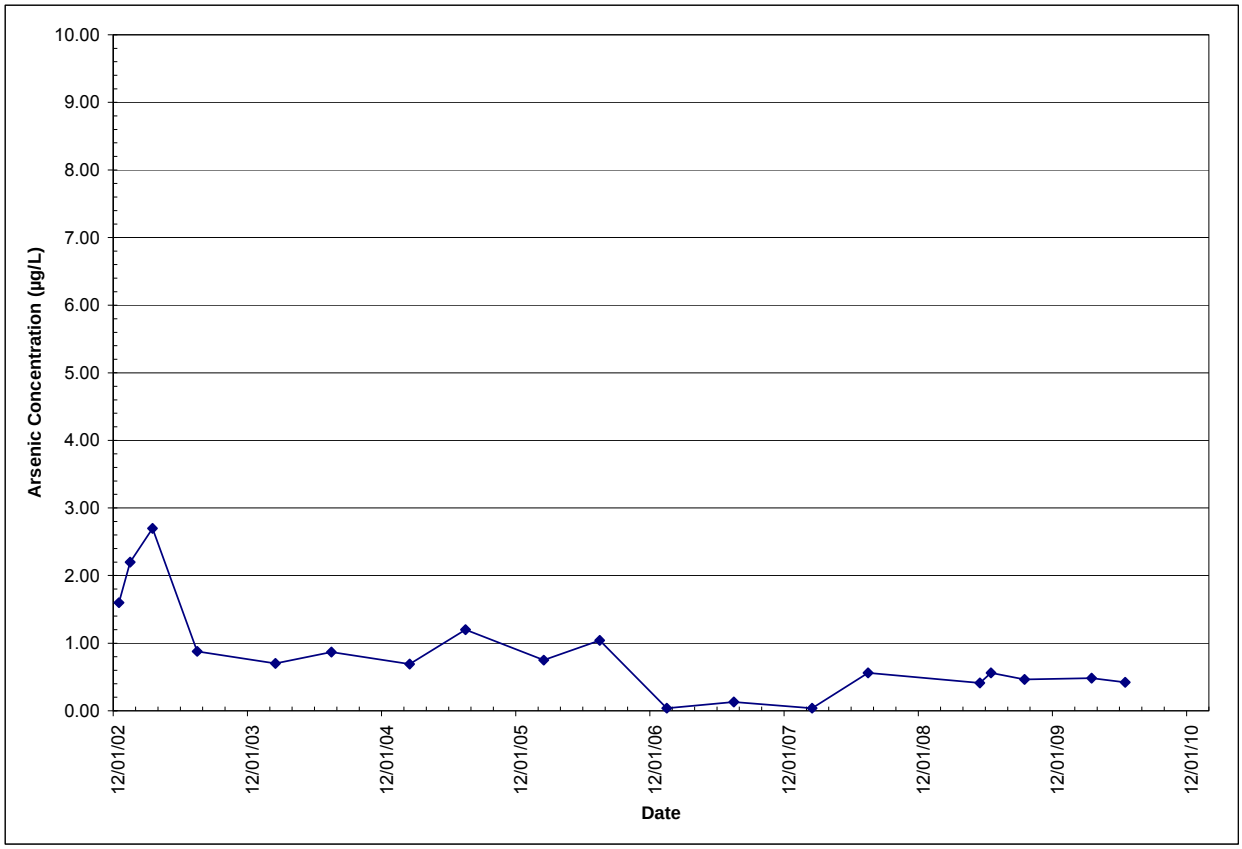

Figure 4.2-3. Arsenic concentrations over time for well MW-251.

Wells MW-252 and MW-255 are located on the far east side of the WMA on the east side of secondary highway 273 (fig. 4.2-1). Well MW-252 is completed at a depth of 76 ft (screen interval 55–75 ft), while well MW-255 is completed at a depth of 95 ft (screen interval 75–95 ft; table 4.2-2). Both wells are Ca-HCO_3 type water and have no COCs above standards. Figure 4.2-4 shows long-term arsenic concentrations for these wells. Well MW-252 was sampled once in 2002 and semi-annually from 2003 to 2010, while well MW-255 has been sampled semi-annually from 2004 to 2010.

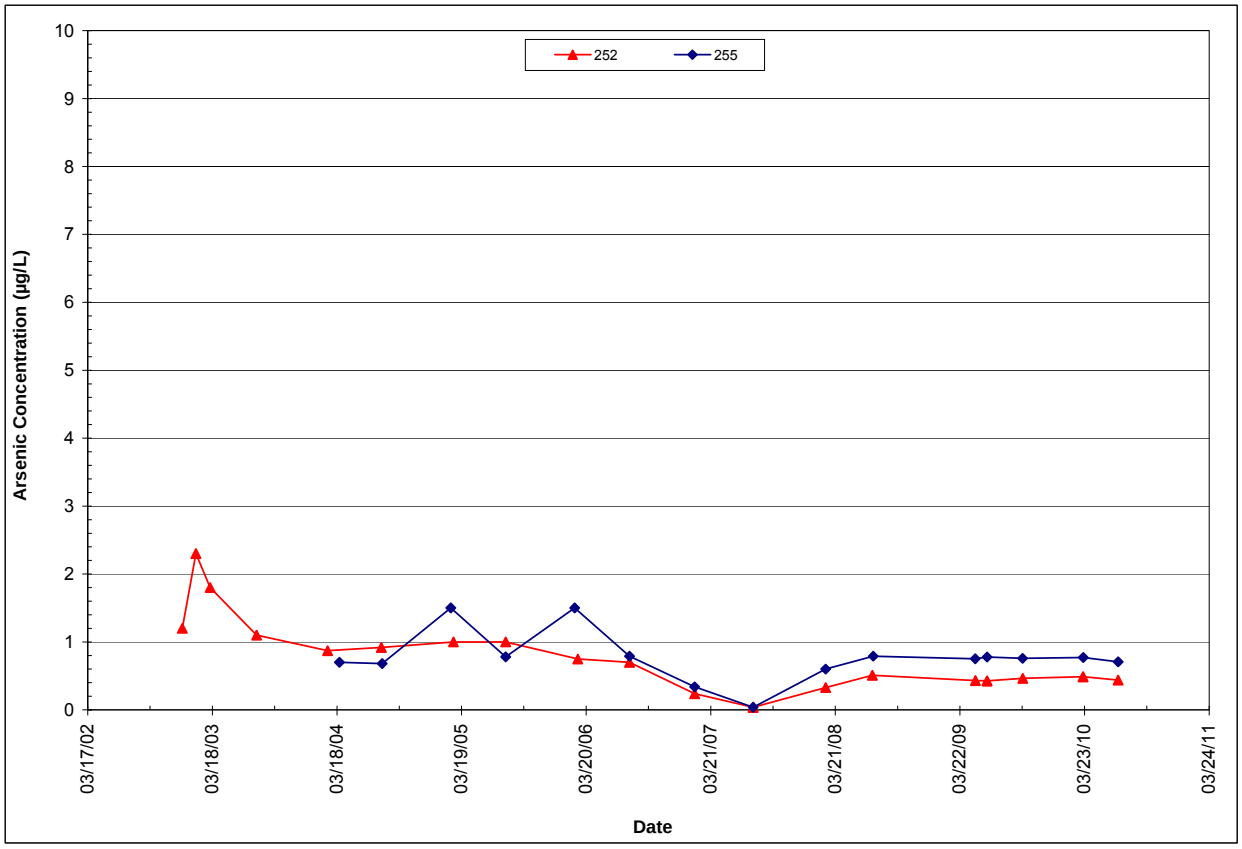

Figure 4.2-4. Arsenic concentrations over time for wells MW-252 and MW-255.

Arsenic concentrations in the Old Works WMA POC wells were well below DEQ-7 standards, with the maximum 2010 concentration being 0.81 µg/L. No COC exceedances were noted in any of the four POC wells.

4.2.2 Old Works Groundwater Levels

Warm Springs Creek crosses this WMA and is the major hydrologic feature. Groundwater flow direction is typically parallel to the creek (west to east) except during periods of high stream flow when the creek becomes a losing stream from the Red Sands area east (plates 2 and 3).

Water levels have a net increase in 3 of the 4 POC wells within this WMA (table 4.2-3). Net water-level increases range from a decrease of 1.8 ft to an increase of more than 22 ft. The largest water-level increases occur in wells on the east and northeast portion of the site.

Figures 4.2-5 and 4.2-6 show long-term water-level fluctuations for wells on the southeast (MW-207 and MW-255) and northeast (MW-251 and MW-252) portions of the site. Water levels show considerable variation between low-water and high-water sample events, with fluctuations ranging from 5 to 20 ft during 2010.

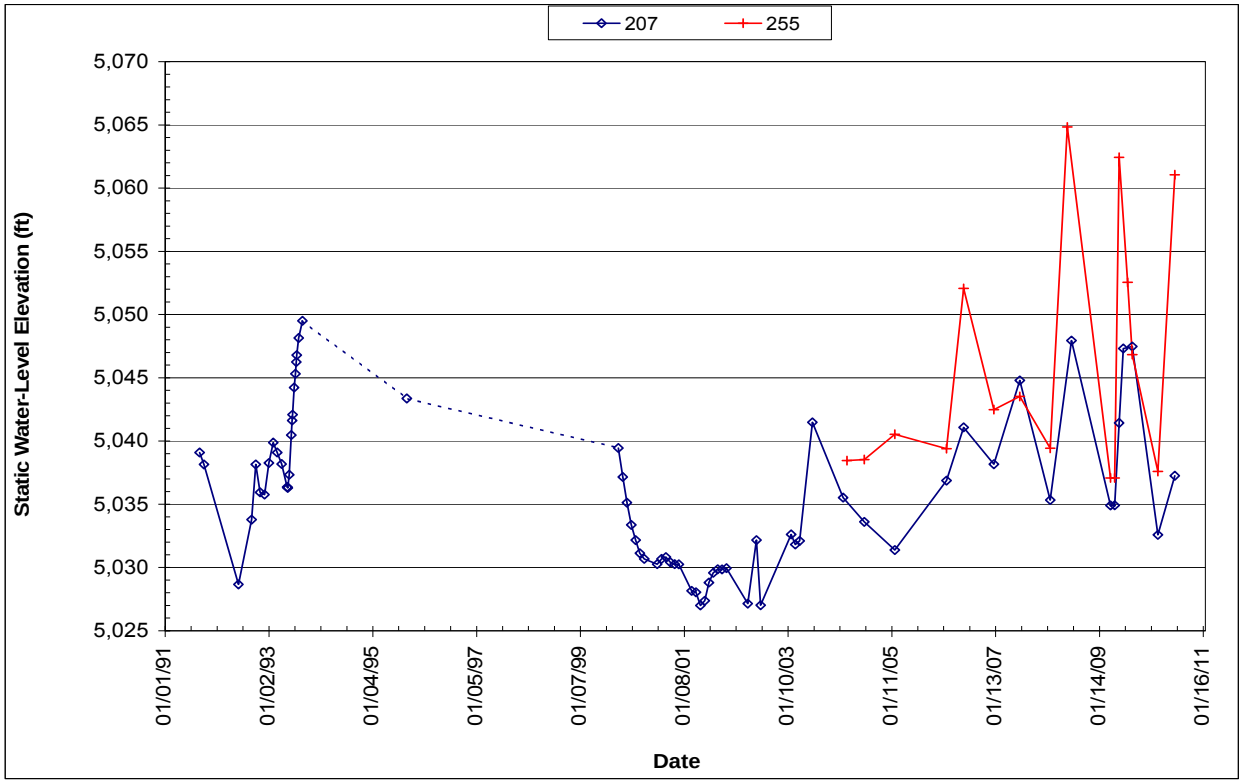

Figure 4.2-5. Water-level hydrographs for wells MW-207 and MW-255, located in the southeast corner of the Old Works WMA.

Figure 4.2-6. Water-level hydrographs for wells MW-251and MW-252, located in the northeast portion of the Old Works WMA.

Table 4.2-3. Net water-level changes for Old Works monitoring wells, 2010.

Old Works

Well ID	Total Depth (ft)	Screen Interval (ft)	Aquifer	Net Water-Level Change (ft)
IW-01	46	22–42	Valley-fill med-fine	NA
MW-204	44.5	32–42	Valley-fill coarse	3.64
MW-206	50	28–43	Valley-fill coarse	3.63
MW-206d	76	53–73	Valley-fill med-fine	4.15
MW-207	103	77–92	Valley-fill med-fine	-1.84
MW-208	70	47–67	Valley-fill coarse	15.35
MW-209	70	49–69	Valley-fill med-fine	7.68
MW-213	42	31–41	Valley-fill med-fine	-1.70
MW-240	87	77–87	Valley-fill med-fine	3.45
MW-241	60	50–60	Valley-fill med-fine	9.88
MW-242	67	57–67	Valley-fill coarse	9.87
MW-251	77	55–75	Valley-fill coarse	13.31
MW-252	76	55–75	Valley-fill coarse	17.88
MW-255	95	75–95	Valley-fill coarse	22.60

Note. NA, not available.

4.2.3 Event-Driven Monitoring

The 2009 Monitoring Program had an added provision requiring additional groundwater sampling of wells within the Old Works WMA when water levels reached a predetermined elevation. This provision was continued in the 2010 sampling program. Sampling is specific to cadmium and is based upon the water-level elevation in monitoring well MW-213. EPA and DEQ had determined that once the water level reached an elevation of 5,156.50 ft in MW-213, leaching of cadmium from waste left in place may occur. Fourteen monitoring wells (table 4.2-2) were identified for sampling. It was specified that sampling of the monitoring wells would take place within 2 weeks of the water level reaching the trigger elevation.

A pressure transducer was installed in well MW-213 and programmed to record water levels every hour. Following installation of the transducer, a remote monitoring telemetry system was installed at the well site (fig. 4.2-7). The system was programmed to notify MBMG personnel when the water level reached the trigger elevation, which occurred on June 21, 2010. Groundwater samples were collected between June 29 and July 1, which was within the 2-week timeframe specified in the 2009 SAP.

Figure 4.2-8 shows the hydrograph for well MW-213 based upon transducer data from the date of its installation (4/9/2009) through December 2010. Peak 2010 water levels occurred between 6/21/2010 and 8/4/2010 at an elevation over 1.3 ft above the trigger elevation.

Table 4.2-4 contains cadmium concentrations for the 14 wells during the event monitoring, along with results from low- and high-water sampling for appropriate wells. Any well with cadmium concentrations above 15 µg/L during event monitoring was required to be monitored semi-annually until concentrations were less than 15 µg/L; however, none of the wells sampled in 2010 met this requirement. Event-driven sampling and the high-water sampling event overlapped; therefore, the event-driven samples were also the high-water samples for the four POC wells.

Figure 4.2-7. Telemetry system installed at well MW-213.

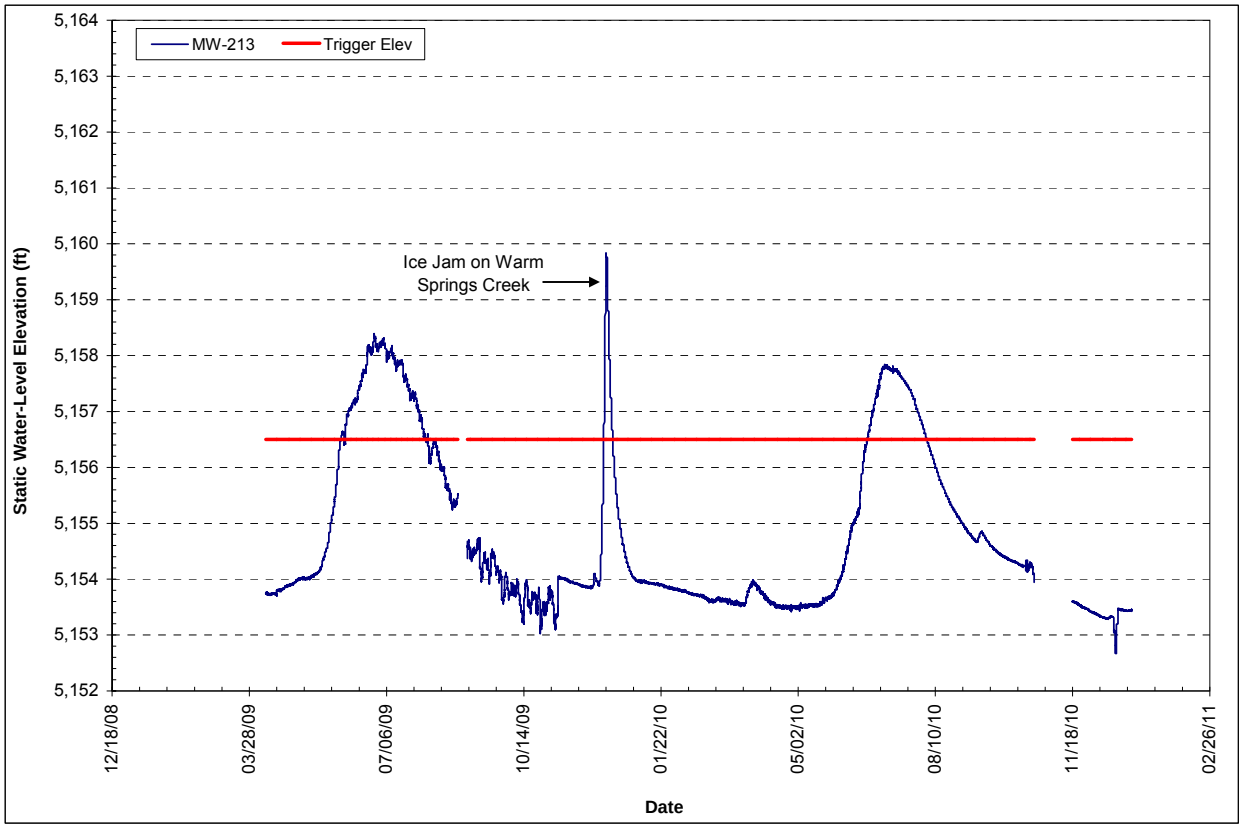

Figure 4.2-8. Water-level hydrograph for MW-213 based upon transducer data.

Table 4.2-4. Cadmium concentrations for event-driven monitoring wells.

Old Works

Well ID	Screen Interval (ft)	Water Type	2010 Low-Water Cadmium (µg/L)	2010 Event-Driven Cadmium (µg/L)	2010 High-Water Cadmium (µg/L)	Comment
IW-01(EDW)	22–42	Ca-SO_4	—	3.29		No event sample due to mechanical problems, sampled10/13/10.
MW-204(EDW)	32–42	Ca-HCO_3	—	1.26	—	
MW-206(EDW)	28–43	Ca-HCO_3	—	9.01	—	Cd exceeds DEQ-7 standard; event-driven results below 15 µg/L; therefore no additional sampling in 2010.
MW-206d(EDW)	53–73	Ca-HCO_3	—	6.09	—	Cd exceeds DEQ-7 standard; event-driven results below 15 µg/L; therefore no additional sampling in 2010.
MW-207(POC-EDW)	77–92	Ca-HCO_3	<0.10	<0.20	<0.20	
MW-208(EDW)	47–67	Ca-HCO_3	—	<0.20	—	
MW-209(EDW)	49–69	Ca-HCO_3	—	6.22	—	Cd exceeds DEQ-7 standard; event-driven results below 15 µg/L; therefore no additional sampling in 2010.
MW-213(EDW)	31–41	Ca-SO_4	—	6.87	--	Cd exceeds DEQ-7 standard; event-driven results below 15 µg/L; therefore no additional sampling in 2010.
MW-240(EDW)	77–87	Ca-HCO_3	—	<0.20	—	
MW-241(EDW)	50–60	Ca-HCO_3	—	3.24	—	
MW-242(EDW)	57–67	Ca-HCO_3	—	0.24	—	
MW-251(POC-EDW)	55–75	Ca-SO_4	<0.10	<0.20	<0.20	

Table 4.2-4. Cadmium concentrations for event-driven monitoring wells. (continued)

MW-252(POC-EDW)	55–75	Ca-HCO_3	1.23	1.24	1.24
MW-255(POC-EDW)	75–95	Ca-HCO_3	<0.10	<0.20	<0.20
Domestic Wells					
East End Town Pump	55–600	Na-HCO_3	—	<0.08	—
Mike's Sales and Pawn	—	—	—	<0.08	—

Note. EDW, well sampled when triggered by water-level elevation in MW-213.

4.3 South Opportunity/Yellow Ditch Area of Concern

The South Opportunity/Yellow Ditch AOC contains seven wells for the 2010 monitoring program (fig. 4.3-1). The wells are all completed in valley-fill material, ranging from coarse to fine sand in the shallower completed wells. All of the wells are located south and southwest of the town of Opportunity. The AOC consists of approximately 25 square miles. Physical parameters and water-quality samples were collected from monitoring wells during both low- and high-water sampling events.

Table 4.3-1 contains a listing of the wells within this AOC, along with completion details and a listing of COCs. The primary COC for this area is arsenic. There are three groups of nested pair wells spread throughout this area, which were installed during 2009. Table 4.3-2 contains a summary of water type and arsenic concentrations for 2010 samples, plus the long-term arsenic average. Appendix C contains water-quality data from 2010 samples.

4.3.1 South Opportunity/Yellow Ditch Area of Concern Water Quality

Arsenic concentrations in the 2010 samples were below DEQ-7 standards in all wells. Similar occurrences were observed in the long-term arsenic averages. All seven wells have a $Ca\text{-}HCO_3$ water type.

Six monitoring wells were installed in 2009 as part of the monitoring program, with wells nested in shallow and deep pairs at three locations (table 4.3-2). These six new wells were sampled during both sampling events; however, water levels were below the bottom of the screen interval in well LTW-4S during the low-water sampling; therefore, no sample was obtained. Arsenic concentrations were considerably higher in the shallow wells than in the deeper wells at the LTW-1 and LTW-3 sites (figures 4.3-2 and 4.3-3). Arsenic concentrations were similar in the shallow and deep wells at the LTW-4 (figure 4.3-4) site. All six of these wells are located to the south and southwest of Opportunity.

Well MW-9 (55 ft deep) is located between the LTW-1 and LTW-4 group of wells and had very low arsenic concentrations in 2010 samples (figure 4.3-5). Water-quality data only exists for 2009 and 2010 monitoring events; therefore, the long-term average is based on only four samples.

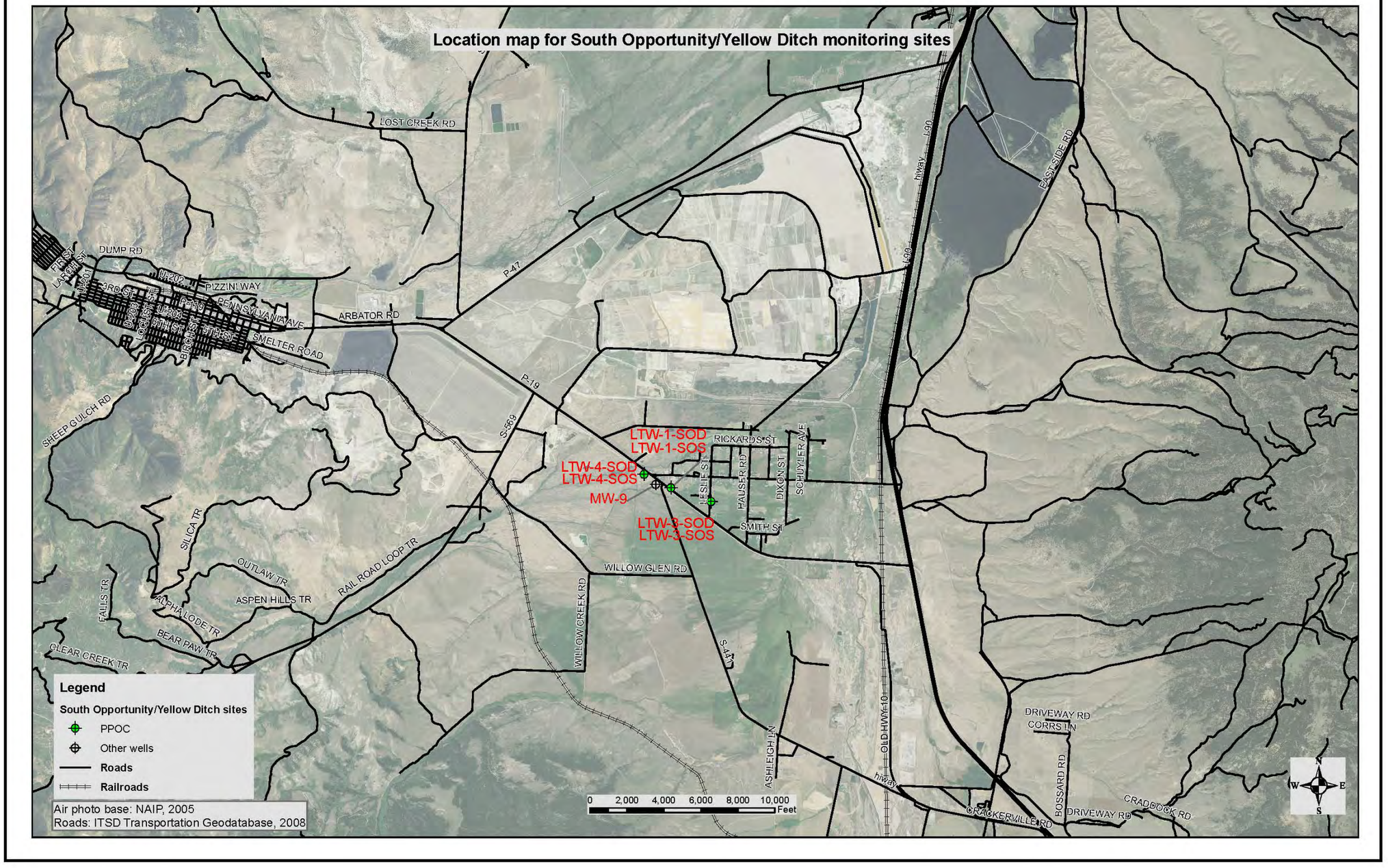

Figure 4.3-1. Location map for South Opportunity/Yellow Ditch Area of Concern monitoring sites.

Table 4.3-1. South Opportunity/Yellow Ditch Area of Concern water-quality COC.

South Opportunity/Yellow Ditch AOC

Well ID	Total Depth (ft)	Screen Interval (ft)	Water-Quality Analytes
LTW-1S	23	13–23	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
LTW-1D	40	30–40	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
LTW-3S	19	9–19	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
LTW-3D	40	30–40	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
MW-9 (lab)	55	41–46	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
LTW-4S	22	7.5–17.5	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness
LTW-4D	38	28–38	As, Fe, Ca, Mg, Na, K, HCO_3, CO3, Cl, SO_4, pH, SC, TDS, Hardness

Table 4.3-2. South Opportunity/Yellow Ditch Area of Concern water-quality summary.

South Opportunity/Yellow Ditch AOC

Well ID	GWIC ID	Screen Interval (ft)	Water Type	2010 Low-Water Arsenic (µg/L)	2010 High-Water Arsenic (µg/L)	Long-Term Arsenic Average (µg/L)	Comment
LTW-1S	249937	13–23	Ca-HCO_3	1.78	4.72	4.25	Well installed spring 2009; only three samples
LTW-1D	249936	30–40	Ca-HCO_3	0.49	0.45	0.46	Well installed spring 2009; only three samples
LTW-3S	249939	9–19	Ca-HCO_3	2.36	2.37	2.35	Well installed spring 2009; only three samples
LTW-3D	249938	30–40	Ca-HCO_3	0.35	0.36	0.38	Well installed spring 2009; only three samples
MW-9 (lab)	249898	41–46	Ca-HCO_3	0.25	0.27	0.28	
LTW-4S	249941	7.5–17.5	Ca-HCO_3	—	0.51	0.54	Well installed spring 2009; no low-water sample 2010; well dry, only two samples
LTW-4D	249940	28–38	Ca-HCO_3	0.48	0.47	0.50	Well installed spring 2009; only three samples

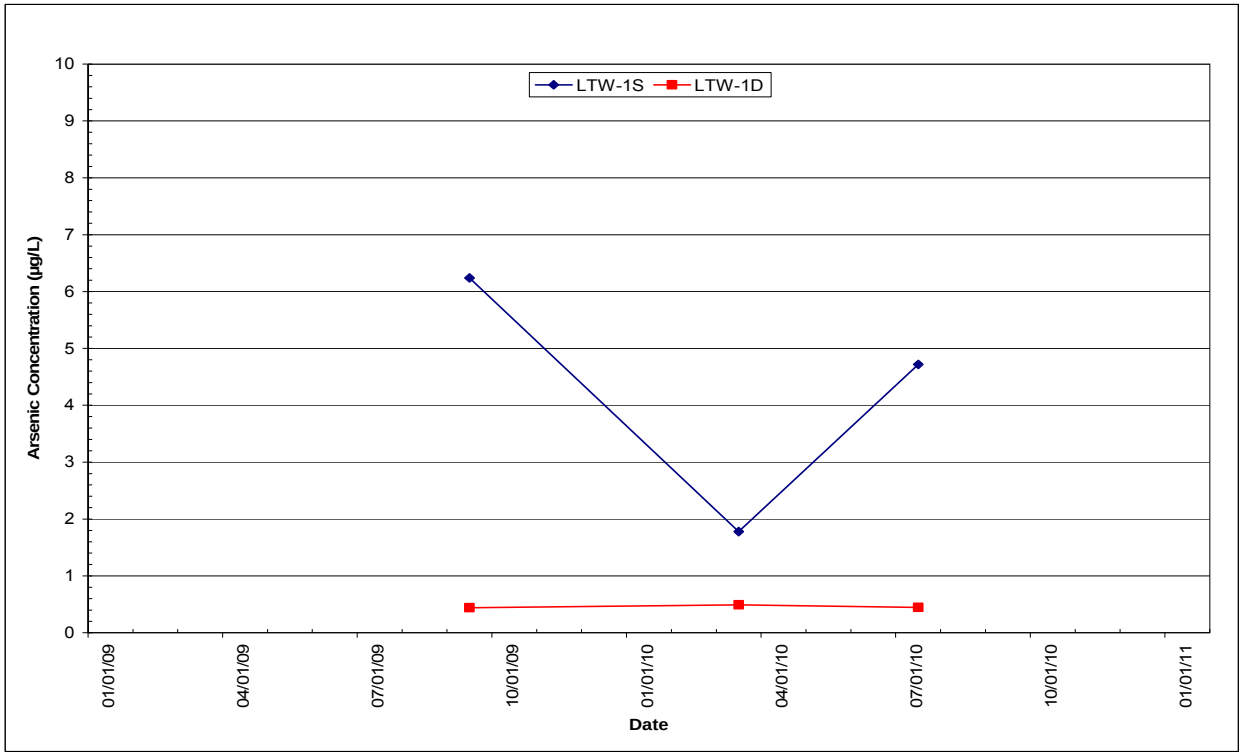

Figure 4.3-2. Arsenic concentrations over time for nested wells LTW-1S and LTW-1D.

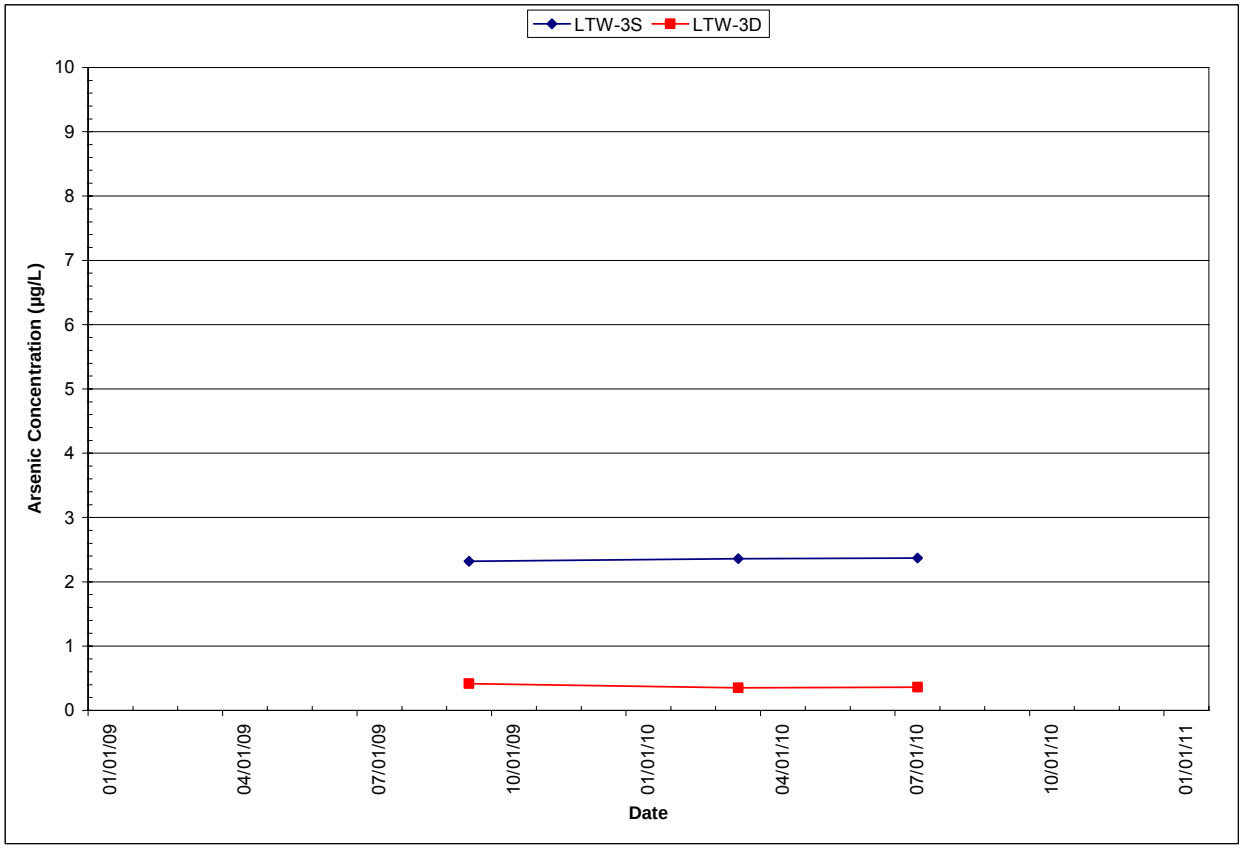

Figure 4.3-3. Arsenic concentrations over time for nested wells LTW-3S and LTW-3D.

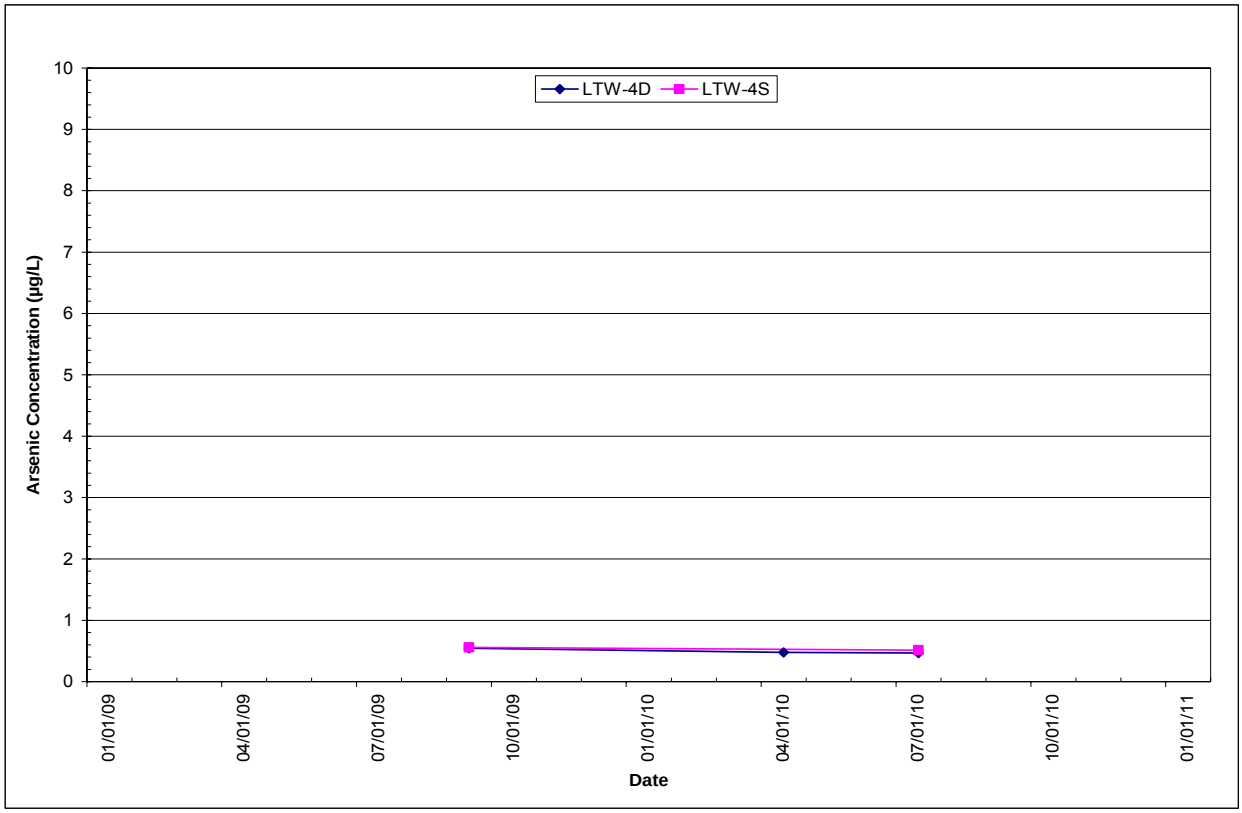

Figure 4.3-4. Arsenic concentrations over time for nested wells LTW-4S and LTW-4D.

