Cardno ATC
Shaping the Future

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Tempe, Arizona 85284
Telephone: 480-894-2056
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November 8, 2013

World Resources Company
8113 West Sherman Street
Tolleson, Arizona 85353-4025
Attention: Mr. Bryan Roberts

RE: Semiannual Groundwater Monitoring Report, October 2013
World Resources Company, Tolleson, Arizona
Cardno ATC Project No. 34.41558.0001

Dear Mr. Roberts:

Cardno ATC is pleased to present the following semiannual groundwater monitoring report to World Resources Company (WRC) for their facility located at 8113 West Sherman Street, Tolleson, Arizona (Site). Cardno ATC was contracted by WRC to conduct groundwater monitoring and reporting at the Site. This report is based on the Groundwater Detection Monitoring Program (DMP) as required by the Arizona Department of Environmental Quality (ADEQ). This report includes groundwater monitoring data and laboratory analyses.

Cardno ATC relied on the written DMP, ©1997-2005, by WORLD RESOURCES COMPANY (all rights reserved). Historical groundwater analytical results for the Site are presented in the *Semi-Annual Groundwater Monitoring Report, December 2005, Tolleson, Arizona*, dated February 7, 2006, prepared by ARCADIS and the *Semi-Annual Groundwater Monitoring Report, December 2010, World Resources Company, Tolleson, Arizona*, dated December 13, 2010, prepared by Valley Land Partners, LLC.

The DMP is required by the Code of Federal Regulations (CFR), Title 40, Part 264.91(a)(4) [40 CFR 264.91(a)(4)] and is described in the Resource Conservation and Recovery Act (RCRA) Facility Hazardous Permit Application Part B, dated May 1, 1997 (AZ HWMA RCRA PERMIT, EPA ID No. AZD980735500). As described in the DMP, subsequent to an initial two-year phase of detection monitoring, an ongoing DMP will be implemented, in accordance with 40 CFR 264.98(h). The ongoing DMP involves those monitor wells most appropriately located at and downgradient of the Point of Compliance.

A Cardno ATC representative conducted groundwater monitoring at the Site on October 2, 2013. During this investigation, three monitor wells (MW-9, MW-10 and MW-11) contained sufficient groundwater for reliable samples, consistent with previous monitoring events. Laboratory analyses were performed on groundwater samples collected at monitor wells MW-9, MW-10 and MW-11 as specified in the DMP. Groundwater sampling results are discussed below in Section 3.0.

1.0 Introduction

This report presents groundwater monitoring data collected on October 2, 2013 at the Site. The groundwater investigation was conducted based on the DMP. The Site is located in the SW ¼, SW ¼, Section 11, Township 1 North, Range 1 East, Gila and Salt River Meridian and Base Line in Maricopa County, Arizona. The approximate elevation of the Site is 1,010 feet above

mean sea level. The Site is located approximately 1.5 miles south of Interstate 10 and 0.2 mile east of 83rd Avenue in Tolleson, Arizona. The Site is bound to the north by Sherman Street, as depicted on attached Figure 1, Site Vicinity Map.

A total of 11 monitor wells (MW-1 through MW-11) have been installed at the Site. Six monitor wells (MW-1, MW-2, MW-3, MW-4, MW-5 and MW-8) have been abandoned. The remaining five monitor wells are depicted on attached Figure 2, Site Location and Potentiometric Surface Map (10/02/13).

2.0 Field Activities

Semiannual groundwater monitoring was conducted at the Site on October 2, 2013. Depth to groundwater was gauged at monitor wells MW-6, MW-7, MW-9, MW-10 and MW-11. Monitoring activities included measuring depth to groundwater at these five groundwater monitor wells. Groundwater elevations at monitor wells MW-9, MW-10 and MW-11 decreased an average of 6.76 feet since the April 23, 2013 monitoring event. The water level indicator was decontaminated between well measurements utilizing a solution of biodegradable, phosphate-free Liquinox®, rinse water and distilled water.

Total depth was measured at monitor well MW-6 at a depth of 85.0 feet below top of casing (TOC). No groundwater was encountered at monitor well MW-6.

Total depth was measured at monitor well MW-7 at a depth of 90.15 feet below TOC. No groundwater was encountered at monitor well MW-7.

Depth to groundwater measurements and groundwater elevations are depicted in attached Table 1, Groundwater Monitoring Data. Groundwater elevations and potentiometric surface map are depicted on Figure 2. The groundwater flow direction observed during this monitoring event is generally toward the north-northwest. Historically, groundwater flow direction at the Site has been toward the north-northwest.

On October 2, 2013, subsequent to measuring static groundwater levels, Cardno ATC utilized a low-flow, adjustable, submersible, GRUNDFOS® two-inch diameter pump to purge groundwater at monitor wells MW-9, MW-10 and MW-11. Monitor wells MW-6 and MW-7 were not sampled due to insufficient volumes of groundwater inside the well casings.

Groundwater was pumped from wells MW-9, MW-10 and MW-11 at an approximate rate of 400 milliliters per minute. Cardno ATC measured water quality parameters (dissolved oxygen, pH, color, odor, conductivity, oxidation-reduction potential and temperature) during each purging event. Field Data Sheets are included in attached Appendix A. Subsequent to purging each well and stabilization of the water quality parameters, groundwater samples were collected directly from the pump discharge tube. Groundwater samples were stored in laboratory supplied containers and placed in a cooler with ice.

One quality assurance/quality control (QA/QC) equipment blank and one blind field duplicate groundwater sample were collected during the monitoring event. The equipment blank sample was collected by pumping distilled water through the sampling pump prior to setup at the first monitor well. The blind duplicate groundwater sample was collected at monitor well MW-9 and was designated as "DUP" but the source monitor well was not specified to the laboratory. QA/QC samples were stored in laboratory supplied containers and placed in a cooler with ice. Groundwater samples and QA/QC samples were submitted chilled, under a chain-of-custody document, to TestAmerica Laboratories Inc. (TestAmerica) in Phoenix, Arizona for analyses. Based on the DMP, groundwater samples were analyzed for dissolved metals, total cyanide and

other selected inorganic groundwater constituents. The laboratory filtered the samples for dissolved metals analyses.

The submersible pump was decontaminated between well sampling events utilizing a solution of biodegradable, phosphate-free Liquinox®, rinse water and distilled water. Cardno ATC set up three five-gallon buckets to perform decontamination. The pump was first set in a five-gallon bucket with Liquinox® solution and run for approximately five minutes. The pump was then set in a five-gallon bucket with rinse water and run for approximately five minutes. Lastly, the pump was set in a five-gallon bucket with distilled water and run for approximately five minutes.

Monitor well purge water and decontamination water was placed in 55-gallon drums supplied by WRC. Cardno ATC understands that WRC treated the purge water and decontamination water on site in their wastewater treatment unit.

3.0 Groundwater Sampling Results

Laboratory analytical results of groundwater samples collected during this investigation indicate that no dissolved metals exceeded their respective Aquifer Water Quality Standard (AWQS). Nitrate (as N) exceeded its AWQS. Other general chemistry analytes and total cyanide did not exceed their respective AWQS. Nitrate (as N) was reported at concentrations of 11 milligrams per liter (mg/L) at monitor well MW-9 and 10 mg/L at monitor wells MW-10 and MW-11, respectively (attached Table 2, Analytical Results for Inorganics in Groundwater). The AWQS for nitrate (as N) is 10.0 mg/L. Elevated concentrations of nitrate (as N) have been reported in previous investigations and were attributed to agricultural land use in the general vicinity of the Site.

Analytical results for the MW-9, MW-10 and MW-11 groundwater samples plus the QA/QC samples are depicted in Table 2. A copy of the laboratory analytical report and chain of custody document is included in attached Appendix B.

4.0 Quality Assurance/Quality Control

On October 2, 2013, TestAmerica received five sets of groundwater samples collected at the Site. The five sets of groundwater samples included one equipment blank (ID EQUIP), one blind field duplicate (ID DUP; collected at well MW-9), one sample collected at well MW-9 (ID MW-9), one sample collected at well MW-10 (ID MW-10) and one sample collected at well MW-11 (ID MW-11). TestAmerica reported their analyses on October 17, 2013 (Job ID: 550-11802-1). A copy of the TestAmerica report is included in Appendix B.

Cardno ATC reviewed the report for the following Quality Assurance/Quality Control parameters:

- Holding times and errors.
- Blank results and contamination.
- Laboratory control sample analysis.
- Field duplicates and other QC.
- Duplicate sample, matrix spike/matrix spike duplicate analysis.

Holding times were met for each analyte. No analytes were reported above their respective Practical Quantitation Limit for the Equipment Blank. No critical data qualifiers were reported by TestAmerica.

The laboratory sample duplicate results were below 20 percent Relative Percent Difference (RPD; as defined in the laboratory report). The blind field duplicate (ID DUP; collected at well MW-9) laboratory sample results were below 20 percent RPD, as depicted in Table 2.

5.0 Findings and Recommendations

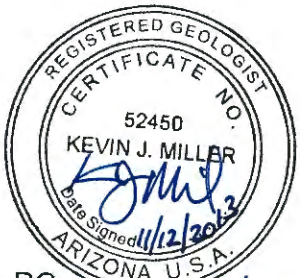
Laboratory analytical results of groundwater samples collected during this investigation indicate analytes did not exceed ADEQ established AWQS, with the exception of nitrate (as N). Elevated concentrations of nitrate (as N) have been reported in previous investigations and were attributed to fertilizers used on agricultural land in the general vicinity of the Site. On behalf of WRC, Cardno ATC recommends to continue semiannual groundwater monitoring at the Site.

6.0 Summary

Cardno ATC has prepared this Semiannual Groundwater Monitoring Report for WRC and their facility located at 8113 West Sherman Street, Tolleson, Arizona. Our findings are based on field observations, points of investigation and results of laboratory tests performed by TestAmerica.

If additional information is required or if you have any questions regarding the information in this report, please feel free to contact Kevin Miller at (480) 355-4655.

