ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Revised Analytical Report

July 26, 2016

Report to:
Rochelle Destrampe
Golder Associates
1430 W Broadway Road
Suite 108
Tempe, AZ 85282

Bill to:
Rochelle Destrampe
Golder Associates
1430 W Broadway Road Suite 108

Tempe, AZ 85282

Project ID: 1547878.300
ACZ Project ID: L31382

Rochelle Destrampe:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 01, 2016 and originally reported on July 20, 2016. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L31382. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L31382. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 19, 2016. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed
and approved this report.

Golder Associates

July 26, 2016

Project ID: 1547878.300
ACZ Project ID: L31382

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 2 ground water samples from Golder Associates on July 1, 2016. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L31382. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic, organic, radiochemistry parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. (N1) Duplicate RPD exceeded method limits and matrix spike showed a high recovery. Laboratory control sample (LCS) and LCS duplicate passed RPD assessment and % recovery indicating the instrument was working properly at the time of analysis for that compound. The discrepant values between replicate vials may indicate non-homogeneity of site at time of sampling or possible contamination. Prep blank showed no laboratory contamination and trip blank did show acetone but at a concentration below the laboratory MDL (~5ppb).

2. This project has been revised to include a value for the corrected Gross Alpha.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Golder Associates
Project ID: 1547878.300
Sample ID: SMITH 2

ACZ Sample ID: ***L31382-01***
Date Sampled: *06/30/16 09:10*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M200.2 ICP-MS								07/06/16 19:49	enb

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1		U		mg/L	0.03	0.2	07/05/16 19:24	aeb
Antimony, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0004	0.002	07/07/16 21:30	enb
Arsenic, dissolved	M200.8 ICP-MS	1	0.0020			mg/L	0.0002	0.001	07/07/16 21:30	enb
Barium, dissolved	M200.7 ICP	1	0.022			mg/L	0.003	0.02	07/05/16 19:24	aeb
Beryllium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	07/07/16 21:30	enb
Cadmium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	07/07/16 21:30	enb
Calcium, dissolved	M200.7 ICP	1	29.8		*	mg/L	0.1	0.5	07/05/16 19:24	aeb
Chromium, dissolved	M200.8 ICP-MS	1	0.0019	B		mg/L	0.0005	0.002	07/07/16 21:30	enb
Cobalt, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/05/16 19:24	aeb
Copper, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/05/16 19:24	aeb
Iron, dissolved	M200.7 ICP	1		U		mg/L	0.02	0.05	07/05/16 19:24	aeb
Lead, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	07/07/16 21:30	enb
Magnesium, dissolved	M200.7 ICP	1	24.2			mg/L	0.2	1	07/05/16 19:24	aeb
Manganese, dissolved	M200.7 ICP	1	0.007	B		mg/L	0.005	0.03	07/05/16 19:24	aeb
Mercury, dissolved	M245.1 CVAA	1		U		mg/L	0.0002	0.001	07/12/16 13:57	pta
Molybdenum, dissolved	M200.7 ICP	1	0.04	B		mg/L	0.02	0.1	07/05/16 19:24	aeb
Nickel, dissolved	M200.7 ICP	1		U		mg/L	0.008	0.04	07/05/16 19:24	aeb
Potassium, dissolved	M200.7 ICP	1	1.9			mg/L	0.2	1	07/05/16 19:24	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0010			mg/L	0.0001	0.0003	07/07/16 21:30	enb
Silica, dissolved	M200.7 ICP	1	38.6			mg/L	0.2	1	07/05/16 19:24	aeb
Silver, dissolved	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	07/07/16 21:30	enb
Sodium, dissolved	M200.7 ICP	1	11.3			mg/L	0.2	1	07/05/16 19:24	aeb
Thallium, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0001	0.0005	07/07/16 21:30	enb
Uranium, total	M200.8 ICP-MS	1	0.0034			mg/L	0.0001	0.0005	07/07/16 21:22	mfm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/05/16 19:24	aeb

** Please refer to Qualifier Reports for details.*

Golder Associates
Project ID: 1547878.300
Sample ID: SMITH 2

ACZ Sample ID: ***L31382-01***
Date Sampled: *06/30/16 09:10*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	173			mg/L	2	20	07/02/16 0:00	emk
Carbonate as CaCO3		1	7.6	B		mg/L	2	20	07/02/16 0:00	emk
Hydroxide as CaCO3		1		U		mg/L	2	20	07/02/16 0:00	emk
Total Alkalinity		1	181			mg/L	2	20	07/02/16 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.4			%			07/20/16 0:00	calc
Sum of Anions			4.2			meq/L			07/20/16 0:00	calc
Sum of Cations			4.0			meq/L			07/20/16 0:00	calc
Chloride	M300.0 - Ion Chromatography	1	8.13		*	mg/L	0.5	2.5	07/06/16 2:12	bsu
Conductivity @25C	SM2510B	1	392			umhos/cm	1	10	07/02/16 0:46	emk
Fluoride	SM4500F-C	1	1.05			mg/L	0.05	0.3	07/06/16 17:01	sck
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.99			mg/L	0.02	0.1	07/20/16 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.99			mg/L	0.02	0.1	07/01/16 19:37	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/01/16 19:37	pjb
pH (lab)	SM4500H+ B									
pH		1	8.4	H		units	0.1	0.1	07/02/16 0:00	emk
pH measured at		1	23.7			C	0.1	0.1	07/02/16 0:00	emk
Phosphate	Calculation based on dissolved Ortho Phosphorus			U		mg/L	0.06	0.2	07/20/16 0:00	calc
Phosphorus, ortho dissolved	M365.1 - Automated Ascorbic Acid	1		U	*	mg/L	0.02	0.05	07/01/16 20:40	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	240			mg/L	10	20	07/02/16 12:09	sck
Sulfate	M300.0 - Ion Chromatography	1	12.2			mg/L	0.5	2.5	07/06/16 2:12	bsu
TDS (calculated)	Calculation		252			mg/L			07/20/16 0:00	calc
TDS (ratio - measured/calculated)	Calculation		0.95						07/20/16 0:00	calc

Arizona license number: AZ0102

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click: http://www.acz.com/public/extquallist.pdf