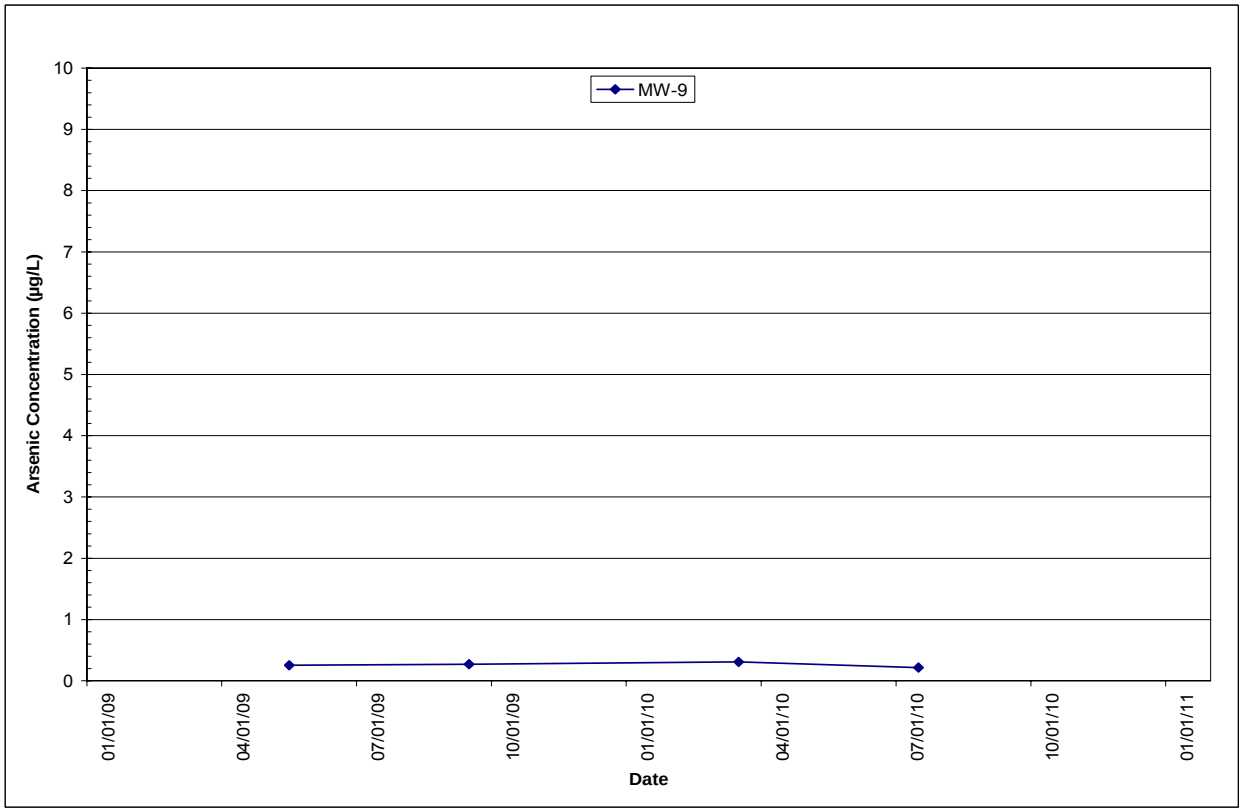

Figure 4.3-5. Arsenic concentrations over time for well MW-9.

4.3.2 South Opportunity/Yellow Ditch Water-Level Observations

Six of the seven monitoring wells in this portion of the ARWWS site were installed in 2009 and have very limited water-level data. Table 4.3-3 shows net water-level change and general aquifer characteristics for each well.

Mill Creek bounds this AOC on the west, while Willow Creek bounds the site on the east. Groundwater flow direction is from the southwest to the northeast (plates 2 and 3). The shallow aquifer is composed of coarse sand valley-fill, while the deeper aquifer contains some medium- to fine-grained sand valley-fill material.

Large water-level fluctuations can occur in wells adjacent to streams or stream tributaries. Figures 4.3-6, 4.3-7, and 4.3-8 show water-level hydrographs for the three nested well pairs located in the south and southwest portion of the AOC. Figure 4.3-9 shows the water-level hydrograph for well MW-9. Water levels can vary between 3 and 25 ft seasonally in these wells.

Table 4.3-3. Net water-level changes for wells in the South Opportunity/ Yellow Ditch AOC.

Well ID	GWIC ID	Total Depth (ft)	Screen Interval (ft)	Aquifer	Net Water-Level Change (ft)
LTW-1S	249937	23	13–23	Valley-fill coarse	1.23
LTW-1D	249936	40	30–40	Valley-fill coarse	0.26
LTW-3S	249939	19	9–19	Valley-fill coarse	-0.22
LTW-3D	249938	40	30–40	Valley-fill coarse	-0.31
MW-9 (lab)	249898	55	41–46	NR	15.42
LTW-4S	249941	22	7.5–17.5	Valley-fill coarse	0.61
LTW-4D	249940	38	28–38	Valley-fill coarse	0.00

Note. NR, not reported.

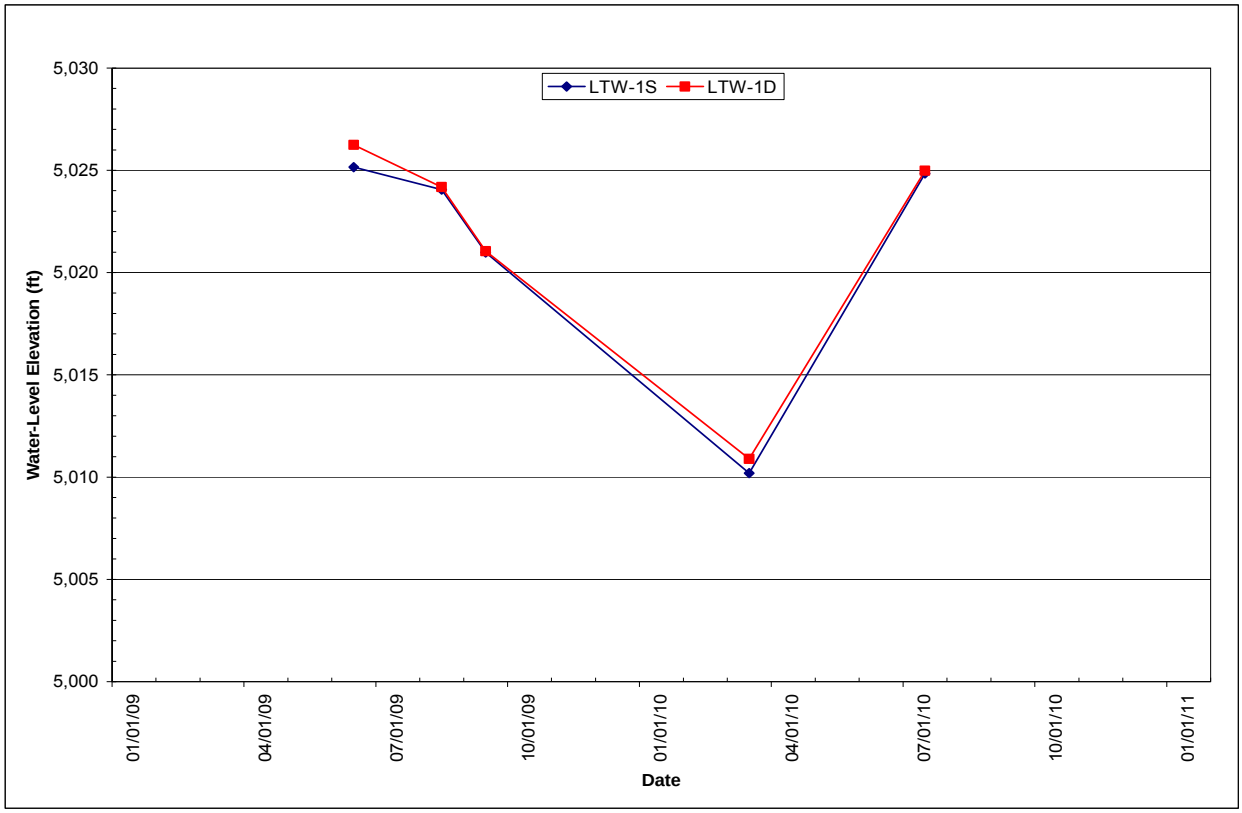

Figure 4.3-6. Water-level hydrograph for nested wells LTW-1S and LTW-1D.

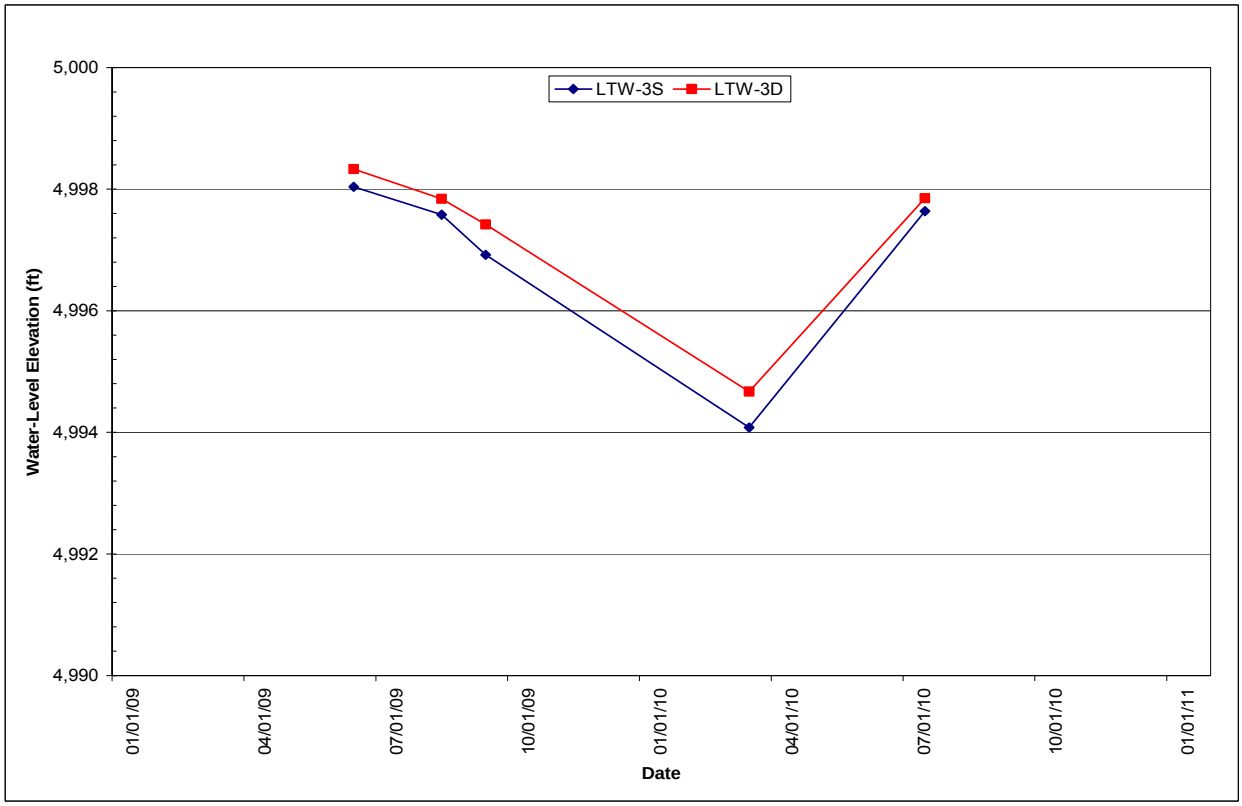

Figure 4.3-7. Water-level hydrograph for nested wells LTW-3S and LTW-3D.

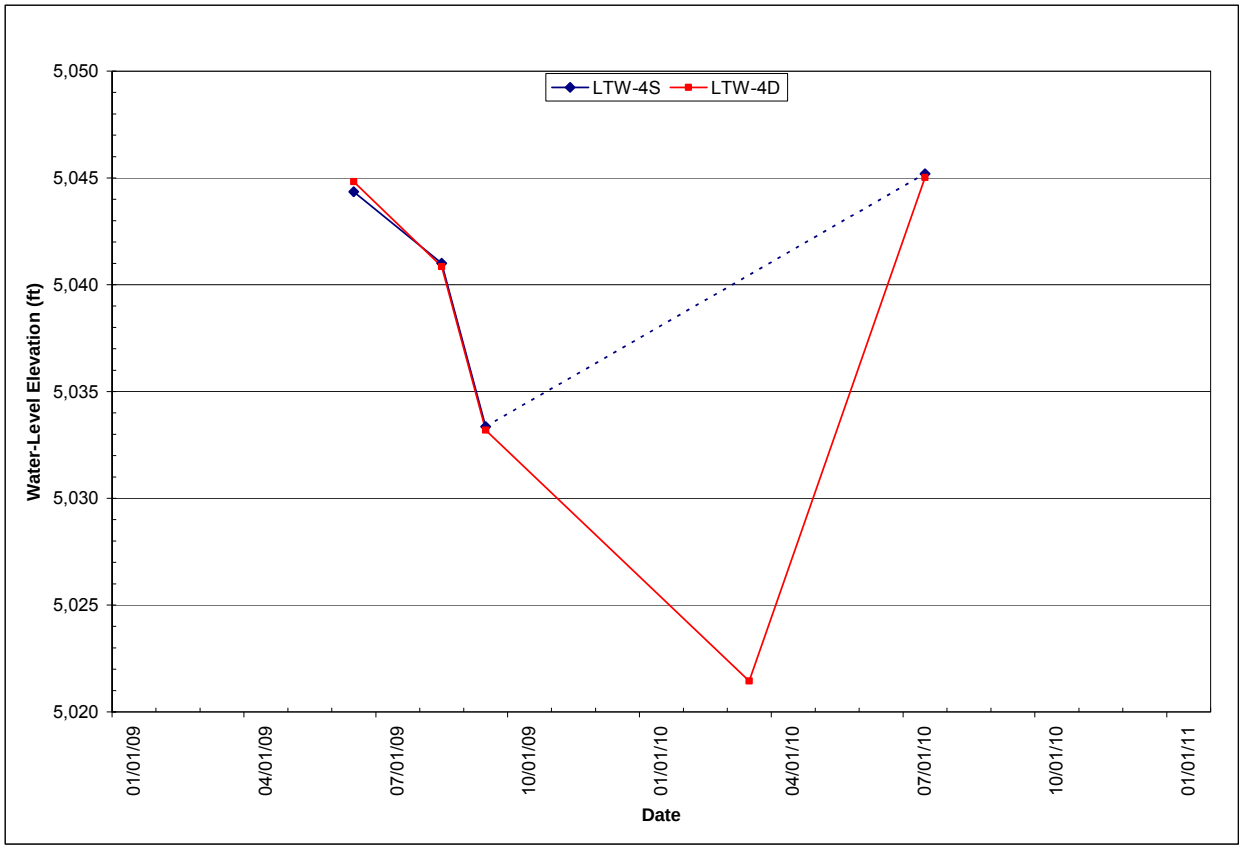

Figure 4.3-8. Water-level hydrograph for nested wells LTW-4S and LTW-4D.

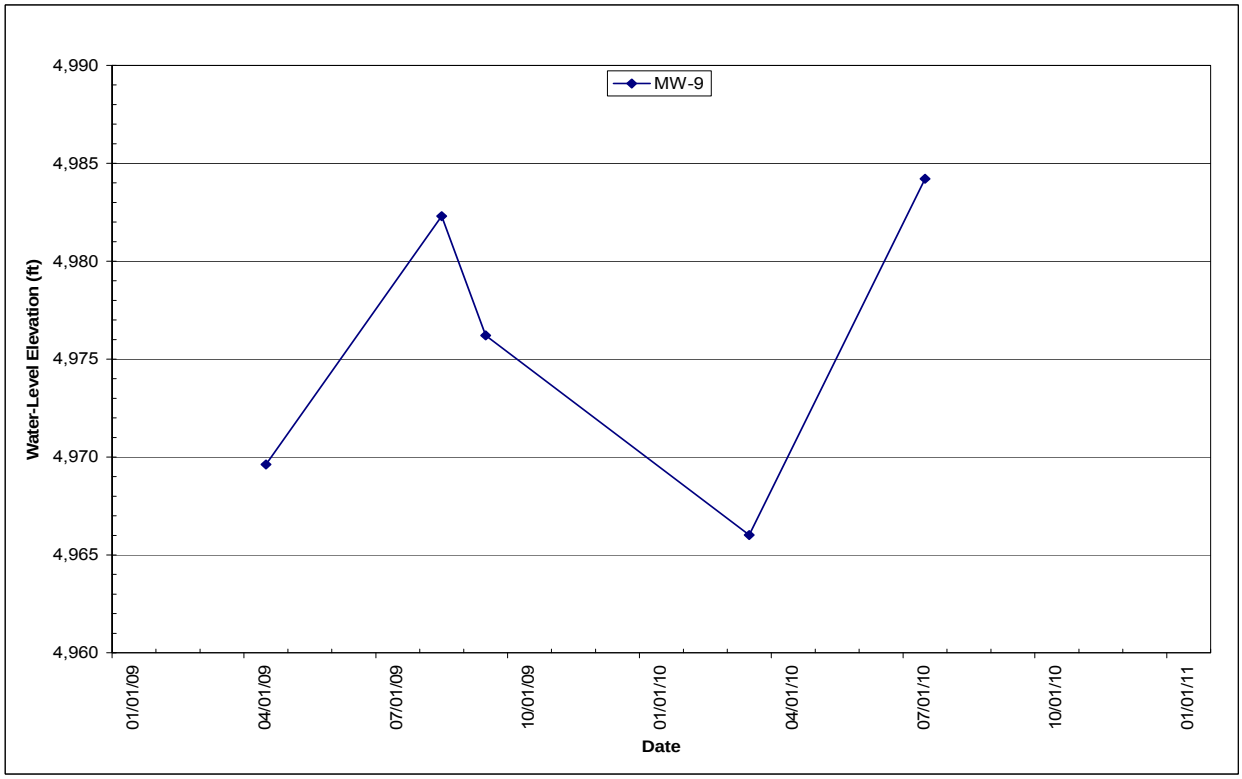

Figure 4.3-9. Water-level hydrograph for well MW-9.

5.0 Domestic Well Monitoring Program

The original 2000 SAP did not contain a provision for sampling domestic wells in the ARWWS-OU; however, Atlantic Richfield began monitoring domestic wells on a limited basis in 2004 and 2008. Anaconda–Deer Lodge monitored a selected group of wells primarily in the Opportunity area between 2007 and 2009. In anticipation of the final Long-Term Groundwater Monitoring Program having a domestic well sampling component, the 2009 SAP Addendum No. 1 contained a monitoring program for domestic wells, which was continued in 2010. All of the water-quality data for the domestic well samples collected in 2010 are in Appendix D. In all, 158 drinking-water wells were sampled during the 2010 sampling year, 138 new wells and 18 resample wells. The majority of these wells were domestic wells serving single-family residences.

5.1 Description of the Sampling Area

The goal of the domestic well sampling effort is to sample 20% of the wells within the EPA-proposed Domestic Well Monitoring Area (figure 5.1-1). The boundary was expanded late in 2009 and the resulting 2010 boundary more than doubled the total number of domestic wells to approximately 1,200 potential wells. The 2010 well estimate was based on the Montana Cadastral Database, which includes tax-related information such as information on utilities and construction. All the cadastral parcels in the sampling area were downloaded and filtered to remove parcels served by community water and sewer. The remaining parcels with dwellings were used for the estimated number of wells in the sampling area. Figure 5.1-1 shows the 2010 domestic well sampling boundary, as well as the 2009 boundary. The new sampling area included the area east of the Clark Fork River, north to the Powell County line, and southeast of Fairmont Hot Springs in Silver Bow County. On the north, the boundary was extended to the northern edge of township 6. N, range 10 W. To the west the boundary was extended to section 26, T. 5 N., R. 12 W. A mailing list was developed for this area using the Montana Cadastral Database. Postcards requesting permission to sample were sent to approximately 428 property owners.

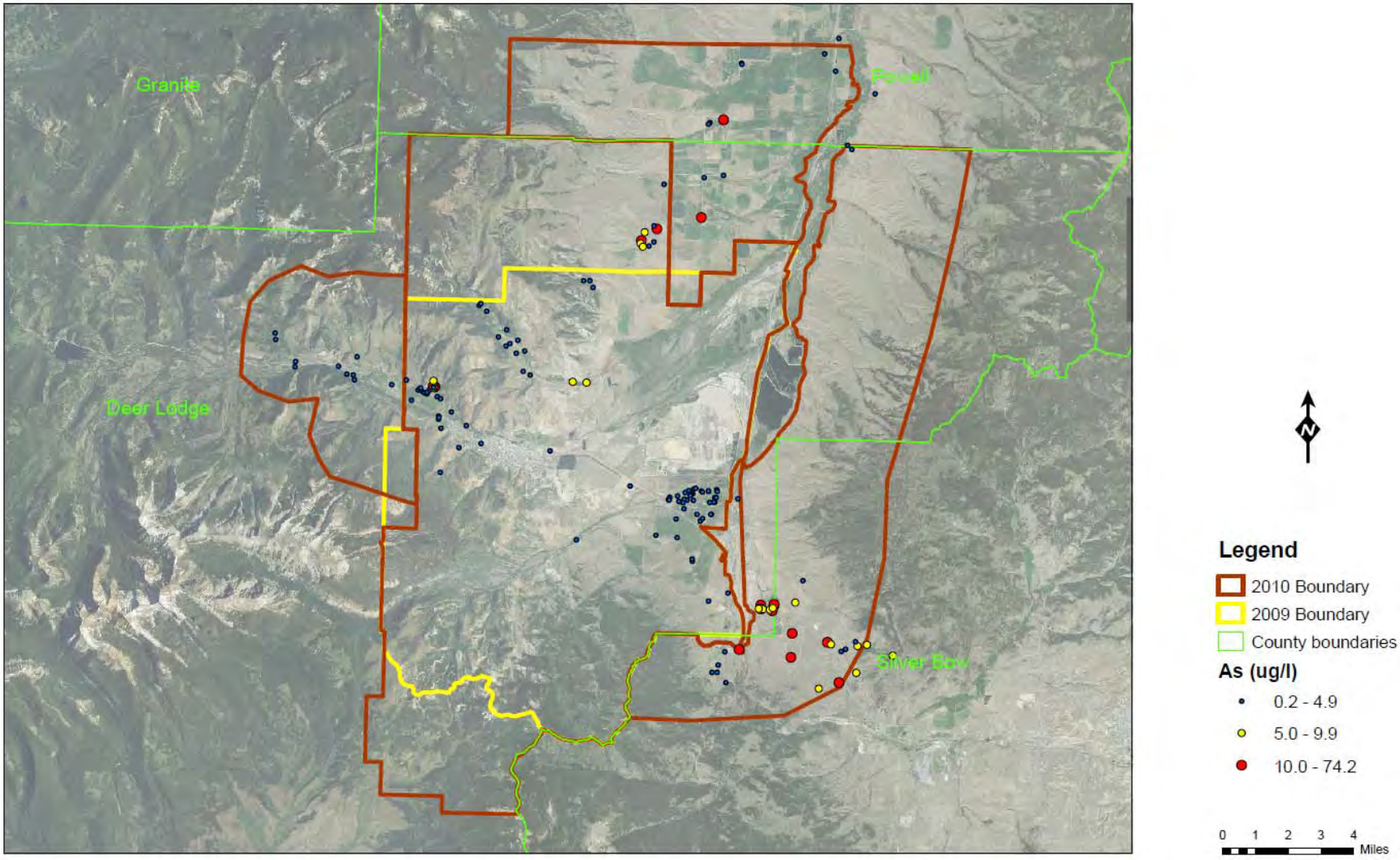

Figure 5.1-1. Domestic well sampling boundary for 2010 activities with the 2009 boundary for reference. All wells sampled in 2010 are shown as dots, with the color indicating arsenic concentrations.

5.2 Previous Sampling Activities

Sixteen wells were resampled as a result of elevated arsenic concentrations (≥ 5 µg/L) in samples collected prior to 2010 (table 5.2-1). Three wells were resampled because they were drilled as replacement wells for this project in 2009. These sites were prioritized for more complete sampling and evaluations for possible replacement. More complete sampling included sampling for dissolved arsenic in addition to total recoverable arsenic. Dissolved samples were filtered through a 0.45 µm filter cartridge prior to acidification to below pH 2. Total recoverable samples were acidified without filtration.

Five wells (51356, 166648, 207695, 209007, and 253425) that at one time had elevated arsenic concentrations (≥ 5 µg/L) had arsenic concentrations below 5 µg/L in both the 2009 and 2010 samples. The three replacement wells (253115, 251057, and 253302) also had arsenic concentrations below 5 µg/L in both the 2009 and 2010 samples. The annual sampling of these eight wells will revert to sampling every 5 years, because they have had 2 consecutive years with arsenic concentrations below 5 µg/L.

There was one site (230299) where arsenic concentrations decreased from above 5 µg/L in the 2009 sample to below 5 µg/L in the 2010 sample. There were five wells (5330, 51327, 153592, 221430, and 25926) that continued to have concentrations between 5 and 10 µg/L. These sites will continue to be sampled on an annual basis.

There are three wells (51874, 244470, and 254433) that had concentrations between 5 and 10 µg/L in 2009, but had concentrations >10 µg/L in 2010. Both 51874 and 244470 are in English Gulch and a replacement well for 51874 is planned for 2011. Well 254433 is in the Crackerville area near the failed replacement well site in 2009, and it is uncertain if a replacement well with low arsenic concentrations can be completed in this area. The two wells (51333 and 252623) with concentrations >10 µg/L in 2009 also had concentrations >10 µg/L in 2010. These wells are on adjacent properties and failed replacement well in 2009 was at the site of 51333. In 2010, a point-of-use reverse osmosis (RO) unit was installed at the 51333 site to provide drinking water with arsenic concentrations <10 µg/L. The RO unit was successful and arsenic concentrations were not detectable in the RO sample. These wells, including the RO unit, will continue to be sampled on an annual basis.

Table 5.2-1. Summary of previous sampling activities with confirmation concentrations from the recent sampling.

Owner	GWIC ID	Previous Arsenic (µg/L)	2009 Arsenic (µg/L)	2010 Dissolved Arsenic (µg/L)	2010 Total Arsenic (µg/L)	2010 RO Arsenic (µg/L)	Notes
Swanson, Mark	5330	10.5	5.54	6.59	8.28		Below 10 µg/L
Faught, Stanley	51327		6.26	7.26	6.85		Below 10 µg/L
Fresh, Elden & Jean	51333	14	11.80	11.70	11.60	<0.9	RO installed*
Stroud, Susie	51356	5–14	0.78		<0.9		Below 5 µg/L
Walter, Richard	51874		5.73	12.20	13.20		To be replaced
Stock/Jones, Charlene	153592	7.8	7.35	8.15	8.22		Below 10 µg/L
Blume, Ken & Amy	166648	10.5	2.50	2.10	3.62		Below 5 µg/L
Kostelecky, Calvin & Donna	207695	8.7	2.87	3.17	2.81		Below 5 µg/L
McCarthy, David & Jodi	209007	7.8	4.79	4.22	4.05		Below 5 µg/L
Keele, Don	221430		6.74	7.16	7.97		Below 10 µg/L
Galle, Jeff	230299		6.68		2.55		Below 5 µg/L
Lussy, Jerry	244470		9.38	13.40	13.30		Above 10 µg/L
Maccioli, Joe & Patty	252623		12.30	13.80	14.20		Above 10 µg/L
Jenrich, Troy & Tracy	252926		6.64	8.75	9.31		Below 10 µg/L
Klemann, Alfred	253425	7.99	0.24	0.27	<0.9		Below 5 µg/L
Bailey, Donald & Deborah	254433	10.8	2.26	9.35	10.10		Above 10 µg/L
Alcantor, Israel	253115		1.38		1.65		Replacement well
Cline, Rodney	251057		0.22		<0.5		Replacement well
Mathews, Millie	253302		1.05	1.36	1.24		Replacement well

*Well replacement failed to provide clean water, so a point-of-use reverse osmosis (RO) unit was installed.

5.3 Sites with Arsenic Concentrations between 5 and 10 µg/L

Fourteen of the new wells sampled during the 2010 sampling year had arsenic concentrations between 5 and 10 µg/L (table 5.3-1). One sample was a composite of two wells (51861 and 51863) and was resampled to determine if the elevated arsenic could be attributed to a single well. The individual wells had similar concentrations and the individual samples were both below 5 µg/L. All of these wells will be sampled on annual basis until the arsenic concentrations decrease below 5 µg/L for 2 consecutive years.

Table 5.3-1. Summary of wells with arsenic concentrations between 5 and 10 µg/L.

Owner	GWIC ID	2010 Total Arsenic (µg/L)	Notes
Galle, Cliff Jr.	5377	5.43	
Scherman Rental	51328	7.22	
Galle, Tyke	51790	6.49	
Andreozzi, Bob	51861 & 51863	5.95	Two wells together
Andreozzi, Bob	51861	4.70	resample
Andreozzi, Bob	51863	3.66	resample
Crippa, Lenore	202627	5.82	
Jones, James	237615	5.03	
Blom, Lorin	238047	5.43	
Lofftus, David & Sharon	239706	6.06	
Connors, Ken	246960	6.68	
Stewart, John & Phyllis	256622	6.48	
Smith, Brent & Alyce	258259	7.92	
Kidder, David & Linda	258262	8.10	
Brackett, Ryan & Nancy	258586	6.77	
Baker, Loren	258927	7.46	

5.4 Sites with Arsenic Concentrations above 10 µg/L

Eleven wells sampled during the 2010 sampling year had concentrations greater than 10 µg/L (table 5.4-1). Confirmation samples were collected from 5 of these wells prior to the end of the year. One confirmation sample (258964) had concentrations below 10 µg/L. We are evaluating the potential for natural arsenic in these areas and the potential for drilling replacement wells at these locations. We started providing clean drinking water all of these sites when initial exceedance was reported and will continue until a replacement well is completed, an RO unit is installed, or it is determined that the arsenic is naturally occurring. The current project plan calls for annual monitoring of these wells as long as they are used for domestic water supply.

Table 5.4-1. Summary of wells with arsenic concentrations greater than 10 µg/L.

Owner	GWIC ID	2010 Total Arsenic (µg/L)	2010 Confirmation Dissolved Arsenic (µg/L)	2010 Confirmation Total Arsenic (µg/L)	2010 RO Arsenic (µg/L)
Ruegamer, Anthony	53591	13.2			
Choquette, Walter	122351	13.6			
Boitnott, Steve	158784	10.5			
Baker, Linda	219266	11.1			
Scherman, Russell & Lisa	226130	23.2	25.6	30.4	<0.9*
Smith, Monty & Julie	256447	18.6	19.9		
Shyba, Lori	256874	28.3	28.6		
Brackett, Josh	258258	15.7	17		
Salle, Ronald, & Janice	258964	10.6	8.480	8.45	
Jette, Joe	259577	10.6			
Jones, Brent	259580	10.1			

*RO unit installed by owner prior to the start of the project.

5.5 2011 Sampling Plans

The domestic well sampling area was reduced for the 2011 sampling year to an area similar to the 2009 boundary. As a result of the reduction in sampling area, the total number of wells is likely to decrease to between 600 and 700 wells again. Another subset of the cadastral database will be created and screened to include only properties with domestic groundwater usage. The use of postcards begun in 2010 to gain permission to sample properties will continue.

The MBMG has initiated a study to examine the sources of arsenic in three areas (Powell Vista, English Gulch, and Crackerville) that appear to have naturally occurring arsenic. We are examining the mineralogy and elemental composition of the sediments and rocks in these areas. Additionally, the water chemistry of samples from sites suspected to contain anthropomorphically derived As and naturally occurring As are being examined in detail, including the determination of sulfur isotopes, oxygen isotopes, hydrogen isotopes, and arsenic speciation along with the typical water-quality analysis performed by the MBMG.

ACKNOWLEDGMENTS

Many parties have been involved with the collection of data throughout the ARWWS since the mid-1980s; these data were instrumental with the original site characterization and development of the monitoring program used during the 2009 5-year sampling and monitoring program and subsequent years. The efforts of those parties are greatly appreciated. Pioneer Technical Services provided assistance with the location of monitoring points, site access, and, most importantly, an electronic database of historical physical and chemical data.

Special appreciation is given to the property owners who allowed access for monitoring and sampling activities. We thank all the property owners who gave permission to sample their wells as part of the domestic well program.

A special thank you is given to the MBMG employees who assisted with sampling and monitoring activities and provided technical support, specifically: Nick Tucci, Jamie Veis, Matt Berzel, Garrett Smith, Ken Sandau, Paul Thale, and Peggy Delaney. Errors and omissions remain the responsibility of the authors.

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APPENDICES

Appendix A: Smelter Hill/Opportunity Ponds WMA

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

						PHYSICAL PARAMETERS						
						FIELD					LAB	
Site ID	GWIC ID	Sample Type	DATE (MM/DD/YR)	TIME (HRS)	SWL (FT)	FLOW (GPM)	pH	SC (UMHOS)	TEMP (C)	REDOX (mv)	pH	SC (UMHOS)
NW-6S	249909	DISSOLVED	09/11/09	14:45	68.83	8.0	7.43	276	9.68	308	7.60	288
		DISSOLVED	04/15/10	15:45	82.21	2.5	6.56	244	10.24	299	7.56	332
		DISSOLVED	07/14/10	12:40		2.5	6.59	355	9.63	339	7.91	349
MW-212	138007	DISSOLVED	04/14/09	11:18	43.82	5.0	7.47	214	7.35	411	7.33	289
		DISSOLVED	09/08/09	15:30	31.08	3.5	7.61	212	7.46	287	7.70	219
		DISSOLVED	04/20/10	10:31	46.18	2.5	6.34	250	9.13	318	8.03	320
		DISSOLVED	07/15/10	11:51		2.5	6.51	260	8.36	343	7.97	278
MW-214	138065	DISSOLVED	04/13/09	14:50	9.74	3.5	6.94	772	6.13	364	7.28	850
DUP		DISSOLVED	04/13/09	14:55	9.74	3.5	6.95	772	6.13	364	6.99	774
		DISSOLVED	08/24/09	15:20	10.41	3.0	6.93	1,082	11.56	274	7.23	1,048
		DISSOLVED	03/30/10	12:59	10.35	2.5	6.73	1,160	6.35	387	7.92	1,195
		DISSOLVED	07/16/10	12:28	9.90	2.5	6.68	703	10.91	358	7.77	720
MW-216	137957	DISSOLVED	04/14/09	14:59	3.15	3.5	7.21	629	3.53	406	7.52	671
		DISSOLVED	08/24/09	15:45	3.62	3.0	6.85	697	14.60	197	7.22	685
		DISSOLVED	04/20/10	12:24	3.25	2.5	6.57	375	5.46	232	7.86	654
		DISSOLVED	07/19/10	10:27	4.57	2.5	6.40	805	8.38	177	8.20	802
MW-256	249851	DISSOLVED	04/17/09	17:10	64.93	4.5	7.13	552	9.75	343	7.20	845
		DISSOLVED	08/20/09	14:00	53.26	3.0	6.86	590	9.85	338	7.34	597
		DISSOLVED	03/23/10	14:17	64.20	2.5	6.67	655	9.74	392	7.42	678
		DISSOLVED	07/16/10	10:56	53.67	2.5	6.46	625	10.77	373	8.09	626
MW-26	249793	DISSOLVED	04/13/09	17:20	9.31	3.5	6.64	1,736	5.46		6.80	1,841
		DISSOLVED	08/25/09	13:44	9.54	2.7	6.31	1,953	9.89	176	7.34	1,883
		DISSOLVED	08/25/09	13:49	9.54	2.7	6.31	1,953	9.89	176	7.44	1,944
		DISSOLVED	04/01/10	14:22	9.21	2.5	6.57	2,000	6.10	197	7.12	1,834
		DISSOLVED	07/16/10	13:02	9.32	2.5	6.47	1,960	9.96	199	7.22	2,070
MW-26M	249790	DISSOLVED	04/14/09	10:15	12.05	2.0	6.51	1,543	6.98		6.86	1,571
		DISSOLVED	08/25/09	13:50	14.48	3.0	6.64	1,680	8.06	321	7.14	1,685
		DISSOLVED	04/01/10	13:41	13.65	2.5	6.60	1,830	7.95	381	7.90	1,817
		DISSOLVED	07/16/10	13:47	13.81	2.5	6.65	1,790	9.34	283	7.07	1,818
MW-31	249794	DISSOLVED	04/20/09	15:30	6.81	3.5	7.21	1,305	9.86	379	7.73	1,419
		DISSOLVED	08/24/09	14:23	7.07	3.0	6.79	1,710	16.17	226	7.39	1,724
		DISSOLVED	04/20/10	11:36	7.34	2.5	6.71	1,140	5.15	227	7.79	1,112
		DISSOLVED	07/19/10	10:55	6.05	2.5	6.54	935	12.13	204	7.84	980
MW-31M	249785	DISSOLVED	04/20/09	15:40	18.88	2.5	7.48	129	7.48	366	7.55	692
		DISSOLVED	08/24/09	13:45	19.55	1.5	7.07	803	11.51	241	7.51	806
		DISSOLVED	04/15/10	13:54	19.47	2.5	7.17	790	11.11	283	7.86	759
		DISSOLVED	07/19/10	12:04	19.50	2.5	7.13	690	10.63	315	8.07	654
MW-82	249840	DISSOLVED	04/20/09	13:00	42.38	1.5	6.33	1,610	12.41	210	6.68	1,670
		DISSOLVED	04/15/10	12:23	41.17	2.5	6.42	1,780	10.30	218	6.56	1,796
		DISSOLVED	07/21/10	9:46	41.39	2.5	6.31	1,750	9.59	227	7.65	1,819
MW-85	249843	DISSOLVED	04/20/09	12:10	38.21	8.0	6.69	1,626	9.37	195	6.58	1,632
		DISSOLVED	04/06/10	15:20	38.18	2.5	6.57	1,730	8.38	150	6.65	1,696
		DISSOLVED	07/21/10	10:22	38.31	2.5	6.40	1,690	9.62	160	7.94	1,625