Sincerely,



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EXPIRES 06/30/2014

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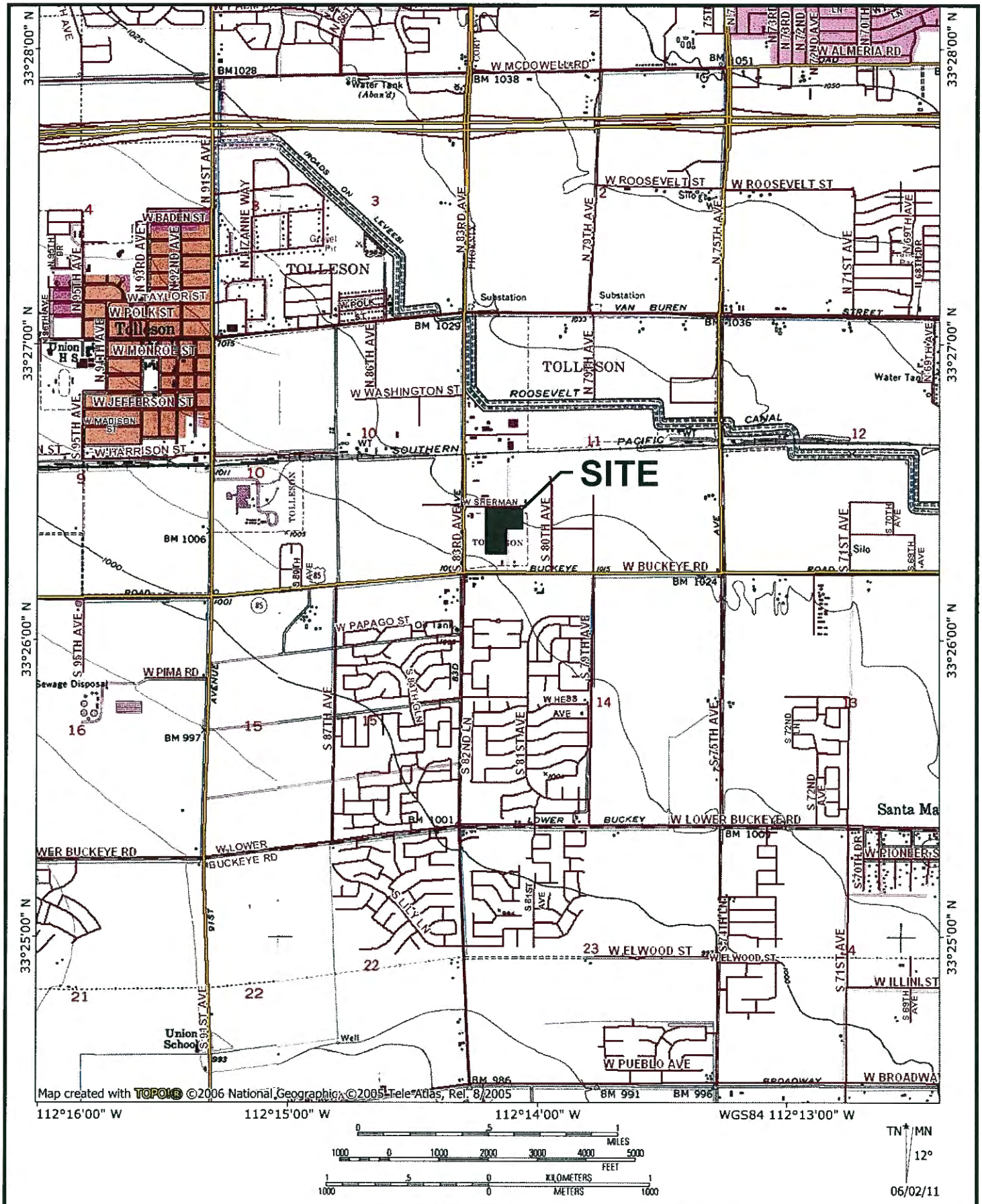
EXPIRES: 9/30/2016

Attachments: As stated.

FIGURES



SITE VICINITY MAP

WORLD RESOURCES COMPANY
8113 W. SHERMAN STREET
TOLLESON, AZ

PROJECT NUMBER: 34.41558.0001		DATE: 11/2/12	FIGURE 1
APPROVED BY: KM		DRAWN BY: BK	

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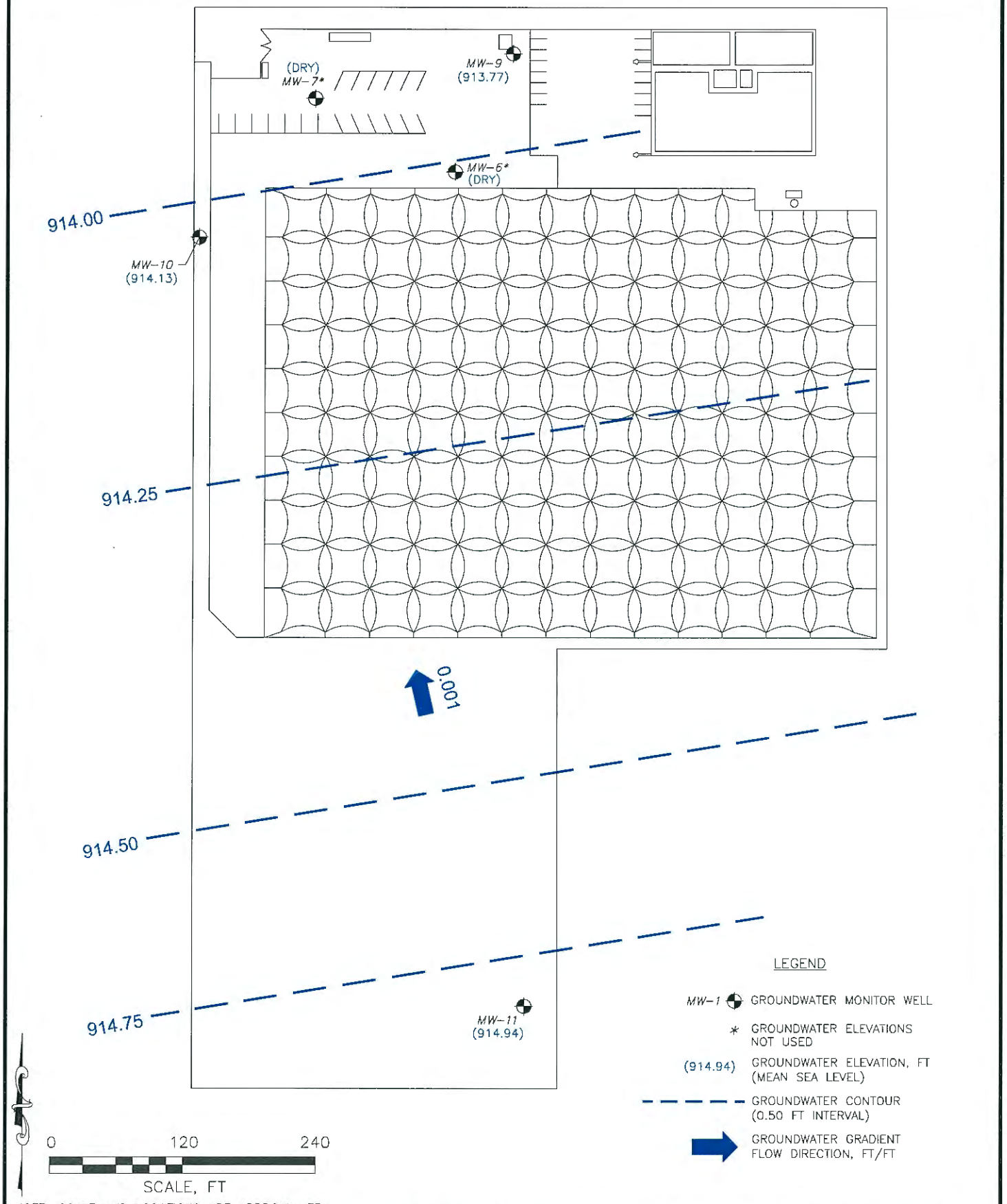

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

SITE LOCATION AND POTENTIOMETRIC SURFACE MAP (10/02/13)

WORLD RESOURCES COMPANY
8113 W. SHERMAN STREET
TOLLESON, AZ

PROJECT NUMBER: 34.41558.0001		DATE: 11/7/13	FIGURE
APPROVED BY: KM		DRAWN BY: BK	2

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TABLES

Table 1
Groundwater Monitoring Data
World Resources Company
Tolleson, Arizona

Monitoring Well I.D.	Wellhead Elevation MSL (ft)	Monitoring Date	Depth to Water (ft)	Groundwater Elevation MSL (ft)
MW-6	1,013.75	05/10/11	81.10	932.65
		10/18/11	84.83	928.92
		04/10/12	84.86	928.89
		10/04/12	Dry	Dry
		04/23/13	Dry	Dry
		10/02/13	Dry	Dry
MW-7	1,016.44	05/10/11	84.21	932.23
		10/18/11	88.76	927.68
		04/10/12	-	-
		10/04/12	-	-
		04/23/13	Dry	Dry
		10/02/13	Dry	Dry
MW-9	1,016.94	05/10/11	85.26	931.68
		10/18/11	90.37	926.57
		04/10/12	89.76	927.18
		10/04/12	94.63	922.31
		04/23/13	96.36	920.58
		10/02/13	103.17	913.77
MW-10	1,013.24	05/10/11	81.40	931.84
		10/18/11	86.49	926.75
		04/10/12	85.89	927.35
		10/04/12	90.82	922.42
		04/23/13	92.49	920.75
		10/02/13	99.11	914.13
MW-11	1,010.74	05/10/11	77.89	932.85
		10/18/11	83.12	927.62
		04/10/12	82.48	928.26
		10/04/12	87.58	923.16
		04/23/13	88.95	921.79
		10/02/13	95.80	914.94

Monitor well top of casing elevations surveyed by Malcolm Pirnie.
MSL = Mean Sea Level

Table 2
Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)
World Resources Company
Tolleson, Arizona

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-9)	Equipment Blank	AWQS	Field Duplicate RPD
General Chemistry								
Chloride	10/2/2013	440	450	440	440	<2.0	NP	0.0%
Fluoride	10/2/2013	1.5	1.3	1.5	1.5	<0.40	4.0	0.0%
Sulfate	10/2/2013	180	180	180	180	<2.0	NP	0.0%
Nitrate (as N)	10/2/2013	**11**	**10**	**10**	**11**	<0.20	10.0	0.0%
Nitrite (as N)	10/2/2013	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	10/2/2013	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	10/2/2013	1400	1400	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as $CaCO_3$)	10/2/2013	390	380	390	390	<6.0	NP	0.0%
Alkalinity, Carbonate (as $CaCO_3$)	10/2/2013	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as $CaCO_3$)	10/2/2013	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as $CaCO_3$)	10/2/2013	390	380	390	390	<6.0	NP	0.0%
Turbidity (units: NTU)	10/2/2013	0.20	<0.20	1.1	<0.20	0.50	5.0	-
Total Cyanide								
Cyanide, Total	10/2/2013	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
Dissolved Metals								
Barium	10/2/2013	0.039	0.040	0.039	0.042	<0.010	2.0	7.4%
Beryllium	10/2/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	10/2/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	10/2/2013	54	56	57	59	<2.0	NP	8.8%
Chromium	10/2/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	10/2/2013	<0.010	<0.010	<0.010	<0.010	<0.010	1.3	-
Iron	10/2/2013	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Magnesium	10/2/2013	30	29	31	33	<2.0	NP	9.5%
Manganese	10/2/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.980	-
Nickel	10/2/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.210	-
Potassium	10/2/2013	3.3	3.6	3.6	3.7	<2.0	NP	11.4%
Silver	10/2/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.035	-
Sodium	10/2/2013	390	410	420	430	<2.0	NP	9.8%
Tin	10/2/2013	<0.20	<0.20	<0.20	<0.20	<0.20	NP	-
Zinc	10/2/2013	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	-
Antimony	10/2/2013	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	10/2/2013	0.0053	0.0050	0.0055	0.0054	<0.0030	0.010	1.9%
Lead	10/2/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.015	-
Mercury	10/2/2013	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	10/2/2013	<0.0020	0.0020	0.0020	0.0020	<0.0020	0.050	-
Thallium	10/2/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<2.0 = Less than the practical quantitation limit.