Golder Associates

ACZ Project ID: ***L31382***

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405620													
WG405620PBW1	PBW	07/01/16 15:27				11.9	mg/L		-20	20			
WG405620LCSW3	LCSW	07/01/16 15:44	WC160624-3	820.0001		755	mg/L	92	90	110			
WG405620LCSW6	LCSW	07/01/16 19:02	WC160624-3	820.0001		820	mg/L	100	90	110			
WG405620PBW2	PBW	07/01/16 19:10				U	mg/L		-20	20			
WG405620LCSW9	LCSW	07/01/16 22:15	WC160624-3	820.0001		819	mg/L	100	90	110			
WG405620PBW3	PBW	07/01/16 22:23				U	mg/L		-20	20			
L31390-05DUP	DUP	07/02/16 1:52			452	437	mg/L				3	20	
WG405620LCSW12	LCSW	07/02/16 2:10	WC160624-3	820.0001		823	mg/L	100	90	110			
WG405620PBW4	PBW	07/02/16 2:18				U	mg/L		-20	20			
WG405620LCSW15	LCSW	07/02/16 4:18	WC160624-3	820.0001		827	mg/L	101	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		2.037	mg/L	102	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.09	0.09			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	1.0013		1.02	mg/L	102	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	1.0013	.08	1.138	mg/L	106	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	1.0013	.08	1.122	mg/L	104	85	115	1	20	

Antimony, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.02		.01827	mg/L	91	90	110			
WG405886ICB	ICB	07/07/16 19:58				.00055	mg/L		-0.0012	0.0012			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.009980001		.01027	mg/L	103	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.009980001	U	.00877	mg/L	88	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.009980001	U	.00894	mg/L	90	70	130	2	20	

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04899	mg/L	98	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.0006	0.0006			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.0501		.05059	mg/L	101	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.0501	.0035	.05587	mg/L	105	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.0501	.0035	.05692	mg/L	107	70	130	2	20	

Barium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		2.0082	mg/L	100	95	105			
WG405690ICB	ICB	07/05/16 17:42				.0037	mg/L		-0.009	0.009			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.5005		.4964	mg/L	99	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.5005	.042	.5345	mg/L	98	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.5005	.042	.5333	mg/L	98	85	115	0	20	

Golder Associates

ACZ Project ID: ***L31382***

Beryllium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04475	mg/L	90	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.00015	0.00015			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.0501		.04888	mg/L	98	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.0501	U	.04981	mg/L	99	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.0501	U	.05081	mg/L	101	70	130	2	20	

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04661	mg/L	93	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.0003	0.0003			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.05005		.0491	mg/L	98	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.05005	.0002	.04871	mg/L	97	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.05005	.0002	.04957	mg/L	99	70	130	2	20	

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	100		102.33	mg/L	102	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.3	0.3			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	68.01588		70	mg/L	103	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	68.01588	396	448.8	mg/L	78	85	115			M3
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	68.01588	396	448.3	mg/L	77	85	115	0	20	M3

Chloride M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG404021													
WG404021ICV	ICV	06/01/16 15:41	WI160601-1	20.02		19.8	mg/L	99	90	110			
WG404021ICB	ICB	06/01/16 15:59				U	mg/L		-0.5	0.5			
WG405710													
WG405710LFB	LFB	07/05/16 17:50	WI151103-3	30		29.6	mg/L	99	90	110			
L31277-02DUP	DUP	07/05/16 22:37			7.93	8.02	mg/L				1	20	RA
L31308-01AS	AS	07/05/16 23:12	WI151103-3	30	U	30.2	mg/L	101	90	110			

Chromium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04561	mg/L	91	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.0015	0.0015			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.05005		.04878	mg/L	97	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.05005	U	.04755	mg/L	95	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.05005	U	.04787	mg/L	96	70	130	1	20	

Golder Associates

ACZ Project ID: ***L31382***

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2.002		1.911	mg/L	95	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.03	0.03			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.498		.485	mg/L	97	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.498	U	.485	mg/L	97	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.498	U	.487	mg/L	98	85	115	0	20	

Conductivity @25C SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405620													
WG405620LCSW2	LCSW	07/01/16 15:31	PCN49501	1409		1500	umhos/cm	106	90	110			
WG405620LCSW5	LCSW	07/01/16 18:49	PCN49501	1409		1460	umhos/cm	104	90	110			
WG405620LCSW8	LCSW	07/01/16 22:02	PCN49501	1409		1450	umhos/cm	103	90	110			
L31390-05DUP	DUP	07/02/16 1:52			2020	2030	umhos/cm				0	20	
WG405620LCSW11	LCSW	07/02/16 1:57	PCN49501	1409		1410	umhos/cm	100	90	110			
WG405620LCSW14	LCSW	07/02/16 4:04	PCN49501	1409		1410	umhos/cm	100	90	110			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		1.966	mg/L	98	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.03	0.03			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.501		.487	mg/L	97	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.501	U	.492	mg/L	98	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.501	U	.49	mg/L	98	85	115	0	20	

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405753													
WG405753ICV	ICV	07/06/16 12:03	WC160620-7	2		1.963	mg/L	98	95	105			
WG405753ICB	ICB	07/06/16 12:08				U	mg/L		-0.15	0.15			
WG405753LFB1	LFB	07/06/16 12:15	WC160419-8	4.995		4.795	mg/L	96	90	110			
WG405753LFB2	LFB	07/06/16 14:53	WC160419-8	4.995		4.708	mg/L	94	90	110			
L31354-02AS	AS	07/06/16 16:19	WC160419-8	4.995	.72	5.476	mg/L	95	90	110			
L31354-02DUP	DUP	07/06/16 16:27			.72	.735	mg/L				2	20	

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		1.999	mg/L	100	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.06	0.06			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	1.0017		.994	mg/L	99	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	1.0017	U	1.042	mg/L	102	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	1.0017	U	1.004	mg/L	98	85	115	4	20	

Golder Associates

ACZ Project ID: ***L31382***

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04986	mg/L	100	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.0003	0.0003			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.05005		.05101	mg/L	102	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.05005	U	.05025	mg/L	100	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.05005	U	.05122	mg/L	102	70	130	2	20	

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	100		101.88	mg/L	102	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.6	0.6			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	49.99998		48.65	mg/L	97	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	49.99998	21.7	70.17	mg/L	97	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	49.99998	21.7	70.14	mg/L	97	85	115	0	20	

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		1.9348	mg/L	97	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.015	0.015			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.5		.5002	mg/L	100	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.5	.171	.6596	mg/L	98	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.5	.171	.6587	mg/L	98	85	115	0	20	

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405993													
WG405993ICV	ICV	07/12/16 10:22	HG160510-2	.005		.00497	mg/L	99	95	105			
WG405993ICB	ICB	07/12/16 10:24				U	mg/L		-0.0002	0.0002			
WG406012													
WG406012LRB	LRB	07/12/16 13:28				U	mg/L		-0.00044	0.00044			
WG406012LFB	LFB	07/12/16 13:29	HG160705-2	.002002		.00176	mg/L	88	85	115			
L31273-01LFM	LFM	07/12/16 13:33	HG160705-2	.002002	U	.0019	mg/L	95	85	115			
L31273-01LFMD	LFMD	07/12/16 13:35	HG160705-2	.002002	U	.00194	mg/L	97	85	115	2	20	