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

Site ID	GWIC ID	Sample Type	DATE (MM/DD/YR)	HARDNESS (MG/L)	ALKALINITY (MG/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (mg/L)	Mn (mg/L)	SiO2 (mg/L)	HCO3 (mg/L)	CO3 (mg/L)	Cl (mg/L)	SO4 (mg/L)	NO3-N (mg/L)	F (mg/L)
NW-6S	249909	DISSOLVED	09/11/09	134	76	40.4	8.0	5.37	0.94	0.004	0.001	14.9	93.0	0.0	0.78	64.5	0.55	0.47
		DISSOLVED	04/15/10	110	74	32.6	7.0	5.01	0.77	0.006	0.001	14.1	89.5	0.0	0.56	49.9	0.25	0.44
		DISSOLVED	07/14/10	153	62	51.7	9.9	5.66	0.92	0.002	<0.001	14.5	76.1	0.0	0.80	115	0.57	0.43
MW-21Z	138007	DISSOLVED	04/14/09	128	114	38.8	7.5	2.55	1.24	<0.004 U	0.001	11.7	138.6	0.0	1.11	12.8	0.11	0.58
		DISSOLVED	09/08/09	114	107	35.0	6.4	2.14	1.13	0.004	0.001	11.2	130.8	0.0	0.81	13.4	0.06	0.58
		DISSOLVED	04/20/10	117	111	35.5	7.0	2.43	1.14	0.002	<0.001	10.7	135.4	0.0	1.52	11.4	0.16	0.51
		DISSOLVED	07/15/10	135	111	41.1	8.0	2.73	1.19	<0.002	<0.001	10.6	134.9	0.0	1.13	18.7	0.17	0.52
MW-21Y	138065	DISSOLVED	04/13/09	498	236	159.0	24.5	9.24	2.59	0.004	<0.001 U	22.8	288.2	0.0	<5.0	267	0.73	<0.5
DUP		DISSOLVED	04/13/09	503	223	161.0	24.5	9.05	2.49	0.004	<0.003 U	22.5	272.1	0.0	<5.0	262	0.79	<0.5
		DISSOLVED	08/24/09	634	220	205.0	29.7	10.80	3.07	<0.010	0.001	23.1	268.4	0.0	6.32	372	<0.5	<0.5
		DISSOLVED	03/30/10	676	281	217.0	32.7	10.40	2.66	<0.001	<0.001	20.1	342.0	0.0	4.99	424	0.18	0.16
		DISSOLVED	07/16/10	332	208	107.0	15.8	7.03	2.09	<0.002	<0.001	19.2	252.5	0.0	3.32	185	0.65	0.24
MW-21Z	137957	DISSOLVED	04/14/09	376	135	116.0	20.9	8.93	3.07	0.032	0.010	15.3	164.7	0.0	5.02	261	<0.5	1.94
		DISSOLVED	08/24/09	361	118	113.0	19.1	10.30	4.08	0.048	0.008	19.8	144.3	0.0	9.60	253	<0.5	1.86
		DISSOLVED	04/20/10	345	129	109.0	17.8	7.67	2.79	0.035	0.009	13.2	157.1	0.0	4.12	227	0.12	1.09
		DISSOLVED	07/19/10	425	199	134.0	22.0	9.24	3.48	0.111	0.046	16.3	242.5	0.0	4.93	302	<0.05	1.28
MW-25S	249851	DISSOLVED	04/17/09	329	176	102.0	18.1	7.48	2.50	0.005	<0.001 U	18.0	215.0	0.0	11.90	116	5.12	<0.5
		DISSOLVED	08/20/09	290	179	90.3	15.7	6.92	2.17	<0.004	<0.001	16.4	218.4	0.0	21.12	94.3	8.66	<0.5
		DISSOLVED	03/23/10	324	172	100.0	18.1	7.14	2.23	0.005	<0.001	15.7	210.1	0.0	13.85	142	6.00	0.32
		DISSOLVED	07/16/10	302	173	93.5	16.6	6.58	2.18	0.003	<0.001	15.9	210.8	0.0	17.58	121	5.95	0.33
MW-26	249793	DISSOLVED	04/13/09	1,301	318	449.0	43.6	9.62	6.38	4.08	15.5	22.0	388.4	0.0	<5.0	964	<0.5	1.29
		DISSOLVED	08/25/09	1,250	372	429.0	43.4	10.10	6.96	2.72	15.3	21.5	453.8	0.0	6.50	1,011	<0.5	1.40
		DISSOLVED	08/25/09	1,365	372	474.0	44.1	9.81	6.88	2.65	14.0	22.9	453.8	0.0	6.50	986	<0.5	1.39
		DISSOLVED	04/01/10	1,171	266	396.0	44.2	9.34	5.93	1.93	11.6	19.4	323.7	0.0	5.39	987	<0.05	1.55
		DISSOLVED	07/16/10	1,207	331	407.0	46.3	9.22	6.50	1.97	14.1	19.8	404.0	0.0	4.93	934	<0.05	1.70
MW-26M	249790	DISSOLVED	04/14/09	1,099	290	377.0	38.4	9.31	5.87	0.025	11.7	21.2	353.3	0.0	<5.0	841	<0.5	1.13
		DISSOLVED	08/25/09	1,031	258	351.0	37.6	9.71	6.04	<0.012	10.0	20.4	313.9	0.0	6.01	745	<0.5	1.15
		DISSOLVED	04/01/10	1,031	278	347.0	39.9	8.86	5.37	<0.001	11.3	19.0	339.2	0.0	4.87	895	0.07	1.38
		DISSOLVED	07/16/10	1,014	282	340.0	40.0	8.99	5.99	0.012	11.2	19.4	344.0	0.0	4.84	835	0.23	1.46
MW-31	249794	DISSOLVED	04/20/09	944	152	291.0	52.8	12.80	7.23	0.222	0.005	15.6	185.0	0.0	5.05	840	<0.5	2.30
		DISSOLVED	08/24/09	1,084	112	333.0	61.3	18.00	11.00	0.385	0.010	18.4	136.6	0.0	10.22	967	<0.5	2.59
		DISSOLVED	04/20/10	629	119	186.0	39.9	11.40	5.46	0.09	0.005	11.4	145.2	0.0	5.07	520	0.16	2.13
		DISSOLVED	07/19/10	507	116	152.0	31.0	10.20	6.08	0.067	0.003	15.2	141.3	0.0	5.32	409	0.12	2.55
MW-31M	249785	DISSOLVED	04/20/09	377	213	110.0	24.8	18.10	3.41	0.030	0.002	31.5	259.6	0.0	3.08	186	0.06	0.67
		DISSOLVED	08/24/09	416	211	123.0	26.4	18.50	3.19	0.071	0.027	30.5	257.1	0.0	5.14	221	<0.5	0.55
		DISSOLVED	04/15/10	398	194	116.0	26.4	17.60	3.40	<0.002	<0.001	28.2	236.1	0.0	3.89	232	0.08	0.69
		DISSOLVED	07/19/10	334	210	97.8	21.9	16.40	2.80	<0.002	<0.001	27.3	255.7	0.0	3.37	168	0.09	0.61
MW-82	249840	DISSOLVED	04/20/09	1,151	263	404.0	34.5	16.60	10.60	1.15	11.7	21.9	320.6	0.0	5.75	916	<0.5	3.42
		DISSOLVED	04/15/10	1,086	268	379.0	33.9	16.60	10.30	1.16	11.3	20.2	326.9	0.0	6.29	883	<0.05	3.16
		DISSOLVED	07/21/10	1,160	254	408.0	34.2	16.80	9.89	1.69	11.5	20.3	309.6	0.0	6.17	872	0.06	3.84
MW-85	249843	DISSOLVED	04/20/09	1,067	206	366.0	37.1	18.20	8.63	16.2	10.4	22.7	250.8	0.0	5.34	939	<0.5	3.10
		DISSOLVED	04/06/10	1,020	213	350.0	35.6	17.90	8.16	15.1	9.33	20.3	259.6	0.0	5.61	863	<0.05	3.41
		DISSOLVED	07/21/10	1,020	199	351.0	34.9	18.00	7.74	14.2	9.25	19.7	242.5	0.0	5.67	859	0.13	3.51

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

Site ID	GWIC ID	Sample Type	DATE (MM/DD/YR)	Al (ug/L)	Ag (ug/L)	As (ug/L)	B (ug/L)	Ba (ug/L)	Be (ug/L)	Cd (ug/L)	Co (ug/L)	Cr (ug/L)	Cu (ug/L)	Hg (ug/L)	Li (ug/L)	Mo (ug/L)	Ni (ug/L)	Pb (ug/L)	Se (ug/L)	Sr (ug/L)	Tl (ug/L)	Zn (ug/L)
NW-6S	249909	DISSOLVED	09/11/09	<17.80	<0.10	0.64	7.11	44.10	<0.10	<0.20	<0.10	0.19	<0.80		1.16	3.32	<0.10	<0.10	<0.30	278.00	3.18	<1.90
		DISSOLVED	04/15/10	<1.0	<0.1	0.69	6.59	35.90	6.59	<0.1	0.10	0.18	<0.4		8.77	3.52	0.26	<0.2	0.14	254.00	2.26	<1.0
		DISSOLVED	07/14/10	<2.0	<0.2	0.69	7.83	58.40	<0.2	<0.2	<0.2	<0.2	<0.5		<2.0	3.48	<0.2	<0.2	0.26	388.00	7.15	<1.0
MW-21Z	138007	DISSOLVED	04/14/09	<6.26	<0.07	0.64	4.15	19.50	<0.20	<0.05 U	0.05	<0.09	<0.42 U		2.39	3.61	<0.09	<0.20 U	<0.21	79.60	0.52	1.84
		DISSOLVED	09/08/09	<7.60	<0.04	0.67	4.14	19.70	<0.20	<0.05	<0.10	0.12	<0.40		2.43	4.33	<0.10	<0.16	0.12	70.80	0.52	<0.90
		DISSOLVED	04/20/10	<1.0	<0.1	0.69	2.94	22.30	<0.2	<0.1	<0.1	0.17	<0.4		10.20	3.89	0.16	<0.2	0.12	84.60	0.55	<1.0
		DISSOLVED	07/15/10	<2.0	<0.2	0.65	5.98	23.30	<0.2	<0.2	<0.2	<0.2	<0.5		<2.0	3.98	<0.2	<0.2	<0.2	81.30	0.78	<1.0
MW-21A	138065	DISSOLVED	04/13/09	<30.41	<0.35	0.89	14.70	15.90	<0.96	<0.24 U	<0.21	<0.43	<2.05 U		5.35	0.55	<0.41	<0.99 U	<1.02	134.00	1.56	<6.52 U
DUP		DISSOLVED	04/13/09	<60.82	<0.70	1.88	30.50	32.10	<1.93	<0.48 U	<0.42	<0.86	<4.11 U		12.10	1.09	<0.83	<1.97 U	<2.03	769.00	3.11	13.04 U
		DISSOLVED	08/24/09	<38.00	<0.20	0.85	25.70	23.00	<1.00	<0.25	<0.50	<0.20	<2.00		7.50	0.64	<0.50	<0.76	<0.50	159.00	2.68	<4.50
		DISSOLVED	03/30/10	<4.04	<0.51	0.99	15.50	24.70	24.70	<0.51	<0.51	<0.51	<0.51		5.28	0.52	<0.51	<0.51	<1.01	187.00	3.43	<4.04
		DISSOLVED	07/16/10	<2.0	<0.2	1.05	12.00	19.60	<0.2	<0.2	<0.2	<0.2	<0.5		3.80	1.02	<0.2	<0.2	0.56	119.00	1.15	<1.0
MW-21B	137957	DISSOLVED	04/14/09	<30.41	<0.35	2.29	12.40	23.60	<0.96	<0.24 U	<0.21	<0.43	<2.05 U		15.00	4.29	<0.41	<0.99 U	1.81	439.00	5.39	<6.52
		DISSOLVED	08/24/09	<17.80	<0.10	3.66	18.20	32.20	<0.10	<0.20	0.35	0.13	1.18		16.40	6.55	<1.90	<0.10	0.34	467.00	3.61	<1.90
		DISSOLVED	04/20/10	<1.0	<0.1	1.99	7.19	26.70	<0.2	<0.1	0.18	0.10	0.70		20.10	3.78	<0.1	<0.2	1.36	429.00	6.44	<1.0
		DISSOLVED	07/19/10	<2.0	<0.2	2.20	9.60	33.60	<0.2	<0.2	<0.2	<0.2	<0.5		11.50	3.45	<0.2	<0.2	<0.2	589.00	6.52	<1.0
MW-25S	249851	DISSOLVED	04/17/09	<6.08	<0.07	0.56	17.30	51.30	<0.19	<0.05 U	0.23	<0.09	0.98		4.25	2.36	<0.08	<0.20 U	1.01	229.00	1.50	<1.30 U
		DISSOLVED	08/20/09	<15.10	<0.13	0.52	17.00	55.80	<0.14	<0.16	0.12	<0.10	7.82		4.31	2.44	<0.24	<0.14	0.74	220.00	1.54	<0.89
		DISSOLVED	03/23/10	1.67	<0.10	0.62	15.50	61.20	<0.10	<0.10	<0.10	0.31	0.46		3.15	2.40	<0.10	0.16	1.47	232.00	1.90	1.61
		DISSOLVED	07/16/10	<2.0	<0.2	0.54	17.00	59.30	<0.2	<0.2	<0.2	<0.2	0.53		3.78	2.10	<0.2	<0.2	1.06	223.00	1.43	<1.0
MW-26	249793	DISSOLVED	04/13/09	<60.82	<0.70	<0.74 U	15.00	11.90	<1.93	<0.48 U	3.29	<0.86 U	<4.11		11.70	2.33	6.24	<1.97 U	<2.03	451.00	24.00	13.04 U
		DISSOLVED	08/25/09	<38.00	<0.20	<0.50	16.10	13.10	<1.00	<0.25	1.46	<0.20	<2.00		11.50	2.44	<0.50	<0.76	<0.50	444.00	33.00	<4.50
		DISSOLVED	08/25/09	<38.00	<0.20	<0.50	13.70	13.10	<1.00	<0.25	1.50	<0.20	<2.00		11.30	2.46	<0.50	<0.76	<0.50	449.00	33.10	<4.50
		DISSOLVED	04/01/10	2.84	<0.10	0.59	9.23	13.60	<0.10	<0.10	1.79	<0.10	0.65		7.07	2.96	0.31	<0.10	0.26	474.00	48.70	<0.51
		DISSOLVED	07/16/10	3.05	<0.2	0.40	10.80	15.10	<0.2	<0.2	1.80	<0.2	0.60		9.04	3.01	0.43	<0.2	<0.2	574.00	59.00	<1.0
MW-26M	249790	DISSOLVED	04/14/09	<60.82	<0.70	<0.74 U	12.50	6.22	<1.93	<0.48 U	0.51	<0.86	<4.11 U		10.80	2.30	3.49	<1.97 U	<2.03	429.00	17.20	13.04
		DISSOLVED	08/25/09	<89.00	<0.50	<1.00	15.60	8.56	<0.50	<1.00	0.56	0.55	<4.00		11.80	3.12	2.12	<0.50	<1.50	496.00	24.50	<9.50
		DISSOLVED	04/01/10	1.82	<0.10	0.70	8.23	8.51	<0.10	0.14	0.69	<0.10	0.91		6.40	2.95	1.57	<0.10	0.23	447.00	30.00	<0.81
		DISSOLVED	07/16/10	2.22	<0.2	0.60	10.20	9.92	<0.2	<0.2	0.81	<0.2	0.82		8.22	3.04	2.01	<0.2	<0.2	478.00	35.60	<1.0
MW-31	249794	DISSOLVED	04/20/09	<62.62	<0.72	1.80	17.60	8.06	<1.99	<0.50 U	<0.43	<0.89	<4.23 U		20.80	1.68	<0.85	<2.03 U	<2.09	714.00	6.78	13.43 U
		DISSOLVED	08/24/09	<89.00	<0.50	3.60	39.30	17.00	<0.50	<1.00	<0.50	0.56	<4.00		31.70	2.59	<0.50	<0.50	<1.50	974.00	4.49	14.50
		DISSOLVED	04/20/10	<1.0	<0.1	3.50	12.00	9.06	<0.2	<0.1	0.23	0.21	0.72	<0.1	22.90	2.43	<0.1	<0.2	0.97	564.00	6.65	7.93
		DISSOLVED	07/19/10	<2.0	<0.2	4.13	18.60	13.20	<0.2	<0.2	<0.2	<0.2	0.54		13.50	3.19	<0.2	<0.2	1.21	515.00	4.40	4.35
MW-31M	249785	DISSOLVED	04/20/09	17.60	<0.07	1.25	7.06	15.60	<0.20	<0.05 U	0.28	0.26	<0.42 U		12.40	3.11	0.41	<0.20 U	<0.21	459.00	19.90	2.54
		DISSOLVED	08/24/09	68.30	<0.10	1.18	7.35	21.30	<0.10	<0.20	0.53	0.44	5.32		12.80	4.54	6.21	<0.10	0.34	467.00	3.61	<1.90
		DISSOLVED	04/15/10	<1.0	<0.1	1.57	6.09	21.50	<0.2	<0.1	0.11	0.32	<0.4		20.00	3.23	<0.1	<0.2	0.26	504.00	24.40	1.76
		DISSOLVED	07/19/10	<2.0	<0.2	1.59	6.85	19.20	<0.2	<0.2	<0.2	<0.2	<0.5		9.48	3.35	<0.2	<0.2	0.21	442.00	23.50	<1.0
MW-82	249840	DISSOLVED	04/20/09	<62.62	<0.72	2.70	22.50	17.50	<1.99	0.66	6.00	<0.89	11.80		16.50	2.19	1.95	<2.03 U	<2.09	623.00	8.10	34.70
		DISSOLVED	04/15/10	<36.0	0.25	0.88	20.10	19.90	19.00	<1.01	6.06	0.27	<2.02		56.60	2.74	0.61	<0.77	0.57	612.00	9.72	10.80
		DISSOLVED	07/21/10	4.73	<0.2	0.73	16.40	19.70	<0.2	<0.2	5.43	<0.2	<0.2		8.75	2.76	<0.2	<0.2	0.23	598.00	12.20	3.37
MW-85	249843	DISSOLVED	04/20/09	<60.82	<0.70	71.80	19.90	16.70	<1.93	<0.48 U	5.95	<0.86	<4.11 U		15.10	3.54	1.06	<1.97 U	<2.03	636.00	11.70	53.50
		DISSOLVED	04/06/10	<7.68	<0.04	62.40	12.10	17.90	<0.20	0.12	5.32	0.05	0.52		18.80	3.97	0.50	0.15	0.76	604.00	15.00	32.90
		DISSOLVED	07/21/10	3.45	<0.2	61.60	13.70	18.60	<0.2	<0.2	5.47	<0.2	<0.5		9.72	4.10	<0.2	<0.2	0.20	<0.2	16.40	32.60

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

Site ID	GWIC ID	Sample Type	DATE (MM/DD/YR)	Additional Trace Metals: Cerium Ce (ug/l)	Cesium Cs (ug/l)	Gallium Ga (ug/l)	Lanthanum La (ug/l)	Niobium Nb (ug/l)	Neodymium Nd (ug/l)	Palladium Pd (ug/l)	Praseodymium Pr (ug/l)	Rubidium Rb (ug/l)	Thallium Tl (ug/l)	Thorium Th (ug/l)	Tin Sn (ug/l)	Titanium Ti (ug/l)	Tungsten W (ug/l)
NW-6S	249909	DISSOLVED	09/11/09	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.77	0.27
		DISSOLVED	04/15/10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.30	<0.1	0.04	<0.1	<0.1	<0.1	0.51	0.29
		DISSOLVED	07/14/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2	<0.2	<0.2	0.97	0.24
MW-21Z	138007	DISSOLVED	04/14/09	<0.04	<0.04	<0.04	<0.05	<0.03	<0.04	<0.07	<0.03	1.19	<0.03	<0.02	<0.05	0.15	0.12
		DISSOLVED	09/08/09	<0.02	<0.04	<0.05	<0.02	<0.04	<0.05	<0.10	<0.02	1.04	<0.03	<0.02	<0.04	0.23	<0.04
		DISSOLVED	04/20/10	<0.1	<0.1	<0.1	<0.1	0.07	<0.1	0.25	<0.1	1.37	<0.1	<0.1	<0.1	<0.2	0.22
		DISSOLVED	07/15/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	1.19	<0.2	<0.2	<0.2	<0.2	<0.2
MW-21A	138065	DISSOLVED	04/13/09	<0.21	<0.18	<0.19	<0.25	<0.16	<0.20	<0.36	<0.16	0.65	<0.16	<0.09	<0.24	2.77	<0.15
DUP		DISSOLVED	04/13/09	<0.42	<0.36	<0.38	<0.49	<0.31	<0.39	<0.72	<0.32	1.33	<0.33	<0.18	<0.47	5.75	<0.29
		DISSOLVED	08/24/09	0.21	<0.21	<0.25	0.21	<0.20	<0.26	<0.50	0.23	0.91	<0.17	<0.12	<0.21	3.16	<0.25
		DISSOLVED	03/30/10	<0.51	<0.51	<0.51	<0.51	<1.01	<0.51	<0.51	<0.51	0.85	<0.51	<0.51	<0.51	3.99	<0.51
		DISSOLVED	07/16/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	0.77	<0.2	<0.2	<0.2	1.46	<0.2
MW-21B	137957	DISSOLVED	04/14/09	<0.21	<0.18	<0.19	<0.25	<0.16	<0.20	<0.36	<0.16	0.49	<0.16	<0.09	<0.24	2.63	0.74
		DISSOLVED	08/24/09	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	0.82	<0.10	<0.10	<0.10	2.50	<0.10
		DISSOLVED	04/20/10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.38	<0.1	0.58	<0.1	<0.1	<0.1	2.79	0.93
		DISSOLVED	07/19/10	0.21	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	0.66	<0.2	<0.2	<0.2	2.58	0.80
MW-25S	249851	DISSOLVED	04/17/09	<0.04	<0.04	<0.04	<0.05	<0.03	<0.04	<0.07	<0.03	2.63	<0.03	<0.02	<0.05	1.22	0.12
		DISSOLVED	08/20/09	<0.10	<0.12	<0.10	<0.10	<0.34	<0.13	<0.12	<0.10	2.74	<0.14	<0.18	<0.16	0.99	<0.13
		DISSOLVED	03/23/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	2.90	<0.10	0.16	<0.10	1.34	<0.10
		DISSOLVED	07/16/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	2.86	<0.2	<0.2	<0.2	1.01	<0.2
MW-26	249793	DISSOLVED	04/13/09	<0.42	<0.36	<0.38	<0.49	<0.31	<0.39	<0.72	<0.32	1.12	<0.33	<0.18	<0.47	9.94	<0.29
		DISSOLVED	08/25/09	0.27	<0.21	<0.25	0.16	<0.20	<0.26	<0.50	<0.11	1.26	<0.17	<0.12	<0.21	8.23	<0.25
		DISSOLVED	08/25/09	0.27	<0.21	<0.25	0.17	<0.20	<0.26	<0.50	<0.11	1.30	<0.17	<0.12	<0.21	8.52	<0.25
		DISSOLVED	04/01/10	0.29	<0.10	<0.10	0.18	<0.20	<0.10	0.17	<0.10	1.31	<0.10	<0.10	<0.10	7.78	0.11
		DISSOLVED	07/16/10	0.54	<0.5	<0.2	0.32	<0.2	<0.2	<0.5	<0.2	1.50	<0.2	<0.2	<0.2	7.45	<0.2
MW-26M	249790	DISSOLVED	04/14/09	<0.42	<0.36	<0.38	<0.49	<0.31	<0.39	<0.72	<0.32	1.03	<0.33	<0.18	<0.47	8.51	<0.29
		DISSOLVED	08/25/09	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50	1.37	<0.50	<0.50	<0.50	9.41	<0.50
		DISSOLVED	04/01/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	0.12	<0.10	1.19	<0.10	<0.10	<0.10	7.17	<0.10
		DISSOLVED	07/16/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	1.38	<0.2	<0.2	<0.2	6.75	<0.2
MW-31	249794	DISSOLVED	04/20/09	<0.43	<0.37	<0.39	<0.50	<0.32	<0.40	<0.74	<0.32	2.26	<0.34	<0.18	<0.49	8.05	<0.30
		DISSOLVED	08/24/09	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50	4.62	<0.50	<0.50	<0.50	12.60	<0.50
		DISSOLVED	04/20/10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.43	<0.1	2.00	<0.1	<0.1	<0.1	5.25	0.13
		DISSOLVED	07/19/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	2.50	<0.2	<0.2	<0.2	3.48	<0.2
MW-31M	249785	DISSOLVED	04/20/09	0.07	<0.04	<0.04	<0.05	<0.03	<0.04	0.12	<0.03	1.13	<0.03	0.02	<0.05	2.55	1.06
		DISSOLVED	08/24/09	0.29	<0.10	<0.10	0.14	<0.10	<0.10	0.14	<0.10	0.82	<0.10	<0.10	<0.10	2.50	1.35
		DISSOLVED	04/15/10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.41	<0.1	1.24	<0.1	<0.1	<0.1	2.01	1.20
		DISSOLVED	07/19/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	1.16	<0.2	<0.2	<0.2	1.25	1.16
MW-82	249840	DISSOLVED	04/20/09	<0.43	<0.37	<0.39	<0.50	<0.32	<0.40	<0.74	<0.32	0.73	<0.34	<0.18	<0.49	9.13	<0.30
		DISSOLVED	04/15/10	0.89	<0.26	<0.250	0.30	0.37	<0.260	1.34	<0.11	0.84	0.25	<0.12	<0.21	8.67	<0.25
		DISSOLVED	07/21/10	0.96	<0.5	<0.2	0.40	<0.2	<0.2	<0.5	<0.2	0.76	<0.2	<0.2	<0.2	6.22	<0.2
MW-85	249843	DISSOLVED	04/20/09	<0.42	<0.36	<0.38	<0.49	<0.31	<0.39	<0.72	<0.32	0.78	<0.33	<0.18	<0.47	9.23	<0.29
		DISSOLVED	04/06/10	1.00	<0.04	<0.05	0.40	0.06	0.20	0.46	0.08	0.93	0.07	0.06	<0.04	6.99	0.20
		DISSOLVED	07/21/10	1.09	<0.5	<0.2	0.45	<0.2	0.22	<0.5	<0.2	0.93	<0.2	<0.2	579.00	6.70	<0.2

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

			PHYSICAL PARAMETERS										
							FIELD					LAB	
Site ID	GWIC ID	Sample Type	DATE (MM/DD/YR)	TIME (HRS)	SWL (FT)	FLOW (GPM)	pH	SC (UMHOS)	TEMP (C)	REDOX (mv)	pH	SC (UMHOS)
MW-90	249844	DISSOLVED	04/23/09	11:05	55.01	3.5	6.86	1,046	9.05	169	6.95	1,058
		DISSOLVED	08/24/09	16:10	53.62	3.0	6.84	1,148	9.90	144	7.71	1,148
		DISSOLVED	04/06/10	14:09	55.05	2.5	6.56	1,160	9.13	136	7.22	1,065
		DISSOLVED	07/21/10	11:11	54.70	2.5	6.60	1,135	11.37	131	0.00	1,132

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

Site ID	GWIC ID	Sample Type	DATE (MM/DD/YR)	HARDNESS (MG/L)	ALKALINITY (MG/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (mg/L)	Mn (mg/L)	SiO2 (mg/L)	HCO3 (mg/L)	CO3 (mg/L)	Cl (mg/L)	SO4 (mg/L)	NO3-N (mg/L)	F (mg/L)
MW-90	249844	DISSOLVED	04/23/09	617	221	212.0	21.4	16.00	8.26	10.4	3.64	23.8	269.6	0.0	6.31	443	<0.5	5.18
		DISSOLVED	08/24/09	620	217	214.0	20.8	15.30	7.70	9.86	3.47	21.7	263.9	0.0	6.92	426	<0.5	4.92
		DISSOLVED	04/06/10	595	218	204.0	20.9	20.90	7.47	9.49	3.38	21.3	266.0	0.0	6.67	393	<0.05	4.64
		DISSOLVED	07/21/10	600	226	206.0	20.9	20.90	7.31	9.08	3.22	20.8	275.7	0.0	6.78	410	<0.05	4.89

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

Site ID	GWIC ID	Sample Type	DATE	Al	Ag	As	B	Ba	Be	Cd	Co	Cr	Cu	Hg	Li	Mo	Ni	Pb	Se	Sr	Tl	Zn
			(MM/DD/YR)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
MW-90	249844	DISSOLVED	04/23/09	<30.41	<0.35	196.00	21.10	17.00	<0.96	<0.24 U	3.01	<0.43	<2.05 U		12.80	10.70	0.83	<0.99 U	<1.02	311.00	6.47	11.90
		DISSOLVED	08/24/09	<89.00	<0.50	188.00	23.30	19.80	<0.50	<1.00	3.30	<0.50	<4.00		13.70	12.20	<0.50	<0.50	<1.50	323.00	8.19	10.60
		DISSOLVED	04/06/10	<5.0	<0.5	183.00	15.40	18.80	<1.0	<0.5	3.42	<0.5	<2.0		54.50	11.70	0.70	<1.0	<0.5	304.00	8.48	11.60
		DISSOLVED	07/21/10	10.90	<1.0	183.00	20.30	18.00	<1.0	<1.0	3.24	<1.0	<2.5		<10.0	11.70	<1.0	<1.0	<1.0	317.00	9.00	8.27

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Smelter Hills/Opportunity Ponds WMA
Appendix A

Non 5-Yr Samples

				Additional Trace Metals													
				Cerium	Cesium	Gallium	Lanthanum	Niobium	Neodymium	Palladium	Praseodymium	Rubidium	Thallium	Thorium	Tin	Titanium	Tungsten
Site ID	GWIC ID	Sample Type	DATE	Ce	Cs	Ga	La	Nb	Nd	Pd	Pr	Rb	Tl	Th	Sn	Ti	W
			(MM/DD/YR)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-90	249844	DISSOLVED	04/23/09	<0.21	<0.18	<0.19	<0.25	<0.16	<0.20	<0.36	<0.16	1.13	<0.16	<0.09	<0.24	5.17	<0.15
		DISSOLVED	08/24/09	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50	1.23	<0.50	<0.50	<0.50	4.71	<0.50
		DISSOLVED	04/06/10	0.19	<0.5	<0.5	<0.1	0.26	<0.25	1.25	<0.1	1.24	<0.5	0.15	<0.5	4.42	<0.5
		DISSOLVED	07/21/10	<1.0	<2.5	<1.0	<1.0	<1.0	<1.0	<2.5	<1.0	<2.5	<1.0	<1.0	<1.0	3.74	<1.0

NA-not applicable
NR-not reported

Appendix B: Anaconda Regional Water, Waste, and Soils Old Works WMA

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Old Works WMA
Appendix B

					PHYSICAL PARAMETERS							
							FIELD				LAB	
Sample Type	GWIC ID	Site ID	DATE (MM/DD/YR)	TIME (HRS)	SWL (FT)	FLOW (GPM)	pH	SC (UMHOS)	TEMP (C)	REDOX (mv)	pH	SC (UMHOS)
DISSOLVED	250038	IW-01	06/10/09	10:05	NR	NR	6.91	475	7.40	455	7.02	452
DISSOLVED			10/13/10	14:03	NR	NR	5.87	320	8.92	461	7.74	320
DISSOLVED	250041	MW-204	06/08/09	14:45	31.13	2.50	7.39	415	8.30	372	7.36	425
DISSOLVED			07/01/10	10:30	30.76	2.50	6.54	440	9.01	402	7.72	450
Total Rec			07/01/10	10:30	30.76	2.50	6.54	440	9.01	402		
DISSOLVED	250042	MW-206	06/08/09	17:15	31.22	2.50	7.28	535	8.50	381	7.39	531
DISSOLVED			07/01/10	12:26	30.66	2.50	6.81	515	9.99	378	7.81	525
Total Rec			07/01/10	12:26	30.66	2.50	6.81	515	9.99	378		
DISSOLVED	250054	MW-206D	06/08/09	17:50	37.58	2.50	7.29	495	8.60	374	7.58	501
DISSOLVED			07/01/10	12:02	36.25	2.50	6.58	475	9.62	383	7.64	460
Total Rec			07/01/10	13:02	36.25	2.50	6.58	475	9.62	383		
DISSOLVED	250043	MW-207	05/05/09	12:00	85.03	2.00	7.11	526	12.42	431	8.07	537
DISSOLVED			06/11/09	0:00	78.52	3.00	7.41	620	9.51	324	7.39	581
DISSOLVED			09/21/09	10:55	72.47	7.50	6.65	825	10.42	335	7.63	710
DISSOLVED			03/23/10	13:12	84.27	3.00	6.70	565	9.81	392	7.57	510
DISSOLVED			07/01/10	13:45	79.61	3.00	6.63	600	10.78	351	7.75	545
Total Rec			07/01/10	13:45	79.61	3.00	6.63	600	10.78	351		
DISSOLVED	250044	MW-208	06/10/09	13:45	45.94	2.50	7.60	270	76.00	372	7.64	292
DISSOLVED			06/30/10	14:34	45.49	2.50	6.62	245	8.99	344	8.11	240
Total Rec			06/30/10	14:34	45.49	2.50	6.62	245	8.99	344		
DISSOLVED	250045	MW-209	06/12/09	11:00	52.70	1.00	7.57	573	8.16	333	7.67	561
DISSOLVED			06/29/10	15:18	52.79	1.00	6.94	470	10.00	365	8.15	465
Total Rec			06/29/10	15:18	52.79	1.00	6.94	470	10.00	365		
DISSOLVED	138022	MW-213	06/08/09	13:30	33.92	2.50	6.61	615	7.70	402	6.73	614
DISSOLVED			08/28/09	14:50	35.40	3.00	6.64	550	7.48	363	7.11	570
DISSOLVED			07/01/10	9:47	33.50	3.00	6.16	440	8.23	417	8.23	455
Total Rec			07/01/10	9:47	33.50	3.00	6.16	440	8.23	417		
Dissolved	250047	MW-240	06/10/09	16:45	68.88	3.00	7.42	615	9.15	318	7.48	595
Dissolved			07/01/10	13:05	68.53	3.00	6.62	480	11.46	358	7.52	485
Total Rec			07/01/10	13:05	68.53	3.00	6.62	480	11.46	358		

NA-not applicable
NR not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Old Works WMA
Appendix B

Site ID	DATE (MM/DD/YR)	HARDNESS (MG/L)	ALKALINITY (MG/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (mg/L)	Mn (mg/L)	SiO_2 (mg/L)	HCO_3 (mg/L)	CO_3 (mg/L)	Cl (mg/L)	SO_4 (mg/L)	NO_3-N (mg/L)	F (mg/L)
IW-01	06/10/09	244	118	74.8	14.00	6.07	1.84	<0.008	0.002	13.8	143.7	0.0	2.0	126	1.31	0.57
	10/13/10	149	105	45.7	8.55	4.56	1.52	0.013	0.010	12.3	127.6	0.0	1.8	54	0.32	0.60
MW-204	06/08/09	191	157	55.2	12.80	6.82	1.74	<0.002	0.004	12.3	190.6	0.0	6.1	50	0.63	0.55
	07/01/10	214	193	62.1	14.30	7.03	1.70	<0.002	<0.001	11.5	235.2	0.0	6.7	73	0.63	0.54
	07/01/10	248		75.1	14.70	7.75	1.92	0.025	<0.003							
MW-206	06/08/09	242	198	72.9	14.50	8.08	2.09	0.004	0.019	13.4	242.0	0.0	8.8	61	2.99	0.50
	07/01/10	243	237	75.3	13.40	8.24	1.98	<0.002	<0.001	12.5	289.1	0.0	8.6	60	2.55	0.56
	07/01/10	291		91.0	15.40	9.71	2.24	0.029	<0.003							
MW-206D	06/08/09	221	175	66.1	13.50	8.18	1.86	0.006	0.035	13.5	212.5	0.0	7.2	56	2.82	0.50
	07/01/10	207	245	62.8	12.30	8.36	1.73	0.008	0.013	12.8	299.1	0.0	6.7	46	2.42	0.55
	07/01/10	279		87.4	14.80	10.40	2.10	0.026	0.016							
MW-207	05/05/09	283	172	86.3	16.50	6.28	2.75	0.808	<0.001	14.7	209.8	0.0	12.1	98	6.65	<0.5
	06/11/09	299	173	91.8	17.00	7.04	2.97	<0.002	<0.001	15.9	211.3	0.0	15.5	90	7.29	<0.5
	09/21/09	341	178	105.0	19.10	7.01	2.76	0.003	0.001	14.0	217.2	0.0	10.2	155	4.15	0.68
	03/23/10	279	163	85.3	16.10	6.64	2.53	0.003	<0.001	13.4	198.9	0.0	14.5	101	2.83	0.72
	07/01/10	266	176	81.4	15.20	6.48	2.70	<0.002	<0.001	15.3	214.2	0.0	15.5	102	6.28	0.57
	07/01/10	343		107.0	18.50	7.76	3.12	0.003	<0.003							
MW-208	06/10/09	136	117	41.0	8.12	3.17	1.34	<0.008	<0.001	12.6	142.5	0.0	1.9	23	0.23	0.41
	06/30/10	119	160	35.6	7.27	2.81	1.21	<0.003	<0.001	10.3	195.2	0.0	0.9	15	0.13	0.44
	06/30/10	130		39.9	7.49	3.03	1.30	0.031	<0.003							
MW-209	06/12/09	279	157	87.5	14.80	6.70	1.97	0.010	<0.001	14.6	191.5	0.0	<5.0	119	1.82	0.78
	06/29/10	235	202	72.9	12.90	5.86	1.76	<0.002	<0.001	13.4	246.2	0.0	2.5	81	0.69	0.81
	06/29/10	248		78.6	12.50	5.52	74.40	0.036	<0.005							
MW-213	06/08/09	262	98	77.4	16.60	6.77	1.94	<0.002	0.447	13.5	119.5	0.0	<5.0	230	0.93	0.55
	08/28/09	285	132	88.6	15.60	7.72	1.81	<0.002	0.058	12.0	160.6	0.0	<5.0	151	2.14	0.65
	07/01/10	214	169	64.4	13.00	6.16	1.61	<0.002	0.103	11.2	206.2	0.0	1.9	103	0.64	0.74
	07/01/10	240		74.1	13.40	6.78	1.80	0.030	0.105							
MW-240	06/10/09	291	176	89.7	16.20	8.74	1.84	<0.002	0.192	15.9	214.4	0.0	7.2	96	6.40	<0.5
	07/01/10	219	212	67.9	11.90	7.44	1.66	<0.002	0.144	14.9	258.9	0.0	7.6	52	4.21	0.59
	07/01/10	270		85.2	14.00	8.84	1.76	0.032	0.164							