Bold = Exceeds AWQS.

Table 2
Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)
World Resources Company
Tolleson, Arizona

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-11)	Equipment Blank	AWQS	Field Duplicate RPD
General Chemistry								
Chloride	4/23/2013	440	450	450	450	<2.0	NP	0.0%
Fluoride	4/23/2013	1.4	1.4	1.5	1.5	<0.40	4.0	0.0%
Sulfate	4/23/2013	190	180	190	180	<2.0	NP	5.4%
Nitrate (as N)	4/23/2013	**11**	**11**	**11**	**11**	<0.20	10.0	0.0%
Nitrite (as N)	4/23/2013	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	4/23/2013	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	4/23/2013	1400	1400	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as $CaCO_3$)	4/23/2013	400	380	390	390	<6.0	NP	0.0%
Alkalinity, Carbonate (as $CaCO_3$)	4/23/2013	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as $CaCO_3$)	4/23/2013	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as $CaCO_3$)	4/23/2013	400	380	390	390	<6.0	NP	0.0%
Turbidity (units: NTU)	4/23/2013	0.87	<0.20	0.33	0.28	<0.20	5.0	16.4%
Total Cyanide								
Cyanide, Total	4/23/2013	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
Dissolved Metals								
Barium	4/23/2013	<0.10	<0.10	<0.10	<0.10	<0.010	2.0	-
Beryllium	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	4/23/2013	58	56	59	56	<2.0	NP	5.2%
Chromium	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	1.3	-
Iron	4/23/2013	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Magnesium	4/23/2013	32	30	32	31	<2.0	NP	3.2%
Manganese	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.980	-
Nickel	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.210	-
Potassium	4/23/2013	3.5	3.5	3.7	3.6	<2.0	NP	2.7%
Silver	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.035	-
Sodium	4/23/2013	420	410	430	410	<2.0	NP	4.8%
Tin	4/23/2013	<0.20	<0.20	<0.20	<0.20	<0.20	NP	-
Zinc	4/23/2013	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	-
Antimony	4/23/2013	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	4/23/2013	0.0045	0.0036	0.0054	0.0052	<0.0030	0.010	3.8%
Lead	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.015	-
Mercury	4/23/2013	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	4/23/2013	0.0027	0.0022	0.0025	0.0025	<0.0020	0.050	0.0%
Thallium	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

Bold = Exceeds AWQS.

Table 2
Analytical Results for Inorganics in Groundwater (nnits are mg/l, except as noted)
World Resources Company
Tolleson, Arizona

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-10)	Equipment Blank	AWQS	Field Duplicate RPD
General Chemistry								
Chloride	10/4/2012	450	450	450	450	<2.0	NP	0.0%
Fluoride	10/4/2012	1.4	1.3	1.4	1.3	<0.40	4.0	0.0%
Sulfate	10/4/2012	190	190	190	190	<2.0	NP	0.0%
Nitrate (as N)	10/4/2012	**12**	**11**	**12**	**11**	<0.20	10.0	0.0%
Nitrite (as N)	10/4/2012	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	10/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	10/4/2012	1400	1400	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as $CaCO_3$)	10/4/2012	390	380	390	380	<6.0	NP	0.0%
Alkalinity, Carbonate (as $CaCO_3$)	10/4/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as $CaCO_3$)	10/4/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as $CaCO_3$)	10/4/2012	390	380	390	380	<6.0	NP	0.0%
Turbidity (units: NTU)	10/4/2012	0.49	0.25	3.4	0.24	<0.20	5.0	-
Total Cyanide								
Cyanide, Total	10/4/2012	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
Dissolved Metals								
Barium	10/4/2012	0.042	0.041	0.042	0.039	<0.010	2.0	5.0%
Beryllium	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	10/4/2012	58	57	56	55	<2.0	NP	3.6%
Chromium	10/4/2012	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	10/4/2012	<0.010	<0.010	<0.010	<0.010	<0.010	1.3	-
Iron	10/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Magnesium	10/4/2012	33	30	31	29	<2.0	NP	3.4%
Manganese	10/4/2012	<0.010	<0.010	<0.010	<0.010	<0.010	0.980	-
Nickel	10/4/2012	<0.010	<0.010	0.012	<0.010	<0.010	0.210	-
Potassium	10/4/2012	3.6	3.7	3.8	3.7	<2.0	NP	0.0%
Silver	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.035	-
Sodium	10/4/2012	400	400	390	390	<2.0	NP	2.5%
Tin	10/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Zinc	10/4/2012	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	-
Antimony	10/4/2012	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	10/4/2012	0.0056	0.0052	0.0064	0.0062	<0.0010	0.010	17.5%
Lead	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.015	-
Mercury	10/4/2012	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	10/4/2012	0.0022	0.0021	0.0023	0.0025	<0.0020	0.050	17.4%
Thallium	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

Bold = Exceeds AWQS.

Table 2
Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)
World Resources Company
Tolleson, Arizona

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-9)	Equipment Blank	AWQS	Field Duplicate RPD
General Chemistry								
Chloride	4/10/2012	480	480	480	480	<2.0	NP	0.0%
Fluoride	4/10/2012	1.6	1.4	1.7	1.5	<0.40	4.0	6.5%
Sulfate	4/10/2012	210	200	200	210	<2.0	NP	0.0%
Nitrate (as N)	4/10/2012	**14**	**12**	**13**	**14**	<0.20	10.0	0.0%
Nitrite (as N)	4/10/2012	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	4/10/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	4/10/2012	1500	1400	1400	1500	<20	NP	0.0%
Alkalinity, Bicarbonate (as $CaCO_3$)	4/10/2012	410	400	410	410	<6.0	NP	0.0%
Alkalinity, Carbonate (as $CaCO_3$)	4/10/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as $CaCO_3$)	4/10/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as $CaCO_3$)	4/10/2012	410	400	410	410	<6.0	NP	0.0%
Turbidity (units: NTU)	4/10/2012	<0.20	0.33	0.27	<0.20	<0.20	5.0	-
Total Cyanide								
Cyanide, Total	4/10/2012	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
Dissolved Metals								
Barium	4/10/2012	0.042	0.041	0.041	0.041	<0.010	2.0	2.4%
Beryllium	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	4/10/2012	60	58	57	58	<2.0	NP	3.4%
Chromium	4/10/2012	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	4/10/2012	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Iron	4/10/2012	<0.050	<0.050	<0.050	<0.050	<0.050	NP	-
Magnesium	4/10/2012	34	31	33	34	<2.0	NP	0.0%
Manganese	4/10/2012	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Nickel	4/10/2012	<0.010	0.012	<0.010	<0.010	<0.010	0.100	-
Potassium	4/10/2012	3.7	3.7	3.8	3.7	<2.0	NP	0.0%
Silver	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NP	-
Sodium	4/10/2012	420	420	430	420	<2.0	NP	0.0%
Tin	4/10/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Zinc	4/10/2012	0.083	<0.050	0.055	0.086	<0.050	NP	-
Antimony	4/10/2012	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	4/10/2012	0.0059	0.0053	0.0071	0.0059	<0.0010	0.050	0.0%
Lead	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.050	-
Mercury	4/10/2012	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	4/10/2012	0.0027	0.0023	0.0024	0.0029	<0.0020	0.050	7.1%
Thallium	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

Bold = Exceeds AWQS.

Table 2
Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)
World Resources Company
Tolleson, Arizona

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-11)	Equipment Blank	AWQS	Field Duplicate RPD
General Chemistry								
Chloride	10/18/2011	490	500	420	420	<2.0	NP	0.0%
Fluoride	10/18/2011	1.3	1.1	1.5	1.5	<0.40	4.0	0.0%
Sulfate	10/18/2011	220	250	190	190	<2.0	NP	0.0%
Nitrate (as N)	10/18/2011	**17**	**14**	**13**	**13**	<0.20	10.0	0.0%
Nitrite (as N)	10/18/2011	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	10/18/2011	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	10/18/2011	1500	1600	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as $CaCO_3$)	10/18/2011	390	400	410	410	<6.0	NP	0.0%
Alkalinity, Carbonate (as $CaCO_3$)	10/18/2011	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as $CaCO_3$)	10/18/2011	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as $CaCO_3$)	10/18/2011	390	400	410	410	<6.0	NP	0.0%
Turbidity (units: NTU)	10/18/2011	0.38	0.67	0.27	0.28	<0.20	5.0	3.6%
Total Cyanide								
Cyanide, Total	10/18/2011	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
Dissolved Metals								
Barium	10/18/2011	0.036	0.044	0.038	0.036	<0.010	2.0	5.4%
Beryllium	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	10/18/2011	55	65	55	54	<2.0	NP	1.8%
Chromium	10/18/2011	0.010	<0.010	<0.010	0.011	<0.010	0.100	-
Copper	10/18/2011	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Iron	10/18/2011	<0.050	<0.050	<0.050	<0.050	<0.050	NP	-
Magnesium	10/18/2011	35	37	32	32	<2.0	NP	0.0%
Manganese	10/18/2011	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Nickel	10/18/2011	<0.010	0.012	<0.010	<0.010	<0.010	0.100	-
Potassium	10/18/2011	3.3	3.7	3.5	3.4	<2.0	NP	2.9%
Silver	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NP	-
Sodium	10/18/2011	420	430	390	400	<2.0	NP	2.5%
Tin	10/18/2011	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Zinc	10/18/2011	<0.050	<0.050	<0.050	<0.050	<0.050	NP	-
Antimony	10/18/2011	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	10/18/2011	0.0059	0.0051	0.0074	0.0072	<0.0010	0.050	2.7%
Lead	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.050	-
Mercury	10/18/2011	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	10/18/2011	0.0043	0.0039	0.0027	0.0023	<0.0020	0.050	16.0%
Thallium	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

Bold = Exceeds AWQS.