Molybdenum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		2.026	mg/L	101	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.06	0.06			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.4995		.484	mg/L	97	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.4995	.04	.52	mg/L	96	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.4995	.04	.519	mg/L	96	85	115	0	20	

Golder Associates

ACZ Project ID: ***L31382***

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		2.0312	mg/L	102	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.024	0.024			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.501		.4998	mg/L	100	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.501	U	.5008	mg/L	100	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.501	U	.5022	mg/L	100	85	115	0	20	

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405634													
WG405634ICV	ICV	07/01/16 19:28	WI160607-11	2.416		2.434	mg/L	101	90	110			
WG405634ICB	ICB	07/01/16 19:29				U	mg/L		-0.02	0.02			
WG405634LFB	LFB	07/01/16 19:33	WI160616-3	2		1.976	mg/L	99	90	110			
L31381-01AS	AS	07/01/16 19:35	WI160616-3	2	1.15	3.126	mg/L	99	90	110			
L31382-01DUP	DUP	07/01/16 19:38			.99	.989	mg/L				0	20	

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405634													
WG405634ICV	ICV	07/01/16 19:28	WI160607-11	.609		.622	mg/L	102	90	110			
WG405634ICB	ICB	07/01/16 19:29				U	mg/L		-0.01	0.01			
WG405634LFB	LFB	07/01/16 19:33	WI160616-3	1		.956	mg/L	96	90	110			
L31381-01AS	AS	07/01/16 19:35	WI160616-3	1	U	.975	mg/L	98	90	110			
L31382-01DUP	DUP	07/01/16 19:38			U	U	mg/L				0	20	RA

pH (lab) SM4500H+ B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405620													
WG405620LCSW1	LCSW	07/01/16 15:30	PCN49792	5.99		6	units	100	5.9	6.1			
WG405620LCSW4	LCSW	07/01/16 18:47	PCN49792	5.99		6	units	100	5.9	6.1			
WG405620LCSW7	LCSW	07/01/16 22:00	PCN49792	5.99		6	units	100	5.9	6.1			
L31390-05DUP	DUP	07/02/16 1:52			8.2	8.2	units				0	20	
WG405620LCSW10	LCSW	07/02/16 1:55	PCN49792	5.99		6	units	100	5.9	6.1			
WG405620LCSW13	LCSW	07/02/16 4:03	PCN49792	5.99		6	units	100	5.9	6.1			

Phosphorus, ortho dissolved M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405635													
WG405635ICV	ICV	07/01/16 20:22	WI160503-9	.6523		.657	mg/L	101	90	110			
WG405635ICB	ICB	07/01/16 20:23				U	mg/L		-0.02	0.02			
WG405635LFB	LFB	07/01/16 20:26	WI160620-4	.5		.513	mg/L	103	90	110			
L31352-01AS	AS	07/01/16 20:28	WI160620-4	.5	U	.528	mg/L	106	90	110			
L31352-02DUP	DUP	07/01/16 20:30			U	U	mg/L				0	20	RA

Golder Associates

ACZ Project ID: ***L31382***

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	20		20.27	mg/L	101	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.6	0.6			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	99.96008		100.3	mg/L	100	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	99.96008	11	113.4	mg/L	102	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	99.96008	11	113.4	mg/L	102	85	115	0	20	

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405640													
WG405640PBW	PBW	07/02/16 11:30				U	mg/L		-20	20			
WG405640LCSW	LCSW	07/02/16 11:32	PCN51033	260		264	mg/L	102	80	120			
L31395-07DUP	DUP	07/02/16 12:30			1310	1320	mg/L				1	10	

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04724	mg/L	94	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.0003	0.0003			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.0501		.05056	mg/L	101	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.0501	U	.05303	mg/L	106	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.0501	U	.05363	mg/L	107	70	130	1	20	

Silica, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	42.8		41.84	mg/L	98	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.6	0.6			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	21.415		21.7	mg/L	101	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	21.415	23.5	44.52	mg/L	98	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	21.415	23.5	44.41	mg/L	98	85	115	0	20	

Silver, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.02004		.01794	mg/L	90	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.00015	0.00015			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.01001		.01026	mg/L	102	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.01001	U	.00955	mg/L	95	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.01001	U	.009889	mg/L	99	70	130	3	20	

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	100		100.9	mg/L	101	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.6	0.6			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	100.0149		99.56	mg/L	100	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	100.0149	84.6	182.7	mg/L	98	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	100.0149	84.6	182.4	mg/L	98	85	115	0	20	

Golder Associates

ACZ Project ID: ***L31382***

Sulfate M300.0 - Ion Chromatography

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG404021													
WG404021ICV	ICV	06/01/16 15:41	WI160601-1	50		51.1	mg/L	102	90	110			
WG404021ICB	ICB	06/01/16 15:59				U	mg/L		-0.5	0.5			
WG405710													
WG405710LFB	LFB	07/05/16 17:50	WI151103-3	30		29.5	mg/L	98	90	110			
L31277-02DUP	DUP	07/05/16 22:37			158	160	mg/L				1	20	
L31308-01AS	AS	07/05/16 23:12	WI151103-3	30	20.1	49.3	mg/L	97	90	110			

Thallium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405886													
WG405886ICV	ICV	07/07/16 19:55	MS160601-2	.05		.04971	mg/L	99	90	110			
WG405886ICB	ICB	07/07/16 19:58				U	mg/L		-0.0003	0.0003			
WG405886LFB	LFB	07/07/16 20:01	MS160531-3	.0501		.05049	mg/L	101	85	115			
L31342-07AS	AS	07/07/16 21:14	MS160531-3	.0501	U	.05147	mg/L	103	70	130			
L31342-07ASD	ASD	07/07/16 21:17	MS160531-3	.0501	U	.05257	mg/L	105	70	130	2	20	

Uranium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405876													
WG405876ICV	ICV	07/07/16 19:53	MS160601-2	.05		.05288	mg/L	106	90	110			
WG405876ICB	ICB	07/07/16 19:56				U	mg/L		-0.0003	0.0003			
WG405793LRB	LRB	07/07/16 19:59				U	mg/L		-0.00022	0.00022			
WG405793LFB	LFB	07/07/16 20:02	MS160531-3	.05		.04957	mg/L	99	85	115			
L31361-05LFM	LFM	07/07/16 20:55	MS160531-3	.05	U	.05091	mg/L	102	70	130			
L31361-05LFMD	LFMD	07/07/16 20:58	MS160531-3	.05	U	.05028	mg/L	101	70	130	1	20	