NA-not applicable
NR not reported

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Old Works WMA
Appendix B

Site ID	DATE (MM/DD/YR)	Al (ug/L)	Ag (ug/L)	As (ug/L)	B (ug/L)	Ba (ug/L)	Be (ug/L)	Cd (ug/L)	Co (ug/L)	Cr (ug/L)	Cu (ug/L)	Hg (ug/L)	Li (ug/L)	Mo (ug/L)	Ni (ug/L)	Pb (ug/L)	Se (ug/L)	Sr (ug/L)	U (ug/L)	Zn (ug/L)
IW-01	06/10/09	<0.35	<0.06	0.68	12.30	63.80	<0.15	3.44	<0.13	<0.12	608		8.00	3.53	2.22	2.44	0.74	191	0.26	602
	10/13/10	3	<0.2	0.83	9.02	34.60	<0.2	3.29	0.21	<0.2	1,120		7.28	1.39	2.56	0.47	0.30	119	<0.2	590
MW-204	06/08/09	<7.68	<0.04	0.67	11.80	35.70	<0.20	1.13	<0.10	0.09	258		5.84	3.62	0.38	<0.15	0.48	173	1.62	338
	07/01/10	<2.0	<0.2	0.62	10.60	34.60	<0.2	1.26	<0.2	<0.2	249		4.76	3.63	<0.2	<0.2	0.49	168	2.53	406
	07/01/10	<5.0	<0.5	0.51		36.10	<0.5	1.33	<0.5	<0.5	257		8.87	3.71	<0.5	<0.5	<0.5	174	2.45	433
MW-206	06/08/09	<7.68	<0.04	0.58	15.10	39.80	<0.20	9.93	<0.10	0.09	115		7.88	3.02	1.03	<0.15	1.94	208	<0.02	1,606
	07/01/10	<2.0	<0.2	0.56	14.10	43.90	<0.2	9.01	<0.2	<0.2	101		5.72	3.00	0.71	<0.2	2.54	195	<0.2	1,532
	07/01/10	<5.0	<0.5	<0.5		47.90	<0.5	9.51	<0.5	<0.5	120		9.45	3.29	0.86	<0.5	2.12	200	<0.5	1,692
MW-206D	06/08/09	<7.68	<0.04	0.55	15.10	48.30	<0.20	7.57	0.23	0.04	76.4		7.78	2.45	0.85	<0.15	1.93	185	0.04	983
	07/01/10	<2.0	<0.2	0.54	13.30	46.00	<0.2	6.09	<0.2	<0.2	66.2		5.90	2.32	0.31	<0.2	1.92	167	<0.2	725
	07/01/10	<5.0	<0.5	<0.5		52.70	<0.5	7.20	<0.5	<0.5	81.5		9.59	2.50	0.48	<0.5	1.70	186	<0.5	953
MW-207	05/05/09	12	<0.07	0.69	15.30	57.10	<0.19	<0.05	0.09	0.09	0.58		5.44	2.09	<0.08	<0.20	1.32	217	1.28	<1.29
	06/11/09	<7.68	<0.04	0.75	18.60	61.90	<0.20	<0.05	<0.10	<0.04	0.46		6.03	2.11	<0.10	<0.15	1.10	260	1.22	<0.91
	09/21/09	<7.6	<0.04	0.75	15.80	64.70	<0.20	<0.05	<0.10	0.32	1.06		5.76	2.34	<0.10	<0.16	1.14	259	1.75	<0.90
	03/23/10	3	<0.10	0.81	15.10	52.10	<0.10	<0.10	0.12	0.17	0.74		3.96	2.36	<0.10	0.15	1.25	213	1.32	1.40
	07/01/10	<2.0	<0.2	0.73	16.80	55.90	<0.2	<0.2	<0.2	<0.2	1.93		3.21	2.04	<0.2	<0.2	1.26	229	1.23	<1.0
	07/01/10	9	<0.5	0.56		61.40	<0.5	<0.5	<0.5	<0.5	2.74		<0.5	2.07	<0.5	<0.5	0.96	248	1.27	<2.5
MW-208	06/10/09	<0.35	<0.06	0.72	5.98	25.10	<0.15	<0.11	<0.13	<0.12	0.42		5.86	3.07	<0.08	<0.05	0.29	98	0.64	<0.48
	06/30/10	<2.0	<0.2	0.70	4.61	22.10	<0.2	<0.2	<0.2	<0.2	<0.5		4.14	3.42	<0.2	<0.2	<0.2	87	0.66	<1.0
	06/30/10	9	<0.5	0.58		21.80	<0.5	<0.5	<0.5	<0.5	<1.3		7.06	3.35	<0.5	<0.5	<0.5	81	0.60	<2.5
MW-209	06/12/09	12	<0.04	0.47	11.10	51.90	<0.20	7.99	0.12	0.13	0.56		10.40	1.65	0.49	<0.15	0.87	195	0.22	1,168
	06/29/10	<2.0	<0.2	0.37	10.30	41.80	<0.2	6.22	<0.2	<0.2	<0.5		7.27	1.70	<0.2	<0.2	0.40	163	<0.2	951
	06/29/10	<10.	<1.0	<0.9	12.60	42.70	<1.0	6.40	<0.9	<1.0	<2.5		<10.	1.92	<0.9	<1.0	<0.9	165	<1.0	936
MW-213	06/08/09	33	<0.04	0.22	18.30	30.60	0.25	21.10	7.51	0.07	4,574		15.50	1.84	6.90	<0.15	0.96	218	3.63	12,780
	08/28/09	<7.60	<0.04	0.21	20.60	20.50	<0.20	8.59	0.97	0.11	1,295		9.45	1.77	2.07	<0.16	0.92	189	0.72	3,873
	07/01/10	7	<0.2	<0.2	15.20	32.70	<0.2	6.87	1.60	<0.2	1,306		8.23	1.83	1.67	<0.2	0.62	164	0.26	3,212
	07/01/10	12	<0.5	<0.5		31.90	<0.5	6.87	1.55	<0.5	1,422		12.20	1.81	1.87	<0.5	0.51	156	<0.5	3,391
MW-240	06/10/09	<7.68	<0.04	0.72	20.40	71.60	<0.20	0.12	0.14	<0.04	0.83		8.59	2.41	<0.10	<0.15	2.96	254	0.83	<0.91
	07/01/10	<2.0	<0.2	0.59	16.70	53.60	<0.2	<0.2	<0.2	<0.2	2.90		5.40	2.06	<0.2	<0.2	1.55	187	0.54	<1.0
	07/01/10	14	<0.5	0.49		56.20	<0.5	<0.5	<0.5	<0.5	3.57		10.10	2.08	<0.5	<0.5	1.22	196	0.52	<2.5

NA-not applicable
NR not reported

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		Additional Trace Metals													
Site ID	DATE (MM/DD/YR)	Cerium Ce (ug/L)	Cesium Cs (ug/L)	Gallium Ga (ug/L)	Lanthanum La (ug/L)	Niobium Nb (ug/L)	Neodymium Nd (ug/L)	Palladium Pd (ug/L)	Praseodymium Pr (ug/L)	Rubidium Rb (ug/L)	Thallium Tl (ug/L)	Thorium Th (ug/L)	Tin Sn (ug/L)	Titanium Ti (ug/L)	Tungsten W (ug/L)
IW-01	06/10/09	<0.05	0.14	<0.07	0.22	<0.03	0.13	<0.10	0.03	3.02	0.05	<0.02	0.11	1.14	0.08
	10/13/10	<0.2	<0.5	<0.2	0.27	<0.5	<0.2	<0.5	<0.2	2.51	<0.2	<0.2	<0.5	0.48	<0.2
MW-204	06/08/09	<0.02	0.13	<0.050	0.27	<0.04	0.16	<0.10	0.04	2.66	<0.03	<0.02	<0.04	0.29	0.06
	07/01/10	<0.2	<0.5	<0.2	0.41	<0.2	0.25	<0.5	<0.2	2.59	<0.2	<0.2	<0.2	0.65	<0.2
	07/01/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	2.70	<0.5	<0.5		0.58	<0.5
MW-206	06/08/09	<0.02	0.06	<0.05	0.08	<0.04	0.66	<0.10	<0.02	1.81	0.06	<0.02	<0.04	1.08	0.36
	07/01/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.73	<0.2	<0.2	<0.2	0.54	0.29
	07/01/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	1.90	<0.5	<0.5		0.60	0.75
MW-206D	06/08/09	<0.02	0.07	<0.05	0.04	<0.04	<0.05	<0.10	<0.02	1.90	0.06	<0.02	<0.04	1.00	0.22
	07/01/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.89	<0.2	<0.2	<0.2	0.43	0.26
	07/01/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	2.17	<0.5	<0.5		<0.5	<0.5
MW-207	05/05/09	<0.04	<0.04	<0.04	<0.05	<0.03	<0.04	<0.07	<0.03	3.89	<0.03	<0.02	<0.05	0.86	1.51
	06/11/09	<0.02	<0.04	<0.05	0.03	<0.04	<0.05	<0.10	<0.02	4.33	<0.03	<0.02	<0.04	1.02	1.41
	09/21/09	<0.02	<0.04	<0.05	0.02	<0.10	<0.04	<0.10	<0.02	3.85	<0.03	<0.02	<0.04	1.81	1.74
	03/23/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	3.71	<0.10	<0.10	<0.10	0.93	1.77
	07/01/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	3.94	<0.2	<0.2	<0.2	0.97	1.27
	07/01/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	4.32	<0.5	<0.5		1.06	1.42
MW-208	06/10/09	<0.05	0.07	<0.07	<0.03	<0.03	<0.07	<0.10	<0.02	1.84	<0.03	<0.02	<0.05	<0.32	0.17
	06/30/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	1.75	<0.2	<0.2	<0.2	<0.2	0.26
	06/30/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	1.74	<0.5	<0.5		<0.5	<0.5
MW-209	06/12/09	<0.02	<0.04	<0.05	0.05	<0.04	<0.05	<0.10	<0.02	2.97	<0.03	<0.02	<0.04	1.78	0.07
	06/29/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	2.71	<0.2	<0.2	<0.2	0.72	<0.2
	06/29/10	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0	2.78	<1.0	<1.0		<1.0	<1.0
MW-213	06/08/09	1.57	0.17	<0.05	2.11	<0.04	1.35	0.18	0.35	3.51	0.09	<0.02	<0.04	3.63	<0.05
	08/28/09	0.18	0.13	<0.05	0.67	0.04	0.48	0.11	0.13	2.94	0.07	<0.02	<0.04	1.60	<0.05
	07/01/10	<0.2	<0.5	<0.2	0.67	<0.2	0.56	<0.5	<0.2	2.82	<0.2	<0.2	<0.2	0.92	<0.2
	07/01/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	2.81	<0.5	<0.5		0.87	<0.5
MW-240	06/10/09	<0.02	<0.04	<0.05	0.04	<0.04	<0.05	<0.10	<0.02	3.34	0.08	<0.02	<0.04	1.06	1.04
	07/01/10	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	2.81	<0.2	<0.2	<0.2	0.49	0.97
	07/01/10	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5	3.03	<0.5	<0.5		0.89	0.99

NA-not applicable
NR not reported

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Appendix B

					PHYSICAL PARAMETERS							
						FIELD					LAB	
Sample Type	GWIC ID	Site ID	DATE (MM/DD/YR)	TIME (HRS)	SWL (FT)	FLOW (GPM)	pH	SC (UMHOS)	TEMP (C)	REDOX (mv)	pH	SC (UMHOS)
DISSOLVED	250048	MW-241	06/10/09	15:40	37.89	2.50	7.01	355	8.00	357	7.09	335
DISSOLVED			06/30/10	13:38	37.49	2.00	6.33	335	9.25	396	8.15	340
Total Rec			06/30/10	13:38	37.49	2.00	6.33	335	9.25	396		
DISSOLVED	250049	MW-242	06/09/09	16:35	44.86	2.50	7.43	435	8.80	367	7.55	417
DISSOLVED			06/29/10	13:29	43.28	2.00	6.53	380	9.51	377	8.33	370
Total Rec			06/29/10	13:29	43.28	2.00	6.53	380	9.51	377		
DISSOLVED	250014	MW-251	05/05/09	17:10	69.05	2.20	7.33	635	8.07	573	7.69	641
DISSOLVED			06/12/09	13:00	54.98	0.20	7.68	595	10.40	308	7.62	577
DISSOLVED			09/23/09	11:36	55.80	1.00	7.16	490	9.39	345	7.42	500
DISSOLVED			03/19/10	12:33	69.19	1.00	6.86	480	7.87	379	7.80	475
DISSOLVED			06/30/10	12:59	53.28	1.00	6.43	455	9.19	366	8.01	410
Total Rec			06/30/10	12:59	53.28	1.00	6.43	455	9.19	366		
DISSOLVED	249797	MW-252	05/06/09	13:55	61.46	2.30	7.48	410	8.66	408	8.22	457
DISSOLVED			06/09/09	17:50	42.20	2.50	7.49	445	8.70	384	7.50	420
DISSOLVED		Dup	06/09/09	17:52	42.20	2.50	7.49	445	8.70	384	7.45	430
DISSOLVED			09/22/09	14:35	49.44	0.75	7.32	415	8.92	353	7.74	490
DISSOLVED			03/18/10	13:34	60.89	1.00	6.51	400	8.74	407	7.74	425
DISSOLVED		Dup	03/18/10	13:34	60.89	1.00	6.51	400	8.74	407	7.67	430
DISSOLVED			06/29/10	14:08	40.56	1.00	6.54	380	9.60	372	7.96	380
Total Rec			06/29/10	14:08	40.56	1.00	6.54	380	9.60	372		
DISSOLVED	250055	MW-255	05/05/09	17:05	70.43	2.00	7.48	330	7.76	400	7.64	395
DISSOLVED			06/09/09	15:30	45.08	2.50	7.44	345	8.20	378	7.51	425
DISSOLVED			09/22/09	12:25	60.67	1.00	7.26	360	10.06	340	7.64	355
DISSOLVED			03/19/10	14:52	69.92	1.00	6.72	330	8.09	373	7.66	350
DISSOLVED			06/29/10	12:49	43.85	1.00	6.51	320	8.74	392	8.12	300
Total Rec			06/29/10	12:49	43.85	1.00	6.51	320	8.74	392		

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NR not reported

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Site ID	DATE (MM/DD/YR)	HARDNESS (MG/L)	ALKALINITY (MG/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (mg/L)	Mn (mg/L)	SiO_2 (mg/L)	HCO_3 (mg/L)	CO_3 (mg/L)	Cl (mg/L)	SO_4 (mg/L)	NO_3-N (mg/L)	F (mg/L)
MW-241	06/10/09	160	125	46.9	10.40	5.88	1.51	<0.008	<0.001	13.8	152.3	0.0	3.5	51	0.44	0.54
	06/30/10	164	181	48.5	10.40	5.88	1.59	<0.002	<0.001	11.2	220.6	0.0	4.0	36	0.45	0.68
	06/30/10	185		55.9	11.10	6.48	1.72	0.032	<0.003							
MW-242	06/09/09	202	160	61.8	11.70	6.40	1.61	<0.008	0.001	14.1	195.2	0.0	4.2	68	0.55	0.54
	06/29/10	186	196	55.9	11.30	6.43	1.67	<0.002	<0.001	11.6	239.4	0.0	2.7	33	0.35	0.58
	06/29/10	219		67.9	11.90	6.97	1.79	0.048	<0.003							
MW-251	05/05/09	350	164	110.0	18.20	6.95	2.08	0.008	<0.001	13.6	199.8	0.0	<5.0	234	0.97	0.75
	06/12/09	292	161	92.1	15.10	6.66	2.01	0.105	0.002	15.5	195.5	0.0	<5.0	133	1.64	0.89
	09/23/09	235	146	74.5	11.80	5.68	1.67	0.007	0.001	12.7	178.1	0.0	3.1	111	1.24	0.84
	03/19/10	231	162	73.0	11.90	5.54	1.57	0.002	0.001	11.5	198.4	0.0	2.2	94	0.66	0.93
	06/30/10	228	178	71.3	12.10	5.68	1.65	<0.002	<0.001	12.9	217.2	0.0	2.3	74	0.53	0.90
	06/30/10	282		90.8	13.40	6.33	1.96	0.131	<0.003							
MW-252	05/06/09	223	162	67.3	13.30	6.71	1.77	0.005	<0.001	12.3	198.4	0.0	3.6	86	0.54	0.56
	06/09/09	222	164	67.9	12.70	6.85	1.73	<0.008	<0.001	13.6	199.6	0.0	4.4	74	0.51	0.54
Dup	06/09/09	220	160	66.7	13.00	7.07	1.83	<0.008	<0.001	14.1	195.4	0.0	4.2	69	0.42	0.53
	09/22/09	205	145	63.4	11.40	5.73	1.53	<0.003	0.001	11.4	176.7	0.0	6.0	74	0.97	0.59
	03/18/10	185	166	56.1	10.90	6.14	1.49	0.002	0.001	11.5	202.3	0.0	3.3	46	0.51	0.57
Dup	03/18/10	183	154	55.6	10.70	6.10	1.47	0.002	0.001	11.5	187.6	0.0	3.3	46	0.51	0.58
	06/29/10	175	197	52.4	10.70	6.15	1.55	0.004	<0.001	12.2	239.6	0.0	3.2	36	0.42	0.57
	06/29/10	178		54.2	10.40	5.81	68.80	0.110	<0.002							
MW-255	05/05/09	177	133	51.9	11.50	4.27	1.64	0.004	<0.001	11.5	161.8	0.0	4.9	50	0.61	0.36
	06/09/09	179	137	52.9	11.30	4.22	1.60	<0.008	0.001	12.3	166.7	0.0	3.8	42	0.48	0.40
	09/22/09	173	121	51.6	10.70	3.97	1.55	0.013	0.001	10.8	148.4	0.0	18.2	46	0.84	0.45
	03/19/10	155	136	45.8	9.92	3.98	1.42	0.004	0.001	10.1	165.9	0.0	3.3	34	0.33	0.43
	06/29/10	145	166	42.4	9.47	3.84	1.45	<0.002	<0.001	11.2	202.8	0.0	2.2	26	0.29	0.42
	06/29/10	155		45.5	9.96	3.81	1.59	0.081	<0.005							

NA-not applicable
NR not reported

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Site ID	DATE (MM/DD/YR)	Al (ug/L)	Ag (ug/L)	As (ug/L)	B (ug/L)	Ba (ug/L)	Be (ug/L)	Cd (ug/L)	Co (ug/L)	Cr (ug/L)	Cu (ug/L)	Hg (ug/L)	Li (ug/L)	Mo (ug/L)	Ni (ug/L)	Pb (ug/L)	Se (ug/L)	Sr (ug/L)	U (ug/L)	Zn (ug/L)
MW-241	06/10/09	5	<0.06	0.39	11.60	31.40	<0.15	3.20	<0.13	<0.12	169		6.37	2.26	0.82	<0.05	0.39	119	<0.01	957
	06/30/10	<2.0	<0.2	0.35	10.70	42.60	<0.2	3.24	<0.2	<0.2	183		5.11	2.44	0.72	<0.2	0.30	129	<0.2	952
	06/30/10	7	<0.5	<0.5		42.40	<0.5	3.23	<0.5	<0.5	182		8.54	2.39	0.95	<0.5	<0.5	124	<0.5	1,004
MW-242	06/09/09	<0.35	<0.06	0.47	11.80	49.80	<0.15	0.30	<0.13	<0.12	<0.33		7.88	2.72	<0.08	<0.05	0.40	139	0.25	46.9
	06/29/10	<2.0	<0.2	0.46	11.80	49.00	<0.2	0.24	<0.2	<0.2	<0.5		6.61	2.98	<0.2	<0.2	0.25	135	0.21	36.0
	06/29/10	31	<0.5	<0.5		49.60	<0.5	<0.5	<0.5	<0.5	<0.3		7.87	3.03	<0.5	<0.5	<0.5	131	<0.5	36.3
MW-251	05/05/09	10	<0.07	0.41	9.57	77.50	<0.19	0.07	0.09	<0.09	0.46		14.10	1.20	<0.08	<0.20	0.76	236	0.33	5.39
	06/12/09	111	<0.04	0.56	11.00	58.10	<0.20	0.67	<0.10	0.22	0.52		12.70	1.49	<0.10	<0.15	0.72	198	0.31	81.8
	09/23/09	46	<0.13	0.46	9.82	51.10	<0.14	<0.09	0.34	0.15	0.53		11.80	1.38	<0.23	<0.11	0.47	168	0.23	4.09
	03/19/10	4	<0.10	0.48	7.80	49.10	<0.10	<0.10	<0.10	11.00	0.33		10.50	1.42	<0.10	<0.10	0.47	171	0.21	2.88
	06/30/10	<2.0	<0.2	0.42	10.40	46.30	<0.2	<0.2	<0.2	<0.2	<0.5		9.55	1.41	<0.2	<0.2	0.37	153	0.21	10.5
	06/30/10	103	<0.5	<0.5		48.00	<0.5	<0.5	<0.5	<0.5	<1.3		14.30	1.48	<0.5	<0.5	<0.5	153	<0.5	10.5
MW-252	05/06/09	7	<0.07	0.43	10.10	59.70	<0.19	0.94	0.18	<0.09	<0.41		8.37	2.81	<0.08	<0.20	0.43	169	0.37	98.2
	06/09/09	0.89	<0.06	0.43	12.00	56.70	<0.15	2.21	<0.13	<0.12	0.35		7.29	2.90	<0.08	<0.05	0.43	158	0.32	248
Dup	06/09/09	<0.35	<0.06	0.43	11.70	58.10	<0.15	2.25	0.22	<0.12	0.37		7.37	2.94	<0.08	<0.05	0.42	156	0.33	249
	09/22/09	<15.83	<0.13	0.46	9.43	51.90	<0.14	1.54	0.11	0.12	0.71		6.85	3.05	<0.23	<0.11	0.32	144	0.33	152
	03/18/10	3	<0.10	0.49	10.00	50.00	<0.10	1.20	<0.10	<0.10	0.73		6.20	2.90	<0.10	<0.10	0.36	142	0.24	129
Dup	03/18/10	2	<0.10	0.49	9.11	49.80	<0.10	1.23	<0.10	0.13	0.66		6.17	2.90	<0.10	<0.10	0.33	142	0.26	130
	06/29/10	<2.0	<0.2	0.44	11.40	49.90	<0.2	1.24	<0.2	<0.2	<0.5		6.23	3.01	<0.2	<0.2	0.32	135	0.26	128
	06/29/10	109	<1.0	<0.9	12.30	51.40	<1.0	1.21	<0.9	<1.0	<2.5		<10	2.97	<0.9	<1.0	<0.9	132	<1.0	129
MW-255	05/05/09	25	<0.07	0.75	6.00	35.50	<0.19	<0.05	<0.04	<0.09	<0.41		3.98	2.82	<0.08	<0.20	0.41	140	1.41	1.59
	06/09/09	1	<0.06	0.78	7.00	33.60	<0.15	<0.11	0.21	<0.12	0.36		3.85	2.79	<0.08	<0.05	0.36	129	1.26	<0.48
	09/22/09	<15.83	<0.13	0.76	6.00	33.10	<0.14	<0.09	0.46	0.12	0.54		3.79	2.69	<0.23	<0.11	0.36	127	1.21	3.37
	03/19/10	6	<0.10	0.77	4.23	30.80	<0.10	<0.10	0.13	0.11	0.32		2.84	2.91	<0.10	<0.10	0.26	124	1.21	<0.81
	06/29/10	<2.0	<0.2	0.71	6.26	27.40	<0.2	<0.2	<0.2	<0.2	<0.5		2.57	2.79	<0.2	<0.2	0.19	109	0.97	<1.0
	06/29/10	70	<1.0	<0.9	<10	31.50	<1.0	<1.0	<0.9	<1.0	<2.5		<10	2.83	<0.9	<1.0	<0.9	119	1.06	<5.0

NA-not applicable
NR not reported

Appendix C: Anaconda Regional Water, Waste, and Soil South/Opportunity Yellow Ditch AOC

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Appendix C

					PHYSICAL PARAMETERS							
							FIELD				LAB	
Sample Type	GWIC ID	Site ID	DATE (MM/DD/YR)	TIME (HRS)	SWL (FT)	FLOW (GPM)	pH	SC (UMHOS)	TEMP (C)	REDOX (mv)	pH	SC (UMHOS)
DISSOLVED	249936	LTW-1D	09/11/09	18:05	12.34	3.0	6.96	180	8.80	301	6.91	190
DISSOLVED			03/17/10	12:22	22.50	2.5	6.05	190	8.73	403	6.91	195
DISSOLVED			07/15/10	9:40	8.41	4.0	6.25	190	8.94	353	8.94	190
TOTAL REC			07/15/10	9:40	8.41	4.0	6.25	190	8.94	353		
DISSOLVED	249937	LTW-1S	09/11/09	17:25	12.40	3.0	7.23	170	10.19	288	6.73	195
DISSOLVED			03/17/10	12:45	23.20	2.0	6.30	190	8.37	401	6.88	210
DISSOLVED			07/15/10	9:21	8.54	4.0	5.99	200	8.75	354	7.84	205
TOTAL REC			07/15/10	9:21	8.54	4.0	5.99	200	8.75	354		
DISSOLVED	249938	LTW-3D	09/15/09	14:38	5.58	8.0	6.80	245	8.86	382	6.89	275
DISSOLVED			03/17/10	13:27	8.33	4.0	6.42	255	9.14	389	6.96	230
DISSOLVED			07/14/10	10:09	5.15	3.0	6.46	245	8.81	346	7.89	270
TOTAL REC			07/14/10	10:09	5.15	3.0	6.46	245	8.81	346		
DISSOLVED	249939	LTW-3S	09/15/09	14:40	6.35	8.0	6.54	265	9.37	368	6.76	270
DISSOLVED			03/17/10	13:45	8.78	4.0	6.60	235	7.16	380	7.31	250
DISSOLVED			07/14/10	10:28	5.63	4.0	6.48	230	8.24	355	8.25	240
TOTAL REC			07/14/10	10:28	5.63	4.0	6.48	230	8.24	355		
DISSOLVED	249940	LTW-4D	09/11/09	16:20	15.64	8.0	7.25	120	9.45	303	6.95	135
DISSOLVED			04/13/10	12:55	27.38	2.5	6.41	145	7.72	289	8.11	180
DISSOLVED			07/15/10	10:25	3.81	3.0	6.38	155	7.68	355	7.86	155
TOTAL REC			07/15/10	10:25	3.81	3.0	6.38	155	7.68	355		
DISSOLVED	249941	LTW-4S	09/11/09	15:40	15.17	3.0	7.29	125	11.74	300	6.88	150
DISSOLVED			04/13/10		Dry							
DISSOLVED			07/15/10	10:07	3.33	3.0	6.07	115	9.76	351	6.91	120
TOTAL REC			07/15/10	10:07	3.33	3.0	6.07	115	9.76	351		

NA-not applicable
NR-not reported

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Site ID	DATE (MM/DD/YR)	HARDNESS (MG/L)	ALKALINITY (MG/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (mg/L)	Mn (mg/L)	SiO_2 (mg/L)	HCO_3 (mg/L)	CO_3 (mg/L)	Cl (mg/L)	SO_4 (mg/L)	NO_3-N (mg/L)	F (mg/L)
LTW-1D	09/11/09	78	80	21.60	5.95	6.59	0.89	0.012	0.001	14.1	96.9	0.00	1.20	21.0	1.34	0.29
	03/17/10	76	67	20.60	5.88	6.28	0.77	0.007	0.001	12.5	82.2	0.00	0.97	21.1	1.26	0.28
	07/15/10	80	68	21.80	6.13	6.26	0.82	0.004	<0.001	13.1	83.5	0.00	1.06	22.4	1.42	0.30
	07/15/10	88		24.20	6.71	7.26	1.02	0.090	<0.003							
LTW-1S	09/11/09	73	62	20.20	5.36	6.27	0.91	0.004	<0.001	14.6	74.9	0.00	1.27	21.0	1.11	0.46
	03/17/10	75	66	20.60	5.67	5.68	0.80	0.005	0.001	12.8	79.5	0.00	1.04	25.9	1.87	0.41
	07/15/10	83	60	23.10	6.17	6.02	0.82	<0.002	<0.001	12.9	73.2	0.00	7.77	24.1	1.63	0.43
	07/15/10	88		24.60	6.52	6.65	1.01	0.140	0.002							
LTW-3D	09/15/09	124	112	34.30	9.30	6.54	1.01	0.004	0.001	14.1	137.4	0.00	2.57	22.0	<0.05	0.49
	03/17/10	85	57	23.40	6.34	5.21	0.84	<0.001	0.001	9.6	68.8	0.00	2.07	21.9	0.70	0.44
	07/14/10	96	104	25.70	7.81	5.59	0.91	<0.002	0.001	13.0	126.6	0.00	1.24	20.9	0.41	0.47
	07/14/10	121		33.60	9.10	6.81	1.13	0.043	<0.003							
LTW-3S	09/15/09	125	111	34.90	9.27	7.52	0.96	<0.002	<0.001	14.3	135.4	0.00	4.36	27.2	0.31	0.65
	03/17/10	101	99	27.90	7.52	6.50	0.79	<0.001	0.001	12.9	121.3	0.00	1.09	19.5	0.12	0.58
	07/14/10	97	101	26.90	7.12	6.03	0.76	<0.002	<0.001	13.1	123.4	0.00	0.96	18.3	0.16	0.62
	07/14/10	110		30.60	8.04	7.08	0.98	0.056	<0.003							
LTW-4D	09/11/09	50	56	13.70	3.95	4.93	0.93	0.009	0.001	13.3	68.3	0.00	<0.5	7.0	<0.05	0.45
	04/13/10	61	61	16.40	4.86	5.22	0.92	<0.002	<0.001	12.3	74.4	0.00	<0.5	10.6	0.12	0.46
	07/15/10	65	69	17.40	5.16	4.77	0.92	0.005	<0.001	11.5	84.4	0.00	<0.5	13.4	0.18	0.45
	07/15/10	73		20.00	5.67	5.72	1.11	0.177	<0.003							
LTW-4S	09/11/09	56	62	15.50	4.20	4.74	1.20	0.008	<0.001	14.5	75.2	0.00	<0.5	7.1	<0.05	0.44
	04/13/10															
	07/15/10	47	45	12.70	3.81	3.88	0.98	<0.002	<0.001	12.4	55.1	0.00	<0.50	7.8	0.12	0.54
	07/15/10	52		14.20	4.06	4.56	1.11	0.071	<0.003							

NA-not applicable
NR-not reported

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Site ID	DATE (MM/DD/YR)	Al (ug/L)	Ag (ug/L)	As (ug/L)	B (ug/L)	Ba (ug/L)	Be (ug/L)	Cd (ug/L)	Co (ug/L)	Cr (ug/L)	Cu (ug/L)	Hg (ug/L)	Li (ug/L)	Mo (ug/L)	Ni (ug/L)	Pb (ug/L)	Se (ug/L)	Sr (ug/L)	U (ug/L)	Zn (ug/L)
LTW-1D	09/11/09	<17.80	<0.10	0.44	4.64	51.60	<0.10	<0.20	<0.10	0.18	<0.80		2.54	0.89	<1.90	<0.10	<0.30	108	1.47	<1.90
	03/17/10	3.17	<0.10	0.49	<2.0	49.90	<0.10	<0.10	0.11	0.12	3.59		1.62	0.80	<0.10	<0.10	0.30	110	1.49	6.06
	07/15/10	6.78	<0.20	0.45	51.80	4.14	<0.20	<0.20	<0.20	<0.2	<0.50		2.58	0.80	<0.20	<0.20	0.28	111	1.40	<1.0
	07/15/10	71.10	<0.50	<0.50	<5.0	54.30	<0.50	<0.50	<0.50	<0.50	1.65		<5.0	0.93	<0.5	<0.50	<0.50	109	1.35	<2.5
LTW-1S	09/11/09	<17.80	<0.10	6.24	5.48	55.70	<0.10	<0.20	0.15	0.16	<0.80		2.74	1.12	<0.10	<0.10	0.44	102	1.20	<1.90
	03/17/10	5.88	<0.10	1.78	2.25	57.60	<0.10	<0.10	0.32	0.17	1.28		1.70	0.77	<0.10	<0.10	0.49	110	1.01	1.69
	07/15/10	<2.0	<0.2	4.72	4.48	63.40	<0.20	<0.20	<0.20	<0.20	0.64		2.82	0.71	<0.2	<0.20	<0.20	117	1.04	<1.0
	07/15/10	18.40	<0.50	4.22	<5.0	65.30	<0.50	<0.50	<0.50	<0.50	<1.3		<5.0	0.79	<0.5	<0.50	0.52	115	1.01	<2.5
LTW-3D	09/15/09	<17.80	<0.10	0.42	4.05	73.10	<0.10	<0.20	0.47	0.18	<0.80		2.36	3.19	<0.10	<0.10	<0.30	169	10.50	<1.90
	03/17/10	1.08	<0.10	0.35	2.66	50.50	<0.10	<0.10	<0.10	0.11	0.91		1.28	2.46	<0.10	<0.10	<0.20	121	6.28	<0.81
	07/14/10	<2.0	<0.20	0.36	4.59	63.80	<0.20	<0.20	<0.20	<0.20	0.67		<2.0	3.18	<0.20	<0.20	<0.20	153	8.40	<1.0
	07/14/10	8.07	<0.50	<0.50	<5.0	66.10	<0.50	<0.50	<0.50	<0.50	<1.3		<5.0	3.38	<0.50	<0.50	<0.50	106	7.99	<2.5
LTW-3S	09/15/09	<17.80	<0.10	2.32	5.55	92.40	<0.10	<0.20	<0.10	0.14	1.08		2.77	3.22	0.16	<0.10	<0.30	170	20.90	<1.90
	03/17/10	1.43	<0.10	2.36	2.51	74.60	<0.10	<0.10	<0.10	<0.10	1.15		1.64	2.78	0.14	<0.10	0.23	147	17.30	<0.81
	07/14/10	<2.0	<0.20	2.37	4.47	71.70	<0.20	<0.20	<0.20	<0.20	1.16		2.10	2.95	<0.20	<0.20	0.32	140	15.10	<1.0
	07/14/10	19.90	<0.50	2.10	<5.0	74.40	<0.50	<0.50	<0.50	<0.50	11.50		5.15	3.08	<0.50	<0.50	<0.50	138	14.00	<2.5
LTW-4D	09/11/09	<17.80	<0.10	0.55	4.19	39.10	<0.10	<0.20	0.12	0.17	1.01		1.69	2.60	0.26	<0.10	<0.30	88	0.97	53.50
	04/13/10	<1.0	<0.10	0.48	3.14	45.00	<0.20	<0.10	0.34	0.09	0.55		9.80	2.49	0.44	<0.20	<0.10	107	1.59	70.50
	07/15/10	9.95	<0.20	0.47	3.62	49.30	<0.20	<0.20	<0.20	<0.20	0.75		<2.0	2.11	0.27	<0.20	<0.20	114	1.73	78.00
	07/15/10	284.00	<0.50	0.47	<5.0	55.80	<0.50	<0.50	<0.50	<0.50	4.14		<5.0	2.33	0.47	<0.50	<0.50	120	1.83	72.00
LTW-4S	09/11/09	<17.80	<0.10	0.56	4.68	37.30	<0.10	<0.20	<0.10	0.10	1.09		1.23	1.99	0.27	<0.10	<0.30	89	0.75	68.90
	04/13/10																			
	07/15/10	4.87	<0.20	0.51	3.47	29.20	<0.2	<0.2	<0.20	<0.20	1.39		<2.0	1.66	0.28	<0.20	<0.20	76	0.48	64.00
	07/15/10	57.30	<0.50	<0.50	<5.0	30.80	<0.50	<0.50	<0.50	<0.50	1.75		<5.0	1.70	<0.50	<0.50	<0.50	74	<0.50	52.80

NA-not applicable
NR-not reported

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		Additional Trace Metals													
Site ID	DATE (MM/DD/YR)	Cerium Ce (ug/L)	Cesium Cs (ug/L)	Gallium Ga (ug/L)	Lanthanum La (ug/L)	Niobium Nb (ug/L)	Neodymium Nd (ug/L)	Palladium Pd (ug/L)	Praseodymium Pr (ug/L)	Rubidium Rb (ug/L)	Thallium Tl (ug/L)	Thorium Th (ug/L)	Tin Sn (ug/L)	Titanium Ti (ug/L)	Tungsten W (ug/L)
LTW-1D	09/11/09	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.43	<0.10	<0.10	<0.10	<0.30	<0.10
	03/17/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.42	<0.10	<0.10	<0.10	0.25	<0.10
	07/15/10	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	0.39	<0.20
	07/15/10	<0.50	<1.3	<0.50	<0.50	<0.4	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		2.61	<0.50
LTW-1S	09/11/09	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.35	<0.10	<0.10	<0.10	<0.30	<0.10
	03/17/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.34	<0.10	<0.10	<0.10	0.36	<0.10
	07/15/10	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	0.22	<0.20
	07/15/10	<0.50	<1.3	<0.5	<0.50	<0.40	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		0.81	<0.5
LTW-3D	09/15/09	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.37	<0.10	<0.10	<0.10	0.34	0.12
	03/17/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.33	<0.10	<0.10	<0.10	<0.20	<0.10
	07/14/10	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20
	07/14/10	<0.50	<1.3	<0.50	<0.50	<0.40	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		<0.50	<0.20
LTW-3S	09/15/09	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	<0.30	<0.10
	03/17/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	<0.20	<0.10
	07/14/10	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20
	07/14/10	<0.50	<1.3	<0.50	<0.50	<0.40	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		0.79	<0.50
LTW-4D	09/11/09	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.32	<0.10	<0.10	<0.10	0.82	0.11
	04/13/10	<0.10	<0.10	<0.10	<0.10	0.07	<0.10	0.26	<0.10	0.33	<0.10	<0.10	<0.10	<0.20	0.12
	07/15/10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	0.24	<0.20
	07/15/10	0.74	<1.3	<0.50	<0.50	<0.40	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		5.43	<0.50
LTW-4S	09/11/09	<0.10	<0.10	<0.10	0.11	<0.20	<0.10	<0.10	<0.10	0.20	<0.10	<0.10	<0.10	<0.30	0.12
	04/13/10														
	07/15/10	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20
	07/15/10	<0.50	<1.3	<0.50	<0.50	<0.40	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		1.77	<0.50