Table 2
Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)
World Resources Company
Tolleson, Arizona

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-9)	Equipment Blank	AWQS	Field Duplicate RPD
General Chemistry								
Chloride	5/10/2011	425	446	501	425	<1.00	NP	0.0%
Fluoride	5/10/2011	1.37	1.22	1.56	1.34	<0.500	4.0	2.2%
Sulfate	5/10/2011	172	180	200	180	<1.00	NP	4.5%
Nitrate (as N)	5/10/2011	**13.5**	**14.4**	**15.7**	**13.7**	<0.100	10.0	1.5%
Nitrite (as N)	5/10/2011	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1.0	-
Phosphorus, Total (as P)	5/10/2011	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	NP	-
Total Dissolved Solids (TDS)	5/10/2011	1400	1540	1600	1460	<10.0	NP	4.2%
Alkalinity, Bicarbonate (as $CaCO_3$)	5/10/2011	420	420	430	414	<20.0	NP	1.4%
Alkalinity, Carbonate (as $CaCO_3$)	5/10/2011	<20.0	<20.0	<20.0	<20.0	<20.0	NP	-
Alkalinity, Hydroxide (as $CaCO_3$)	5/10/2011	<20.0	<20.0	<20.0	<20.0	<20.0	NP	-
Alkalinity, Total (as $CaCO_3$)	5/10/2011	420	420	430	414	<20.0	NP	1.4%
Turbidity (units: NTU)	5/10/2011	0.420	0.202	1.08	0.410	0.145	5.0	2.4%
Total Cyanide								
Cyanide, Total	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.200	-
Dissolved Metals								
Barium	5/10/2011	0.0431	0.0446	0.0421	0.0421	<0.0100	2.0	2.3%
Beryllium	5/10/2011	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.004	-
Cadmium	5/10/2011	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	0.005	-
Calcium	5/10/2011	59.7	63.1	73.2	58.1	<1.00	NP	2.7%
Chromium	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.100	-
Copper	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	NP	-
Iron	5/10/2011	<0.100	<0.100	<0.100	<0.100	<0.100	NP	-
Magnesium	5/10/2011	33.9	33.7	43.2	33.2	<1.00	NP	2.1%
Manganese	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	NP	-
Nickel	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.100	-
Potassium	5/10/2011	8.00	9.48	7.91	7.30	<2.00	NP	9.2%
Silver	5/10/2011	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	NP	-
Sodium	5/10/2011	398	394	405	406	<2.00	NP	2.0%
Tin	5/10/2011	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	NP	-
Zinc	5/10/2011	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	NP	-
Antimony	5/10/2011	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.006	-
Arsenic	5/10/2011	<0.0100	<0.0100	0.0111	<0.0100	<0.0100	0.050	-
Lead	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.050	-
Mercury	5/10/2011	<0.000200	<0.000200	<0.000200	0.000245	<0.000200	0.002	-
Selenium	5/10/2011	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	0.050	-
Thallium	5/10/2011	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

Bold = Exceeds AWQS.

Appendix A

Field Data Sheets

Cardno ATC
Shaping the Future

Date 10/2/13

Field Data Sheet

Project No.	34.41558.0001	Personnel	
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-6	Sample ID	— Dry
Weather	Sunny	Duplicate ID	= Dry

MW TD	85.05ft	MW TOC Elev.	—
MW DTW	Dry	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	— Dry
Purge Method	Low Flow		

Pump Time Start	—	Pump Time Stop	—
Sample Time Start	—	Sample Time Stop	—

Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or uS/cm	Temp. (°C)	ORP

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): **500 ml poly**	1	None
Wet Chem. (Alk, Cl, TDS, SO_4, NO_3, F, Turb.): **1-**	1	None
Phosphate, Backup NO_3: **500 ml poly**	1	H_2SO_4
Cyanide: **500 ml poly**	1	NaOH

Cardno ATC
Shaping the Future

Date 10/2/13

Field Data Sheet

Project No.	34.41558.0001	Personnel	
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-7	Sample ID	— Dry
Weather	Sunny	Duplicate ID	— Dry

MW TD	90.15 ft	MW TOC Elev.	~~Dry~~
MW DTW	— Dry	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	— Dry
Purge Method	Low Flow		

Pump Time Start	—	Pump Time Stop	—
Sample Time Start	—	Sample Time Stop	—

Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or uS/cm	Temp. (°C)	ORP

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): **500 ml poly**	1	None
Wet Chem. (Alk, Cl, TDS, SO_4, NO_3, F, Turb.): **1-**	1	None
Phosphate, Backup NO_3: **500 ml poly**	1	H_2SO_4
Cyanide: **500 ml poly**	1	NaOH

Cardno ATC
Shaping the Future

Date 10/2/13

Field Data Sheet

Project No.	34.41558.0001	Personnel	
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-9	Sample ID	MW-9
Weather	Sunny	Duplicate ID	~~MW-9~~ Dup

MW TD	~154 ft	MW TOC Elev.	
MW DTW	103.17 ft	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	
Purge Method	Low Flow		

Pump Time Start	1005	Pump Time Stop	
Sample Time Start		Sample Time Stop	

Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or ~~uS/cm~~	Temp. (°C)	ORP	
1005	—	—	—	—	—	—	
1012	clear	70.0%	6.74	2404 uS/cm	24.65	205.1	
1015	clear	66.7%	6.75	2406	24.33	204.9	4L
1020	clear	63 %	6.77	2411	25.26	201.6	6.5L
1023	clear	~~6.04~~ 4.76	6.8	2419	27.12	192.6	8.0L
1026	clear	4.66	6.82	2419	27.30	189.3	12L
~~1030~~							13.5L Total

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): **500 ml poly**	1	None
Wet Chem. (Alk, Cl, TDS, SO_4, NO_3, F, Turb.): **1-**	1	None
Phosphate, Backup NO_3: **500 ml poly**	1	H_2SO_4
Cyanide: **500 ml poly**	1	NaOH

Cardno ATC
Shaping the Future

Date 10/2/13

Field Data Sheet

Project No.	34.41558.0001	Personnel	
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-10	Sample ID	MW-10
Weather	Sunny	Duplicate ID	-

MW TD	~150ft	MW TOC Elev.	
MW DTW	99.11 ft	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	
Purge Method	Low Flow		

Pump Time Start	1257	Pump Time Stop	
Sample Time Start		Sample Time Stop	

Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or ~~uS/cm~~	Temp. (°C)	ORP	
1303	clear	3.97	6.85	2392	25.51	209.9	2.5L
1307	clear	3.71	6.88	2392	24.91	212.5	5L
1310	clear	3.50	6.88	2391	25.96	206.5	6.5L
1313	clear	3.30	6.94	2401	27.10	173.8	8.0L
1316	clear	3.21	6.98	2400	27.7	162.7	10.5L

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): **500 ml poly**	1	None
Wet Chem. (Alk, Cl, TDS, SO_4, NO_3, F, Turb.): 1-	1	None
Phosphate, Backup NO_3: **500 ml poly**	1	H_2SO_4
Cyanide: **500 ml poly**	1	NaOH

Cardno ATC
Shaping the Future

Date 10/2/13

Field Data Sheet

Project No.	34.41558.0001	Personnel	
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-11	Sample ID	MW-11
Weather	Sunny	Duplicate ID	—

MW TD	~150ft	MW TOC Elev.	
MW DTW	95.80ft	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	
Purge Method	Low Flow		

Pump Time Start	1137	Pump Time Stop	1201
Sample Time Start	1151	Sample Time Stop	1159

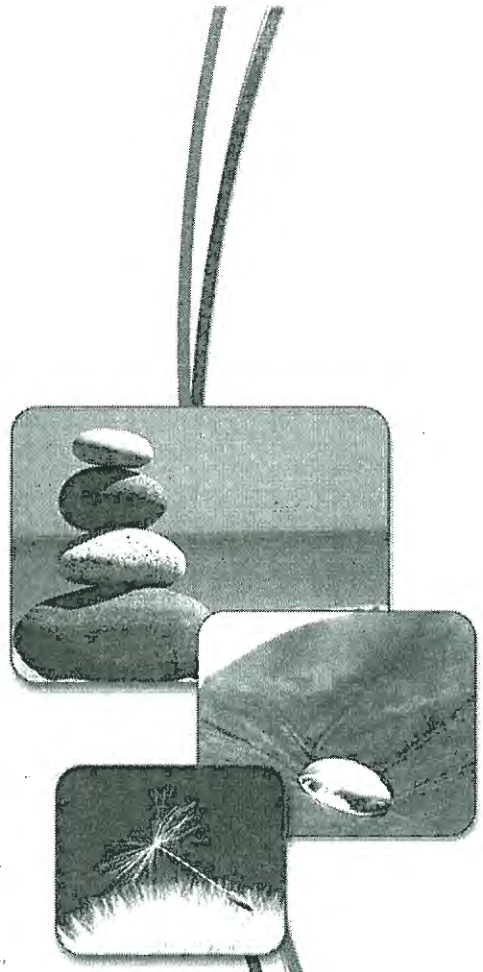
Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or uS/cm	Temp. (°C)	ORP	
1138	clear	~~4~~-10.20	6.87	2396	25.55	113.6	2L
1141	clear	6.04	6.87	2406	24.75	156.0	3L
1144	Clear	5.06	6.88	2399	25.49	158.1	5L
1147	clear	4.71	6.91	2404	26.12	146.7	7L
1150	Clear	4.63	6.92	2404	26.38	141.7	8L

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): **500 ml poly**	1	None
Wet Chem. (Alk, Cl, TDS, SO_4, NO_3, F, Turb.): **1-**	1	None
Phosphate, Backup NO_3: **500 ml poly**	1	H_2SO_4
Cyanide: **500 ml poly**	1	NaOH

Appendix B

Laboratory Groundwater Report and Chain of Custody Document



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-11802-1
Client Project/Site: 34.41558.0001

For:
Cardno ATC
9185 S Farmer Ave
Suite 107
Tempe, Arizona 85284

Attn: Mr. Kevin Miller

Carlene McCutcheon

Authorized for release by:
10/17/2013 5:10:01 PM

Carlene McCutcheon, Customer Service Manager
(602)659-7612
carlene.mccutcheon@testamericainc.com

Table of Contents

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-11802-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-11802-1

Comments
No additional comments.