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG405690													
WG405690ICV	ICV	07/05/16 17:36	II160624-1	2		1.95	mg/L	98	95	105			
WG405690ICB	ICB	07/05/16 17:42				U	mg/L		-0.03	0.03			
WG405690LFB	LFB	07/05/16 17:55	II160614-2	.4995		.5	mg/L	100	85	115			
L31356-01AS	AS	07/05/16 19:02	II160614-2	.4995	U	.513	mg/L	103	85	115			
L31356-01ASD	ASD	07/05/16 19:11	II160614-2	.4995	U	.517	mg/L	104	85	115	1	20	

Golder Associates ACZ Project ID: ***L31382***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L31382-01	WG405690	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG405710	Chloride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG405634	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG405635	Phosphorus, ortho dissolved	M365.1 - Automated Ascorbic Acid	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Golder Associates
Project ID: 1547878.300
Sample ID: SMITH 2

ACZ Sample ID: ***L31382-01***
Date Sampled: *06/30/16 9:10*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Diesel Range Organics (C10-C28)

Analysis Method: **M8015D GC/FID**
Extract Method: **M3520**

Workgroup: WG405984
Analyst: wfg
Extract Date: 07/01/16 14:51
Analysis Date: 07/08/16 19:53

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
TPH C10 to C28			U	0.94	*	mg/L	0.09	0.5

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
OTP	84-15-1	93	0.94		%	70	130

Arizona license number: AZ0102

Golder Associates
Project ID: 1547878.300
Sample ID: SMITH 2

ACZ Sample ID: ***L31382-01***
Date Sampled: *06/30/16 9:10*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B GC/MS**
Extract Method:

Workgroup: WG405852
Analyst: rgt
Extract Date:
Analysis Date: 07/06/16 14:35

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,1,1,2-Tetrachloroethane	630-20-6		U	1	*	ug/L	4	4
1,1,1-Trichloroethane	71-55-6		U	1	*	ug/L	10	10
1,1,2,2-Tetrachloroethane	79-34-5		U	1	*	ug/L	3	3
1,1,2-Trichloroethane	79-00-5		U	1	*	ug/L	4	4
1,1-Dichloroethane	75-34-3		U	1	*	ug/L	4	4
1,1-Dichloroethene	75-35-4		U	1	*	ug/L	4	4
1,1-Dichloropropene	563-58-6		U	1	*	ug/L	4	4
1,2,3-Trichlorobenzene	87-61-6		U	1	*	ug/L	4	4
1,2,3-Trichloropropane	96-18-4		U	1	*	ug/L	4	4
1,2,4-Trichlorobenzene	120-82-1		U	1	*	ug/L	4	4
1,2,4-Trimethylbenzene	95-63-6		U	1	*	ug/L	4	4
1,2-Dibromo-3-chloropropane	96-12-8		U	1	*	ug/L	4	4
1,2-Dibromoethane	106-93-4		U	1	*	ug/L	4	4
1,2-Dichlorobenzene	95-50-1		U	1	*	ug/L	4	4
1,2-Dichloroethane	107-06-2		U	1	*	ug/L	4	4
1,2-Dichloropropane	78-87-5		U	1	*	ug/L	4	4
1,3,5-Trimethylbenzene	108-67-8		U	1	*	ug/L	4	4
1,3-Dichlorobenzene	541-73-1		U	1	*	ug/L	4	4
1,3-Dichloropropane	142-28-9		U	1	*	ug/L	4	4
1,4-Dichlorobenzene	106-46-7		U	1	*	ug/L	4	4
2,2-Dichloropropane	594-20-7		U	1	*	ug/L	4	4
2-Butanone	78-93-3		U	1	*	ug/L	10	10
2-Chlorotoluene	95-49-8		U	1	*	ug/L	4	4
2-Hexanone	591-78-6		U	1	*	ug/L	10	10
4-Chlorotoluene	106-43-4		U	1	*	ug/L	4	4
4-Isopropyltoluene	99-87-6		U	1	*	ug/L	4	4
4-Methyl-2-Pentanone	108-10-1		U	1	*	ug/L	10	10
Acetone	67-64-1	20		1	*	ug/L	10	10
Acrylonitrile	107-13-1		U	1	*	ug/L	4	4
Benzene	71-43-2		U	1	*	ug/L	4	4
Bromobenzene	108-86-1		U	1	*	ug/L	4	4
Bromochloromethane	74-97-5		U	1	*	ug/L	4	4
Bromodichloromethane	75-27-4		U	1	*	ug/L	4	4
Bromoform	75-25-2		U	1	*	ug/L	4	4
Bromomethane	74-83-9		U	1	*	ug/L	4	4
Carbon Disulfide	75-15-0		U	1	*	ug/L	4	4
Carbon Tetrachloride	56-23-5		U	1	*	ug/L	10	10
Chlorobenzene	108-90-7		U	1	*	ug/L	4	4

** Please refer to Qualifier Reports for details.*

Golder Associates
Project ID: 1547878.300
Sample ID: SMITH 2

ACZ Sample ID: ***L31382-01***
Date Sampled: *06/30/16 9:10*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Chloroethane	75-00-3	U	1	*	ug/L	4	4
Chloroform	67-66-3	U	1	*	ug/L	4	4
Chloromethane	74-87-3	U	1	*	ug/L	4	4
cis-1,2-Dichloroethene	156-59-2	U	1	*	ug/L	4	4
cis-1,3-Dichloropropene	10061-01-5	U	1	*	ug/L	4	4
Dibromochloromethane	124-48-1	U	1	*	ug/L	4	4
Dibromomethane	74-95-3	U	1	*	ug/L	4	4
Dichlorodifluoromethane	75-71-8	U	1	*	ug/L	5	5
Ethylbenzene	100-41-4	U	1	*	ug/L	4	4
Hexachlorobutadiene	87-68-3	U	1	*	ug/L	4	4
Isopropylbenzene	98-82-8	U	1	*	ug/L	4	4
m p Xylene	1330-20-7	U	1	*	ug/L	10	10
Methyl Tert Butyl Ether	1634-04-4	U	1	*	ug/L	4	4
Methylene Chloride	75-09-2	U	1	*	ug/L	4	4
Naphthalene	91-20-3	U	1	*	ug/L	4	4
n-Butylbenzene	104-51-8	U	1	*	ug/L	4	4
n-Propylbenzene	103-65-1	U	1	*	ug/L	4	4
o Xylene	95-47- 6	U	1	*	ug/L	4	4
sec-Butylbenzene	135-98-8	U	1	*	ug/L	4	4
Styrene	100-42-5	U	1	*	ug/L	4	4
tert-Butylbenzene	98-06-6	U	1	*	ug/L	4	4
Tetrachloroethene	127-18-4	U	1	*	ug/L	4	4
Toluene	108-88-3	U	1	*	ug/L	4	4
trans-1,2-Dichloroethene	156-60-5	U	1	*	ug/L	4	4
trans-1,3-Dichloropropene	10061-02-6	U	1	*	ug/L	3	3
Trichloroethene	79-01-6	U	1	*	ug/L	5	5
Trichlorofluoromethane	75-69-4	U	1	*	ug/L	4	4
Vinyl Acetate	108-05-4	U	1	*	ug/L	4	4
Vinyl Chloride	75-01-4	U	1	*	ug/L	4	4