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
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Appendix C

					PHYSICAL PARAMETERS							
							FIELD				LAB	
Sample Type	GWIC ID	Site ID	DATE (MM/DD/YR)	TIME (HRS)	SWL (FT)	FLOW (GPM)	pH	SC (UMHOS)	TEMP (C)	REDOX (mv)	pH	SC (UMHOS)
DISSOLVED	249898	MW-9 (LAB)	05/06/09	15:10	24.38	3.0	6.24	160	8.30	330	6.79	230
DISSOLVED			09/17/09	12:45	17.79	8.0	6.57	178	8.48	253	7.05	210
DISSOLVED			03/18/10	15:38	27.98	4.0	6.43	185	7.98	313	7.12	210
DISSOLVED			07/14/10	11:14	9.79	4.0	6.31	185	8.20	289	8.05	200
TOTAL REC			07/14/10	11:14	9.79	4.0	6.31	185	8.20	289		

NA-not applicable
NR-not reported

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Site ID	DATE (MM/DD/YR)	HARDNESS (MG/L)	ALKALINITY (MG/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (mg/L)	Mn (mg/L)	SiO_2 (mg/L)	HCO_3 (mg/L)	CO_3 (mg/L)	Cl (mg/L)	SO_4 (mg/L)	NO_3-N (mg/L)	F (mg/L)
MW-9 (LAB)	05/06/09	78	64	21.30	5.94	6.02	0.88	0.007	<0.001	13.4	77.8	0.00	0.93	21.2	1.19	0.43
	09/17/09	73	66	20.10	5.54	5.68	0.78	0.128	0.006	12.2	81.3	0.00	0.92	23.8	0.77	0.43
	03/18/10	77	62	21.20	5.85	5.78	0.78	0.06	0.005	11.6	76.4	0.00	0.63	29.1	0.83	0.45
	07/14/10	76	62	20.70	5.97	5.77	0.78	0.05	0.01	11.0	74.9	0.00	0.68	29.8	0.87	0.47
	07/14/10	86		23.70	6.42	6.47	0.96	0.91	0.01							

NA-not applicable
NR-not reported

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Site ID	DATE (MM/DD/YR)	Al (ug/L)	Ag (ug/L)	As (ug/L)	B (ug/L)	Ba (ug/L)	Be (ug/L)	Cd (ug/L)	Co (ug/L)	Cr (ug/L)	Cu (ug/L)	Hg (ug/L)	Li (ug/L)	Mo (ug/L)	Ni (ug/L)	Pb (ug/L)	Se (ug/L)	Sr (ug/L)	U (ug/L)	Zn (ug/L)
MW-9 (LAB)	05/06/09	<6.02	<0.07	0.25	2.93	46.80	<0.19	<0.01	<0.04	<0.09	<0.41		2.59	0.83	<0.08	<0.20	0.41	110	1.42	<1.29
	09/17/09	<7.60	<0.04	0.27	3.44	46.40	<0.20	<0.05	0.29	0.85	<0.40		2.29	0.81	0.15	<0.16	0.42	106	1.33	<0.90
	03/18/10	<0.81	<0.10	0.31	<2.0	46.70	<0.10	<0.10	<0.10	<0.10	0.27		1.71	0.78	<0.10	<0.10	0.51	113	1.44	<0.81
	07/14/10	<2.0	<0.20	0.22	2.95	42.30	<0.20	<0.20	<0.20	<0.20	<0.50		2.09	0.70	<0.20	<0.20	0.43	99	1.09	<1.0
	07/14/10	6.37	<0.50	<0.50	<5.0	48.50	<0.50	<0.50	<0.50	<0.50	<1.3		<5.0	0.74	<0.50	<0.50	<0.50	106	1.18	<2.5

NA-not applicable
NR-not reported

Montana Bureau of Mines and Geology
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		Additional Trace Metals													
Site ID	DATE (MM/DD/YR)	Cerium Ce (ug/L)	Cesium Cs (ug/L)	Gallium Ga (ug/L)	Lanthanum La (ug/L)	Niobium Nb (ug/L)	Neodymium Nd (ug/L)	Palladium Pd (ug/L)	Praseodymium Pr (ug/L)	Rubidium Rb (ug/L)	Thallium Tl (ug/L)	Thorium Th (ug/L)	Tin Sn (ug/L)	Titanium Ti (ug/L)	Tungsten W (ug/L)
MW-9 (LAB)	05/06/09	<0.04	<0.04	<0.04	<0.05	<0.03	<0.04	<0.07	<0.03	0.37	<0.03	<0.02	<0.05	0.14	<0.03
	09/17/09	<0.04	<0.04	<0.05	<0.02	<0.04	<0.05	<0.10	<0.02	0.36	<0.03	<0.02	<0.04	0.25	0.10
	03/18/10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	0.37	<0.10	<0.10	<0.10	0.26	<0.10
	07/14/10	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.50	<0.20	<0.20	<0.20	0.22	<0.20
	07/14/10	<0.50	<1.3	<0.50	<0.50	<0.40	<0.50	<1.3	<0.50	<1.3	<0.50	<0.50		<0.50	<0.50

NA-not applicable
NR-not reported

Appendix D: Anaconda Regional Water, Waste, and Soils Domestic Well Water-Quality Results

Montana Bureau of Mines and Geology
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Appendix D

Sample	Gwic Id	Site Name	Sample Date	Field Number	Water Temp	Fld pH	Fld SC	Ca (mg/l)	Mg (mg/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57	WENDT-5124	24.01	7.59	245	20.7	1.04
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07	SWANSON-5330	11.01	6.7	544	27.5	7.7
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	SWANSON-5330	11.01	6.7	544	29	8.01
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52	CLIFF GALLE JR.	8.74	7.19	264.9	44.5	7.11
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31	S & CONCRETE - 51060	10.21	6.51	377	58	12.7
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42	BAKER-51066	8.96	6.57	150	15.7	4.54
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15	DATRES-51092	9.06	6.57	179	20.6	5.61
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22	GLOVAN-51137	8.45	7.07	175	20.4	5.48
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02	COLWELL-51165	8.63	6.67	175	20	6.03
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39	DOTSON-51178	9.52	6.59	155	16.7	4.67
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55	DUFFY-51193	8.74	7.05	239	29	7.52
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13	BOWEN-51199	9.78	7.32	178	19.4	4.74
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36	BOWEN-51202	8.54	6.93	184	21.7	5.5
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	FAUGHT-51327	10.03	6.9	643	53.6	14.8
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51	FAUGHT-51327	10.03	6.9	643	64	16.3
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	SCHERMAN (RENTAL)-51328	11.9	6.97	492	16.8	3.8
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	SCHERMAN (RENTAL) 51328	11.9	6.97	492	18.4	4.04
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36	SCHERMAN - 51328	10.77	7.53	497	17.9	3.66
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	51333	11.1	6.8	875	33.2	8.28
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00	FRESH - 51333	9.42	6.68		34	8.49
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	FRESH-51333	11.1	6.8	875	28.3	7.48
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	FRESH	10.23	7.06	902	35.3	8.86
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	FRESH	10.23	7.06	902	35.3	8.86
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	FRESH-51333	10.29	7.23	904	33.4	8.58
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	FRESH-51333	10.29	7.23	904	32.1	8.55
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	FRESH	10.34	7.06	902.3	32.9	8.09
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	FRESH-RO-51333	18.7	7.62	72	1.9	0.669
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	MCDOWELL - 51334	9.81	7.41	437	60.5	12.7
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46	MCDOWELL - 51334	9.81	7.41	437	62	13.87.60
2010Q0651	51352	WILSON, RUTH	2/18/2010	MILLER	9.01	7.19	670	85.6	13.9
2010Q1072	51356	STROUD, SUSIE	6/22/2010	STROUD-51356	9.1	6.68	884	110	35.7
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29	DELONG-51724	9.73	6.62	209	25.8	7.79
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16	TYKE GALLE	10.03	7.53	278.7	43.6	8.98
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31	NOVAK - 51800	10.05	7.35	1149	72.3	39.6
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45	RANGITSCH	9.62	6.77	316.7	44.3	12
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46	REIGER	8.96	6.72	249.1	41.5	9.18
2010Q0650	51854	STURM LARRY	2/16/2010	STURM	8.89	7.37	730	79.9	14.8
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010	51858	7.81	6.94	390	58.6	11.1
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26	ANDREOZZI	9.64	7.13	885	99.1	21
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	ANDRIOZZI-SHALLOW	9.53	7.07	679	70.1	15

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
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Appendix D

Sample	Gwic Id	Site Name	Sample Date	Na (mg/l)	K (mg/l)	Fe (mg/l)	Mn (mg/l)	SiO2 (mg/l)	HCO3 (mg/l)	CO3 (mg/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57	27.9	2.7	0.047	<0.003			
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07	76.8	5.35	0.091	<0.005			
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	72.8	5.32	<0.002	<0.001	45.2	228.4	0
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52	3.03	1.44	0.142	0.002			
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31	6.06	1.39	0.064	<0.003			
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42	4.67	0.749	0.098	<0.003			
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15	5.55	0.905	0.113	<0.003			
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22	6.03	1.28	2.1	0.043			
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02	6.58	0.981	0.239	0.014			
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39	4.98	0.804	0.17	<0.003			
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55	6.98	1.17	0.065	<0.003			
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13	10.6	2.01	2.04	0.109			
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36	9.86	1.65	2.57	0.044			
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	45.2	5.64	<0.002	<0.001	81.2	300.6	0
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51	57.3	6.23	0.046	<0.003			
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	89.7	5.68	0.183	<0.005			
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	88.7	5.91	0.006	<0.001	38	221.8	0
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36	91.6	5.79	1.31	0.004			
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	141	177	0.403	<0.005			
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00	1.46	0.152	0.003	6.65			
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	131	4.14	0.011	0.001	31.5	239.1	0
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	149	4.59	0.015	0.001	30.1	246	0
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	149	4.59	0.015	0.001	30.1	246	0
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	147	4.58	0.02	0.002	31.9	234.3	0
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	145	4.48	0.158	<0.003			
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	137	4.28	0.033	0.002	29.6	235.46	0
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	11	0.428	<0.002	0.003	4.39	29.83	0
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	7.12	1.88	0.002	<0.001	11.2	207.6	0
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46	2.12	0.221	<0.003				
2010Q0651	51352	WILSON, RUTH	2/18/2010	33.8	2.85	0.041	0.002			
2010Q1072	51356	STROUD, SUSIE	6/22/2010	48.5	3.21	0.121	0.01			
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29	7.46	1.14	0.023	<0.003			
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16	4.43	1.81	0.037	<0.001			
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31	125	3.08	0.612	0.027			
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45	5.27	1.05	0.065	0.003			
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46	3.18	1.62	0.055	0.004			
2010Q0650	51854	STURM LARRY	2/16/2010	44.6	2.57	0.029	<0.001			
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010	4.82	1.99	0.02	<0.001			
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26	89.1	4.89	<0.120	<0.13			
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	53.1	3.23	<0.002	<0.001	14.2	262.3	0

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Sample	Gwic Id	Site Name	Sample Date	SO4 (mg/l)	Cl (mg/l)	NO3-N (mg/l)	F (mg/l)	OPO4-P (mg/l)	Ag (ug/l)	Al (ug/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57						<0.5	<5.0
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07						<1.0	12.6
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	53.3	18.56	1.69	3.96	<0.05	<0.2	<2.0
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52						<0.5	
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31						<0.5	<5.0
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42						<0.5	8.36
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15						<0.5	5.6
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22						<0.5	490
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02						<0.5	5.41
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39						<0.5	5.44
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55						<0.5	<5.0
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13						<0.5	58.1
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36						<0.5	5.23
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	47.73	7.78	5.18	0.825	<0.05	<0.2	<2.0
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51						<0.5	<5.0
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49						<1.0	14.8
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	43.76	15.46	0.608	2.8	<0.05	<0.2	<2.0
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36						<0.52	
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14						<1.0	22.6
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00						<0.5	
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	130.4	56.72	2.26	6.54	<0.05	<0.10	<1.00
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	144.3	60	2.36	6.81	<0.05	<0.10	<0.81
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	144.3	60	2.36	6.81	<0.05	<0.10	<0.81
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	145.4	56.54	2.36	6.12	<0.1	<0.2	<2.0
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39						<0.5	7.81
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	131.3	55.83	1.99	6.085	<0.05	<0.04	<7.68
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	<2.5	6.1	0.875	0.458	<0.1	<0.2	<2.0
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	39.85	6.98	1.13	0.431	<0.1	<0.2	<2.0
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46						<0.5	6.26
2010Q0651	51352	WILSON, RUTH	2/18/2010						<0.52	
2010Q1072	51356	STROUD, SUSIE	6/22/2010						<1.0	15
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29						<0.5	5.66
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16						<0.5	
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31						<0.52	
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45						<0.52	
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46						<0.5	
2010Q0650	51854	STURM LARRY	2/16/2010						<0.52	
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010						<0.52	
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26						<0.5	
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	128.8	7.44	0.48	1.53	<0.1	<0.2	<2.0

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Sample	Gwic Id	Site Name	Sample Date	As (ug/l)	B (ug/l)	Ba (ug/l)	Be (ug/l)	Br (ug/l)	Cd (ug/l)	Co (ug/l)	Cr (ug/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57	3.52		14.3	<0.5		<0.5	<0.5	1.69
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07	8.28	116	32.8	<1.0		<1.0	<0.9	<1.0
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	6.59	87.2	33.2	<0.2	125	<0.2	<0.2	<0.2
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52	5.43		14.6	<0.5		<0.5	<0.5	<0.5
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31	0.552	8.87	55	<0.5		<0.5	<0.5	<0.5
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42	<0.5		30.5	<0.5		<0.5	<0.5	<0.5
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15	<0.5		29	<0.5		<0.5	<0.5	<0.5
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22	1.7		30.9	<0.5		<0.5	<0.5	1.95
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02	<0.5		29	<0.5		<0.5	<0.5	<0.5
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39	<0.5		29.1	<0.5		<0.5	<0.5	<0.5
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55	0.732		18.6	<0.5		<0.5	<0.5	0.609
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13	0.76	8.69	76.4	<0.5		<0.5	<0.5	0.62
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36	2.62		52.3	<0.5		<0.5	<0.5	1
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	7.26	55.2	72.4	<0.2	60	<0.2	2.89	<0.2
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51	6.85	69.3	79.7	<0.5		<0.5	3.38	<0.5
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	15.5	120	5.27	<1.0		<1.0	<0.9	<1.0
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	14.5	93.7	4.87	<0.2	108	<0.2	<0.2	<0.2
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36	7.22		5.24	0.945		<0.45	<0.29	<0.47
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	13.6	222	36.6	<1.0		<1.0	<0.9	<1.0
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00	13.2		35.6	<0.8		<0.5	<0.3	0.595
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	12	169	<0.10	<0.10	399	<0.10	<0.10	<0.20
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	11.9	168	35.4	<0.10	446	<0.10	<0.10	0.307
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	11.9	168	35.4	<0.10	446	<0.10	<0.10	0.307
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	11.7	230	35.5	<0.2	399	<0.2	<0.2	0.223
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	11.6	195	34.3	<0.5		<0.5	<0.5	<0.5
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	11.3	169	36	<0.20	400	<0.04	<0.10	0.372
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	0.436	42.9	3.36	<0.2	85	<0.2	<0.2	<0.2
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	2.11	20.4	40.8	<0.2	50	<0.2	<0.2	<0.2
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46	1.96	22.4	42.2	<0.5		<0.5	<0.5	<0.5
2010Q0651	51352	WILSON, RUTH	2/18/2010	2.82		54.3	<0.74		<0.45	<0.29	<0.47
2010Q1072	51356	STROUD, SUSIE	6/22/2010	<0.9	33.5	27.8	<1.0		<1.0	<0.9	<1.0
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29	<0.5		32	<0.5		<0.5	<0.5	<0.5
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16	6.49		5.87	<0.5		<0.5	<0.5	<0.5
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31	<0.76		9.1	0.966		<0.45	<0.29	<0.47
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45	<0.76		67.8	0.94		<0.45	<0.29	<0.47
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46	<0.8		62.6	<0.8		<0.5	<0.3	<0.5
2010Q0650	51854	STURM LARRY	2/16/2010	2.6		66.8	<0.74		<0.45	<0L29	2.4
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010	1.89		44.2	<0.74		<0.45	<0.29	<0.47
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26	5.95		90.7	<0.5		<0.5	<0.5	<0.5
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	4.95	39	61.6	<0.2	92	<0.2	<0.2	<0.2

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Sample	Gwic Id	Site Name	Sample Date	Cu (ug/l)	Hg (ug/l)	Li (ug/l)	Mo (ug/l)	Ni (ug/l)	Pb (ug/l)	Sb (ug/l)	Se (ug/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57	<1.3		33.3	3.56	<0.5	<0.5	<0.5	5.88
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07	3.3		172	12.5	<0.9	<1.0	<1.0	<0.9
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	2.01		143	11.3	<0.2	<0.2	0.552	0.416
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52	2.32		<3.0	2.23	<0.5	0.581	<1.0	<1.0
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31	12		<5.0	1.45	<0.5	1.25	<0.5	<0.5
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42	3.19		<5.0	1.25	<0.5	<0.5	<0.5	<0.5
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15	12.2		<5.0	1.29	0.634	<0.5	<0.5	<0.5
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22	52.7		<5.0	1.49	0.689	2.95	<0.5	<0.5
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02	6.47		<5.0	1.05	<0.5	<0.5	<0.5	<0.5
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39	13.5		<5.0	0.823	<0.5	<0.5	<0.5	<0.5
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55	5.82		<5.0	1.32	<0.5	<0.5	<0.5	<0.5
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13	15.9		<5.0	1.08	<0.5	3.62	<0.5	<0.5
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36	7.63		<5.0	0.981	<0.5	0.551	<0.5	<0.5
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	0.741		24.1	3.66	<0.2	<0.2	<0.2	0.568
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51	<1.3		36.9	3.99	<0.5	<0.5	<0.5	<0.5
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	<2.5		85.5	10	<0.9	<1.0	<1.0	1.01
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	0.567		71.9	9.6	<0.2	<0.2	<0.2	0.612
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36	12.5		92.3	9.49	<0.62	2.23	0.97	<1.83
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	<2.5		615	14.9	<0.9	<1.0	<1.0	2.02
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00	<1.08		614	13.7	<0.5	<0.1	2.09	<0.6
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	0.995		565	13.1	<0.10	<0.10	0.319	2.7
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	0.338		603	13	<0.10	<0.10	0.24	2.13
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	0.338		603	13	<0.10	<0.10	0.24	2.13
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	0.59		601	13.7	<0.2	<0.2	0.262	2.1
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	2.09		584	14.4	<0.5	<0.5	<0.5	1.65
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	0.514		596	13	<0.10	<0.15	0.276	2.17
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	1.11		46.2	<0.2	0.192	<0.2	<0.2	0.269
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	0.737		4.8	2.95	<0.2	<0.2	0.347	0.547
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46	1.33		5.66	3.07	<0.5	<0.5	<0.5	<0.5
2010Q0651	51352	WILSON, RUTH	2/18/2010	26.1		31	<0.53	<0.62	<0.49	<0.63	<1.83
2010Q1072	51356	STROUD, SUSIE	6/22/2010	3.23		58.5	4.06	2.5	<1.0	<1.0	<0.9
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29	5.29		<5.0	1.33	<0.5	<0.5	<0.5	<0.5
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16	3.78		3.74	2.22	0.556	0.581	<1.0	<1.0
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31	<1.08		17	0.71	<0.62	<0.49	<0.63	<1.83
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45	<1.08		9.48	5.7	<0.62	<0.49	<0.63	<1.83
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46	5.39		5.66	4.14	<0.5	<0.1	<0.6	<2.0
2010Q0650	51854	STURM LARRY	2/16/2010	2.4		29.1	<0.53	<0.62	<0.49	<0.63	<1.83
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010	5.32		<4.0	<0.53	<0.62	<0.49	<0.63	<1.83
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26	12.9		156	4.15	0.52	0.656	<1.0	<1.0
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	2.1		65.2	4.31	<0.2	<0.2	0.46	0.856

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Sample	Gwic Id	Site Name	Sample Date	Sn (ug/l)	Sr (ug/l)	Ti (ug/l)	Tl (ug/l)	U (ug/l)	V (ug/l)	Zn (ug/l)	Zr (ug/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57		262	<0.5	<0.5	2.02	7.67	<2.5	<0.5
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07		295	<1.0	<1.0	3.07	8.37	6.36	<0.9
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	<0.2	265	0.422	<0.2	3.3	6.45	4.81	<0.2
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52		91.5	1.65	<0.5	1.55	1.21	8.31	<0.5
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31		256	<0.5	1.18	23.8	0.814	35.9	0.696
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42		92	<0.5	<0.5	0.922	0.715	<2.5	<0.5
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15		117	<0.5	<0.5	1.09	0.687	2.78	<0.5
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22		123	25.8	<0.5	1.83	5.45	8.93	0.524
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02		106	<0.5	<0.5	1.33	0.808	9.73	<0.5
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39		93.7	<0.5	<0.5	0.571	0.71	3.15	<0.5
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55		171	<0.5	<0.5	2.94	2.39	2.99	<0.5
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13		179	3.21	3.56	<0.5	4.56	21.7	<0.5
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36		143	<0.5	<0.5	1.52	9.86	<2.5	<0.5
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	<0.2	470	0.307	<0.2	23.1	10.4	2.22	<0.2
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51		537	<0.5	<0.5	18.2	12.7	<2.5	<0.5
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49		92	1.06	<1.0	4.27	11.2	<5.0	<0.9
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	<0.2	91.9	0.359	<0.2	4.38	9.04	1.62	<0.2
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36		97	<1.0	<0.39	4.24	11.5	11.5	<0.33
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14		373	1.8	<1.0	4.99	10	15.5	<0.9
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00		380	1.57	<0.4	4.66	9.22	12.1	<0.3
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	0.188	330	1.44	<0.10	4.54	6.41	10.4	<0.10
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	<0.10	354	1.07	<0.10	4.84	7.4	5.22	<0.10
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	<0.10	354	1.07	<0.10	4.84	7.4	5.22	<0.10
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	<0.5	350	1.09	<0.2	5.15	7.01	7.22	<0.2
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	<1.3	367	1.76	<0.5	4.53	8.69	12.1	<0.5
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	<0.04	344	1.4	<0.03	5.3	7.32	6.53	<0.05
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	<0.5	23.2	<0.2	<0.2	<0.2	<0.2	2.78	<0.2
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	<0.2	195	0.325	<0.2	2.23	0.642	<1.0	<0.2
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46		183	<0.5	<0.5	2.08	0.889	<2.5	<0.5
2010Q0651	51352	WILSON, RUTH	2/18/2010		1308	1.54	<0.39	<3.0	<0.29	10.8	<0.33
2010Q1072	51356	STROUD, SUSIE	6/22/2010		3052	4.03	<1.0	1.54	<1.0	38.6	<0.9
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29		137	<0.5	<0.5	2.26	0.743	0.743	3.95
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16		99.6	<1.5	<0.5	2.54	1.19	7.21	<0.5
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31		1458	3.47	<0.39	<3.0	<0.29	<3.0	<0.33
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45		263	<1.0	<0.39	<3.0	<0.29	<0.001	<0.33
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46		131	<1.0	<0.4	<3.0	0.585	35.3	<0.3
2010Q0650	51854	STURM LARRY	2/16/2010		1230	<1.0	<0.39	<3.0	<0.29	21.6	<0.33
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010		143	<1.0	<0.39	<3.0	<0.29	9.48	<0.33
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26		1289	<1.5	<0.5	1.78	0.697	8.3	0.52
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	<0.2	914	1.08	<0.2	1.52	0.445	<1.0	<0.2

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Sample	Gwic Id	Site Name	Sample Date	Ce (ug/l)	Cs (ug/l)	Ga (ug/l)	La (ug/l)	Nb (ug/l)	Nd (ug/l)	Pd (ug/l)	Pr (ug/l)
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57	<0.5	15.8	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07	<1.0	8.93	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	<0.2	9.06	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31	<0.5	<1.3	<0.5	<0.5	0.516	<0.5	<1.3	<0.5
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22	0.669	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	<0.2	5.49	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51	<0.5	5.5	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00	<0.5	<0.5	<0.5	<0.1	<0.5	<1.0	<0.3	<0.50
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	<0.10	<0.10	<0.20	<0.10	0.204	<0.10	0.126	<0.10
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	0.617	<1.3	<0.5	0.651	<1.3	<0.5	<1.3	0.593
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	<0.02	0.046	<0.05	<0.02	<0.04	<0.05	<0.10	<0.02
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0651	51352	WILSON, RUTH	2/18/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q1072	51356	STROUD, SUSIE	6/22/2010	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	0.51	<0.50
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46	<0.5	<0.5	<0.5	<0.1	<0.3	<1.0	<0.3	<0.50
2010Q0650	51854	STURM LARRY	2/16/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2

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Sample	Gwic Id	Site Name	Sample Date	Rb (ug/l)	Th (ug/l)	W (ug/l)	Procedure
2011Q0557	5124	WENDT, FRED	9/27/2010 12:57	9.65	<0.5	17.3	TOTAL RECOVERABLE
2010Q1079	5330	SWANSON, MARK	6/23/2010 13:07	9.7	<1.0	61.1	TOTAL RECOVERABLE
2010Q1078	5330	SWANSON, MARK	6/23/2010 13:07	8.3	<0.2	67.4	DISSOLVED
2010Q0771	5377	GALLE CLIFF JR	4/1/2010 15:52	0.965	<0.5	<1.5	TOTAL RECOVERABLE
2011Q0450	51060	H&H LAND AND PROPERTY LLC	8/26/2010 15:31	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0562	51066	BAKER, GEGE	9/29/2010 12:42	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0561	51092	DATRES, JACK	9/29/2010 14:15	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0801	51137	GLOVAN, STAN	11/4/2010 13:22	1.5	<0.5	0.774	TOTAL RECOVERABLE
2011Q0386	51165	COLWELL, CHARLES	8/31/2010 12:02	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0563	51178	DOTSON, CHRIS	9/29/2010 13:39	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0559	51193	DUFFY, VIOLA	9/28/2010 12:55	<1.3	<0.5	1.41	TOTAL RECOVERABLE
2011Q0470	51199	BOWEN, EVAN	9/22/2010 14:13	<1.3	<0.5	0.844	TOTAL RECOVERABLE
2011Q0469	51202	BOWEN, EVAN	9/22/2010 13:36	<1.3	<0.5	2.66	TOTAL RECOVERABLE
2011Q0303	51327	FAUGHT, STANLEY	8/10/2010 12:51	11.7	<0.2	15.2	DISSOLVED
2011Q0304	51327	FAUGHT, STANLEY	8/10/2010 12:51	12.6	<0.5	14.7	TOTAL RECOVERABLE
2010Q1085	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	7.06	<1.0	25.1	TOTAL RECOVERABLE
2010Q1084	51328	SCHERMAN, RUSS- RENTAL	6/24/2010 14:49	6.58	<0.2	26.7	DISSOLVED
2010Q0632	51328	SCHERMAN, RUSS- RENTAL	1/21/2010 14:36	6.36	<1.96	18.9	TOTAL RECOVERABLE
2010Q0992	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	<2.5	<1.0	185	TOTAL RECOVERABLE
2010Q0589	51333	FRESH, JEAN AND ELDEN	1/6/2010 12:00	1.62	<2.0	171	TOTAL RECOVERABLE
2010Q0991	51333	FRESH, JEAN AND ELDEN	6/10/2010 11:14	1.2	<0.10	190	DISSOLVED
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	1.44	<0.10	186	DISSOLVED
2010Q0718	51333	FRESH, JEAN AND ELDEN	3/30/2010 15:02	1.44	<0.10	186	DISSOLVED
2011Q0906	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	1.37	<0.2	224	DISSOLVED
2011Q0907	51333	FRESH, JEAN AND ELDEN	12/15/2010 14:39	1.61	<0.5	189	TOTAL RECOVERABLE
2010Q0610	51333	FRESH, JEAN AND ELDEN	1/25/2010 13:25	1.47	<0.02	189	DISSOLVED
2011Q0905	51333	FRESH, JEAN AND ELDEN	12/17/2010 13:51	<0.5	<0.2	<0.2	DISSOLVED
2011Q0448	51334	MCDOWELL, HAROLD	9/16/2010 14:46	2.73	<0.2	<0.2	DISSOLVED
2011Q0449	51334	MCDOWELL, HAROLD	9/16/2010 14:46	2.57	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0651	51352	WILSON, RUTH	2/18/2010	1.65	<1.96	<1.41	TOTAL RECOVERABLE
2010Q1072	51356	STROUD, SUSIE	6/22/2010	3.25	<1.0	<1.0	TOTAL RECOVERABLE
2011Q0388	51724	DELONG, DARCY * WELL #1	8/31/2010 14:29	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0772	51790	GALLE TYKE	4/1/2010 16:16	2.04	<0.5	<1.5	TOTAL RECOVERABLE
2010Q0630	51800	NOVAK JIM	2/2/2010 13:31	5.38	<1.96	<0.41	TOTAL RECOVERABLE
2010Q0628	51835	RANGITSCH DONALD	1/13/2010 15:45	2.32	<1.96	<1.41	TOTAL RECOVERABLE
2010Q0626	51836	WOODRUFF, JULIE	2/3/2010 14:46	3.11	<2.0	<1.4	TOTAL RECOVERABLE
2010Q0650	51854	STURM LARRY	2/16/2010	1.16	<1.96	<1.41	TOTAL RECOVERABLE
2010Q0645	51858	MOUNT HAGIN DEVELOPMENT LLC	2/1/2010	0.99	<1.96	<1.41	TOTAL RECOVERABLE
2010Q0704	51861	ANDREOZZI, BOB	2/25/2010 13:26	2.14	<0.5	<1.5	TOTAL RECOVERABLE
2011Q0358	51861	ANDREOZZI, BOB	8/18/2010 14:04	1.08	<0.2	<0.2	DISSOLVED

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Sample	Gwic Id	Site Name	Sample Date	Field Number	Water Temp	Fld pH	Fld SC	Ca (mg/l)	Mg (mg/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04	ANDRIOZZI-SHALLOW	9.53	7.07	679	68.6	14.9
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29	ANDRIOZZI-1861	11.24	6.79	679	74.2	15.4
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	ANDRIOZZI-DEEP	9.47	6.62	650	75.6	16.7
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34	ANDRIOZZI-DEEP	9.47	6.62	650	77.4	16.6
2010Q0647	51867	LOSHESKY GARY	2/11/2010	51867	9.02	7.15	405	58.4	11.1
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50	WALTER-51874	13.01	6.6	767	74.5	19
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	WALTER-51874	13.01	6.6	767	71.9	19.3
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57	GOCHANOUR - 51974	8.71	7.8	251	43.2	9.72
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35	PICKETT - 52087	8.95	7.36	256	44.9	8.32
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07	RICHTER - 52090	2.77	7.1	263	45.7	9.56
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	HOILAND-52123	6.41	7.08	463	72.1	11.4
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20	SILVA-53469	7.61	6.41	293	45.3	5.45
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	BEST-53564	9.18	7.39	186	27.9	2.7
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40	KELLEY-53582	9.32	7.53	349	48.4	19.2
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15	KELLEY-53584	8.24	7.51	273	34.9	14.6
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19	RUEGAMER-53591	11.3	7.4	523	32	4.54
2011Q0845	121383	BURK, RICK	12/2/2010 15:05	BURK-121383	8.55	6.75	191	20.3	5.81
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04	CHOQUETTE-122351	11.4	7.25	458	40	12.9
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45	MCMILLAN-126997	8.05	6.9	246	27.2	7.44
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24	HARRIS	7.53	7.44	193.8	27.2	8.83
2011Q0869	127079	GATES DONALD	12/10/2010 13:29	127079-GATES	7.08	7.1	264	40.5	10.4
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32	MAES - 135804	8.7	7.42	343	45.8	9.79
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24	WHITAKER-144202	16.96	6.99	307	39.7	6.49
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51	DIERENFELDT - 147848	9	7.19	878	122	24.6
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12	PASHA-147856	6.19	7.04	410	49.5	14.3
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50	148956-ADAMS	9.98	7.17	475	68.5	9.61
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31	STOCK/JONES-153592	14.3	6.9	281	30	3.18
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	STOCK/JONES-153592	14.3	6.9	281	29.1	3.02
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55	LOST CREEK FIRE DEPT	8.61	7.05	221.4	39	8.97
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02	GATES-KING	14.56	6.73	669	81.9	14.4
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25	STEPHEN TOZZI	7.23	7.06	172.8	28.5	8.73
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44	BOITNOTT-158784	18.62	7.1	311	22.1	5.35
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31	HINTZ-162609	8.68	6.69	264	35.4	6.43
2010Q0648	163223	DERZAY MIRIAM	2/11/2010	DERZAY	8.94	7.45	380	51	10.2
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36	LAURIE-163971	7.17	7.12	282	41.1	9.88
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29	BLUME	12.06	6.64	254	25	4.32
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	BLUME	12.06	6.64	254	23.8	3.73
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30	DAVE GRIFFIS	10.78	6.86	456.1	49.8	13.8
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	COOPER-167968	10.66	6.87	285	31.6	6.91
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56	COLBERT	10.19	6.28	375.5	43.7	11.5

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Sample	Gwic Id	Site Name	Sample Date	Na (mg/l)	K (mg/l)	Fe (mg/l)	Mn (mg/l)	SiO2 (mg/l)	HCO3 (mg/l)	CO3 (mg/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04	52.1	3.28	0.05	<0.003			
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29	48.1	3.06	0.196	0.006			
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	34.8	2.79	<0.002	<0.001	14.7	245.5	0
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34	33.9	2.86	0.175	0.003			
2010Q0647	51867	LOSHESKY GARY	2/11/2010	5.57	0.198	0.045	<0.001			
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50	69	3.69	1.01	0.022			
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	62.3	3.76	0.978	0.025	30.4	377.9	0
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57	1.98	1.44	0.033	<0.001			
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35	4.38	1.24	0.052	<0.001			
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07	3.29	1.33	0.034	0.001			
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	6.23	1.64	0.063	<0.003			
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20	7.44	1.93	0.048	<0.003			
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	7.51	0.843	0.065	<0.003			
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40	4.01	1.02	0.059	<0.003			
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15	4.84	0.094	0.08	<0.003			
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19	61	9.02	0.143	0.003			
2011Q0845	121383	BURK, RICK	12/2/2010 15:05	5.82	0.892	0.081	<0.003			
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04	24.6	6.32	0.053	<0.003			
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45	5.5	1.12	0.129	<0.003			
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24	2.34	1.29	0.05	0.001			
2011Q0869	127079	GATES DONALD	12/10/2010 13:29	2.85	1.19	0.056	<0.003			
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32	15.5	0.675	0.047	0.003			
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24	10.3	5.02	0.051	<0.003			
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51	37.8	4.71	0.163	0.003			
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12	20	1.4	0.039	<0.001			
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50	14.8	4.92	0.24	0.003			
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31	18.9	8.47	0.047	<0.005			
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	17.7	8.17	<0.002	<0.001	57.3	138.8	0
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55	3.84	1.46	5.63	0.11			
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02	21.7	5.83	0.067	<0.003			
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25	2.51	1.34	0.051	0.001			
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44	31.1	5.21	0.045	<0.003			
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31	12.8	1.9	0.099	<0.003			
2010Q0648	163223	DERZAY MIRIAM	2/11/2010	4.59	1.79	0.129	0.004			
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36	1.9	1.3	0.101	<0.003			
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29	25.5	1.84	4.3	0.035			
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	22.9	1.4	0.076	0.002	78.2	123	0
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30	42.4	1.18	0.205	0.08			
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	10.3	3.14	0.075	<0.003			
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56	16.9	2.09	0.241	0.005			

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Sample	Gwic Id	Site Name	Sample Date	SO4 (mg/l)	Cl (mg/l)	NO3-N (mg/l)	F (mg/l)	OPO4-P (mg/l)	Ag (ug/l)	Al (ug/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04						<0.5	8.51
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29						<0.05	<5.0
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	128.8	6.7	0.299	1.2	<0.1	<0.2	<2.0
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34						<0.5	16.5
2010Q0647	51867	LOSHESKY GARY	2/11/2010						<0.52	
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50						<0.5	63
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	71.33	5.33	<0.05	2.33	<0.05	<0.2	62.2
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57						<0.5	
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35						<0.5	
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07						<0.5	
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46						<0.5	<5.0
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20						<0.5	<5.0
2011Q0927	53564	BEST JOHN	12/21/2010 13:57						<0.5	24.9
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40						<0.5	<5.0
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15						<0.5	18.6
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19						<0.5	21.2
2011Q0845	121383	BURK, RICK	12/2/2010 15:05						<0.5	<5.0
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04						<0.5	12
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45						<0.5	9.05
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24						<0.5	
2011Q0869	127079	GATES DONALD	12/10/2010 13:29						<0.5	<5.0
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32						<0.5	9.93
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24						<0.5	<5.0
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51						<0.5	90.7
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12						<0.5	
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50						<0.5	261
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31						<1.0	<10.0
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	17.13	6.33	0.894	0.333	<0.05	<0.2	<2.0
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55						<0.50	
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02						<0.5	<5.0
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25						<0.50	
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44						<0.5	12.8
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31						<0.5	<5.0
2010Q0648	163223	DERZAY MIRIAM	2/11/2010						<0.52	
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36						<0.5	<5.0
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29						<0.5	1982
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	10.09	9.74	0.717	0.606	<0.05	<0.2	16.1
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30						<0.50	
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37						<0.5	<5.0
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56						<0.52	