Receipt
The samples were received on 10/2/2013 4:14 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

HPLC
No analytical or quality issues were noted.

Metals
Method(s) 200.8: The following samples requested dissolved metals and were not filtered in the field: Dup (550-11802-5), Equip (550-11802-4), MW_11 (550-11802-3), MW-10 (550-11802-2), MW-9 (550-11802-1). These samples were filtered and preserved upon receipt to the laboratory.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Sample Summary

Client: Cardno ATC
Project/Site: 34.41558.0001

TestAmerica Job ID: 550-11802-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-11802-1	MW-9	Water	10/02/13 10:26	10/02/13 16:14
550-11802-2	MW-10	Water	10/02/13 13:17	10/02/13 16:14
550-11802-3	MW_11	Water	10/02/13 11:50	10/02/13 16:14
550-11802-4	Equip	Water	10/02/13 10:26	10/02/13 16:14
550-11802-5	Dup	Water	10/02/13 00:00	10/02/13 16:14

Client Sample ID: MW-9
Date Collected: 10/02/13 10:26
Date Received: 10/02/13 16:14

Lab Sample ID: 550-11802-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**11**		0.20	mg/L			10/02/13 21:31	1
Nitrite as N	ND		0.20	mg/L			10/02/13 21:31	1
Nitrate Nitrite as N	**11**		0.40	mg/L			10/02/13 21:31	1
Fluoride	**1.5**		0.40	mg/L			10/02/13 21:31	1
Chloride	**440**		20	mg/L			10/03/13 04:04	10
Sulfate	**180**		2.0	mg/L			10/02/13 21:31	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	**0.039**		0.010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Calcium, Dissolved	**54**		2.0	mg/L		10/07/13 11:55	10/08/13 17:42	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:42	1
Magnesium, Dissolved	**30**		2.0	mg/L		10/07/13 11:55	10/08/13 17:42	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:42	1
Potassium, Dissolved	**3.3**		2.0	mg/L		10/07/13 11:55	10/08/13 17:42	1
Sodium, Dissolved	**390**		2.0	mg/L		10/07/13 11:55	10/08/13 17:42	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:42	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:42	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:31	1
Arsenic, Dissolved	**0.0053**		0.0030	mg/L		10/07/13 10:34	10/13/13 11:31	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:31	1
Selenium, Dissolved	ND		0.0020	mg/L		10/07/13 10:34	10/13/13 11:31	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:31	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:31	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	**0.20**		0.20	NTU			10/03/13 08:00	1
Alkalinity as CaCO3	**390**		6.0	mg/L			10/04/13 18:36	1
Bicarbonate Alkalinity as CaCO3	**390**		6.0	mg/L			10/04/13 18:36	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 18:36	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 18:36	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 18:36	1
Total Dissolved Solids	**1400**		20	mg/L			10/03/13 09:00	1
Cyanide, Total	ND		0.050	mg/L		10/07/13 15:30	10/07/13 17:49	1
Total Phosphorus	ND		0.10	mg/L		10/03/13 08:25	10/04/13 11:11	1

Client Sample ID: MW-10
Date Collected: 10/02/13 13:17
Date Received: 10/02/13 16:14

Lab Sample ID: 550-11802-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	10		0.20	mg/L			10/02/13 22:00	1
Nitrite as N	ND		0.20	mg/L			10/02/13 22:00	1
Nitrate Nitrite as N	10		0.40	mg/L			10/02/13 22:00	1
Fluoride	1.3		0.40	mg/L			10/02/13 22:00	1
Chloride	450		20	mg/L			10/03/13 04:32	10
Sulfate	180		2.0	mg/L			10/02/13 22:00	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	0.040		0.010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Calcium, Dissolved	56		2.0	mg/L		10/07/13 11:55	10/08/13 17:45	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:45	1
Magnesium, Dissolved	29		2.0	mg/L		10/07/13 11:55	10/08/13 17:45	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:45	1
Potassium, Dissolved	3.6		2.0	mg/L		10/07/13 11:55	10/08/13 17:45	1
Sodium, Dissolved	410		2.0	mg/L		10/07/13 11:55	10/08/13 17:45	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:45	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:45	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:33	1
Arsenic, Dissolved	0.0050		0.0030	mg/L		10/07/13 10:34	10/13/13 11:33	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:33	1
Selenium, Dissolved	0.0020		0.0020	mg/L		10/07/13 10:34	10/13/13 11:33	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:33	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:33	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20	NTU			10/03/13 08:00	1
Alkalinity as CaCO3	380		6.0	mg/L			10/04/13 19:01	1
Bicarbonate Alkalinity as CaCO3	380		6.0	mg/L			10/04/13 19:01	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:01	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 19:01	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:01	1
Total Dissolved Solids	1400		20	mg/L			10/03/13 09:00	1
Cyanide, Total	ND		0.050	mg/L		10/07/13 15:30	10/07/13 17:49	1
Total Phosphorus	ND		0.10	mg/L		10/03/13 08:25	10/04/13 11:11	1

Client Sample ID: MW_11
Date Collected: 10/02/13 11:50
Date Received: 10/02/13 16:14

Lab Sample ID: 550-11802-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	10		0.20	mg/L			10/02/13 22:28	1
Nitrite as N	ND		0.20	mg/L			10/02/13 22:28	1
Nitrate Nitrite as N	10		0.40	mg/L			10/02/13 22:28	1
Fluoride	1.5		0.40	mg/L			10/02/13 22:28	1
Chloride	440		20	mg/L			10/03/13 05:00	10
Sulfate	180		2.0	mg/L			10/02/13 22:28	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	0.039		0.010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Calcium, Dissolved	57		2.0	mg/L		10/07/13 11:55	10/08/13 17:48	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:48	1
Magnesium, Dissolved	31		2.0	mg/L		10/07/13 11:55	10/08/13 17:48	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:48	1
Potassium, Dissolved	3.6		2.0	mg/L		10/07/13 11:55	10/08/13 17:48	1
Sodium, Dissolved	420		2.0	mg/L		10/07/13 11:55	10/08/13 17:48	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:48	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:48	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:35	1
Arsenic, Dissolved	0.0055		0.0030	mg/L		10/07/13 10:34	10/13/13 11:35	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:35	1
Selenium, Dissolved	0.0020		0.0020	mg/L		10/07/13 10:34	10/13/13 11:35	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:35	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:35	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 14:11	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	1.1		0.20	NTU			10/03/13 08:00	1
Alkalinity as CaCO3	390		6.0	mg/L			10/04/13 19:13	1
Bicarbonate Alkalinity as CaCO3	390		6.0	mg/L			10/04/13 19:13	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:13	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 19:13	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:13	1
Total Dissolved Solids	1400		20	mg/L			10/03/13 09:00	1
Cyanide, Total	ND		0.050	mg/L		10/07/13 15:30	10/07/13 17:49	1
Total Phosphorus	ND		0.10	mg/L		10/03/13 08:25	10/04/13 11:11	1

Client Sample ID: Equip
Date Collected: 10/02/13 10:26
Date Received: 10/02/13 16:14

Lab Sample ID: 550-11802-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	mg/L			10/02/13 22:56	1
Nitrite as N	ND		0.20	mg/L			10/02/13 22:56	1
Nitrate Nitrite as N	ND		0.40	mg/L			10/02/13 22:56	1
Fluoride	ND		0.40	mg/L			10/02/13 22:56	1
Chloride	ND		2.0	mg/L			10/02/13 22:56	1
Sulfate	ND		2.0	mg/L			10/02/13 22:56	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Calcium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:51	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:51	1
Magnesium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:51	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:51	1
Potassium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:51	1
Sodium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:51	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:51	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:51	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:37	1
Arsenic, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:37	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:37	1
Selenium, Dissolved	ND		0.0020	mg/L		10/07/13 10:34	10/13/13 11:37	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:37	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:37	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	0.50		0.20	NTU			10/03/13 08:00	1
Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:19	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:19	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:19	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 19:19	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:19	1
Total Dissolved Solids	ND		20	mg/L			10/03/13 09:00	1
Cyanide, Total	ND		0.050	mg/L		10/07/13 15:30	10/07/13 17:49	1
Total Phosphorus	ND		0.10	mg/L		10/03/13 08:25	10/04/13 11:11	1

Client Sample ID: Dup
Date Collected: 10/02/13 00:00
Date Received: 10/02/13 16:14

Lab Sample ID: 550-11802-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	11		0.20	mg/L			10/02/13 23:24	1
Nitrite as N	ND		0.20	mg/L			10/02/13 23:24	1
Nitrate Nitrite as N	11		0.40	mg/L			10/02/13 23:24	1
Fluoride	1.5		0.40	mg/L			10/02/13 23:24	1
Chloride	440		20	mg/L			10/03/13 05:56	10
Sulfate	180		2.0	mg/L			10/02/13 23:24	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	0.042		0.010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Calcium, Dissolved	59		2.0	mg/L		10/07/13 11:55	10/08/13 17:54	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:54	1
Magnesium, Dissolved	33		2.0	mg/L		10/07/13 11:55	10/08/13 17:54	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:54	1
Potassium, Dissolved	3.7		2.0	mg/L		10/07/13 11:55	10/08/13 17:54	1
Sodium, Dissolved	430		2.0	mg/L		10/07/13 11:55	10/08/13 17:54	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:54	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:54	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:39	1
Arsenic, Dissolved	0.0054		0.0030	mg/L		10/07/13 10:34	10/13/13 11:39	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:39	1
Selenium, Dissolved	0.0020		0.0020	mg/L		10/07/13 10:34	10/13/13 11:39	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:39	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:39	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20	NTU			10/03/13 08:00	1
Alkalinity as CaCO3	390		6.0	mg/L			10/04/13 19:32	1
Bicarbonate Alkalinity as CaCO3	390		6.0	mg/L			10/04/13 19:32	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:32	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 19:32	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 19:32	1
Total Dissolved Solids	1400		20	mg/L			10/03/13 09:00	1
Cyanide, Total	ND		0.050	mg/L		10/07/13 15:30	10/07/13 17:49	1
Total Phosphorus	ND		0.10	mg/L		10/03/13 08:25	10/04/13 11:11	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-17009/2
Matrix: Water
Analysis Batch: 17009