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	99.8	1		%	70	130
Dibromofluoromethane	1868-53-7	101.2	1		%	70	130
Toluene-d8	2037-26-5	97.7	1		%	70	130

Arizona license number: AZ0102

Golder Associates
Project ID: 1547878.300
Sample ID: TRIP BLANK

ACZ Sample ID: ***L31382-02***
Date Sampled: *06/30/16 0:00*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B GC/MS**
Extract Method:

Workgroup: WG405852
Analyst: rgt
Extract Date:
Analysis Date: 07/06/16 12:42

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,1,1,2-Tetrachloroethane	630-20-6		U	1	*	ug/L	4	4
1,1,1-Trichloroethane	71-55-6		U	1	*	ug/L	10	10
1,1,2,2-Tetrachloroethane	79-34-5		U	1	*	ug/L	3	3
1,1,2-Trichloroethane	79-00-5		U	1	*	ug/L	4	4
1,1-Dichloroethane	75-34-3		U	1	*	ug/L	4	4
1,1-Dichloroethene	75-35-4		U	1	*	ug/L	4	4
1,1-Dichloropropene	563-58-6		U	1	*	ug/L	4	4
1,2,3-Trichlorobenzene	87-61-6		U	1	*	ug/L	4	4
1,2,3-Trichloropropane	96-18-4		U	1	*	ug/L	4	4
1,2,4-Trichlorobenzene	120-82-1		U	1	*	ug/L	4	4
1,2,4-Trimethylbenzene	95-63-6		U	1	*	ug/L	4	4
1,2-Dibromo-3-chloropropane	96-12-8		U	1	*	ug/L	4	4
1,2-Dibromoethane	106-93-4		U	1	*	ug/L	4	4
1,2-Dichlorobenzene	95-50-1		U	1	*	ug/L	4	4
1,2-Dichloroethane	107-06-2		U	1	*	ug/L	4	4
1,2-Dichloropropane	78-87-5		U	1	*	ug/L	4	4
1,3,5-Trimethylbenzene	108-67-8		U	1	*	ug/L	4	4
1,3-Dichlorobenzene	541-73-1		U	1	*	ug/L	4	4
1,3-Dichloropropane	142-28-9		U	1	*	ug/L	4	4
1,4-Dichlorobenzene	106-46-7		U	1	*	ug/L	4	4
2,2-Dichloropropane	594-20-7		U	1	*	ug/L	4	4
2-Butanone	78-93-3		U	1	*	ug/L	10	10
2-Chlorotoluene	95-49-8		U	1	*	ug/L	4	4
2-Hexanone	591-78-6		U	1	*	ug/L	10	10
4-Chlorotoluene	106-43-4		U	1	*	ug/L	4	4
4-Isopropyltoluene	99-87-6		U	1	*	ug/L	4	4
4-Methyl-2-Pentanone	108-10-1		U	1	*	ug/L	10	10
Acetone	67-64-1		U	1	*	ug/L	10	10
Acrylonitrile	107-13-1		U	1	*	ug/L	4	4
Benzene	71-43-2		U	1	*	ug/L	4	4
Bromobenzene	108-86-1		U	1	*	ug/L	4	4
Bromochloromethane	74-97-5		U	1	*	ug/L	4	4
Bromodichloromethane	75-27-4		U	1	*	ug/L	4	4
Bromoform	75-25-2		U	1	*	ug/L	4	4
Bromomethane	74-83-9		U	1	*	ug/L	4	4
Carbon Disulfide	75-15-0		U	1	*	ug/L	4	4
Carbon Tetrachloride	56-23-5		U	1	*	ug/L	10	10
Chlorobenzene	108-90-7		U	1	*	ug/L	4	4

** Please refer to Qualifier Reports for details.*

Golder Associates
Project ID: 1547878.300
Sample ID: TRIP BLANK

ACZ Sample ID: ***L31382-02***
Date Sampled: *06/30/16 0:00*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Chloroethane	75-00-3	U	1	*	ug/L	4	4
Chloroform	67-66-3	U	1	*	ug/L	4	4
Chloromethane	74-87-3	U	1	*	ug/L	4	4
cis-1,2-Dichloroethene	156-59-2	U	1	*	ug/L	4	4
cis-1,3-Dichloropropene	10061-01-5	U	1	*	ug/L	4	4
Dibromochloromethane	124-48-1	U	1	*	ug/L	4	4
Dibromomethane	74-95-3	U	1	*	ug/L	4	4
Dichlorodifluoromethane	75-71-8	U	1	*	ug/L	5	5
Ethylbenzene	100-41-4	U	1	*	ug/L	4	4
Hexachlorobutadiene	87-68-3	U	1	*	ug/L	4	4
Isopropylbenzene	98-82-8	U	1	*	ug/L	4	4
m p Xylene	1330-20-7	U	1	*	ug/L	10	10
Methyl Tert Butyl Ether	1634-04-4	U	1	*	ug/L	4	4
Methylene Chloride	75-09-2	U	1	*	ug/L	4	4
Naphthalene	91-20-3	U	1	*	ug/L	4	4
n-Butylbenzene	104-51-8	U	1	*	ug/L	4	4
n-Propylbenzene	103-65-1	U	1	*	ug/L	4	4
o Xylene	95-47- 6	U	1	*	ug/L	4	4
sec-Butylbenzene	135-98-8	U	1	*	ug/L	4	4
Styrene	100-42-5	U	1	*	ug/L	4	4
tert-Butylbenzene	98-06-6	U	1	*	ug/L	4	4
Tetrachloroethene	127-18-4	U	1	*	ug/L	4	4
Toluene	108-88-3	U	1	*	ug/L	4	4
trans-1,2-Dichloroethene	156-60-5	U	1	*	ug/L	4	4
trans-1,3-Dichloropropene	10061-02-6	U	1	*	ug/L	3	3
Trichloroethene	79-01-6	U	1	*	ug/L	5	5
Trichlorofluoromethane	75-69-4	U	1	*	ug/L	4	4
Vinyl Acetate	108-05-4	U	1	*	ug/L	4	4
Vinyl Chloride	75-01-4	U	1	*	ug/L	4	4