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Sample	Gwic Id	Site Name	Sample Date	As (ug/l)	B (ug/l)	Ba (ug/l)	Be (ug/l)	Br (ug/l)	Cd (ug/l)	Co (ug/l)	Cr (ug/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04	4.7		58.2	<0.5		<0.5	<0.5	<0.5
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29	3.49	39.2	58.3	<0.5		<0.5	<0.5	<0.5
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	3.86	27.2	62.7	<0.2	70	<0.2	<0.2	<0.2
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34	3.66		61.8	<0.5		<0.5	<0.5	<0.5
2010Q0647	51867	LOSHESKY GARY	2/11/2010	1.32		45.6	<0.51		<0.45	<0.29	<0.47
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50	13.2	58.5	35.5	<0.5		<0.5	<0.5	<0.5
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	12.2	54.8	33.4	0.289	51	<0.2	<0.2	<0.2
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57	3.12		28.1	<0.8		<0.5	<0.3	<0.5
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35	3.12		36.3	<0.8		<0.5	<0.3	<0.5
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07	<0.8		29.4	<0.8		<0.5	<0.3	<0.5
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	<0.5	6.22	51	<0.5		<0.5	<0.5	<0.5
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20	<0.5	10.6	99.7	<0.5		<0.5	<0.5	<0.5
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	0.836	7.73	37.6	<0.5		<0.5	<0.5	<0.5
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40	1.62	18.1	34.9	<0.5		<0.5	<0.5	<0.5
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15	<0.5	35.5	24	<0.5		<0.5	<0.5	<0.5
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19	13.2		23.3	<0.5		<0.5	<0.5	<0.5
2011Q0845	121383	BURK, RICK	12/2/2010 15:05	<0.5		25.4	<0.5		<0.5	<0.5	<0.5
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04	13.6		74.5	<0.5		<0.5	<0.5	1.48
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45	<0.5		25.4	<0.5		<0.5	<0.5	<0.5
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24	<0.5		7.75	<0.5		<0.5	<0.5	<0.5
2011Q0869	127079	GATES DONALD	12/10/2010 13:29	1.12	<5.0	25.7	<0.5		<0.5	<0.5	<0.5
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32	<0.5	6.7	48.1	<0.5		<0.5	<0.5	<0.5
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24	1.1		131	<0.5		<0.5	<0.5	<0.5
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51	0.653	39.7	30	<0.5		<0.5	<0.5	0.517
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12	1.74		86.8	<0.5		<0.5	<0.5	<0.5
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50	4.05	31.1	213	<0.5		<0.5	<0.5	<0.5
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31	8.22	41.9	77.4	<1.0		<1.0	<0.9	<1.0
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	8.15	28.7	71.3	<0.2	76	<0.2	<0.2	<0.2
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55	0.568		61.2	<0.50		<0.50	<0.50	0.7
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02	4		177	<0.5		<0.5	<0.5	<0.5
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25	<0.51		9.38	<0.50		<0.50	<0.50	0.54
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44	10.5	53	32.9	<0.5		<0.5	<0.5	8.1
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31	0.517		38.3	<0.5		<0.5	<0.5	<0.5
2010Q0648	163223	DERZAY MIRIAM	2/11/2010	1.32		43.3	<0.74		<0.45	<0.29	<0.47
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36	0.993		26.1	<0.5		<0.5	<0.5	<0.5
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29	3.62	36.4	69.2	<0.5		<0.5	0.691	3.69
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	2.1	29.6	34.2	<0.2	84	<0.2	<0.2	0.448
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30	<0.51		57.1	<0.50		<0.50	<0.50	<0.50
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	1.1	15.2	126	<0.5		<0.5	<0.5	<0.5
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56	<0.76		35.8	0.955		<0.45	<0.29	<0.47

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Sample	Gwic Id	Site Name	Sample Date	Cu (ug/l)	Hg (ug/l)	Li (ug/l)	Mo (ug/l)	Ni (ug/l)	Pb (ug/l)	Sb (ug/l)	Se (ug/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04	1.81		65.9	4.44	<0.5	<0.5	<0.5	0.609
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29	5.05		72.4	3.78	<0.5	<0.5	<0.5	0.545
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	0.998		60.8	2.04	<0.2	<0.2	0.357	0.73
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34	1.35		62.1	2.16	<0.5	<0.5	<0.5	0.627
2010Q0647	51867	LOSHESKY GARY	2/11/2010	29.9		29.9	<0.53	<0.51	<0.49	<0.63	<1.01
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50	<1.3		132	4.09	<0.5	<0.5	<0.5	<0.5
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	3.62		123	3.52	<0.2	0.757	0.383	<0.2
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57	1.8		<5.0	2.6	<0.5	<0.1	<0.6	<2.0
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35	16.7		<5.0	2.36	<0.5	<0.3	<0.6	<2.0
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07	5.98		<5.0	2.96	1.34	<0.1	<0.6	<2.0
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	5.73		<5.0	1.11	<0.5	<0.5	<0.5	<0.5
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20	4.36		<5.0	1.01	<0.5	<0.5	<0.5	<0.5
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	2.04		<5.0	3.93	<0.5	<0.5	<0.5	<0.5
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40	1.41		<5.0	1.76	<0.5	<0.5	<0.5	<0.5
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15	4.71		<5.0	3.06	<0.5	<0.5	<0.5	<0.5
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19	4.33		10.4	7.69	<0.5	0.554	<0.5	3.59
2011Q0845	121383	BURK, RICK	12/2/2010 15:05	18.4		<5.0	0.993	<0.5	0.958	<0.5	<0.5
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04	1.61		7.2	2.3	0.804	<0.5	<0.5	1.91
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45	18.8		<5.0	1.35	<0.5	1.17	<0.5	<0.5
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24	4.65		<3.0	2.52	<0.5	0.54	<1.0	<1.0
2011Q0869	127079	GATES DONALD	12/10/2010 13:29	7.84		<5.0	2.67	<0.5	<0.5	<0.5	<0.5
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32	<1.3		7.02	3.58	<0.5	<0.5	<0.5	<0.5
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24	3.42		<5.0	0.941	<0.5	<0.5	<0.5	<0.5
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51	4.85		7.02	3.84	<0.5	<0.5	<0.5	0.502
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12	<1.0		15.7	4.66	<0.5	<0.5	<1.0	<1.0
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50	3.88		<5.0	1.74	<0.5	<0.5	<0.5	2.6
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31	2.75		<10.0	2.17	<0.9	<1.0	<1.0	<0.9
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	1.58		4.72	2.08	<0.2	<0.2	<0.2	0.399
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55	5.78		6.09	1.57	<1.00	1.23	<1.00	<9.50
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02	30.4		19.3	1.8	<0.5	0.758	<0.5	1.63
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25	5.98		3.21	2.13	<1.00	<0.50	<1.00	<9.50
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44	1.42		17.1	7.1	<0.5	<0.5	<0.5	<0.5
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31	8.06		<5.0	<0.5	<0.5	0.825	<0.5	<0.5
2010Q0648	163223	DERZAY MIRIAM	2/11/2010	21		5.31	<0.62	<0.49	<0.63	<1.83	
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36	1.27		<5.0	2.53	<0.5	<0.5	<0.5	<0.5
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29	4.87		32.4	0.731	1.23	1.89	<0.5	<0.5
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	0.69		23.6	0.689	<0.2	<0.2	<0.2	0.262
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30	0.575		16.1	2.76	<1.00	<0.50	<1.00	<9.50
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	<1.3		<5.0	2.96	<0.5	<0.5	<0.5	<0.5
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56	115		19.2	3.66	<0.62	3.06	0.82	<1.83

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Sample	Gwic Id	Site Name	Sample Date	Sn (ug/l)	Sr (ug/l)	Ti (ug/l)	Tl (ug/l)	U (ug/l)	V (ug/l)	Zn (ug/l)	Zr (ug/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04		902	1.19	<0.5	1.49	0.515	<2.5	<0.5
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29		969	1.01	<0.5	1.07	<0.5	2.96	0.57
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	<0.2	1079	0.981	<0.2	0.886	0.281	<1.0	<0.2
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34		1068	1.51	<0.5	0.911	<0.5	<2.5	0.855
2010Q0647	51867	LOSHESKY GARY	2/11/2010		150	<1.0	<0.39	<3.0	<1.29	6.53	<0.33
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50		2264	1.75	<0.5	0.512	<0.5	<2.5	<0.5
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	<0.2	2422	5.49	<0.2	0.625	0.211	9.7	0.213
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57		77.1	<1.0	<0.4	<3.0	0.99	<3.0	<0.3
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35		108	<1.0	<0.4	<3.0	0.445	17.8	<0.3
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07		87.2	<1.0	<0.4	<3.0	0.495	14	<0.3
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	<1.3	314	0.557	<0.5	3.61	2	17.4	<0.5
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20		222	<0.5	<0.5	4.35	0.836	6.02	<0.5
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	<1.3	117	1.01	<0.5	1.33	1.65	13.6	<0.5
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40		315	<0.5	<0.5	89.1	3.05	5.79	<0.5
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15		220	0.525	<0.5	21.6	1.47	3.76	<0.5
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19		163	1.25	<0.5	1.56	11.8	5.25	<0.5
2011Q0845	121383	BURK, RICK	12/2/2010 15:05		120	<0.5	<0.5	1.33	0.701	5.05	<0.5
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04		438	1.23	<0.5	2.22	15.7	2.54	<0.5
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45		161	0.702	<0.5	1.99	1.12	17.6	<0.5
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24		63.7	<1.5	<0.5	3.68	0.606	4.23	<0.5
2011Q0869	127079	GATES DONALD	12/10/2010 13:29		86.5	<0.5	<0.5	1.48	0.874	3.47	<0.5
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32		436	0.822	<0.5	4.3	<0.5	<2.5	<0.5
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24		294	<0.5	<0.5	10.8	2.32	<2.5	<0.5
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51		831	8.67	<0.5	65.4	4.05	<2.5	<0.5
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12		448	<1.5	<0.5	10	1.82	11.5	<0.5
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50		268	11	<0.5	1.66	8.62	5.04	0.775
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31		133	<1.0	<1.0	1.19	10.2	22.7	<0.9
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	<0.2	129	<0.2	<0.2	1.14	7.78	19.9	<0.2
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55		150	3.42	<0.50	4.03	1.48	62.8	0.095
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02		873	1.12	<0.5	18.7	3.33	8.2	<0.5
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25		62.6	<1.50	<1.50	3.58	0.72	<3.50	0.01
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44		202	1.07	<0.5	3.41	11.9	75.9	<0.5
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31		204	<0.5	<0.5	1.5	2.88	9.7	<0.5
2010Q0648	163223	DERZAY MIRIAM	2/11/2010		132	<1.0	<0.39	<3.0	<0.29	8.58	<0.33
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36		89	<0.5	<0.5	1.62	0.614	7.52	<0.5
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29		164	88.6	1.89	0.741	2.53	10.7	4.37
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	<0.2	159	0.503	<0.2	0.654	0.532	5.71	<0.2
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30		1128	<1.50	<0.50	1	<0.50	6	0.02
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	<1.3	432	<0.5	<0.5	3.92	1.78	7.91	<0.5
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56		1340	<1.0	<0.39	<3.0	<0.29	<3.0	<0.33

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Sample	Gwic Id	Site Name	Sample Date	Ce (ug/l)	Cs (ug/l)	Ga (ug/l)	La (ug/l)	Nb (ug/l)	Nd (ug/l)	Pd (ug/l)	Pr (ug/l)
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34	<0.5	<1.3	<0.5	<0.5	0.454	<0.5	<1.3	<0.5
2010Q0647	51867	LOSHESKY GARY	2/11/2010	<0.50	<0.50	<0.50	<0.50	<0.29	<0.93	<0.28	<0.50
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50	<0.5	5.69	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	<0.2	5.37	<0.2	<0.2	<0.2	<0.2	0.538	<0.2
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57	<0.5	<0.5	<0.5	<0.1	<0.3	96.8	<0.3	<0.50
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35	<0.5	<0.5	<0.5	<0.1	<0.3	<1.0	<0.3	<0.50
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07	<0.5	<0.5	<0.5	<0.1	<0.3	<1.0	<0.3	<0.50
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	6.02	<0.5
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0845	121383	BURK, RICK	12/2/2010 15:05	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2011Q0869	127079	GATES DONALD	12/10/2010 13:29	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02	<0.5	6.43	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0648	163223	DERZAY MIRIAM	2/11/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29	4.34	1.31	0.51	2.27	<0.4	2.04	<1.3	0.522
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	<0.2	0.528	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56	0.345	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50

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Sample	Gwic Id	Site Name	Sample Date	Rb (ug/l)	Th (ug/l)	W (ug/l)	Procedure
2011Q0359	51861	ANDREOZZI, BOB	8/18/2010 14:04	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0298	51861	ANDREOZZI, BOB	8/12/2010 14:29	1.44	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0356	51863	ANDREOZZI, BOB	8/18/2010 13:34	1.27	<0.2	<0.2	DISSOLVED
2011Q0357	51863	ANDREOZZI, BOB	8/18/2010 13:34	1.34	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0647	51867	LOSHESKY GARY	2/11/2010	0.712	<1.96	<1.41	TOTAL RECOVERABLE
2011Q0302	51874	WALTER RICHARD	8/12/2010 12:50	14.3	<0.5	4.18	TOTAL RECOVERABLE
2011Q0301	51874	WALTER RICHARD	8/12/2010 12:50	13.1	<0.2	4.07	DISSOLVED
2010Q0586	51974	GOCHANOUR RICK	1/11/2010 13:57	1.82	<2.0	<1.4	TOTAL RECOVERABLE
2010Q0585	52087	PICKETT BILL	1/12/2010 13:35	0.76	<2.0	<1.4	TOTAL RECOVERABLE
2010Q0587	52090	RICHTER MIKE & NAOMI	1/11/2010 13:07	1.76	<2.0	<1.4	TOTAL RECOVERABLE
2011Q0915	52123	HOILAND JOHN	12/13/2010 12:46	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0862	53469	SILVA ROY & MAUREEN	12/7/2010 13:20	3.27	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0927	53564	BEST JOHN	12/21/2010 13:57	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0871	53582	KELLEY BETTE	12/20/2010 13:40	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0867	53584	KELLEY DAN	12/20/2010 14:15	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0846	53591	RUEGAMER, ANTHONY	12/2/2010 14:19	6.92	<0.5	1.01	TOTAL RECOVERABLE
2011Q0845	121383	BURK, RICK	12/2/2010 15:05	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0797	122351	CHOQUETTE, WALTER	10/26/2010 13:04	10.8	<0.5	1.13	TOTAL RECOVERABLE
2011Q0849	126997	MCMILLAN, KATIE	11/9/2010 12:45	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0769	127077	HARRIS JOHN	3/19/2010 14:24	2.78	<0.5	<1.5	TOTAL RECOVERABLE
2011Q0869	127079	GATES DONALD	12/10/2010 13:29	1.58	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0453	135804	MAES PAT & RHONDA	9/13/2010 13:32	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0800	144202	WHITAKER, RUFUS	10/12/2010 12:24	11.8	<0.4	<0.5	TOTAL RECOVERABLE
2011Q0454	147848	WALTERS, JOE	9/16/2010 15:51	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0702	147856	PASHA LARRY D	3/4/2010 13:12	0.778	<0.5	<1.5	TOTAL RECOVERABLE
2011Q0865	148956	ADAMS ARLO AND JERYL	12/13/2010 14:50	5.99	<0.5	<0.5	TOTAL RECOVERABLE
2010Q1083	153592	CHARLENE STOCK JONES	6/24/2010 13:31	6.4	<1.0	<1.0	TOTAL RECOVERABLE
2010Q1082	153592	CHARLENE STOCK JONES	6/23/2010 13:31	6.05	<0.2	0.221	DISSOLVED
2010Q0655	153768	LOST CREEK FIRE DEPARTMENT	2/8/2010 12:55	3.62	<0.50	<1.00	TOTAL RECOVERABLE
2011Q0850	158208	GATES-KING, MARY	11/12/2010 13:02	12	<0.5	1.53	TOTAL RECOVERABLE
2010Q0657	158378	TOZZI STEPHEN	2/11/2010 14:25	2.5	<0.50	<1.00	TOTAL RECOVERABLE
2011Q0639	158784	BOITNOTT, STEVE	10/5/2010 13:44	10.5	<0.5	4.96	TOTAL RECOVERABLE
2011Q0468	162609	HINTZ, DANNY	9/22/2010 12:31	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0648	163223	DERZAY MIRIAM	2/11/2010	1.06	<1.96	<1.41	TOTAL RECOVERABLE
2011Q0803	163971	LAURIE JIM	11/9/2010 13:36	1.68	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0296	166648	BLUME, KEN AND AMY	8/3/2010 12:29	9.8	1.06	3.15	TOTAL RECOVERABLE
2011Q0295	166648	BLUME, KEN AND AMY	8/3/2010 12:29	3.02	<0.2	3.37	DISSOLVED
2010Q0656	166657	GRIFFIS DAVE	2/8/2010 13:30	2.98	<0.50	<1.00	TOTAL RECOVERABLE
2011Q0920	167968	COOPER HEATH & TAMMIE	12/22/2010 13:37	1.59	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0627	170467	COLBERT DAVE/TERI TYVAND	1/13/2010 14:56	1.68	<1.96	<1.41	TOTAL RECOVERABLE

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Sample	Gwic Id	Site Name	Sample Date	Field Number	Water Temp	Fld pH	Fld SC	Ca (mg/l)	Mg (mg/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54	HOOLAHAN-174768	7.96	6.72	195	23.4	6.71
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39	174177-BURNHAM	7.73	6.91	278	35.7	7.59
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49	PLILEY-174791	8.96	6.57	150	70.2	15.2
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17	REAP	7.31	8.09	179.7	23.4	8.27
2011Q0870	179071	KELSY HERB	12/20/2010 13:57	KELSEY-179071	8.41	7.17	686	94.4	24.5
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40	181455	8.68	6.88	194	21.7	5.79
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38	MONAGHAN-183125	10.51	7.32	225	20.1	3.6
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23	LOSTTLL-183656	8.9	6.4	217	25.3	5.78
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10	KOPP - 184529	8.03	7.01	288	39.9	9.26
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32	146132	7.04	7.08	291	44.8	10.9
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01	CYR-186565	8.69	6.69	179	21.3	5.81
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39	CULLEN - 189210	8.93	7.51	361	29.1	4.59
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27	HEFFERNAN - 196333	8.75	7.75	268	37	12.9
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	DRESCHER-196977	7.04	7.48	274	39.6	10.2
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01	KNADLER - 197467	8.35	7.1	667	64	14.4
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04	CARNEY-198156	6.6	6.92	265	38.5	8.39
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	CRIPPA-200064	12.36	7.01	381	40.1	6.96
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	CRIPPA-202627	10.65	6.92	295	28.4	4.91
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29	SMITH-207687	13.13	6.57	178	15.6	3.61
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	KOSTELECKY-207695	10.51	6.74	519	67.4	13.4
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59	KOSTELECKY-207695	10.51	6.74	519	72.4	13.5
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	MCCARTHY-209007	10.73	6.77	412	54.3	12.4
2011Q0300	209007	MCCARTHY DAVE	8/10/2010	MCCARTHY-209007				54.8	12.6
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01	BAKER-219266	13.85	7.41	298	24.6	4.72
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48	220897-VERLANIC	6.59	7.16	266	40.3	10.1
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51	221411-DOMBROWSKI	7.95	7.27	157	184	36.1
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15	KEELE-221430	10.34	6.89	680	43.2	14.6
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	KEELE-221430	10.34	6.89	680	40.2	12.9
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45	CLARK-225158	8.36	7.34	820	93.3	12.3
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15	SCHEKMAN-WELL-254436	12.71	6.9	574	14.7	3.19
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	SCHERMAN-WELL	11.19	7.1	609	14.7	3.17
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10	SCHERMAN NEW	11.4	7.41	582	14.3	2.82
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	SCHERMAN-OSMOSIS	17.01	6.03	23	0.142	<0.105
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28	SCHRRMAN-DSMDSIS-254436	19.42	5.19	19	0.154	0.023
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52	RUPP - 227336	8.43	7.1	452	64	14.4
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	GALLE-230299	9.62	6.64	285	38.9	8.12
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	GALLE-230299	9.62	6.64	285	41.4	8.76
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010	HANNON	8.19	7.37	330	45.2	9.31
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	237615	11.56	6.28	241	22.9	6.13
2010Q0994	237615	JONES JAMES	6/9/2010 14:30	237615	11.56	6.28	241	26.2	6.57

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Appendix D

Sample	Gwic Id	Site Name	Sample Date	Na (mg/l)	K (mg/l)	Fe (mg/l)	Mn (mg/l)	SiO2 (mg/l)	HCO3 (mg/l)	CO3 (mg/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54	5.68	0.883	0.271	<0.003			
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39	15.3	1.37	0.205	<0.003			
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49	65	5.03	0.044	<0.003			
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17	2.28	1.3	0.149	0.002			
2011Q0870	179071	KELSY HERB	12/20/2010 13:57	24	1.94	0.177	<0.003			
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40	5.62	0.87	0.455	0.004			
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38	11.6	3.96	0.04	<0.03			
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23	9.66	77.2	0.041	<0.005			
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10	4.46	1.43	0.083	0.002			
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32	2.08	1.27	0.07	<0.003			
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01	6.47	1.03	0.687	0.023			
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39	40.9	0.044	0.034	0.002			
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27	5.43	1.31	0.036	<0.001			
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	1.68	1.31	0.087	<0.003			
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01	10.6	1.73	0.055	0.002			
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04	1.47	1.33	0.083	<0.003			
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	16.1	6.97	0.045	<0.003			
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	18.3	1.69	0.029	<0.003			
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29	11.2	4.12	0.517	0.014			
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	20	1.73	<0.002	<0.001	13.9	225.7	0
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59	19.9	1.87	0.046	<0.003			
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	9.4	1.81	<0.002	<0.001	24.5	205	0
2011Q0300	209007	MCCARTHY DAVE	8/10/2010	10.3	1.88	0.048	<0.003			
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01	29.6	3.8	0.107	<0.010			
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48	1.8	1.23	0.28	<0.003			
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51	153	2.43	0.138	0.007			
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15	96.6	6.21	0.202	<0.003			
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	83.3	5.46	<0.002	0.001	39.6	273.5	0
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45	87.3	1.46	0.121	<0.003			
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15	107	207	0.254	0.009			
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	112	5.01	0.248	0.013	29	180.7	0
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10	108	5.04	0.252	0.007			
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	3.66	0.132	0.015	<0.001	1.65	8.19	0
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28	3.09	5.7	0.044	<0.005			
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52	10.6	1.73	0.055	0.002			
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	4.26	1.63	<0.002	<0.001	11.1	134	5.62
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	4.38	1.75	0.036	<0.003			
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010	3.95	1.66	0.033	<0.001			
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	11.4	2.98	<0.001	0.001	47.6	78.8	0
2010Q0994	237615	JONES JAMES	6/9/2010 14:30	11.5	117	0.072	<0.005			

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Sample	Gwic Id	Site Name	Sample Date	SO4 (mg/l)	Cl (mg/l)	NO3-N (mg/l)	F (mg/l)	OPO4-P (mg/l)	Ag (ug/l)	Al (ug/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54						<0.5	8.48
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39						<0.5	5.58
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49						<0.5	<5.0
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17						<0.5	
2011Q0870	179071	KELSY HERB	12/20/2010 13:57						<0.5	6.06
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40						<0.5	<5.0
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38						<0.5	<5.0
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23						<1.0	<10.0
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10						<0.52	
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32						<0.5	<5.0
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01						<0.5	5.72
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39						<0.52	
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27						<0.5	
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13						<0.5	5.99
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01						<0.52	
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04						<0.5	6.18
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03						<0.5	6.35
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56						<0.5	14.1
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29						<0.5	6.85
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	55.38	9.8	2.5	0.244	<0.1	<0.2	<2.0
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59						<0.5	5.15
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	37.76	2.39	<0.05	0.547	<0.05	<0.2	<2.0
2011Q0300	209007	MCCARTHY DAVE	8/10/2010						<0.5	<5.0
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01						<2.0	248
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48						<0.5	<5.0
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51						<0.5	10.4
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15						<0.5	50
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	74.35	19.96	2.59	2.27	<0.1	<0.2	2.24
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45						<0.5	5.82
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15						<1.0	<10.0
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	98.74	16.07	0.224	8.65	<0.1	<0.2	<2.0
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10						<0.52	
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	<2.5	0.815	0.086	0.266	<0.1	<0.2	<2.0
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28						<1.0	<10.0
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52						<0.52	
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	22.34	0.7	0.138	1.22	<0.1	<0.2	<2.0
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37						<0.5	<5.0
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010						9.52	
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	36.04	7.24	1.09	0.2	0.109	<0.10	3.5
2010Q0994	237615	JONES JAMES	6/9/2010 14:30						<1.0	61.2

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Sample	Gwic Id	Site Name	Sample Date	As (ug/l)	B (ug/l)	Ba (ug/l)	Be (ug/l)	Br (ug/l)	Cd (ug/l)	Co (ug/l)	Cr (ug/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54	<0.5		33.3	<0.5		<0.5	<0.5	<0.5
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39	0.886	5.7	12.6	<0.5		<0.5	<0.5	<0.5
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49	3.15		61.2	<0.5		<0.5	<0.5	<0.5
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17	<0.5		10.8	<0.5		<0.5	<0.5	<0.5
2011Q0870	179071	KELSY HERB	12/20/2010 13:57	<0.5	24.1	36	<0.5		<0.5	<0.5	0.512
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40	<0.5	<5.0	24.7	<0.5		<0.5	<0.5	<0.5
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38	3.75		56.9	<0.5		<0.5	<0.5	<0.5
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23	1.67	<10.0	50.2	<1.0		<1.0	<0.9	<1.0
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10	<0.76		27.2	0.945		<0.45	<0.29	<0.47
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32	1.38	<5.0	25.6	<0.5		<0.5	<0.5	<0.5
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01	<0.5		33.8	<0.5		<0.5	<0.5	<0.5
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39	<0.76		11.8	0.935		<0.45	<0.29	<0.47
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27	<0.8		75.3	<0.8		<0.5	<0.3	0.57
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	1.32	<5.0	25.8	<0.5		<0.5	<0.5	<0.5
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01	<0.76		27.1	0.96		<0.45	<0.29	<0.47
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04	0.575		23.2	<0.5		<0.5	<0.5	<0.5
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	4.23	32.5	98.4	<0.5		<0.5	<0.5	<0.5
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	5.82	17.1	45.9	<0.5		<0.5	<0.5	<0.5
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29	1.86		43	<0.5		<0.5	<0.5	<0.5
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	3.17	18.4	53	<0.2	65	<0.2	<0.2	<0.2
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59	2.81	18.1	54.6	<0.5		<0.5	<0.5	<0.5
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	4.22	11.4	39.2	<0.2	<50	<0.2	<0.2	<0.2
2011Q0300	209007	MCCARTHY DAVE	8/10/2010	4.05	11.6	41.2	<0.2		<0.2	<0.5	0.578
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01	11.1		69.6	<2.0		<2.0	<1.8	<2.0
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48	1.14	<5.0	27.8	<0.5		<0.5	<0.5	<0.5
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51	1.39	178	28	<0.5		<0.5	<0.5	0.561
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15	7.97		54.6	<0.5		<0.5	1.84	<0.5
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	7.16	99.5	54.3	<0.2	142	<0.2	1.57	<0.2
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45	1.02	185	29.6	<0.5		<0.5	<0.5	<0.5
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15	30.4	251	2.95	<1.0		<1.0	<0.9	<1.0
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	25.6	233	2.55	<0.2	92	<0.2	<0.2	<0.2
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10	23.2		2.97	0.955		<0.45	<0.29	<0.47
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	0.329	218	<0.2	<0.2	<50	<0.2	0.199	<0.2
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28	<0.9	328	<1.0	<1.0		<1.0	<0.9	<1.0
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52	<0.76		27.1	0.96		<0.45	<0.29	<0.47
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	2.59	5.72	43.6	<0.2	<50	<0.2	<0.2	<0.2
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	2.55		47.6	<0.5		<0.5	<0.5	<0.5
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010	1.91		31.5	<0.74		<0.45	<0.29	<0.47
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	5.22	16.5	<0.10	<0.10	64	<0.10	<0.10	<0.20
2010Q0994	237615	JONES JAMES	6/9/2010 14:30	5.03	21.9	39.5	<1.0		<1.0	<0.9	<1.0

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Sample	Gwic Id	Site Name	Sample Date	Cu (ug/l)	Hg (ug/l)	Li (ug/l)	Mo (ug/l)	Ni (ug/l)	Pb (ug/l)	Sb (ug/l)	Se (ug/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54	16.7		<5.0	1.46	<0.5	1.91	<0.5	<0.5
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39	5.89		7.95	1.85	<0.5	0.589	<0.5	<0.5
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49	<1.3		161	17.1	<0.5	<0.5	<0.5	0.707
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17	6.55		<3.0	2.14	<0.5	1.23	<1.0	<1.0
2011Q0870	179071	KELSY HERB	12/20/2010 13:57	7.91		9.5	2.77	<0.5	<0.5	<0.5	1.05
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40	1.43		<5.0	1.16	<0.5	<0.5	<0.5	<0.5
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38	<1.3		<5.0	1.25	<0.5	<0.5	<0.5	1.06
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23	<2.5		<10.0	1.02	<0.9	<1.0	<1.0	<0.9
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10	<1.08		8.52	2.74	<0.62	<0.49	0.04	<1.83
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32	6.3		<5.0	2.36	<0.5	<0.5	<0.5	<0.5
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01	23.4		<5.0	1.21	<0.5	0.558	<0.5	<0.5
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39	7.4		14.6	1.08	<0.62	<0.49	<0.02	<1.83
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27	16.2		<5.0	4.96	<0.5	<0.1	<0.6	<2.0
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	6.82		<5.0	2.65	<0.5	<0.5	<0.5	<0.5
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01	<1.08		12.5	<0.54	<0.62	<0.49	<0.63	<1.83
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04	<1.3		<5.0	3.42	<0.5	<0.5	<0.5	<0.5
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	<1.3		<5.0	0.929	<0.5	<0.5	<0.5	1.18
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	15.6		<5.0	0.566	<0.5	3.35	<0.5	1.09
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29	7.55		<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	26.4		10.6	1.25	<0.2	<0.2	0.259	0.305
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59	27.2		12.9	1.36	<0.5	<0.5	<0.5	<0.5
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	4.06		12.1	3.32	<0.2	<0.2	0.281	0.227
2011Q0300	209007	MCCARTHY DAVE	8/10/2010	5.87		12.2	3.66	<0.5	<0.5	<0.5	<0.5
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01	5.12		<20.0	2.64	<1.8	<2.0	<2.0	<1.8
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48	4.1		<5.0	2.53	<0.5	<0.5	<0.5	<0.5
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51	61.9		25.5	0.808	<0.5	2.49	<0.5	3.16
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15	3.64		133	6.3	<0.5	<0.5	<0.5	1
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	2.5		148	5.78	<0.2	<0.2	0.407	1.02
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45	4.24		14.6	4	<0.5	<0.5	<0.5	1.53
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15	41.1		279	25.3	<0.9	13.5	<1.0	<0.9
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	0.846		218	23.5	<0.2	0.218	<0.2	0.405
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10	2.24		268	23.2	<0.62	0.82	<0.63	<1.83
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	<0.5		9.65	0.216	<0.2	<0.2	<0.2	<0.2
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28	<2.5		12.4	<1.0	<0.9	<1.0	<1.0	<0.9
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52	<1.06		<4.0	<0.53	<0.63	<0.49	<0.63	<1.84
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	4.26		12.6	9.51	<0.2	<0.2	0.233	0.486
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	3.93		12.1	10.5	<0.5	<0.5	<0.5	<0.5
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010	11		<4.0	<0.53	<0.63	<0.49	<0.63	<1.83
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	1.47		<1.30	0.311	0.305	0.549	<0.10	0.64
2010Q0994	237615	JONES JAMES	6/9/2010 14:30	2.96		<10.0	<1.0	<0.9	<1.0	<1.0	<0.9

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Sample	Gwic Id	Site Name	Sample Date	Sn (ug/l)	Sr (ug/l)	Ti (ug/l)	Tl (ug/l)	U (ug/l)	V (ug/l)	Zn (ug/l)	Zr (ug/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54		134	<0.5	<0.5	3.23	0.901	5.34	<0.5
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39		245	<0.5	<0.5	2.87	2.22	8.56	<0.5
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49		626	1.19	<0.5	10.2	7.79	<2.5	<0.5
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17		66.3	<1.5	<0.5	2.43	0.616	5.51	<0.5
2011Q0870	179071	KELSY HERB	12/20/2010 13:57		308	0.95	<0.5	63.6	1.21	7.99	<0.5
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40		110	<0.5	<0.5	1.27	0.715	11.1	<0.5
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38		183	<0.5	<0.5	<0.5	12	3.75	<0.5
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23		223	<1.0	<1.0	2.32	6.17	<5.0	<0.9
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10		97	<1.0	<0.39	<3.00	0.575	<3.0	<0.33
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32		89.7	<0.5	<0.5	1.31	0.812	7.75	<0.5
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01		109	<0.5	<0.5	1.4	1.03	<2.5	<0.5
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39		700	<1.0	<0.39	<3.0	2.86	<3.00	<0.33
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27		251	<1.0	<0.4	7.23	0.815	17.4	<0.3
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	<1.3	91.6	<0.5	<0.5	1.58	0.518	5.91	<0.5
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01		352	<1.0	<0.39	20.6	<0.29	<3.0	<0.33
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04		75.3	<0.5	<0.5	1.35	0.637	4.39	<0.5
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	<1.3	369	<0.5	<0.5	1.87	12.6	<1.3	<0.5
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	<1.3	323	1.22	<0.5	0.506	12.4	11.4	<0.5
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29		129	0.579	<0.5	<0.5	6.53	<2.5	<0.5
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	<0.2	614	0.587	<0.2	1.64	1.33	6.55	<0.2
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59		607	0.596	<0.5	1.4	1.49	6.63	<0.5
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	<0.2	234	0.299	<0.2	2.1	0.599	<1.0	<0.2
2011Q0300	209007	MCCARTHY DAVE	8/10/2010		260	<0.5	<0.5	1.75	0.697	<2.5	<0.5
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01		188	6.32	<2.0	<2.0	28.2	25	<1.8
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48		89.7	<0.5	<0.5	1.67	0.893	10.1	<0.5
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51		966	3.25	<0.5	167	1.43	14.1	<0.5
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15		590	1.77	<0.5	11.5	14.3	4.04	<0.5
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	0.203	532	0.63	<0.2	11.5	12.2	6.28	<0.2
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45		435	1	<0.5	92.8	1.65	4.77	<0.5
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15		85.9	<1.0	<1.0	3.24	13	15.9	1.29
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	<0.5	84.3	1.24	<0.2	3.17	8.3	12.8	0.213
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10		78	<1.0	<0.39	<3.00	12	11	<0.33
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	<0.5	0.74	<0.2	<0.2	<0.2	0.249	<0.5	<0.2
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28		<0.9	<1.0	<1.0	<1.0	<1.0	<5.0	<0.9
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52		<0.5	<1.0	<0.39	<3.0	<0.29	<3.0	<0.33
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	<0.2	259	<0.2	<0.2	2.48	0.334	<1.0	<0.2
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37		262	<0.5	<0.5	2.61	<0.5	<2.5	<0.5
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010		134	<1.0	<0.39	<3.0	<0.29	5.79	<0.33
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	<0.10	186	0.427	<0.10	0.237	5.56	7.32	<0.10
2010Q0994	237615	JONES JAMES	6/9/2010 14:30		224	1.48	<1.0	<1.0	8.16	13	<0.9

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Sample	Gwic Id	Site Name	Sample Date	Ce (ug/l)	Cs (ug/l)	Ga (ug/l)	La (ug/l)	Nb (ug/l)	Nd (ug/l)	Pd (ug/l)	Pr (ug/l)
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2011Q0870	179071	KELSY HERB	12/20/2010 13:57	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38	<0.5	<1.3	<0.5	<0.5	0.534	<0.5	<1.3	<0.5
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27	<0.5	0.795	<0.5	<0.1	<0.3	<1.0	<0.3	<0.50
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	1.01	<1.3	<0.5	1.07	<1.3	<0.5	<1.3	0.968
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29	<0.5	<1.3	<0.5	<0.5	0.493	<0.5	<1.3	<0.5
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	<0.2	0.617	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0300	209007	MCCARTHY DAVE	8/10/2010	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01	<2.0	<5.0	<1.8	<2.0	<1.7	<2.0	<2.0	<2.0
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51	<0.5	<1.3	<0.5	<0.5	0.615	<0.5	<1.3	<0.5
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15	<0.5	3.68	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	<0.2	3.49	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45	<0.5	<1.3	<0.5	<0.5	0.613	<0.5	<1.3	<0.5
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	<0.2	0.944	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	<0.10	0.994	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10
2010Q0994	237615	JONES JAMES	6/9/2010 14:30	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0