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	mg/L			10/02/13 12:32	1
Nitrite as N	ND		0.20	mg/L			10/02/13 12:32	1
Nitrate Nitrite as N	ND		0.40	mg/L			10/02/13 12:32	1
Fluoride	ND		0.40	mg/L			10/02/13 12:32	1
Chloride	ND		2.0	mg/L			10/02/13 12:32	1
Sulfate	ND		2.0	mg/L			10/02/13 12:32	1

Lab Sample ID: LCS 550-17009/7
Matrix: Water
Analysis Batch: 17009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	3.92		mg/L		98	90 - 110
Nitrite as N	4.00	4.13		mg/L		103	90 - 110
Nitrate Nitrite as N	8.00	8.05		mg/L		101	90 - 110
Fluoride	4.00	4.10		mg/L		102	90 - 110
Chloride	20.0	20.7		mg/L		103	90 - 110
Sulfate	20.0	20.7		mg/L		103	90 - 110

Lab Sample ID: LCSD 550-17009/8
Matrix: Water
Analysis Batch: 17009

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	3.90		mg/L		97	90 - 110	0	20
Nitrite as N	4.00	4.07		mg/L		102	90 - 110	1	20
Nitrate Nitrite as N	8.00	7.97		mg/L		100	90 - 110	1	20
Fluoride	4.00	4.11		mg/L		103	90 - 110	0	20
Chloride	20.0	20.3		mg/L		101	90 - 110	2	20
Sulfate	20.0	20.2		mg/L		101	90 - 110	2	20

Lab Sample ID: 550-11806-A-1 MS
Matrix: Water
Analysis Batch: 17009

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.1		4.00	9.07		mg/L		98	80 - 120
Nitrite as N	0.26		4.00	4.41		mg/L		104	80 - 120
Nitrate Nitrite as N	5.4		8.00	13.5		mg/L		102	80 - 120
Fluoride	1.4		4.00	5.44		mg/L		100	80 - 120
Chloride	24		20.0	43.9		mg/L		101	80 - 120
Sulfate	150	M3	20.0	159	M3	mg/L		66	80 - 120

Lab Sample ID: 550-11806-A-1 MSD
Matrix: Water
Analysis Batch: 17009

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.1		4.00	9.12		mg/L		100	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-11806-A-1 MSD
Matrix: Water
Analysis Batch: 17009

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.26		4.00	4.48		mg/L		106	80 - 120	2	20
Nitrate Nitrite as N	5.4		8.00	13.6		mg/L		103	80 - 120	1	20
Fluoride	1.4		4.00	5.48		mg/L		101	80 - 120	1	20
Chloride	24		20.0	44.1		mg/L		102	80 - 120	0	20
Sulfate	150	M3	20.0	159	M3	mg/L		66	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-17149/1-A
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17149

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Calcium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:19	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:19	1
Magnesium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:19	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:19	1
Potassium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:19	1
Sodium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:19	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:19	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:19	1

Lab Sample ID: LCS 550-17149/3-A
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17149

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium, Dissolved	1.00	1.04		mg/L		104	85 - 115
Beryllium, Dissolved	1.00	1.04		mg/L		104	85 - 115
Cadmium, Dissolved	1.00	1.02		mg/L		102	85 - 115
Calcium, Dissolved	21.0	22.0		mg/L		105	85 - 115
Chromium, Dissolved	1.00	1.04		mg/L		104	85 - 115
Copper, Dissolved	1.00	0.976		mg/L		98	85 - 115
Iron, Dissolved	1.00	0.984		mg/L		98	85 - 115
Magnesium, Dissolved	21.0	21.3		mg/L		101	85 - 115
Manganese, Dissolved	1.00	1.03		mg/L		103	85 - 115
Nickel, Dissolved	1.00	1.04		mg/L		104	85 - 115
Potassium, Dissolved	20.0	19.8		mg/L		99	85 - 115
Sodium, Dissolved	20.0	19.8		mg/L		99	85 - 115
Zinc, Dissolved	1.00	1.08		mg/L		108	85 - 115
Tin, Dissolved	1.00	1.04		mg/L		104	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-17149/4-A
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17149

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium, Dissolved	1.00	1.03		mg/L		103	85 - 115	1	20
Beryllium, Dissolved	1.00	1.02		mg/L		102	85 - 115	2	20
Cadmium, Dissolved	1.00	1.01		mg/L		101	85 - 115	1	20
Calcium, Dissolved	21.0	21.7		mg/L		103	85 - 115	2	20
Chromium, Dissolved	1.00	1.03		mg/L		103	85 - 115	1	20
Copper, Dissolved	1.00	0.974		mg/L		97	85 - 115	0	20
Iron, Dissolved	1.00	0.968		mg/L		97	85 - 115	2	20
Magnesium, Dissolved	21.0	21.0		mg/L		100	85 - 115	2	20
Manganese, Dissolved	1.00	1.02		mg/L		102	85 - 115	0	20
Nickel, Dissolved	1.00	1.03		mg/L		103	85 - 115	1	20
Potassium, Dissolved	20.0	19.5		mg/L		98	85 - 115	1	20
Sodium, Dissolved	20.0	19.5		mg/L		97	85 - 115	2	20
Zinc, Dissolved	1.00	1.06		mg/L		106	85 - 115	2	20
Tin, Dissolved	1.00	1.03		mg/L		103	85 - 115	1	20

Lab Sample ID: MB 550-16957/1-C
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 17149

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Beryllium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Cadmium, Dissolved	ND		0.0010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Calcium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:23	1
Chromium, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Copper, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Iron, Dissolved	ND		0.10	mg/L		10/07/13 11:55	10/08/13 17:23	1
Magnesium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:23	1
Manganese, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Nickel, Dissolved	ND		0.010	mg/L		10/07/13 11:55	10/08/13 17:23	1
Potassium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:23	1
Sodium, Dissolved	ND		2.0	mg/L		10/07/13 11:55	10/08/13 17:23	1
Zinc, Dissolved	ND		0.050	mg/L		10/07/13 11:55	10/08/13 17:23	1
Tin, Dissolved	ND		0.20	mg/L		10/07/13 11:55	10/08/13 17:23	1

Lab Sample ID: 550-11964-A-10-B MS
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 17149

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium, Dissolved	0.061		1.00	1.09		mg/L		103	70 - 130
Beryllium, Dissolved	ND		1.00	1.04		mg/L		104	70 - 130
Cadmium, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130
Calcium, Dissolved	31		21.0	52.8		mg/L		105	70 - 130
Chromium, Dissolved	ND		1.00	1.03		mg/L		103	70 - 130
Copper, Dissolved	ND		1.00	0.996		mg/L		100	70 - 130
Iron, Dissolved	ND		1.00	0.982		mg/L		98	70 - 130
Magnesium, Dissolved	5.7		21.0	27.1		mg/L		102	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-11964-A-10-B MS
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 17149

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	ND		1.00	1.03		mg/L		103	70 - 130
Nickel, Dissolved	ND		1.00	1.03		mg/L		103	70 - 130
Potassium, Dissolved	6.0		20.0	26.1		mg/L		100	70 - 130
Sodium, Dissolved	11		20.0	30.5		mg/L		98	70 - 130
Zinc, Dissolved	ND		1.00	1.05		mg/L		104	70 - 130
Tin, Dissolved	ND		1.00	1.04		mg/L		104	70 - 130

Lab Sample ID: 550-11964-A-10-C MSD
Matrix: Water
Analysis Batch: 17332

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 17149

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium, Dissolved	0.061		1.00	1.08		mg/L		102	70 - 130	1	20
Beryllium, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	2	20
Cadmium, Dissolved	ND		1.00	1.01		mg/L		101	70 - 130	1	20
Calcium, Dissolved	31		21.0	52.3		mg/L		102	70 - 130	1	20
Chromium, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	1	20
Copper, Dissolved	ND		1.00	0.994		mg/L		99	70 - 130	0	20
Iron, Dissolved	ND		1.00	0.975		mg/L		97	70 - 130	1	20
Magnesium, Dissolved	5.7		21.0	26.8		mg/L		100	70 - 130	1	20
Manganese, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	0	20
Nickel, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	1	20
Potassium, Dissolved	6.0		20.0	25.8		mg/L		99	70 - 130	1	20
Sodium, Dissolved	11		20.0	30.4		mg/L		98	70 - 130	0	20
Zinc, Dissolved	ND		1.00	1.04		mg/L		103	70 - 130	1	20
Tin, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	2	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 550-17110/1-A
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17110

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:07	1
Arsenic, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:07	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:07	1
Selenium, Dissolved	ND		0.0020	mg/L		10/07/13 10:34	10/13/13 11:07	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:07	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:07	1

Lab Sample ID: LCS 550-17110/3-A
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Dissolved	0.100	0.0962		mg/L		96	85 - 115
Arsenic, Dissolved	0.100	0.0924		mg/L		92	85 - 115
Lead, Dissolved	0.100	0.101		mg/L		101	85 - 115

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-17110/3-A
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium, Dissolved	0.100	0.0898		mg/L		90	85 - 115
Silver, Dissolved	0.100	0.0971		mg/L		97	85 - 115
Thallium, Dissolved	0.100	0.102		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-17110/4-A
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17110

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony, Dissolved	0.100	0.0991		mg/L		99	85 - 115	3	20
Arsenic, Dissolved	0.100	0.0935		mg/L		94	85 - 115	1	20
Lead, Dissolved	0.100	0.103		mg/L		103	85 - 115	2	20
Selenium, Dissolved	0.100	0.0922		mg/L		92	85 - 115	3	20
Silver, Dissolved	0.100	0.0988		mg/L		99	85 - 115	2	20
Thallium, Dissolved	0.100	0.105		mg/L		105	85 - 115	2	20

Lab Sample ID: MB 550-16957/1-B
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 17110

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:10	1
Arsenic, Dissolved	ND		0.0030	mg/L		10/07/13 10:34	10/13/13 11:10	1
Lead, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:10	1
Selenium, Dissolved	ND		0.0020	mg/L		10/07/13 10:34	10/13/13 11:10	1
Silver, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:10	1
Thallium, Dissolved	ND		0.0010	mg/L		10/07/13 10:34	10/13/13 11:10	1