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	99.8	1		%	70	130
Dibromofluoromethane	1868-53-7	100.3	1		%	70	130
Toluene-d8	2037-26-5	97.8	1		%	70	130

Arizona license number: AZ0102

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #4) Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	*LFM*	Laboratory Fortified Matrix
INTS	Internal Standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	*PBS*	Prep Blank - Soil
LFB	Laboratory Fortified Blank	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
O	Analyte concentration is estimated due to result exceeding calibration range.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
J	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Excluding Oil & Grease, solid & biological matrices for organic analyses are reported on a wet weight basis.
(3) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(4) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click: http://www.acz.com/public/extquallist.pdf

Golder Associates

ACZ Project ID: ***L31382***

Diesel Range Organics (C10-C28)

M8015D GC/FID

WG405984

MS **Sample ID: L31381-01MS** **PCN/SCN: OPTPH160509-2** **Analyzed: 07/08/16 19:26**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2502.7	U	2.282	mg/L	97.0	70	130			
OTP (surr)				%	99.6	70	130			

DUP **Sample ID: L31382-01DUP** **Analyzed: 07/08/16 20:20**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28		U	U	mg/L				0	20	RA
OTP (surr)				%	94.9	70	130			

LCSW **Sample ID: WG405563LCSW** **PCN/SCN: OPTPH160509-2** **Analyzed: 07/08/16 12:44**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2502.7		2.35	mg/L	94.0	70	130			
OTP (surr)				%	97.4	70	130			

LCSWD **Sample ID: WG405563LCSWD** **PCN/SCN: OPTPH160509-2** **Analyzed: 07/08/16 13:11**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2502.7		2.47	mg/L	99.0	70	130	5	20	
OTP (surr)				%	100.6	70	130			

PBW **Sample ID: WG405563PBW** **Analyzed: 07/08/16 12:17**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28			U	mg/L		-.5	.5			
OTP (surr)				%	94.0	70	130			

LCSW **Sample ID: WG405623LCSW** **PCN/SCN: OPTPH160509-2** **Analyzed: 07/08/16 18:03**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2502.7		2.46	mg/L	98.0	70	130			
OTP (surr)				%	99.4	70	130			

LCSWD **Sample ID: WG405623LCSWD** **PCN/SCN: OPTPH160509-2** **Analyzed: 07/08/16 18:31**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28	2502.7		2.24	mg/L	90.0	70	130	9	20	
OTP (surr)				%	93.7	70	130			

PBW **Sample ID: WG405623PBW** **Analyzed: 07/08/16 17:36**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
TPH C10 TO C28			U	mg/L		-.5	.5			
OTP (surr)				%	92.5	70	130			

Golder Associates

ACZ Project ID: ***L31382***

Volatile Organics by GC/MS

M8260B GC/MS

WG405852

DUP **Sample ID: L31381-01DUP** **Analyzed: 07/06/16 14:07**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
1,1,1,2-TETRACHLOROETHANE		U	U	ug/L				0	20	RA
1,1,1-TRICHLOROETHANE		U	U	ug/L				0	20	RA
1,1,2,2-TETRACHLOROETHANE		U	U	ug/L				0	20	RA
1,1,2-TRICHLOROETHANE		U	U	ug/L				0	20	RA
1,1-DICHLOROETHANE		U	U	ug/L				0	20	RA
1,1-DICHLOROETHENE		U	U	ug/L				0	20	RA
1,1-DICHLOROPROPENE		U	U	ug/L				0	20	RA
1,2,3-TRICHLOROBENZENE		U	U	ug/L				0	20	RA
1,2,3-TRICHLOROPROPANE		U	U	ug/L				0	20	RA
1,2,4-TRICHLOROBENZENE		U	U	ug/L				0	20	RA
1,2,4-TRIMETHYLBENZENE		U	U	ug/L				0	20	RA
1,2-DIBROMO-3-CHLOROPROPANE		U	U	ug/L				0	20	RA
1,2-DIBROMOETHANE		U	U	ug/L				0	20	RA
1,2-DICHLOROBENZENE		U	U	ug/L				0	20	RA
1,2-DICHLOROETHANE		U	U	ug/L				0	20	RA
1,2-DICHLOROPROPANE		U	U	ug/L				0	20	RA
1,3,5-TRIMETHYLBENZENE		U	U	ug/L				0	20	RA
1,3-DICHLOROBENZENE		U	U	ug/L				0	20	RA
1,3-DICHLOROPROPANE		U	U	ug/L				0	20	RA
1,4-DICHLOROBENZENE		U	U	ug/L				0	20	RA
2,2-DICHLOROPROPANE		U	U	ug/L				0	20	RA
2-BUTANONE		U	U	ug/L				0	20	RA
2-CHLOROTOLUENE		U	U	ug/L				0	20	RA
2-HEXANONE		U	U	ug/L				0	20	RA
4-CHLOROTOLUENE		U	U	ug/L				0	20	RA
4-ISOPROPYLTOLUENE		U	U	ug/L				0	20	RA
4-METHYL-2-PENTANONE		U	U	ug/L				0	20	RA
ACETONE		40	20.2	ug/L				66	20	N1
ACRYLONITRILE		U	U	ug/L				0	20	RA
BENZENE		U	U	ug/L				0	20	RA
BROMOBENZENE		U	U	ug/L				0	20	RA
BROMOCHLOROMETHANE		U	U	ug/L				0	20	RA
BROMODICHLOROMETHANE		U	U	ug/L				0	20	RA
BROMOFORM		U	U	ug/L				0	20	RA
BROMOMETHANE		U	U	ug/L				0	20	RA
CARBON DISULFIDE		U	U	ug/L				0	20	RA
CARBON TETRACHLORIDE		U	U	ug/L				0	20	RA
CHLOROBENZENE		U	U	ug/L				0	20	RA
CHLOROETHANE		U	U	ug/L				0	20	RA
CHLOROFORM		U	U	ug/L				0	20	RA
CHLOROMETHANE		U	U	ug/L				0	20	RA
CIS-1,2-DICHLOROETHENE		U	U	ug/L				0	20	RA
CIS-1,3-DICHLOROPROPENE		U	U	ug/L				0	20	RA
DIBROMOCHLOROMETHANE		U	U	ug/L				0	20	RA