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Sample	Gwic Id	Site Name	Sample Date	Rb (ug/l)	Th (ug/l)	W (ug/l)	Procedure
2011Q0642	174768	HOOLAHAN, SHAUN AND PAT	10/7/2010 13:54	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0864	174777	BURNHAM, JAMES AND LAURIE	12/21/2010 13:39	1.76	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0560	174791	PLILEY, GERRY A AND JANEL E	9/28/2010 13:49	<1.3	<0.5	26.3	TOTAL RECOVERABLE
2010Q0770	178946	REAP CRAIG	3/19/2010 14:17	2.8	<0.5	<1.5	TOTAL RECOVERABLE
2011Q0870	179071	KELSY HERB	12/20/2010 13:57	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0638	181455	SCHAFER, WALT	9/29/2010 14:40	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0848	183125	MONAGHAN DICK & KAREN	11/30/2010 15:38	7.07	<0.5	<0.5	TOTAL RECOVERABLE
2010Q1041	183656	COSTLE, DAN AND DARLENE	6/16/2010 13:23	<2.5	<1.0	4.03	TOTAL RECOVERABLE
2010Q0636	184529	KOPP MIKE	1/14/2010 14:10	1.6	<1.96	<1.41	TOTAL RECOVERABLE
2011Q0868	184531	BURNHAM JAMES & LAURIE	12/21/2010 12:32	1.63	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0387	186565	CYR, BONNIE	8/31/2010 13:01	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0637	189210	CULLEN DAN	1/14/2010 15:39	<0.5	<1.96	<1.41	TOTAL RECOVERABLE
2010Q0588	196333	HEFFERNAN DAVE	1/6/2010 14:27	3.27	<2.0	<1.4	TOTAL RECOVERABLE
2011Q0900	196977	VERLANIC JOSEPH	12/10/2010 14:13	1.77	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0635	197467	KNADLER BLANE	1/19/2010 14:01	<0.5	<1.96	<1.41	TOTAL RECOVERABLE
2011Q0847	198156	CARNEY PAUL	12/2/2010 13:04	1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0904	200064	CRIPPA LUIGIA	11/30/2010 14:03	13.3	<0.5	0.779	TOTAL RECOVERABLE
2011Q0903	202627	CRIPPA LENORE	11/30/2010 14:56	4.82	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0644	207687	SMITH, DAVE	10/14/2010 12:29	5.29	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0350	207695	KOSTELECKY CALVIN	8/17/2010 11:59	0.745	<0.2	<0.2	DISSOLVED
2011Q0351	207695	KOSTELECKY CALVIN	8/17/2010 11:59	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0299	209007	MCCARTHY DAVE	8/10/2010 13:41	2.91	<0.2	0.233	DISSOLVED
2011Q0300	209007	MCCARTHY DAVE	8/10/2010	2.95	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0645	219266	BAKER, LINDA	10/14/2010 14:01	5.52	<2.0	2.69	TOTAL RECOVERABLE
2011Q0873	220897	VERLANIC , SHAUNA AND JAKE	12/16/2010 12:48	1.66	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0872	221411	CLAYTON ROBYN D	12/14/2010 13:51	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0363	221430	GATES, TAMMY	8/24/2010 13:15	8.29	<0.5	49	TOTAL RECOVERABLE
2011Q0362	221430	GATES, TAMMY	8/24/2010 13:15	7.02	<0.2	47.7	DISSOLVED
2011Q0863	225158	CLARK DARREL	12/14/2010 12:45	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q1042	226130	SCHERMAN, RUSS	6/8/2010 14:15	6.29	<1.0	192	TOTAL RECOVERABLE
2011Q0812	226130	SCHERMAN, RUSS	10/27/2010 15:21	5.49	<0.2	196	DISSOLVED
2010Q0629	226130	SCHERMAN, RUSS	1/26/2010 14:10	4.77	<1.96	174	TOTAL RECOVERABLE
2011Q0813	226130	SCHERMAN, RUSS	10/27/2010 14:30	<0.5	<0.2	1.97	DISSOLVED
2010Q1040	226130	SCHERMAN, RUSS	6/8/2010 13:28	<2.5	<1.0	1.82	TOTAL RECOVERABLE
2010Q0634	227336	LAUREN ENTERPRISES INC	1/21/2010 12:52	<0.5	<1.96	<1.41	TOTAL RECOVERABLE
2011Q0354	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	5.76	<0.2	0.236	DISSOLVED
2011Q0355	230299	GALLE JEFF AND ANGELLA	8/18/2010 12:37	6.29	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0646	237567	HANNON JOE AND BABE	2/9/2010	1.55	<1.96	<1.41	TOTAL RECOVERABLE
2010Q0993	237615	JONES JAMES	6/9/2010 14:30	5.55	<0.10	0.209	DISSOLVED
2010Q0994	237615	JONES JAMES	6/9/2010 14:30	6.68	<1.0	<1.0	TOTAL RECOVERABLE

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Sample	Gwic Id	Site Name	Sample Date	Field Number	Water Temp	Fld pH	Fld SC	Ca (mg/l)	Mg (mg/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07	BLOM-238047	12.44	7.37	352	42.5	6.08
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43	LOFFTUS - 239706	12.87	7.36	802	16.7	3.59
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33	VALANTINI-242164	6.85	7.27	297	46.8	12.5
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	LUSSY-244470	13.62	6.68	768	74.5	19.4
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	LUSSY-244470	13.1	7.02	776	76.2	19.8
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36	LUSSY-244470	13.62	6.68	768	79.6	20.5
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32	CONNORS-246960	13.25	7.22	658	65.5	15.8
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12	GILLIBRAND-247777	11.56	7.15	481	51	7.96
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	CLINE-251057	9.08	6.61	266	31.2	8.73
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	CLINE-251057	9.08	6.61	266	33.4	9.66
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	HILMO-251147	9.3	6.85	262	30.8	8.7
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41	HILMO-251147	9.3	6.85	262	32.6	9.05
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	MACCIOLI-252623	10.69	7.2	1109	63	17.5
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	MACCIOLI-252623	10.69	7.2	1109	53.8	16
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38	JENRICH-252926				37.8	10.7
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	JENRICH-252926	10.55	6.74	557	38.7	10.7
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	ALCANTOR-253115	9.88	6.92	939	89.8	17.7
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53	ALCANTOR-253115	9.88	6.92	939	97.3	18.9
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14	JORGENSEN-253196	9.84	6.93	470	68.1	10.1
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	MILLIE MATHEWS	11.05	6.4	174	20.1	4.58
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	MILLIE MATHEWS	11.05	6.4	174	21	4.69
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	KLEMANN-253425	7.69	6.48	186	21.3	6.03
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	KLEMANN-253425	7.69	6.48	186	17.8	5.14
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38	WHITAKER	5.96	7.01	203	21.1	7.09
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	BAILEY-254433	10.32	6.6	456	30.2	8.87
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	BAILEY-254433	10.32	6.6	456	29.5	8.38
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43	BAILEY	9.11	7.18	469	30.9	8.06
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32	RYAN	8.68	6.72	208	25.7	6.74
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010	BUDD	8.47	7.3	392	50.5	9.73
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010	STERGAR	8.38	7.57	434	59.1	11.2
2010Q1069	255172	GREEN KEN	6/21/2010 12:21	GREEN-255172	8.97	6.78	646	87.8	20
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	SMITH-256447	13.8	7.5	703	49.7	3.86
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48	SMITH-256447	14.57	7.41	668	50.9	3.83
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57	STEWART	13.02	4.34	368	46.1	6.24
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	SHYBA-256874	15.95	7.14	695	78.4	14.7
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04	SHYBA-256874	15.95	7.14	695	85.7	15.6
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07	KARLSTROM-257602	12.44	7.37	352	46.5	5.82
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010	MCKENNEY	9.54	7.42	431	63.3	10.4
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05	GUSTAFSON-257723	8.89	6.86	253	28.8	4.68
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52	MCGUIRE - 257731	10.04	6.96	189	21.7	5.29

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Sample	Gwic Id	Site Name	Sample Date	Na (mg/l)	K (mg/l)	Fe (mg/l)	Mn (mg/l)	SiO2 (mg/l)	HCO3 (mg/l)	CO3 (mg/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07	11.6	8.47	0.471	0.011			
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43	167	3.98	0.091	0.006			
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33	1.77	1.12	0.051	<0.003			
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	68.8	3.68	0.511	0.014	14.1	397.2	0
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	68.8	3.69	0.39	0.013	14.3	405.3	0
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36	73.2	3.91	0.428	0.014			
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32	49.4	2.96	0.192	0.014			
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12	30.1	5.54	0.071	<0.003			
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	7.14	0.942	0.003	<0.001	14.1	128.3	0
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	7.28	1.13	0.555	0.005			
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	6.41	1.01	<0.002	<0.001	12.9	123	0
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41	6.44	1.11	0.043	<0.003			
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	207	7.49	0.083	0.005			
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	174	6.73	<0.010	0.005	26.6	441.4	0
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38	61.3	6.42	0.05	<0.005			
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	62.4	6.26	<0.002	<0.001	46.4	257.2	0
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	76	6.13	0.005	<0.001	39.2	215.1	0
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53	80.7	6.45	0.056	<0.003			
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14	21.5	0.767	0.223	0.008			
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	9.31	1.86	0.007	0.001	31.8	107.6	0
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	10.1	2	0.082	<0.003			
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	5.92	0.765	<0.002	0.001	10.2	95.6	0
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	5.1	0.718	0.036	<0.005			
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38	6.16	0.925	0.064	0.002			
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	57.8	6.57	0.049	<0.005			
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	52.3	6.42	0.006	<0.001	41.3	210.3	0
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43	56.5	6.39	0.038	0.002			
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32	6.16	7.02	0.205	0.004			
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010	6.96	1.71	0.026	<0.001			
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010	13.9	1.95	0.041	<0.001			
2010Q1069	255172	GREEN KEN	6/21/2010 12:21	22.1	2.42	0.683	0.026			
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	75.3	17.5	<0.002	<0.001	57.8	157.2	0
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48	73.5	16.8	0.223	<0.005			
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57	20.4	10.5	0.833	0.017			
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	32.7	2.71	<0.002	0.002	40.6	138.8	0
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04	36.8	2.82	0.213	0.003			
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07	11.8	8.03	0.626	<0.076			
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010	19.3	1.35	0.061	0.001			
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05	13.4	1.6	0.017	<0.003			
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52	11.1	2.11	0.04	<0.003			

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Sample	Gwic Id	Site Name	Sample Date	SO4 (mg/l)	Cl (mg/l)	NO3-N (mg/l)	F (mg/l)	OPO4-P (mg/l)	Ag (ug/l)	Al (ug/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07						<0.5	<5.0
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43						<0.5	5.95
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33						<0.5	5.06
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	74.88	5.25	<0.05	2.32	<0.1	<0.2	<2.0
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	75.42	5.14	<0.05	2.23	<0.1	<0.2	<2.0
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36						<0.5	<5.0
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32						<0.5	<5.0
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12						<0.5	14.4
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	24.87	1.07	0.476	0.267	<0.1	<0.2	<2.0
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08						<0.5	81.4
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	24.52	1.12	0.358	0.303	<0.1	<0.2	<2.0
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41						<0.5	<5.0
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50						<1.0	20.4
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	151	36.86	2.61	5.32	<0.1	<1.0	<10.0
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38						<1.0	<10.0
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	53.3	13.59	1.92	2.06	<0.05	<0.2	<2.0
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	255	27.74	1.59	2.44	<0.1	<0.2	<2.0
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53						<0.5	5.58
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14						<1.0	193
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	3.07	2.4	0.207	0.234	<0.05	<0.2	<2.0
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13						<0.5	5.32
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	17.81	0.579	0.08	0.423	<0.05	<0.2	<2.0
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56						<1.0	<10.0
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38						<0.52	
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31						<1.0	<10.0
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	37.81	10.99	1.29	2.28	0.061	<0.2	<2.0
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43						<0.52	
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32						<0.5	
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010						<0.52	
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010						<0.52	
2010Q1069	255172	GREEN KEN	6/21/2010 12:21						<1.0	229
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	22.38	43.89	0.859	0.183	<0.1	<0.2	3.55
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48						<1.0	226
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57						<1.0	1224
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	158.8	47.63	1.05	0.411	<0.1	<0.2	<2.0
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04						<0.5	129
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07						<0.5	427
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010						<0.51	
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05						<0.5	<5.0
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52						<0.5	6.34

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Sample	Gwic Id	Site Name	Sample Date	As (ug/l)	B (ug/l)	Ba (ug/l)	Be (ug/l)	Br (ug/l)	Cd (ug/l)	Co (ug/l)	Cr (ug/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07	5.43		102	<0.5		<0.5	<0.5	<0.5
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43	6.06	227	18.8	<0.5		<0.5	<0.5	<0.5
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33	0.895	<5.0	26.6	<0.5		<0.5	<0.5	<0.5
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	13.4	57	33.9	0.308	63	<0.2	<0.2	<0.2
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	13.3	51.4	35.4	0.27	<50	<0.2	<0.2	<0.2
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36	13.3		33.4	<0.5		<0.5	<0.5	<0.5
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32	6.68	46.9	24.2	<0.5		<0.5	<0.5	<0.5
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12	4.88		158	<0.5		<0.5	<0.5	<0.5
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	0.237	4.26	26.8	<0.2	<50	<0.2	<0.2	<0.2
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	<0.5		27	<0.5		<0.5	<0.5	<0.5
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	0.359	3.33	34	<0.2	<50	<0.2	<0.2	<0.2
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41	<0.5	<5.0	36.3	<0.5		<0.5	<0.5	<0.5
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	14.2		56.2	<1.0		<1.0	<0.9	<1.0
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	13.8	234	52.6	<1.0	277	<1.0	<0.9	<1.0
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38	9.31	76.2	55.4	<1.0		<1.0	<0.9	<1.0
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	8.75	60.5	53.4	<0.2	102	<0.2	<0.2	<0.2
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	1.79	27.1	27.2	<0.2	144	<0.2	<0.2	<0.2
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53	1.65		26.9	<0.5		<0.5	<0.5	<0.5
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14	1.93	14.8	19.7	<1.0		<1.0	<0.9	<1.0
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	1.36	9.38	56.3	<0.2	<50	<0.2	<0.2	0.446
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	1.24	10.8	57.5	<0.5		<0.5	<0.5	0.745
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	0.268	3.07	28.2	<0.2	<50	<0.2	<0.2	<0.2
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	<0.9	<10.0	24.8	<1.0		<1.0	<0.9	<1.0
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38	<0.76		189	<0.74		<0.45	<0.29	<0.47
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	10.1	60.2	49	<1.0		<1.0	1.82	<1.0
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	9.85	45.3	47.7	<0.2	79	<0.2	1.59	<0.2
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43	2.26		49.2	0.945		<0.45	1.83	<0.47
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32	<1.0		30.6	<0.5		<0.5	<0.5	<0.5
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010	1.91		40.5	<0.74		<0.45	<0.29	<0.47
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010	3.14		73.7	<0.74		<0.45	<0.29	<0.47
2010Q1069	255172	GREEN KEN	6/21/2010 12:21	2.06	24.7	34.5	<1.0		<1.0	<0.9	<1.0
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	19.9	28.6	31.7	<0.2	296	<0.2	<0.2	0.333
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48	18.6	38.9	37	<1.0		<1.0	<0.9	<1.0
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57	6.48	35.1	100	<1.0		<1.0	<0.9	<1.0
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	28.6	20.5	26	<0.2	188	<0.2	<0.2	<0.2
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04	28.3		29.1	<0.5		<0.5	<0.5	<0.5
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07	4.74		163	<0.5		<0.5	<0.5	1.71
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010	3.08		44	<0.51		<0.51	<0.51	0.596
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05	0.853		30.8	<0.5		<0.5	<0.5	<0.5
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52	1.37	10.2	45.3	<0.5		<0.5	<0.5	0.897

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Sample	Gwic Id	Site Name	Sample Date	Cu (ug/l)	Hg (ug/l)	Li (ug/l)	Mo (ug/l)	Ni (ug/l)	Pb (ug/l)	Sb (ug/l)	Se (ug/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07	3.34		11.9	1.23	<0.5	1.25	<0.5	0.739
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43	<1.3		731	19.6	<0.5	<0.5	<0.5	0.732
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33	2.13		<5.0	1.73	<0.5	<0.5	<0.5	<0.5
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	<0.5		127	4.11	<0.2	<0.2	0.453	<0.2
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	<0.5		126	4.37	0.284	<0.2	0.377	<0.2
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36	<1.3		133	4.46	<0.5	<0.5	<0.5	<0.5
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32	4.33		111	4.64	<0.5	0.547	<0.5	<0.5
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12	<1.3		8.16	2.18	<0.5	<0.5	<0.5	3.59
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	2.39		<2.0	1.62	<0.2	0.927	<0.2	<0.2
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	8.47		<5.0	1.8	1.46	1.8	<0.5	<0.5
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	5.95		<2.0	2.29	<0.2	0.84	<0.2	<0.2
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41	10.8		<5.0	2.39	<0.5	1.72	<0.5	<0.5
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	10.2		586	12.3	<0.9	<1.0	<1.0	0.975
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	<2.5		536	11.2	<0.9	<1.0	<1.0	1.17
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38	<2.5		76.7	6.34	<0.9	<1.0	<1.0	<0.9
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	1.61		66.7	6.63	<0.2	<0.2	0.361	0.452
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	2.56		160	5.73	<0.2	<0.2	<0.2	0.537
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53	14		189	6.14	<0.5	30	<0.5	<0.5
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14	<2.5		10.2	<1.0	<0.9	<1.0	<1.0	<0.9
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<0.5		4.72	0.919	<0.2	<0.2	<0.2	<0.2
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<1.3		8.52	1.06	<0.5	<0.5	<0.5	<0.5
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	15.2		2.25	1.04	<0.2	<0.2	0.257	<0.2
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	24.2		<10.0	<1.0	25.5	<1.0	<1.0	<0.9
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38	<1.08		<4.0	<0.53	<0.62	<0.49	<0.63	<1.83
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	3.07		37	17	<0.9	<1.0	<1.0	<0.9
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	2.26		29.2	16.2	<0.2	<0.2	0.403	0.577
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43	13		40.8	15.8	<0.62	1.47	0.295	<1.83
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32	26.8		<4.5	1.36	<0.5	0.995	<0.5	<2.0
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010	2.19		6.98	<0.53	<0.62	<0.49	<0.63	<1.83
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010	35.6		11.8	<0.53	<0.62	<0.49	<0.63	<1.83
2010Q1069	255172	GREEN KEN	6/21/2010 12:21	3.02		23.3	2.01	<0.9	1.45	<1.0	<0.9
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	<0.5		36.9	5.47	<0.2	<0.2	<0.2	9.98
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48	<2.5		54.5	5.25	<0.9	<1.0	<1.0	8.47
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57	6.07		14.9	1.1	<0.9	4.34	<1.0	1.15
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	1.98		28.5	0.628	3.66	0.789	0.809	2.12
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04	1.96		40.5	0.753	5.27	0.842	0.832	1.87
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07	6.21		13.2	1.35	2.38	0.724	<0.5	0.871
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010	7.88		11.6	1.03	<1.01	0.949	<1.01	<9.60
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05	9.37		<5.0	1.16	<0.5	0.577	<0.5	<0.5
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52	5.08		<5.0	1.15	<0.5	<0.5	<0.5	<0.5

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Sample	Gwic Id	Site Name	Sample Date	Sn (ug/l)	Sr (ug/l)	Ti (ug/l)	Tl (ug/l)	U (ug/l)	V (ug/l)	Zn (ug/l)	Zr (ug/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07		215	<0.5	<0.5	1.99	3.44	8.1	<0.5
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43		208	1.33	<0.5	0.915	4.38	<2.5	<0.5
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33		115	<0.5	<0.5	1.29	0.727	5.97	<0.5
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	<0.2	2512	0.635	<0.2	0.958	<0.2	<1.0	<0.2
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	<0.5	2506	1.04	<0.2	0.977	<0.2	<0.5	<0.2
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36		2525	0.669	<0.5	0.899	<0.5	<2.5	<0.5
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32		2528	0.801	0.518	<0.5	<0.5	<2.5	0.637
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12		234	0.739	<0.5	2.42	7.57	8.35	<0.5
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	<0.5	188	0.218	<0.2	5.03	0.665	13.4	<0.2
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08		205	5.48	<0.5	5.07	1.16	21.9	<0.5
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	<0.2	171	0.236	<0.2	6.6	0.734	94.2	<0.2
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41		163	<0.5	1.7	6.25	0.854	77.7	<0.5
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50		632	1.65	<1.0	31.6	12.1	8.38	<0.9
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	<1.0	582	1.92	<1.0	29.1	11.3	<5.0	<0.9
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38		369	<1.0	<1.0	4.41	11.3	19	<0.9
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	<0.2	333	0.45	<0.2	4.6	8.94	21.7	<0.2
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	<0.5	619	1.83	<0.2	31.2	4.21	<0.5	<0.2
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53		734	1.94	<0.5	28.4	5.14	14	<0.5
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14		789	5.74	<1.0	2.54	2.77	<5.0	<0.9
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<0.2	166	<0.2	<0.2	1.06	5.99	7.38	<0.2
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13		183	<0.5	<0.5	0.878	6.58	6.96	0.528
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	<0.2	114	0.24	<0.2	2.07	0.39	5.68	<0.2
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56		91.6	<1.0	<1.0	1.74	<1.0	<5.0	<0.9
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38		66.1	<1.0	<0.39	<3.0	<0.29	9.02	<0.33
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31		292	<1.0	<1.0	3.96	8.89	7.52	0.956
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	<0.2	272	0.304	<0.2	3.96	7.2	7.72	<0.2
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43		295	<1.0	<0.39	3.77	8.46	3.38	<0.33
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32		129	<1.0	<0.5	<3.5	0.66	<3.5	<0.5
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010		250	<1.0	<0.39	<3.0	<0.29	<3.0	<0.33
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010		528	<1.0	<0.39	<3.0	<0.29	14.6	<0.33
2010Q1069	255172	GREEN KEN	6/21/2010 12:21		792	6.06	<1.0	<1.0	<1.0	31	<0.9
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	<0.5	182	0.739	<0.2	1.58	6.17	10.1	<0.2
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48		192	13.4	<1.0	1.48	7.92	11.2	<0.9
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57		215	49.4	<1.0	2.18	6.94	6.54	<0.9
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	<0.5	1122	1.26	0.652	8.47	5.15	54.7	<0.2
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04		1238	5.29	0.7	8.29	6.91	32.6	<0.5
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07		234	14.8	<0.5	2.08	4.17	9.94	0.685
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010		559	<1.52	<0.51	3.07	3.16	45.8	0.01
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05		165	<0.5	<0.5	2.83	3.03	3.48	0.522
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52		182	<0.5	<0.5	0.925	6.52	3.29	<0.5

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Sample	Gwic Id	Site Name	Sample Date	Ce (ug/l)	Cs (ug/l)	Ga (ug/l)	La (ug/l)	Nb (ug/l)	Nd (ug/l)	Pd (ug/l)	Pr (ug/l)
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	<0.2	6.4	<0.2	<0.2	<0.2	<0.2	0.526	<0.2
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	<0.2	6.18	<0.2	<0.2	<0.5	<0.2	1.19	<0.2
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36	<0.5	6.43	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32	<0.5	3.47	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	<0.2	2.08	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14	<1.0	<2.5	<2.5	<1.0	<0.9	<1.0	<2.5	<1.0
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	<1.0	<2.5	<0.9	<0.9	<0.9	<1.0	<2.5	<1.0
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	<1.0	4.34	<0.9	<1.0	0.962	<1.0	<2.5	<1.0
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	<0.2	4.33	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43	<0.50	4.15	<0.42	<0.50	<0.29	<0.93	<0.29	<0.50
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010	<0.50	<0.50	<0.42	<0.50	<0.29	<0.93	<0.28	<0.50
2010Q1069	255172	GREEN KEN	6/21/2010 12:21	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48	<1.0	<2.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57	2.76	<2.5	<0.9	1.44	<0.9	1.67	<2.5	<1.0
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	<0.2	44.3	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04	<0.5	47.9	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07	1.12	<1.3	<0.5	0.52	<0.4	0.508	<1.3	<0.5
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010	<0.51	<0.51	<0.51	<0.51	<1.01	<0.51	<0.51	<0.51
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5

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Sample	Gwic Id	Site Name	Sample Date	Rb (ug/l)	Th (ug/l)	W (ug/l)	Procedure
2011Q0798	238047	BLOM LORIN	10/21/2010 13:07	4.58	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0452	239706	LOFFTUS, DAVID AND SHARON	9/10/2010 13:43	4.5	<0.5	243	TOTAL RECOVERABLE
2011Q0866	242164	VALENTINI GENO	12/13/2010 13:33	1.97	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0352	244470	LUSSY JERRY	8/17/2010 12:36	13.5	<0.2	4.3	DISSOLVED
2011Q0814	244470	LUSSY JERRY	10/28/2010 12:15	13.8	<0.2	4.53	DISSOLVED
2011Q0353	244470	LUSSY JERRY	8/17/2010 12:36	14.3	<0.5	4.38	TOTAL RECOVERABLE
2011Q0706	246960	CONNORS KEN	10/19/2010 12:32	9.48	<0.5	4.47	TOTAL RECOVERABLE
2011Q0802	247777	GILLIBRAND TOM & GERI	11/4/2010 12:12	5.73	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0630	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	<0.5	<0.2	<0.2	DISSOLVED
2011Q0631	251057	CLINE, RODNEY * RW05-07	10/5/2010 12:08	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0446	251147	HILMO, TIM	9/16/2010 12:41	<0.5	<0.2	<0.2	DISSOLVED
2011Q0447	251147	HILMO, TIM	9/16/2010 12:41	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0361	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	3.02	<1.0	95.7	TOTAL RECOVERABLE
2011Q0360	252623	MACCIOLI JOE & PATTI	8/23/2010 14:50	2.73	<1.0	85.1	DISSOLVED
2010Q1089	252926	WYBENGA TRACY	6/23/2010 14:38	6.05	<1.0	16.6	TOTAL RECOVERABLE
2010Q1088	252926	WYBENGA TRACY	6/23/2010 14:36	5.53	<0.2	18.7	DISSOLVED
2011Q0632	253115	JAN, DENG KUI	10/5/2010 12:53	3.18	<0.2	12	DISSOLVED
2011Q0633	253115	JAN, DENG KUI	10/5/2010 12:53	3.46	<0.5	11.6	TOTAL RECOVERABLE
2010Q1071	253196	JORGENSEN STEVE	6/17/2010 14:14	<2.5	<1.0	<1.0	TOTAL RECOVERABLE
2011Q0202	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<0.5	<0.2	1.73	DISSOLVED
2011Q0203	253302	MATHEWS, MILLIE * REPLACEMENT WELL	7/26/2010 10:13	<1.3	<0.5	1.96	TOTAL RECOVERABLE
2010Q1086	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	<0.5	<0.2	0.289	DISSOLVED
2010Q1087	253425	KLEMANN, ALFRED AND DONNALEE	6/23/2010 13:56	<2.5	<1.0	<1.0	TOTAL RECOVERABLE
2010Q0638	254431	WHITAKER, EUGENE	2/4/2010 14:38	1.21	<1.96	<1.41	TOTAL RECOVERABLE
2010Q1077	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	3.36	<1.0	6.17	TOTAL RECOVERABLE
2010Q1076	254433	BAILEY, DON & DEBRAH	6/23/2010 12:31	3.25	<0.2	5.55	DISSOLVED
2010Q0633	254433	BAILEY, DON & DEBRAH	1/21/2010 13:43	2.25	<1.96	4.74	TOTAL RECOVERABLE
2010Q0631	254435	RYAN, CARL & PENNY	2/4/2010 13:32	<0.5	<2.0	<1.5	TOTAL RECOVERABLE
2010Q0649	254780	BUDD GREG AND MELANIE	2/16/2010	0.775	<1.96	<1.41	TOTAL RECOVERABLE
2010Q0652	254781	STERGAR, JOHN & JAN	2/18/2010	0.88	<1.96	<1.41	TOTAL RECOVERABLE
2010Q1069	255172	GREEN KEN	6/21/2010 12:21	9.31	<1.0	<1.0	TOTAL RECOVERABLE
2011Q0707	256447	SMITH MONTY & JULIE	10/19/2010 13:56	10.2	<0.2	<0.2	DISSOLVED
2010Q1073	256447	SMITH MONTY & JULIE	6/21/2010 13:48	11.1	<1.0	<1.0	TOTAL RECOVERABLE
2010Q1070	256622	STEWART JOHN & PHYLLIS	6/17/2010 15:57	8.16	<1.0	<1.0	TOTAL RECOVERABLE
2011Q0634	256874	SHYBA, LORI	10/12/2010 14:04	14.1	<0.2	2.02	DISSOLVED
2011Q0635	256874	SHYBA, LORI	10/12/2010 14:04	16.7	<0.5	2.22	TOTAL RECOVERABLE
2011Q0811	257602	KARLSTROM, DALE	10/21/2010 13:07	7.13	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0654	257692	MCKENNEY, DUSTIN	2/23/2010	0.793	<0.51	<1.01	TOTAL RECOVERABLE
2011Q0389	257723	GUSTAFSON, CHARLES	9/7/2010 15:05	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0451	257731	MCGUIRE, DANIEL	8/31/2010 13:52	<1.3	<0.5	3.03	TOTAL RECOVERABLE

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Sample	Gwic Id	Site Name	Sample Date	Field Number	Water Temp	Fld pH	Fld SC	Ca (mg/l)	Mg (mg/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	BRACKETT-258258	16.96	6.99	307	15	2.74
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14	BRACKETT-258258	12.18	7.15	207	16.3	3.2
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08	SMITH-258259	9.92	7.21	327	35.5	5.29
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41	KOEPPLIN-258260	9.59	6.55	174	19.4	5.95
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40	KIEHN-258261	9.52	6.6	214	23.5	7.11
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48	KIDDER-258262	11.11	6.54	310	7.86	1.23
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17	COWARD-258263	7.88	6.66	195	24.6	6.52
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25	ALLICK-258304	8.74	7.05	239	51.4	13.7
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42	NILAND-258434	8.03	6.61	198	22.9	6.12
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30	BRACKETT-258586	12.34	6.12	304	16.3	2.66
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27	DEAN-258587	8.52	6.71	237	28	7.23
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14	COLUCCI-258589	8.95	6.59	120	13.8	3.66
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21	STIFFLER/JOHNSON-258590	26.76	7.53	236	20.8	1.66
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07	MILLER	7.38	7.41	371	50.6	11.8
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57	GLOVAN-NEW-258923	11.14	6.82	247	25.2	5.65
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54	SPEHAR-258924	9.5	6.81	183	20.4	5.83
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01	RAASAKKA-258925	9.43	6.77	162	18.2	4.98
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29	BAKER-258927	13.98	7.3	265	14.4	2.4
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20	EUBANKS 258928	8.29	6.52	289	35.6	8.86
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58	SULLIVAN-258932	7.01	6.75	218	27.7	7.42
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32	HARRIS-258933	8.36	6.51	192	23.6	6.4
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17	DONAHUE-258934	11.11	6.56	198	24.4	6.89
2010Q0653	258964	SALLE, RON	2/23/2010	SALLE	14.12	6.89	1038	108	27.2
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	SALLE	13.92	6.72	1040	101	28.2
2010Q1081	258964	SALLE, RON	6/17/2010 13:15	SALLE	13.92	6.72	1040	98	27.3
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	JETTE-259577	8.1	7.33	424	77.3	9.23
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	KEITH-259578	9.24	7.09	434	52.3	12.9
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	JONES-259580	7.98	7.32	542	68.1	27.2
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	MCMILLAN-259892	9.71	6.84	181	19	4.72
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	BOND-259893	7.89	6.52	273	32	9.19
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	LONG-259894	10.75	7.05	285	28.4	6.85
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	SMITH-259945	9.66	7.04	530	81.5	12.1
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	KNAPP-259946	11.75	6.82	323	36.6	4.8
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	KRAMER-259947	7.69	6.84	457	72.3	8.54
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	BEST-260000	8.29	7.55	159	25.4	3.94
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32	SOLBERG	9.67	6.77	306	42	9.93
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	MOBUS	7.48	6.56	157	17.2	4.76
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51	VIOLETTE	7.17	7.33	426	42.7	11.4
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010	BATISTA	8.85	6.71	287	47.9	8.76

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Sample	Gwic Id	Site Name	Sample Date	Na (mg/l)	K (mg/l)	Fe (mg/l)	Mn (mg/l)	SiO2 (mg/l)	HCO3 (mg/l)	CO3 (mg/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	18	4.22	<0.002	<0.001	55.9	85.16	0
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14	21.7	4.42	0.033	<0.003			
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08	22.5	2.3	0.457	0.007			
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41	5.88	0.997	0.05	<0.003			
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40	7.22	1.02	0.034	<0.001			
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48	3.3	0.415	0.034	<0.001			
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17	6.06	1.02	0.117	<0.003			
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25	8.61	1.4	0.296	0.004			
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42	5.59	0.856	0.06	<0.003			
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30	43.9	3.69	0.06	<0.003			
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27	6.83	1.24	0.066	<0.003			
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14	4.32	0.741	0.123	0.003			
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21	26.7	2.57	0.032	<0.003			
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07	6.23	1.9	0.126	<0.13			
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57	18.8	3.22	0.375	0.006			
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54	5.72	0.864	0.064	<0.003			
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01	4.94	0.779	0.053	<0.003			
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29	34.7	4.58	0.107	<0.003			
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20	7.38	1.13	0.444	0.007			
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58	5.76	0.92	0.14	<0.003			
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32	5.2	0.898	0.105	<0.003			
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17	5.98	0.889	0.157	<0.003			
2010Q0653	258964	SALLE, RON	2/23/2010	107	6.2	0.584	0.019			
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	101	6.22	0.54	0.019	42.7	638.5	0
2010Q1081	258964	SALLE, RON	6/17/2010 13:15	102	5.86	0.569	0.018			
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	9.61	1.59	0.049	<0.003			
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	20.4	3.66	0.045	<0.003			
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	9.14	1.1	0.077	<0.003			
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	8.95	1.77	0.098	<0.003			
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	5.92	1.13	0.045	<0.003			
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	14.5	6.19	0.086	<0.003			
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	14.5	2.96	0.081	<0.003			
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	16.6	1.84	0.501	<0.003			
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	15	1.39	0.159	<0.003			
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	4.06	0.719	0.152	<0.003			
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32	9.25	1.09	0.295	0.001			
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	5.65	0.727	0.026	0.001	12.7	81	0
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51	30.5	1.38	0.093	0.001			
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010	4.13	1.43	0.06	<0.001			

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Sample	Gwic Id	Site Name	Sample Date	SO4 (mg/l)	Cl (mg/l)	NO3-N (mg/l)	F (mg/l)	OPO4-P (mg/l)	Ag (ug/l)	Al (ug/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	16.14	4.44	1.14	0.644	<0.1	<0.2	<2.0
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14						<0.5	<5.0
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08						<0.5	29.1
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41						<0.5	6.94
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40						<0.5	5.24
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48						<0.5	5.91
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17						<0.5	<5.0
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25						<0.5	<5.0
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42						<0.5	<5.0
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30						<0.5	31.6
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27						<0.5	<5.0
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14						<0.5	8.42
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21						<0.5	<5.0
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07						<0.5	
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57						<0.5	300
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54						<0.5	26.4
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01						<0.5	<5.0
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29						<0.5	19.4
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20						<0.5	272
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58						<0.5	14.2
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32						<0.5	5.75
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17						<0.5	<5.0
2010Q0653	258964	SALLE, RON	2/23/2010						<0.50	
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	53.23	4.36	<0.05	2.56	<0.05	<1.0	<10.1
2010Q1081	258964	SALLE, RON	6/17/2010 13:15						<1.0	<10.0
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00						<0.5	<5.0
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16						<0.5	<5.0
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39						<0.5	<5.0
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18						<0.5	5.18
2011Q0913	259893	BOND, ROD	11/30/2010 13:05						<0.5	<5.0
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32						<0.5	<5.0
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23						<0.5	5.6
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45						<0.5	26.2
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16						<0.5	<5.0
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26						<0.5	<5.0
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32						<0.5	
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	14.8	0.862	0.328	0.382	<0.05	<0.10	<0.81
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51						<0.5	
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010						<0.5	

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Sample	Gwic Id	Site Name	Sample Date	As (ug/l)	B (ug/l)	Ba (ug/l)	Be (ug/l)	Br (ug/l)	Cd (ug/l)	Co (ug/l)	Cr (ug/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	17	40.2	32.9	<0.2	<50	<0.2	<0.2	<0.2
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14	15.7		36	<0.5		<0.5	<0.5	<0.5
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08	7.92		80.9	<0.5		<0.5	<0.5	<0.5
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41	<0.5		45	<0.5		<0.5	<0.5	<0.5
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40	<0.5		28.9	<0.5		<0.5	<0.5	<0.5
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48	8.1		22.2	<0.5		<0.5	<0.5	<0.5
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17	<0.5		52.5	<0.5		<0.5	<0.5	<0.5
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25	<0.5		49.3	<0.5		<0.5	<0.5	<0.5
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42	<0.5		45.2	<0.5		<0.5	<0.5	<0.5
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30	6.77	80.7	17.3	<0.5		<0.5	<0.5	0.667
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27	<0.5	<5.0	20.3	<0.5		<0.5	<0.5	0.532
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14	<0.5		31.3	<0.5		<0.5	<0.5	<0.5
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21	3.22	26.8	5.31	<0.5		<0.5	<0.5	3.14
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07	1.52		46	<0.5		<0.5	<0.5	<0.5
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57	3.72		64.5	<0.5		<0.5	<0.5	1.06
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54	<0.5		33.8	<0.5		<0.5	<0.5	<0.5
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01	<0.5		29.5	<0.5		<0.5	<0.5	<0.5
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29	7.46		59.2	<0.5		<0.5	<0.5	1.13
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20	1.1		30.8	<0.5		<0.5	<0.5	0.898
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58	<0.5		17.7	<0.5		<0.5	<0.5	<0.5
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32	<0.5		28.8	<0.5		<0.5	<0.5	<0.5
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17	<0.5		29	<0.5		<0.5	<0.5	<0.5
2010Q0653	258964	SALLE, RON	2/23/2010	10.6		61.2	1.16		<0.51	<0.51	<0.51
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	8.48	85.8	61.2	1.15	<50	<1.0	<1.0	<1.0
2010Q1081	258964	SALLE, RON	6/17/2010 13:15	8.45	81.1	52.3	1.02		<1.0	<0.9	<1.0
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	10.6	8.66	52.6	<0.5		<0.5	<0.5	<0.5
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	2.23	24.8	41.9	<0.5		<0.5	<0.5	<0.5
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	10.1	58.6	91.3	<0.5		<0.5	<0.5	<0.5
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	1.38	8.59	62.6	<0.5		<0.5	<0.5	0.513
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	<0.5	<5.0	21.3	<0.5		<0.5	<0.5	<0.5
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	1.41	28.3	85.3	<0.5		<0.5	<0.5	<0.5
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	2.08	17.7	104	<0.5		<0.5	<0.5	<0.5
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	3.08	20.6	25.1	<0.5		<0.5	<0.5	<0.5
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	<0.5	8.67	61.7	<0.5		<0.5	<0.5	<0.5
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	<0.5	<5.0	18.2	<0.5		<0.5	<0.5	<0.5
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32	<0.5		17.7	<0.5		<0.5	<0.5	<0.5
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	0.27	8.78	36.9	<0.10	<50	<0.10	<0.10	<0.10
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51	1.52		98.3	<0.5		<0.5	<0.5	<0.5
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010	1.4		30.3	<0.8		<0.5	<0.3	<0.5