Lab Sample ID: 550-11964-A-2-A MS
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 17110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Dissolved	ND		0.100	0.0994		mg/L		99	70 - 130
Arsenic, Dissolved	ND		0.100	0.0980		mg/L		96	70 - 130
Lead, Dissolved	ND		0.100	0.0994		mg/L		99	70 - 130
Selenium, Dissolved	ND		0.100	0.0938		mg/L		94	70 - 130
Silver, Dissolved	ND		0.100	0.0945		mg/L		95	70 - 130
Thallium, Dissolved	ND		0.100	0.102		mg/L		102	70 - 130

Lab Sample ID: 550-11964-A-2-B MSD
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 17110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony, Dissolved	ND		0.100	0.101		mg/L		101	70 - 130	2	20
Arsenic, Dissolved	ND		0.100	0.0966		mg/L		94	70 - 130	1	20
Lead, Dissolved	ND		0.100	0.0991		mg/L		99	70 - 130	0	20
Selenium, Dissolved	ND		0.100	0.0937		mg/L		94	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-11964-A-2-B MSD
Matrix: Water
Analysis Batch: 17686

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 17110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver, Dissolved	ND		0.100	0.0939		mg/L		94	70 - 130	1	20
Thallium, Dissolved	ND		0.100	0.102		mg/L		102	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-17356/1-A
Matrix: Water
Analysis Batch: 17403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17356

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 13:58	1

Lab Sample ID: LCS 550-17356/2-A
Matrix: Water
Analysis Batch: 17403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	0.0100	0.0110		mg/L		110	85 - 115

Lab Sample ID: LCSD 550-17356/3-A
Matrix: Water
Analysis Batch: 17403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury, Dissolved	0.0100	0.0107		mg/L		107	85 - 115	2	20

Lab Sample ID: MB 550-16957/1-D
Matrix: Water
Analysis Batch: 17403

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 17356

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		10/09/13 10:07	10/09/13 14:06	1

Lab Sample ID: 550-11802-1 MS
Matrix: Water
Analysis Batch: 17403

Client Sample ID: MW-9
Prep Type: Dissolved
Prep Batch: 17356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	ND		0.0100	0.0106		mg/L		106	70 - 130

Lab Sample ID: 550-11802-1 MSD
Matrix: Water
Analysis Batch: 17403

Client Sample ID: MW-9
Prep Type: Dissolved
Prep Batch: 17356

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury, Dissolved	ND		0.0100	0.0106		mg/L		106	70 - 130	0	20

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 550-17007/3
Matrix: Water
Analysis Batch: 17007

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20	NTU			10/03/13 08:00	1

Lab Sample ID: LCS 550-17007/4
Matrix: Water
Analysis Batch: 17007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Turbidity	20.0	19.1		NTU		96	90 - 110

Lab Sample ID: LCSD 550-17007/5
Matrix: Water
Analysis Batch: 17007

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Turbidity	20.0	19.2		NTU		96	90 - 110	1	20

Lab Sample ID: 550-11802-3 DU
Matrix: Water
Analysis Batch: 17007

Client Sample ID: MW_11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	1.1		1.16		NTU		4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-17093/35
Matrix: Water
Analysis Batch: 17093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 15:47	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 15:47	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 15:47	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 15:47	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 15:47	1

Lab Sample ID: MB 550-17093/63
Matrix: Water
Analysis Batch: 17093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 20:54	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 20:54	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 20:54	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			10/04/13 20:54	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			10/04/13 20:54	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 550-17093/62
Matrix: Water
Analysis Batch: 17093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	250		mg/L		100	90 - 110

Lab Sample ID: LCSD 550-17093/48
Matrix: Water
Analysis Batch: 17093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	251		mg/L		101	90 - 110	NaN	20

Lab Sample ID: LCSD 550-17093/69
Matrix: Water
Analysis Batch: 17093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	250		mg/L		100	90 - 110	0	20

Lab Sample ID: 550-11802-1 DU
Matrix: Water
Analysis Batch: 17093

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	390		387		mg/L		0.5	20
Bicarbonate Alkalinity as CaCO3	390		387		mg/L		0.5	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Alkalinity, Phenolphthalein	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-16882/1
Matrix: Water
Analysis Batch: 16882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20	mg/L			10/03/13 09:00	1

Lab Sample ID: LCS 550-16882/2
Matrix: Water
Analysis Batch: 16882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1000		mg/L		100	80 - 115

Lab Sample ID: LCSD 550-16882/3
Matrix: Water
Analysis Batch: 16882

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1000		mg/L		100	80 - 115	0	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 550-11802-4 DU — **Client Sample ID: Equip**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16882

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	ND		ND		mg/L		NC	10

Method: SM 4500 CN E - Cyanide, Total

Lab Sample ID: MB 550-17191/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17200 — **Prep Batch: 17191**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.050	mg/L		10/07/13 15:30	10/07/13 17:49	1

Lab Sample ID: LCS 550-17191/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17200 — **Prep Batch: 17191**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.109		mg/L		109	90 - 110

Lab Sample ID: LCSD 550-17191/19-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17200 — **Prep Batch: 17191**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.100	0.107		mg/L		107	90 - 110	2	20

Lab Sample ID: 550-11786-A-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17200 — **Prep Batch: 17191**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.107		mg/L		107	80 - 120

Lab Sample ID: 550-11786-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17200 — **Prep Batch: 17191**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.0932		mg/L		93	80 - 120	14	20

Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 550-17024/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17025 — **Prep Batch: 17024**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus	ND		0.10	mg/L		10/03/13 08:25	10/04/13 11:11	1

Method: SM 4500 P E - Phosphorus (Continued)

Lab Sample ID: LCS 550-17024/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17025 — **Prep Batch: 17024**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus	0.300	0.306		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-17024/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17025 — **Prep Batch: 17024**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Phosphorus	0.300	0.307		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-11714-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17025 — **Prep Batch: 17024**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus	ND		0.300	0.312		mg/L		104	80 - 120

Lab Sample ID: 550-11714-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 17025 — **Prep Batch: 17024**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Phosphorus	ND		0.300	0.315		mg/L		105	80 - 120	1	20

Client Sample ID: MW-9 — **Lab Sample ID: 550-11802-1**
Date Collected: 10/02/13 10:26 — **Matrix: Water**
Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17009	10/02/13 21:31	MHH	TAL PHX
Total/NA	Analysis	300.0		10	17009	10/03/13 04:04	MHH	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.7			17149	10/07/13 11:55	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	17332	10/08/13 17:42	HLK	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	245.1			17356	10/09/13 10:07	AJC	TAL PHX
Dissolved	Analysis	245.1		1	17403	10/09/13 14:07	AJC	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.8			17110	10/07/13 10:34	JRC	TAL PHX
Dissolved	Analysis	200.8		1	17686	10/13/13 11:31	TEK	TAL PHX
Total/NA	Analysis	SM 2540C		1	16882		JAE	TAL PHX
					(Start)	10/03/13 09:00		
					(End)	10/04/13 14:30		
Total/NA	Analysis	180.1		1	17007	10/03/13 08:00	DGS	TAL PHX
Total/NA	Prep	SM 4500 P B			17024	10/03/13 08:25	DGS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	17025	10/04/13 11:11	DGS	TAL PHX
Total/NA	Analysis	SM 2320B		1	17093	10/04/13 18:36	DGS	TAL PHX
Total/NA	Prep	SM 4500 CN C			17191	10/07/13 15:30	TAS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	17200	10/07/13 17:49	TAS	TAL PHX

Client Sample ID: MW-10 — **Lab Sample ID: 550-11802-2**
Date Collected: 10/02/13 13:17 — **Matrix: Water**
Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17009	10/02/13 22:00	MHH	TAL PHX
Total/NA	Analysis	300.0		10	17009	10/03/13 04:32	MHH	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.7			17149	10/07/13 11:55	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	17332	10/08/13 17:45	HLK	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	245.1			17356	10/09/13 10:07	AJC	TAL PHX
Dissolved	Analysis	245.1		1	17403	10/09/13 14:09	AJC	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.8			17110	10/07/13 10:34	JRC	TAL PHX
Dissolved	Analysis	200.8		1	17686	10/13/13 11:33	TEK	TAL PHX
Total/NA	Analysis	SM 2540C		1	16882		JAE	TAL PHX
					(Start)	10/03/13 09:00		
					(End)	10/04/13 14:30		
Total/NA	Analysis	180.1		1	17007	10/03/13 08:00	DGS	TAL PHX
Total/NA	Prep	SM 4500 P B			17024	10/03/13 08:25	DGS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	17025	10/04/13 11:11	DGS	TAL PHX

Client Sample ID: MW-10

Lab Sample ID: 550-11802-2

Date Collected: 10/02/13 13:17

Matrix: Water

Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	17093	10/04/13 19:01	DGS	TAL PHX
Total/NA	Prep	SM 4500 CN C			17191	10/07/13 15:30	TAS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	17200	10/07/13 17:49	TAS	TAL PHX

Client Sample ID: MW_11

Lab Sample ID: 550-11802-3

Date Collected: 10/02/13 11:50

Matrix: Water

Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17009	10/02/13 22:28	MHH	TAL PHX
Total/NA	Analysis	300.0		10	17009	10/03/13 05:00	MHH	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.7			17149	10/07/13 11:55	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	17332	10/08/13 17:48	HLK	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	245.1			17356	10/09/13 10:07	AJC	TAL PHX
Dissolved	Analysis	245.1		1	17403	10/09/13 14:11	AJC	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.8			17110	10/07/13 10:34	JRC	TAL PHX
Dissolved	Analysis	200.8		1	17686	10/13/13 11:35	TEK	TAL PHX
Total/NA	Analysis	SM 2540C		1	16882 (Start) 10/03/13 09:00 (End) 10/04/13 14:30		JAE	TAL PHX
Total/NA	Analysis	180.1		1	17007	10/03/13 08:00	DGS	TAL PHX
Total/NA	Prep	SM 4500 P B			17024	10/03/13 08:25	DGS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	17025	10/04/13 11:11	DGS	TAL PHX
Total/NA	Analysis	SM 2320B		1	17093	10/04/13 19:13	DGS	TAL PHX
Total/NA	Prep	SM 4500 CN C			17191	10/07/13 15:30	TAS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	17200	10/07/13 17:49	TAS	TAL PHX

Client Sample ID: Equip

Lab Sample ID: 550-11802-4

Date Collected: 10/02/13 10:26

Matrix: Water

Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17009	10/02/13 22:56	MHH	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.7			17149	10/07/13 11:55	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	17332	10/08/13 17:51	HLK	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	245.1			17356	10/09/13 10:07	AJC	TAL PHX
Dissolved	Analysis	245.1		1	17403	10/09/13 14:15	AJC	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX

Lab Chronicle

Client: Cardno ATC
Project/Site: 34.41558.0001

TestAmerica Job ID: 550-11802-1

Client Sample ID: Equip

Lab Sample ID: 550-11802-4

Date Collected: 10/02/13 10:26

Matrix: Water

Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	200.8			17110	10/07/13 10:34	JRC	TAL PHX
Dissolved	Analysis	200.8		1	17686	10/13/13 11:37	TEK	TAL PHX
Total/NA	Analysis	SM 2540C		1	16882		JAE	TAL PHX
					(Start)	10/03/13 09:00		
					(End)	10/04/13 14:30		
Total/NA	Analysis	180.1		1	17007	10/03/13 08:00	DGS	TAL PHX
Total/NA	Prep	SM 4500 P B			17024	10/03/13 08:25	DGS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	17025	10/04/13 11:11	DGS	TAL PHX
Total/NA	Analysis	SM 2320B		1	17093	10/04/13 19:19	DGS	TAL PHX
Total/NA	Prep	SM 4500 CN C			17191	10/07/13 15:30	TAS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	17200	10/07/13 17:49	TAS	TAL PHX

Client Sample ID: Dup

Lab Sample ID: 550-11802-5

Date Collected: 10/02/13 00:00

Matrix: Water

Date Received: 10/02/13 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17009	10/02/13 23:24	MHH	TAL PHX
Total/NA	Analysis	300.0		10	17009	10/03/13 05:56	MHH	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.7			17149	10/07/13 11:55	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	17332	10/08/13 17:54	HLK	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	245.1			17356	10/09/13 10:07	AJC	TAL PHX
Dissolved	Analysis	245.1		1	17403	10/09/13 14:17	AJC	TAL PHX
Dissolved	Filtration	Filtration			16957	10/03/13 19:10	SGO	TAL PHX
Dissolved	Prep	200.8			17110	10/07/13 10:34	JRC	TAL PHX
Dissolved	Analysis	200.8		1	17686	10/13/13 11:39	TEK	TAL PHX
Total/NA	Analysis	SM 2540C		1	16882		JAE	TAL PHX
					(Start)	10/03/13 09:00		
					(End)	10/04/13 14:30		
Total/NA	Analysis	180.1		1	17007	10/03/13 08:00	DGS	TAL PHX
Total/NA	Prep	SM 4500 P B			17024	10/03/13 08:25	DGS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	17025	10/04/13 11:11	DGS	TAL PHX
Total/NA	Analysis	SM 2320B		1	17093	10/04/13 19:32	DGS	TAL PHX
Total/NA	Prep	SM 4500 CN C			17191	10/07/13 15:30	TAS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	17200	10/07/13 17:49	TAS	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: Cardno ATC
Project/Site: 34.41558.0001

TestAmerica Job ID: 550-11802-1

Laboratory: TestAmerica Phoenix

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		154268	07-01-15
Arizona	State Program	9	AZ0728	06-09-14
California	NELAP	9	01109CA	11-30-13
Nevada	State Program	9	AZ01030	07-31-14
New York	NELAP	2	11898	04-01-14
Oregon	NELAP	10	AZ100001	03-09-14
USDA	Federal		P330-09-00024	06-09-15

Method Summary

Client: Cardno ATC
Project/Site: 34.41558.0001

TestAmerica Job ID: 550-11802-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
180.1	Turbidity, Nephelometric	MCAWW	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 CN E	Cyanide, Total	SM	TAL PHX
SM 4500 P E	Phosphorus	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-11802

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[X] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

10/17/2013

Client Name/Address:	Project/PO Number:
Cardno ATC 9835 S. Farmer Ave. Suite 111 Tempe, Arizona 85284	34.41558.0001
Project Manager: Kevin Miller	Phone Number: 480 894 2056
Sampler: Chris Lawter	Fax Number: 480 355 4694

550-11802 Chain of Custody

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: Dissolved metals	Wet chem	Cyanide (total)	Phosphate (total)				Special Instructions
MW-9	Water	Poly	1	10/2/13	1026	NONE		1						Invoice Direct
MW-9			1			H_2SO_4				1			-01	to Worth Resources
MW-9			1			NaOH			1					
MW-9			1			None	1							
~~MW-10~~ MW-10			1		1317	NONE	~~1~~	1						
MW-10			1			H_2SO_4				1			-02	
MW-10			1			NaOH			1					
MW-10			1			None	1							
~~MW-10~~														
MW-11			1		1150	NONE		1						
MW-11			1			H_2SO_4				1			-03	
MW-11			1			NaOH			1					
MW-11			1			None	1							

Relinquished By	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)	
	10/2/13 16:14			same day ____	72 hours ____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:	Sample Integrity: (Check)	
		A Malone	10/2/13 1614	intact ____	on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

1.7°C

350-11802

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[X] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

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10/17/2013

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Client Name/Address:	Project/PO Number:
Cardno ATC 9185 S. Farmer Ave. Suite 111 Tempe, AZ 85284	34.91558.0001
Project Manager: Kevin Miller	Phone Number: 480 894 2056
Sampler: Chris Lawler	Fax Number: 480 355 4694

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: Dissolved metals	Wet Chem	Cyanide (total)	Phosphate (total)					Special Instructions
Equip	water	Poly	1	10/2/13	1026	None	#	1							Invoice
Equip			1		1026	H_2SO_4				1			-04		Direct to
Equip			1		1026	NaOH			1						World Resources
Equip			1		1026	None	1								
Dup			1		0000	None		1					-05		
Dup			1		0000	H_2SO_4				1					
Dup			1		0000	NaOH			1						
Dup			1		0000	None	1								

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)	
	10/2/13 16:14			same day ____	72 hours ____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:	Sample Integrity: (Check)	
		Malone	10/2/13 1614	intact ____	on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Login Sample Receipt Checklist

Client: Cardno ATC

Job Number: 550-11802-1

Login Number: 11802
List Number: 1
Creator: Hamel, Alan

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 2

Client Name/Address: [illegible]	Project/PO Number: [illegible]
Project Manager: Kevin Miller	Phone Number: 480 894 2056
Sampler: [illegible]	Fax Number: 480 355 4694

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Dissolved metals	Wet Chem	Cyanide (total)	Phosphorus (total)						Special Instructions
MW-9	Water	Poly	1	10/2/13	1026	None		1								Invoice Direct
MW-9			1			H_2SO_4				1						to
MW-9			1			NaOH			1							[illegible]
MW-9			1			HNO_3	1									
~~[illegible]~~ MW-10			1		1217	None	~~1~~	1								
MW-10			1			H_2SO_4				1						
MW-10			1			NaOH			1							
MW-10			1			HNO_3	1									
~~[illegible]~~																
MW-11			1		1150	None		1								
MW-11			1			H_2SO_4				1						
MW-11			1			NaOH			1							
MW-11			1			HNO_3	1									

Relinquished By: [signature]	Date/Time: 10/2/13 16:14	Received By:	Date/Time:	Turnaround Time: (Check) same day ____ 72 hours ____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ____ 5 days ____ 48 hours ____ normal ✓
Relinquished By:	Date/Time:	Received in Lab By: [signature]	Date/Time: 10/2/13 1614	Sample Integrity: (Check) intact ____ on ice x

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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TestAmerica

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TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

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[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Client Name/Address: [illegible]	Project/PO Number: 39.41558 0001
Project Manager: Kevin Miller	Phone Number: 480 894 2056
Sampler: [illegible]	Fax Number: 480 355 4694

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Dissolved [illegible]	Wet Chem	[illegible] (total)	Phosphate (total)						Special Instructions
Eff	Wat.	Poly	1	10/2/13	1026	none	[illegible]	1								Invoice
Eff			1		1026	H_2SO_4				1						Direct to
Eff			1		1026	HNO_3			1							World Resources
Eff			1		1026	none	1									
Dup			1		[illegible]	none		1								
Dup			1		[illegible]	H_2SO_4				1						
Dup			1		[illegible]	HNO_3			1							
Dup			1		[illegible]	none	1									

Relinquished By: [signature]	Date/Time: 10/2/13 1614	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab By: [signature]	Date/Time: 10/2/13 1614

Turnaround Time: (Check)
same day ______ 72 hours ______
24 hours ______ 5 days ______
48 hours ______ normal ✓

Sample Integrity: (Check)
intact ______ on ice ✓

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

TESTAMERICA LABORATORIES INC. - 4625 E. Cotton Center Blvd., Suite 189 Phoenix, AZ 85040
602.437.3340 * 866.772.5227 * FAX 602.454.9303 www.testamericainc.com

BOTTLE KIT REQUEST FORM Page 1 of 1

DATE:	9/30/2013	CLIENT P/U DATE & TIME:		
CLIENT:	ATC-Tempe	DELIVERY DATE & TIME:		10/1/2013
REQUESTER:	Kevin Miller	DELIVERY TYPE:	COURIER:	
ATTENTION:	Kevin Miller		FEDEX PRIORITY:	
PROJECT:	WRC		FEDEX STD OVERNIGHT:	
ADDRESS:			FEDEX 2ND DAY:	
CITY, ZIP:			FEDEX EXPRESS SAVER:	
PHONE:			UPS GROUND:	
PROJECT MANAGER:	Carlene		OTHER:	

ALL BOTTLE KITS INCLUDE CHAIN OF CUSTODY, LABELS AND TEMP BLANK

TEST(S)	# OF SAMPLES	# OF BOTTLES	BOTTLE TYPE	BOTTLE LOT NUMBER	BOTTLE SIZE	PRESERVATION	HOLD TIME	Pres. Lot #
Wet Chem	5	5 ✓	Poly	090913	1 liter	None	48hr-28 day	—
Total Phosphorus	5	5 ✓	Poly	080513	500 ml	H2SO4	28 day	32783
Total Cyanide	5	5 ✓	Poly	6 ✓	500 ml	NaOH	14 day	21992
Diss Metals-Lab Filter	5	5 ✓	Poly	081913	500 ml	NONE	24 hr	—

TRIP BLANK	Y___	N_XX__
COOLER REQUIRED?	Y__XX__	N___

NUMBER OF COC(s)	DW_____	STANDARD ____XX__
	NA_____	CUSTOM _____

Attention clients: To ensure that all sample hold times are met, samples should be submitted as soon as possible after collection. If samples are received with less than 1/2 of their hold time remaining, a rush analysis surcharge may be applied. Please contact your project manager for more information.

COMMENTS:

BOTTLE KIT PREPARED BY: _____