DIBROMOMETHANE	U	U	ug/L				0	20	RA
DICHLORODIFLUOROMETHANE	U	U	ug/L				0	20	RA
ETHYLBENZENE	U	U	ug/L				0	20	RA
HEXACHLOROBUTADIENE	U	U	ug/L				0	20	RA
ISOPROPYLBENZENE	U	U	ug/L				0	20	RA
M P XYLENE	U	U	ug/L				0	20	RA
METHYL TERT BUTYL ETHER	U	U	ug/L				0	20	RA
METHYLENE CHLORIDE	U	U	ug/L				0	20	RA
NAPHTHALENE	U	U	ug/L				0	20	RA
N-BUTYLBENZENE	U	U	ug/L				0	20	RA
N-PROPYLBENZENE	U	U	ug/L				0	20	RA
O XYLENE	U	U	ug/L				0	20	RA
SEC-BUTYLBENZENE	U	U	ug/L				0	20	RA
STYRENE	U	U	ug/L				0	20	RA
TERT-BUTYLBENZENE	U	U	ug/L				0	20	RA
TETRACHLOROETHENE	U	U	ug/L				0	20	RA
TOLUENE	U	.47	ug/L				200	20	RA
TRANS-1,2-DICHLOROETHENE	U	U	ug/L				0	20	RA
TRANS-1,3-DICHLOROPROPENE	U	U	ug/L				0	20	RA
TRICHLOROETHENE	U	U	ug/L				0	20	RA
TRICHLOROFLUOROMETHANE	U	U	ug/L				0	20	RA
VINYL ACETATE	U	U	ug/L				0	20	RA
VINYL CHLORIDE	U	U	ug/L				0	20	RA
BROMOFLUOROBENZENE (surr)			%	98.3	70	130			
DIBROMOFLUOROMETHANE (surr)			%	99.0	70	130			
TOLUENE-D8 (surr)			%	97.2	70	130			

AS **Sample ID: L31382-01AS** **PCN/SCN: V160630-1-CCV** **Analyzed: 07/06/16 16:28**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
1,1,1,2-TETRACHLOROETHANE	10	U	10.64	ug/L	106.0	70	130			
1,1,1-TRICHLOROETHANE	9.9	U	11.68	ug/L	118.0	70	130			
1,1,2,2-TETRACHLOROETHANE	10	U	10.09	ug/L	101.0	70	130			
1,1,2-TRICHLOROETHANE	10	U	10.15	ug/L	101.0	70	130			
1,1-DICHLOROETHANE	9.9	U	11.03	ug/L	112.0	70	130			
1,1-DICHLOROETHENE	10	U	11.76	ug/L	118.0	70	130			
1,1-DICHLOROPROPENE	10	U	11.61	ug/L	116.0	70	130			
1,2,3-TRICHLOROBENZENE	10	U	9.9	ug/L	99.0	70	130			
1,2,3-TRICHLOROPROPANE	10	U	9.49	ug/L	95.0	70	130			
1,2,4-TRICHLOROBENZENE	10	U	10.2	ug/L	102.0	70	130			
1,2,4-TRIMETHYLBENZENE	10	U	10.55	ug/L	105.0	70	130			
1,2-DIBROMO-3-CHLOROPROPANE	10	U	8.88	ug/L	89.0	70	130			
1,2-DIBROMOETHANE	10	U	9.67	ug/L	96.0	70	130			
1,2-DICHLOROBENZENE	10.1	U	10.25	ug/L	102.0	70	130			
1,2-DICHLOROETHANE	10.1	U	10.4	ug/L	103.0	70	130			
1,2-DICHLOROPROPANE	10	U	10.88	ug/L	109.0	70	130			
1,3,5-TRIMETHYLBENZENE	10	U	10.51	ug/L	105.0	70	130			
1,3-DICHLOROBENZENE	10.1	U	10.45	ug/L	104.0	70	130			
1,3-DICHLOROPROPANE	9.9	U	10.1	ug/L	102.0	70	130			
1,4-DICHLOROBENZENE	10	U	10.23	ug/L	102.0	70	130			

2,2-DICHLOROPROPANE	9.9	U	11.81	ug/L	119.0	70	130	
2-BUTANONE	20	U	19.55	ug/L	98.0	70	130	
2-CHLOROTOLUENE	10	U	10.34	ug/L	103.0	70	130	
2-HEXANONE	20.1	U	18.23	ug/L	91.0	70	130	
4-CHLOROTOLUENE	10	U	10.31	ug/L	103.0	70	130	
4-ISOPROPYLTOLUENE	10	U	10.95	ug/L	109.0	70	130	
4-METHYL-2-PENTANONE	20	U	19.57	ug/L	98.0	70	130	
ACETONE	20	20	79.1	ug/L	296.0	70	130	M1
ACRYLONITRILE	10	U	9.96	ug/L	100.0	70	130	
BENZENE	10	U	11.06	ug/L	110.0	70	130	
BROMOBENZENE	10	U	9.73	ug/L	97.0	70	130	
BROMOCHLOROMETHANE	10	U	10.54	ug/L	105.0	70	130	
BROMODICHLOROMETHANE	10.1	U	10.58	ug/L	105.0	70	130	
BROMOFORM	10	U	9.69	ug/L	97.0	70	130	
BROMOMETHANE	10.1	U	11.97	ug/L	118.0	70	130	
CARBON DISULFIDE	10	U	12.07	ug/L	120.0	70	130	
CARBON TETRACHLORIDE	10	U	11.91	ug/L	119.0	70	130	
CHLOROBENZENE	10	U	10.61	ug/L	106.0	70	130	
CHLOROETHANE	9.9	U	12.13	ug/L	122.0	70	130	
CHLOROFORM	10	U	10.86	ug/L	108.0	70	130	
CHLOROMETHANE	9.9	U	11.37	ug/L	115.0	70	130	
CIS-1,2-DICHLOROETHENE	9.9	U	11.19	ug/L	113.0	70	130	
CIS-1,3-DICHLOROPROPENE	10	U	10.43	ug/L	105.0	70	130	
DIBROMOCHLOROMETHANE	10	U	10.14	ug/L	101.0	70	130	
DIBROMOMETHANE	10	U	10.16	ug/L	102.0	70	130	
DICHLORODIFLUOROMETHANE	10	U	12.33	ug/L	124.0	70	130	
ETHYLBENZENE	10	U	10.98	ug/L	110.0	70	130	
HEXACHLOROBUTADIENE	10	U	11.3	ug/L	113.0	70	130	
ISOPROPYLBENZENE	10	U	11.2	ug/L	112.0	70	130	
M P XYLENE	20	U	21.93	ug/L	110.0	70	130	
METHYL TERT BUTYL ETHER	10	U	10.4	ug/L	104.0	70	130	
METHYLENE CHLORIDE	10	U	10.7	ug/L	107.0	70	130	
NAPHTHALENE	10	U	9.6	ug/L	96.0	70	130	
N-BUTYLBENZENE	10	U	11.12	ug/L	111.0	70	130	
N-PROPYLBENZENE	10	U	10.74	ug/L	107.0	70	130	
O XYLENE	10	U	10.83	ug/L	108.0	70	130	
SEC-BUTYLBENZENE	10	U	11.03	ug/L	110.0	70	130	
STYRENE	10	U	10.21	ug/L	102.0	70	130	
TERT-BUTYLBENZENE	10	U	10.78	ug/L	108.0	70	130	
TETRACHLOROETHENE	10.1	U	11.41	ug/L	113.0	71	130	
TOLUENE	10	U	11.91	ug/L	119.0	70	130	
TRANS-1,2-DICHLOROETHENE	10	U	11.19	ug/L	112.0	70	130	
TRANS-1,3-DICHLOROPROPENE	10	U	10.2	ug/L	102.0	70	130	
TRICHLOROETHENE	10	U	10.63	ug/L	106.0	71	130	
TRICHLOROFLUOROMETHANE	10	U	13.2	ug/L	132.0	70	130	M1
VINYL ACETATE	10	U	11.74	ug/L	117.0	70	130	
VINYL CHLORIDE	10	U	11.47	ug/L	114.0	70	130	
BROMOFLUOROBENZENE (surr)				%	101.1	70	130	
DIBROMOFLUOROMETHANE (surr)				%	101.3	70	130	