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Sample	Gwic Id	Site Name	Sample Date	Cu (ug/l)	Hg (ug/l)	Li (ug/l)	Mo (ug/l)	Ni (ug/l)	Pb (ug/l)	Sb (ug/l)	Se (ug/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	0.907		<2.0	1.12	<0.2	<0.2	<0.2	0.213
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14	<1.3		<5.0	1.46	<0.5	<0.5	<0.5	<0.5
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08	<1.3		7.85	0.739	<0.5	<0.5	<0.5	0.543
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41	8.08		<5.0	1.03	<0.5	<0.5	<0.5	<0.5
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40	5.13		<5.0	1.81	<0.5	<0.5	<0.5	<0.5
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48	5.59		<5.0	<0.5	<0.5	0.527	<0.5	0.609
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17	2.99		<5.0	1.48	<0.5	<0.5	<0.5	<0.5
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25	<1.3		6.51	0.919	<0.5	<0.5	<0.5	<0.5
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42	3.69		<5.0	1.99	<0.5	<0.5	<0.5	<0.5
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30	3.52		5.25	1.26	<0.5	0.653	<0.5	<0.5
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27	5.91		<5.0	1.2	<0.5	<0.5	<0.5	<0.5
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14	3.69		<5.0	1.19	<0.5	<0.5	<0.5	<0.5
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21	1.58		31.9	2.38	<0.5	<0.5	<0.5	<0.5
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07	4.66		4.66	2.09	<0.5	0.601	<1.0	<1.0
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57	3.21		31.9	2.6	<0.5	0.654	<0.5	<0.5
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54	17.2		<5.0	1.93	<0.5	0.682	<0.5	<0.5
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01	6.45		<5.0	1.86	<0.5	<0.5	<0.5	<0.5
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29	2.08		12	2.24	<0.5	0.61	<0.5	0.786
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20	5.76		5.37	1.41	<0.5	<0.5	<0.5	<0.5
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58	3.88		<5.0	1.51	<0.5	<0.5	<0.5	<0.5
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32	5.72		<5.0	1.6	<0.5	<0.5	<0.5	<0.5
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17	117		<5.0	1.24	<0.5	<0.5	<0.5	<0.5
2010Q0653	258964	SALLE, RON	2/23/2010	2.06		204	8.29	<1.01	<0.51	<1.01	<9.60
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	<2.5		218	7.91	<1.0	<1.0	<1.0	<1.0
2010Q1081	258964	SALLE, RON	6/17/2010 13:15	16.9		183	7.98	<0.9	2.96	<1.0	<0.9
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	26.9		<5.0	2.85	<0.5	<0.5	<0.5	<0.5
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	26.4		5.84	3.21	0.662	<0.5	<0.5	<0.5
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	16.6		13.5	4.28	<0.5	<0.5	<0.5	<0.5
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	2.11		<5.0	0.909	<0.5	0.632	<0.5	<0.5
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	1.53		<5.0	1.16	<0.5	<0.5	<0.5	<0.5
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	1.6		<5.0	3.01	<0.5	<0.5	<0.5	0.514
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	6.65		5.9	1.68	<0.5	0.94	<0.5	<0.5
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	29.4		<5.0	0.635	0.543	2.41	<0.5	1.31
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	24.4		<5.0	0.524	<0.5	<0.5	<0.5	<0.5
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	2.76		<5.0	8.13	<0.5	<0.5	<0.5	<0.5
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32	10.1		15.3	2.41	<0.5	2.14	<1.0	<1.0
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	1.28		1.34	0.979	<0.10	0.38	0.299	<0.20
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51	6.9		17	3.77	<0.5	1.81	<1.0	<1.0
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010	4.07		<5.0	3.02	<0.5	<0.1	<0.6	<2.0

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Sample	Gwic Id	Site Name	Sample Date	Sn (ug/l)	Sr (ug/l)	Ti (ug/l)	Tl (ug/l)	U (ug/l)	V (ug/l)	Zn (ug/l)	Zr (ug/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	<0.5	139	<0.2	<0.2	0.6	17.9	8.82	<0.2
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14		146	<0.5	<0.5	0.623	23	9.44	<0.5
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08		385	1.57	<0.5	1.4	9.35	3.96	<0.5
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41		93.4	<0.5	<0.5	0.91	0.633	<2.5	<0.5
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40		129	<0.5	<0.5	1.27	0.506	19.7	<0.5
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48		305	0.564	<0.5	0.547	4.23	16.3	<0.5
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17		121	<0.5	<0.5	4.66	0.674	17.7	<0.5
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25		320	<0.5	<0.5	4.97	1.72	<2.5	<0.5
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42		135	<0.5	<0.5	5.61	0.702	<2.5	<0.5
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30		107	1.82	0.628	2.54	9.25	20.2	0.78
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27		149	<0.5	<0.5	2.07	1.82	10.9	<0.5
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14		74.1	<0.5	<0.5	0.589	0.769	5.01	<0.5
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21		177	<0.5	<0.5	1.59	8.22	<2.5	<0.5
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07		240	<1.5	<0.5	1.55	0.929	6.75	<0.5
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57		201	18.2	<0.5	1.89	7.13	5.66	0.594
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54		111	<0.5	<0.5	3.45	0.77	11.3	<0.5
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01		95	<0.5	<0.5	3.2	0.728	<2.5	<0.5
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29		127	1.52	<0.5	0.972	18.1	<2.5	<0.5
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20		210	14.4	<0.5	6.21	3.04	15.5	<0.5
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58		158	0.606	<0.5	2.58	0.937	<2.5	<0.5
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32		132	<0.5	<0.5	2.62	0.713	<2.5	<0.5
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17		126	<0.5	<0.5	2.16	0.703	<2.5	<0.5
2010Q0653	258964	SALLE, RON	2/23/2010		1518	<1.52	<0.51	1.33	<0.51	<3.54	0.136
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	<1.0	1351	<1.0	<1.0	1.28	<1.0	<5.1	<1.0
2010Q1081	258964	SALLE, RON	6/17/2010 13:15		1403	<1.0	<1.0	1.28	<1.0	<5.0	<0.9
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	<1.3	327	<0.5	<0.5	15.8	1.86	2.34	<0.5
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	<1.3	567	0.806	<0.5	10.6	1.66	4.76	<0.5
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	<1.3	812	<0.5	<0.5	15	39.5	19.7	<0.5
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	<1.3	182	<0.5	<0.5	0.877	7.94	20.2	<0.5
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	<1.3	193	<0.5	<0.5	3.79	1.05	12.2	<0.5
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	<1.3	233	<0.5	<0.5	5.95	2.71	<1.3	<0.5
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	<1.3	416	0.695	<0.5	61.9	1.16	51.3	<0.5
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	<1.3	518	2.16	<0.5	2.42	9.56	3.5	<0.5
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	<1.3	392	0.598	<0.5	19.7	<0.5	7.94	<0.5
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	<1.3	145	0.672	<0.5	7.03	0.672	61.8	<0.5
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32		1175	<1.5	<0.5	1.08	<0.5	28.5	<0.5
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	<0.10	100	<0.20	<0.10	0.761	0.363	23.7	<0.10
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51		450	<1.5	<0.5	9.98	2.38	15.7	<0.5
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010		91.2	<1.0	<0.4	<3.0	0.555	13.4	<0.3

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Sample	Gwic Id	Site Name	Sample Date	Ce (ug/l)	Cs (ug/l)	Ga (ug/l)	La (ug/l)	Nb (ug/l)	Nd (ug/l)	Pd (ug/l)	Pr (ug/l)
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08	0.936	<1.3	<0.5	0.553	<0.4	<0.5	<1.3	<0.5
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48	<0.5	1.5	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30	<0.5	<1.3	<0.5	<0.5	0.524	<0.5	<1.3	<0.5
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21	<0.5	8.51	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57	0.607	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58	<0.5	<1.3	<0.5	<0.5	0.601	<0.5	<1.3	<0.5
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17	<0.5	<1.3	<0.5	<0.5	<0.4	<0.5	<1.3	<0.5
2010Q0653	258964	SALLE, RON	2/23/2010	<0.51	17.5	<0.51	<0.51	<1.01	<0.51	<0.51	<0.51
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	<1.0	16.8	<1.0	<1.0	<1.0	<1.0	<2.5	<1.0
2010Q1081	258964	SALLE, RON	6/17/2010 13:15	<1.0	16.5	<0.9	<1.0	<0.9	<1.0	<2.5	<1.0
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	<0.5	1.75	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	<0.5	<1.3	<0.5	<0.5	<1.3	<0.5	<1.3	<0.5
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	<1.0	<0.5
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010	<0.5	<0.5	<0.5	<0.1	<0.3	<1.0	<0.3	<0.50

Montana Bureau of Mines and Geology
Anaconda Regional Water, Waste and Soils
Domestic Well Water-Quality Results
Appendix D

Sample	Gwic Id	Site Name	Sample Date	Rb (ug/l)	Th (ug/l)	W (ug/l)	Procedure
2011Q0636	258258	BRACKETT, JOSH	10/12/2010 12:24	8.26	<0.2	6.63	DISSOLVED
2011Q0463	258258	BRACKETT, JOSH	9/10/2010 15:14	8.23	<0.5	6.77	TOTAL RECOVERABLE
2011Q0464	258259	SMITH, BRENT & ALYCE	9/10/2010 16:08	4.64	<0.5	0.784	TOTAL RECOVERABLE
2011Q0462	258260	KOEPPLIN, CARL	9/7/2010 12:41	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0465	258261	KIEHN, ALBERT & ALICE	9/13/2010 14:40	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0466	258262	KIDDER, DAVID & LINDA	9/16/2010 10:48	2.35	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0467	258263	COWARD, GEORGE & SHIRLEY	9/16/2010 13:17	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0558	258304	ALLICK, JOHN	9/28/2010 12:25	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0564	258434	NILAND, GEORGE	9/30/2010 12:42	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0637	258586	BRACKETT, RYAN & NANCY	10/5/2010 14:30	8.17	<0.5	1.71	TOTAL RECOVERABLE
2011Q0640	258587	DEAN, JAMES ROBERT & BARBARA P	10/7/2010 12:27	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0641	258589	COLUCCI, JOSEPHINE ANN	10/7/2010 13:14	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0643	258590	JOHNSON, JEFF / STIFFLER, LORI	10/8/2010 12:21	8.18	<0.2	12.2	TOTAL RECOVERABLE
2010Q0705	258865	MILLER, ALICE	3/24/2010 14:07	1.08	<0.5	<1.5	TOTAL RECOVERABLE
2011Q0804	258923	GLOVAN, STAN	11/4/2010 12:57	1.89	<0.5	8.52	TOTAL RECOVERABLE
2011Q0808	258924	SPEHAR, ZANE & VICTORIA	10/22/2010 13:54	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0809	258925	RAASAKKA, GARY L	10/22/2010 13:01	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0799	258927	BAKER, LOREN	10/14/2010 13:29	7.24	<0.5	12	TOTAL RECOVERABLE
2011Q0807	258928	EUBANKS, JULIE	10/26/2010 10:20	<1.3	<0.5	4.24	TOTAL RECOVERABLE
2011Q0806	258932	NELSON, ROBERT O	10/26/2010 11:58	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0805	258933	HARRIS, RICHARD	10/28/2010 10:32	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0810	258934	DONAHUE, MIKE	10/22/2010 12:17	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0653	258964	SALLE, RON	2/23/2010	33.7	<0.51	6.01	TOTAL RECOVERABLE
2010Q1080	258964	SALLE, RON	6/17/2010 13:15	32.5	<1.0	6.86	DISSOLVED
2010Q1081	258964	SALLE, RON	6/17/2010 13:15	32.1	<1.0	5.03	TOTAL RECOVERABLE
2011Q0918	259577	JETTE, JOE	12/21/2010 13:00	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0919	259578	KIETH, GAIL AND LINDA	12/21/2010 15:16	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0916	259580	JONES, BRENT	12/14/2010 14:39	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0912	259892	EHMAN, WILLIAM	11/9/2010 12:18	<1.3	<0.5	1.32	TOTAL RECOVERABLE
2011Q0913	259893	BOND, ROD	11/30/2010 13:05	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0914	259894	LONG, HUEY	12/7/2010 12:32	8.88	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0933	259945	SMITH, BRENT	12/7/2010 14:23	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0934	259946	KNAPP, ROBERT & STACY	11/18/2010 14:45	2.16	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0932	259947	KRAMER, JOIE	12/7/2010 15:16	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2011Q0935	260000	BEST, JOHN	12/21/2010 14:26	<1.3	<0.5	<0.5	TOTAL RECOVERABLE
2010Q0703	260452	SOLBERG, DUANE AND KAREN	3/2/2010 13:32	1.54	<0.5	<1.5	TOTAL RECOVERABLE
2010Q0700	260496	MOGUS, NORM AND JANET	3/11/2010 12:51	0.158	<0.10	<0.10	DISSOLVED
2010Q0701	260498	VIOLETTE, SHARON	3/4/2010 13:51	<0.5	<0.5	<1.5	TOTAL RECOVERABLE
2010Q0590	260499	BAUTISTA, BECKY	1/5/2010	1.66	<2.0	<1.4	TOTAL RECOVERABLE

Appendix E: Domestic Well Confirmation Water Sample Results, 2010

Ground-Water Information Center Water Quality Report

Report Date: 2/3/2011

Site Name: DENG JAN KUI

Compare to Water Quality Standards

Location Information

Sample Id/Site Id:	2010Q0513 / 253115	Sample Date:	11/25/2009 1:55:00 PM
Location (TRS):	04N 10W 26 DCBA	Agency/Sampler:	MBMG / JAV
Latitude/Longitude:	46° 4' 0" N 112° 48' 24" W	Field Number:	ALCANTER
Datum:	WGS84	Lab Date:	12/14/2009
Altitude:		Lab/Analyst:	MBMG / SM
County/State:	DEER LODGE / MT	Sample Method/Handling:	PUMPED / 3120
Site Type:	WELL	Procedure Type:	DISSOLVED
Geology:		Total Depth (ft):	101
USGS 7.5' Quad:		SWL-MP (ft):	NR
PWS Id:		Depth Water Enters (ft):	91
Project:	ARWWS-DOM		

Major Ion Results

	mg/L	meq/L		mg/L	meq/L
Calcium (Ca)	91.300	4.556	Bicarbonate (HCO3)	221.700	3.634
Magnesium (Mg)	18.300	1.506	Carbonate (CO3)	0.000	0.000
Sodium (Na)	76.900	3.345	Chloride (Cl)	27.750	0.783
Potassium (K)	6.400	0.164	Sulfate (SO4)	273.400	5.695
Iron (Fe)	0.056	0.003	Nitrate (as N)	1.780	0.127
Manganese (Mn)	0.022	0.001	Fluoride (F)	3.170	0.167
Silica (SiO2)	44.400		Orthophosphate (as P)	<0.5	0.000
Total Cations		9.596	**Total Anions**		10.405

Trace Element Results (µg/L)

Aluminum (Al):	<7.6	Cesium (Cs):	<0.1	Molybdenum (Mo):	5.790	Strontium (Sr):	672.000
Antimony (Sb):	0.134	Chromium (Cr):	<0.1	Nickel (Ni):	<0.1	Thallium (Tl):	<0.1
Arsenic (As):	1.380	Cobalt (Co):	0.120	Niobium (Nb):	<0.1	Thorium (Th):	<0.1
Barium (Ba):	36.200	Copper (Cu):	0.554	Neodymium (Nd):	<0.1	Tin (Sn):	<0.1
Beryllium (Be):	<0.2	Gallium (Ga):	<0.1	Palladium (Pd):	0.247	Titanium (Ti):	2.170
Boron (B):	55.900	Lanthanum (La):	<0.1	Praseodymium (Pr):	<0.1	Tungsten (W):	11.200
Bromide (Br):	<500	Lead (Pb):	2.960	Rubidium (Rb):	3.140	Uranium (U):	26.700
Cadmium (Cd):	<0.1	Lithium (Li):	148.000	Silver (Ag):	<0.1	Vanadium (V):	3.660
Cerium (Ce):	<0.1	Mercury (Hg):	NR	Selenium (Se):	0.468	Zinc (Zn):	39.700
						Zirconium (Zr):	<0.1

Field Chemistry and Other Analytical Results

**Total Dissolved Solids (mg/L):	652.000	Field Hardness as CaCO3 (mg/L):	NR	Ammonia (mg/L):	NR
**Sum of Diss. Constituents (mg/L):	764.640	Hardness as CaCO3:	303.300	T.P. Hydrocarbons (µg/L):	NR
Field Conductivity (µmhos):	NR	Field Alkalinity as CaCO3 (mg/L):	NR	PCP (µg/L):	NR
Lab Conductivity (µmhos):	886	Alkalinity as CaCO3 (mg/L):	182.08	Phosphate, TD (mg/L as P):	0.043
Field pH:	NR	Ryznar Stability Index:	7.269	Field Nitrate (mg/L):	NR
Lab pH:	7.29	Sodium Adsorption Ratio:	1.924	Field Dissolved O2 (mg/L):	NR
Water Temp (°C):	NR	Langlier Saturation Index:	0.011	Field Chloride (mg/L):	NR
Air Temp (°C):	NR	Nitrite (mg/L as N):	<0.5	Field Redox (mV):	NR
Nitrate + Nitrite (mg/L as N)	NR	Hydroxide (mg/L as OH):	NR	Lab, Dissolved Organic Carbon (mg/L):	NR
Total Kjeldahl Nitrogen (mg/L as N)	NR	Lab, Dissolved Inorganic Carbon (mg/L):	NR	Lab, Total Organic Carbon (mg/L):	NR
Total Nitrogen (mg/L as N)	NR				

Sample Condition:

Field Remarks:

Lab Remarks:

Notes

Explanation: **mg/L** = milligrams per Liter; **µg/L** = micrograms per Liter; **ft** = feet; **NR** = No Reading in GWIC

Qualifiers: **A** = Hydride atomic absorption; **E** = Estimated due to interference; **H** = Exceeded holding time; **K** = Na+K combined; **N** = Spiked sample recovery not within control limits; **P** = Preserved sample; **S** = Method of standard additions; * = Duplicate analysis not within control limits; ** = Sum of Dissolved Constituents is the sum of major cations (Na, Ca, K, Mg, Mn, Fe) and anions (HCO3, CO3, SO4, Cl, SiO2, NO3, F) in mg/L. Total Dissolved Solids is reported as equivalent weight of evaporation residue.

Ground-Water Information Center Water Quality Report

Report Date: 2/3/2011

Site Name: CLINE RODNEY * RW05-07

Compare to Water Quality Standards

Location Information

Sample Id/Site Id:	2010Q0556 / 251057	Sample Date:	12/16/2009 3:34:00 PM
Location (TRS):	04N 10W 15 DA	Agency/Sampler:	MBMG / JAV
Latitude/Longitude:	46° 5' 56" N 112° 50' 26" W	Field Number:	CLINE
Datum:	WGS84	Lab Date:	4/2/2010
Altitude:		Lab/Analyst:	MBMG / SM
County/State:	DEER LODGE / MT	Sample Method/Handling:	PUMPED / 3120
Site Type:	WELL	Procedure Type:	DISSOLVED
Geology:		Total Depth (ft):	80
USGS 7.5' Quad:		SWL-MP (ft):	NR
PWS Id:		Depth Water Enters (ft):	70
Project:	ARWWS-DOM		

Major Ion Results

	mg/L	meq/L		mg/L	meq/L
Calcium (Ca)	30.900	1.542	Bicarbonate (HCO3)	145.400	2.383
Magnesium (Mg)	8.760	0.721	Carbonate (CO3)	0.000	0.000
Sodium (Na)	6.810	0.296	Chloride (Cl)	1.480	0.042
Potassium (K)	0.956	0.024	Sulfate (SO4)	25.730	0.536
Iron (Fe)	0.002	0.000	Nitrate (as N)	0.618	0.044
Manganese (Mn)	0.003	0.000	Fluoride (F)	0.271	0.014
Silica (SiO2)	14.800		Orthophosphate (as P)	<0.05	0.000
Total Cations		2.589	**Total Anions**		3.019

Trace Element Results (µg/L)

Aluminum (Al):	<7.68	Cesium (Cs):	<0.04	Molybdenum (Mo):	1.640	Strontium (Sr):	182.000
Antimony (Sb):	<0.05	Chromium (Cr):	0.045	Nickel (Ni):	0.410	Thallium (Tl):	<0.03
Arsenic (As):	0.220	Cobalt (Co):	<0.10	Niobium (Nb):	<0.04	Thorium (Th):	<0.02
Barium (Ba):	33.200	Copper (Cu):	0.588	Neodymium (Nd):	<0.05	Tin (Sn):	<0.04
Beryllium (Be):	<0.20	Gallium (Ga):	<0.05	Palladium (Pd):	<0.10	Titanium (Ti):	0.270
Boron (B):	5.390	Lanthanum (La):	<0.02	Praseodymium (Pr):	<0.02	Tungsten (W):	0.092
Bromide (Br):	<50	Lead (Pb):	1.220	Rubidium (Rb):	0.239	Uranium (U):	4.760
Cadmium (Cd):	<0.05	Lithium (Li):	2.460	Silver (Ag):	<0.04	Vanadium (V):	0.669
Cerium (Ce):	<0.02	Mercury (Hg):	NR	Selenium (Se):	0.142	Zinc (Zn):	8.140
						Zirconium (Zr):	<0.05

Field Chemistry and Other Analytical Results

**Total Dissolved Solids (mg/L):	162.100	Field Hardness as CaCO3 (mg/L):	NR	Ammonia (mg/L):	NR
**Sum of Diss. Constituents (mg/L):	235.670	Hardness as CaCO3:	113.210	T.P. Hydrocarbons (µg/L):	NR
Field Conductivity (µmhos):	257	Field Alkalinity as CaCO3 (mg/L):	NR	PCP (µg/L):	NR
Lab Conductivity (µmhos):	297	Alkalinity as CaCO3 (mg/L):	118.92	Phosphate, TD (mg/L as P):	0.044
Field pH:	7.39	Ryznar Stability Index:	8.410	Field Nitrate (mg/L):	NR
Lab pH:	7.46	Sodium Adsorption Ratio:	0.286	Field Dissolved O2 (mg/L):	6.010
Water Temp (°C):	8.48	Langlier Saturation Index:	-0.475	Field Chloride (mg/L):	NR
Air Temp (°C):	NR	Nitrite (mg/L as N):	<0.05	Field Redox (mV):	351
Nitrate + Nitrite (mg/L as N)	NR	Hydroxide (mg/L as OH):	NR	Lab, Dissolved Organic Carbon (mg/L):	NR
Total Kjeldahl Nitrogen (mg/L as N)	NR	Lab, Dissolved Inorganic Carbon (mg/L):	NR	Lab, Total Organic Carbon (mg/L):	NR
Total Nitrogen (mg/L as N)	NR				

Sample Condition: CLEAR

Field Remarks: RAW/FILTERED/FILTERED + HNO3

Lab Remarks:

Notes

Explanation: **mg/L** = milligrams per Liter; **µg/L** = micrograms per Liter; **ft** = feet; **NR** = No Reading in GWIC

Qualifiers: **A** = Hydride atomic absorption; **E** = Estimated due to interference; **H** = Exceeded holding time; **K** = Na+K combined; **N** = Spiked sample recovery not within control limits; **P** = Preserved sample; **S** = Method of standard additions; * = Duplicate analysis not within control limits; ** = Sum of Dissolved Constituents is the sum of major cations (Na, Ca, K, Mg, Mn, Fe) and anions (HCO3, CO3, SO4, Cl, SiO2, NO3, F) in mg/L. Total Dissolved Solids is reported as equivalent weight of evaporation residue.

Ground-Water Information Center Water Quality Report

Report Date: 2/3/2011

Site Name: MILLIE MATHEWS REPLACEMENT WELL

Compare to Water Quality Standards

Location Information

Sample Id/Site Id:	2010Q0378 / 253302	Sample Date:	10/15/2009 3:00:00 PM
Location (TRS):	04N 10W 11 CC	Agency/Sampler:	MBMG / TED
Latitude/Longitude:	46° 6' 32" N 112° 48' 55" W	Field Number:	MATHEWS #1
Datum:	WGS84	Lab Date:	1/20/2010
Altitude:		Lab/Analyst:	MBMG / SM
County/State:	DEER LODGE / MT	Sample Method/Handling:	PUMPED / 3120
Site Type:	WELL	Procedure Type:	DISSOLVED
Geology:		Total Depth (ft):	135
USGS 7.5' Quad:		SWL-MP (ft):	5.71
PWS Id:		Depth Water Enters (ft):	125
Project:	ARWWS-DOM		

Major Ion Results

	mg/L	meq/L		mg/L	meq/L
Calcium (Ca)	19.100	0.953	Bicarbonate (HCO3)	111.800	1.832
Magnesium (Mg)	4.370	0.360	Carbonate (CO3)	0.000	0.000
Sodium (Na)	9.440	0.411	Chloride (Cl)	2.630	0.074
Potassium (K)	2.030	0.052	Sulfate (SO4)	3.180	0.066
Iron (Fe)	0.032	0.002	Nitrate (as N)	0.241	0.017
Manganese (Mn)	0.008	0.000	Fluoride (F)	0.241	0.013
Silica (SiO2)	30.900		Orthophosphate (as P)	<0.05	0.000
Total Cations		1.784	**Total Anions**		2.003

Trace Element Results (µg/L)

Aluminum (Al):	17.400	Cesium (Cs):	<0.06	Molybdenum (Mo):	1.020	Strontium (Sr):	174.000
Antimony (Sb):	<0.09	Chromium (Cr):	0.288	Nickel (Ni):	<0.23	Thallium (Tl):	<0.07
Arsenic (As):	1.140	Cobalt (Co):	0.414	Niobium (Nb):	<0.24	Thorium (Th):	<0.06
Barium (Ba):	57.800	Copper (Cu):	0.376	Neodymium (Nd):	<0.09	Tin (Sn):	<0.10
Beryllium (Be):	<0.14	Gallium (Ga):	<0.11	Palladium (Pd):	<0.13	Titanium (Ti):	0.955
Boron (B):	8.340	Lanthanum (La):	<0.05	Praseodymium (Pr):	<0.10	Tungsten (W):	1.410
Bromide (Br):	<50	Lead (Pb):	<0.11	Rubidium (Rb):	0.592	Uranium (U):	1.030
Cadmium (Cd):	<0.09	Lithium (Li):	5.750	Silver (Ag):	<0.13	Vanadium (V):	5.160
Cerium (Ce):	0.065	Mercury (Hg):	NR	Selenium (Se):	<0.30	Zinc (Zn):	4.420
						Zirconium (Zr):	<0.11

Field Chemistry and Other Analytical Results

**Total Dissolved Solids (mg/L):	126.660	Field Hardness as CaCO3 (mg/L):	NR	Ammonia (mg/L):	NR
**Sum of Diss. Constituents (mg/L):	183.490	Hardness as CaCO3:	65.680	T.P. Hydrocarbons (µg/L):	NR
Field Conductivity (µmhos):	165	Field Alkalinity as CaCO3 (mg/L):	NR	PCP (µg/L):	NR
Lab Conductivity (µmhos):	202	Alkalinity as CaCO3 (mg/L):	91.86	Phosphate, TD (mg/L as P):	0.060
Field pH:	6.89	Ryznar Stability Index:	9.042	Field Nitrate (mg/L):	NR
Lab pH:	7.47	Sodium Adsorption Ratio:	0.483	Field Dissolved O2 (mg/L):	3.810
Water Temp (°C):	10.5	Langlier Saturation Index:	-0.786	Field Chloride (mg/L):	NR
Air Temp (°C):	NR	Nitrite (mg/L as N):	<0.05	Field Redox (mV):	379
Nitrate + Nitrite (mg/L as N)	NR	Hydroxide (mg/L as OH):	NR	Lab, Dissolved Organic Carbon (mg/L):	NR
Total Kjeldahl Nitrogen (mg/L as N)	NR	Lab, Dissolved Inorganic Carbon (mg/L):	NR	Lab, Total Organic Carbon (mg/L):	NR
Total Nitrogen (mg/L as N)	NR				

Sample Condition:

Field Remarks: REPLACEMENT WELL DRILLED 10/14/2009

Lab Remarks:

Notes

Explanation: **mg/L** = milligrams per Liter; **µg/L** = micrograms per Liter; **ft** = feet; **NR** = No Reading in GWIC

Qualifiers: **A** = Hydride atomic absorption; **E** = Estimated due to interference; **H** = Exceeded holding time; **K** = Na+K combined; **N** = Spiked sample recovery not within control limits; **P** = Preserved sample; **S** = Method of standard additions; * = Duplicate analysis not within control limits; ** = Sum of Dissolved Constituents is the sum of major cations (Na, Ca, K, Mg, Mn, Fe) and anions (HCO3, CO3, SO4, Cl, SiO2, NO3, F) in mg/L. Total Dissolved Solids is reported as equivalent weight of evaporation residue.

Plate1

Anaconda Regional Water, Waste, and Soils
Non 5 Year Review Monitoring Sites, 2010

MW-26
MW-26M
NW-1-OPd
NW-1-OPs
MW-214
MW-82
MW-82M
NW-2-OPs
NW-2-OPd
MW-85
MW-85M
NW-3-OPs
NW-3-OPd
MW-251
MW-252
MW-209
MW-242
MW-90
MW-90M
MW-241
MW-208
MW-255
MW-212
NW-4-OPs
NW-4-OPd
MW-31
MW-31M
IW-01
MW-213
MW-206
MW-206D
MW-204
MW-240
MW-207
MW-256
MW-216
MW-5S
NW-6S
LTW-4-SOD
LTW-4-SOS
MW-9
LTW-1-SOS
LTW-1-SOD
LTW-3-SOD
LTW-3-SOS

Legend

Monitoring wells

- Point of compliance
- Potential point of compliance
- Monitoring well

0 0.25 0.5 0.75 1 Miles

N
W E
S

Air photo base: NAIP, 2005
Roads: ITSD Transportation Geodatabase, 2008

D:\stuff\Tedl\non-5-yr-wells_mural.mxd

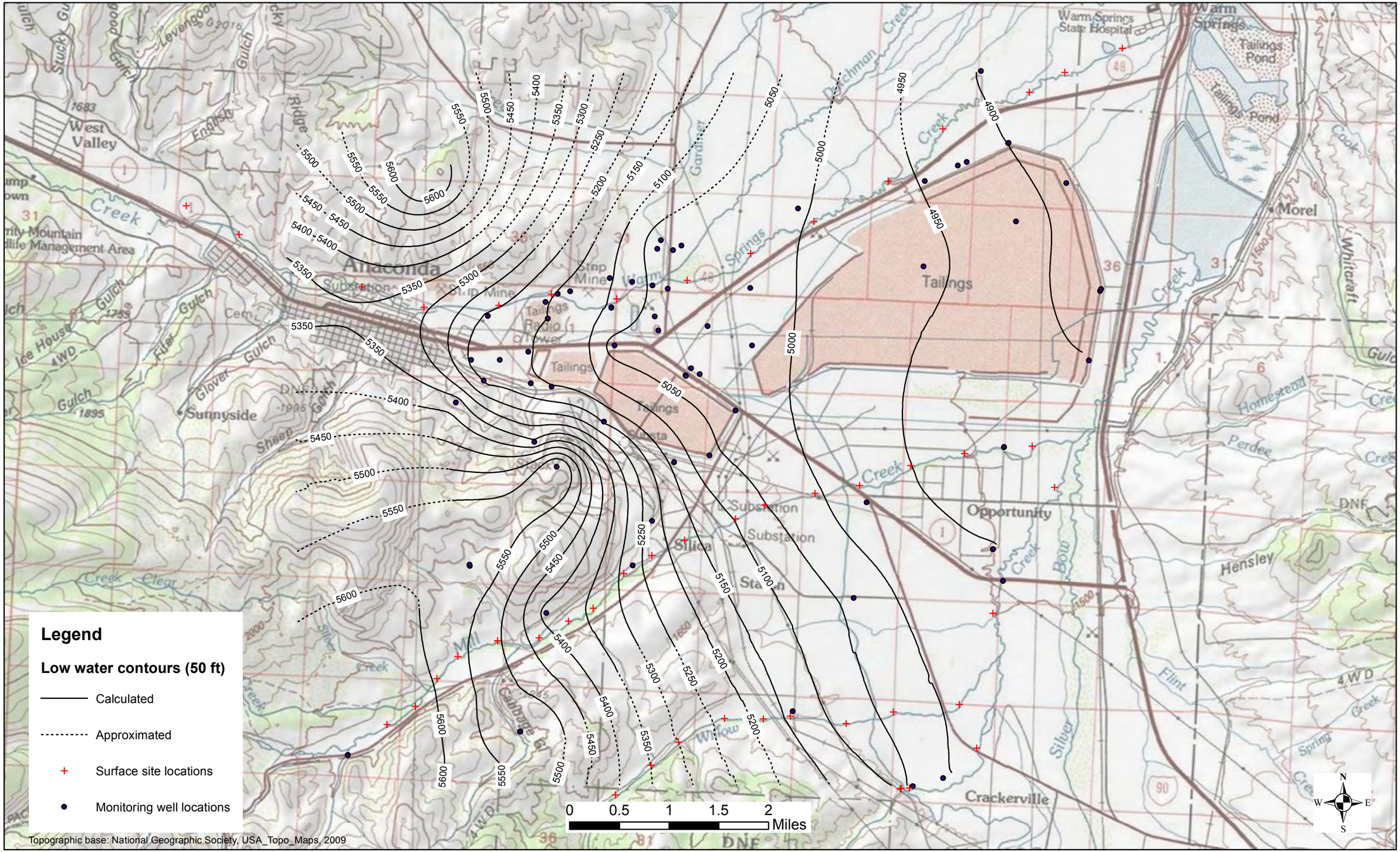

Plate 2. ARWWS low-water potentiometric map, 2009.

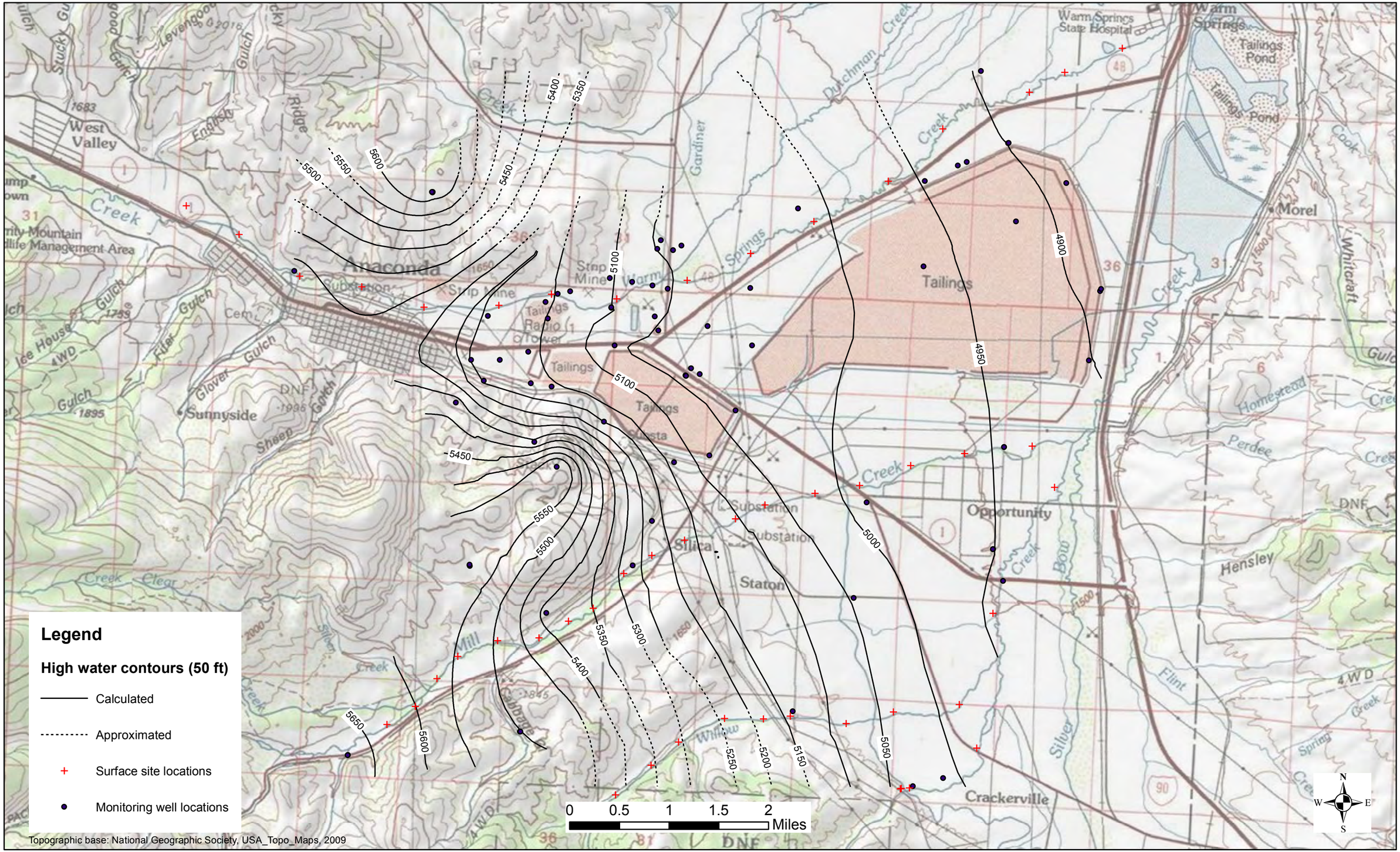

Plate 3. ARWWS high-water potentiometric map, 2009.