TOLUENE-D8 (surr)	%	97.1	70	130		

DUP **Sample ID: L31400-01DUP** **Analyzed: 07/06/16 17:25**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
1,1,1,2-TETRACHLOROETHANE		U	U	ug/L				0	20	RA
1,1,1-TRICHLOROETHANE		U	U	ug/L				0	20	RA
1,1,2,2-TETRACHLOROETHANE		U	U	ug/L				0	20	RA
1,1,2-TRICHLOROETHANE		U	U	ug/L				0	20	RA
1,1-DICHLOROETHANE		U	U	ug/L				0	20	RA
1,1-DICHLOROETHENE		U	U	ug/L				0	20	RA
1,1-DICHLOROPROPENE		U	U	ug/L				0	20	RA
1,2,3-TRICHLOROBENZENE		U	U	ug/L				0	20	RA
1,2,3-TRICHLOROPROPANE		U	U	ug/L				0	20	RA
1,2,4-TRICHLOROBENZENE		U	U	ug/L				0	20	RA
1,2,4-TRIMETHYLBENZENE		U	U	ug/L				0	20	RA
1,2-DIBROMO-3-CHLOROPROPANE		U	U	ug/L				0	20	RA
1,2-DIBROMOETHANE		U	U	ug/L				0	20	RA
1,2-DICHLOROBENZENE		U	U	ug/L				0	20	RA
1,2-DICHLOROETHANE		U	U	ug/L				0	20	RA
1,2-DICHLOROPROPANE		U	U	ug/L				0	20	RA
1,3,5-TRIMETHYLBENZENE		U	U	ug/L				0	20	RA
1,3-DICHLOROBENZENE		U	U	ug/L				0	20	RA
1,3-DICHLOROPROPANE		U	U	ug/L				0	20	RA
1,4-DICHLOROBENZENE		U	U	ug/L				0	20	RA
2,2-DICHLOROPROPANE		U	U	ug/L				0	20	RA
2-BUTANONE		U	U	ug/L				0	20	RA
2-CHLOROTOLUENE		U	U	ug/L				0	20	RA
2-HEXANONE		U	U	ug/L				0	20	RA
4-CHLOROTOLUENE		U	U	ug/L				0	20	RA
4-ISOPROPYLTOLUENE		U	U	ug/L				0	20	RA
4-METHYL-2-PENTANONE		U	U	ug/L				0	20	RA
ACETONE		U	U	ug/L				0	20	RA
ACRYLONITRILE		U	U	ug/L				0	20	RA
BENZENE		U	U	ug/L				0	20	RA
BROMOBENZENE		U	U	ug/L				0	20	RA
BROMOCHLOROMETHANE		U	U	ug/L				0	20	RA
BROMODICHLOROMETHANE		U	U	ug/L				0	20	RA
BROMOFORM		U	U	ug/L				0	20	RA
BROMOMETHANE		U	U	ug/L				0	20	RA
CARBON DISULFIDE		U	U	ug/L				0	20	RA
CARBON TETRACHLORIDE		U	U	ug/L				0	20	RA
CHLOROBENZENE		U	U	ug/L				0	20	RA
CHLOROETHANE		U	U	ug/L				0	20	RA
CHLOROFORM		U	U	ug/L				0	20	RA
CHLOROMETHANE		U	U	ug/L				0	20	RA
CIS-1,2-DICHLOROETHENE		U	U	ug/L				0	20	RA
CIS-1,3-DICHLOROPROPENE		U	U	ug/L				0	20	RA
DIBROMOCHLOROMETHANE		U	U	ug/L				0	20	RA
DIBROMOMETHANE		U	U	ug/L				0	20	RA

DICHLORODIFLUOROMETHANE	U	U	ug/L				0	20	RA
ETHYLBENZENE	U	U	ug/L				0	20	RA
HEXACHLOROBUTADIENE	U	U	ug/L				0	20	RA
ISOPROPYLBENZENE	U	U	ug/L				0	20	RA
M P XYLENE	U	U	ug/L				0	20	RA
METHYL TERT BUTYL ETHER	U	U	ug/L				0	20	RA
METHYLENE CHLORIDE	U	U	ug/L				0	20	RA
NAPHTHALENE	U	U	ug/L				0	20	RA
N-BUTYLBENZENE	U	U	ug/L				0	20	RA
N-PROPYLBENZENE	U	U	ug/L				0	20	RA
O XYLENE	U	U	ug/L				0	20	RA
SEC-BUTYLBENZENE	U	U	ug/L				0	20	RA
STYRENE	U	U	ug/L				0	20	RA
TERT-BUTYLBENZENE	U	U	ug/L				0	20	RA
TETRACHLOROETHENE	U	U	ug/L				0	20	RA
TOLUENE	U	U	ug/L				0	20	RA
TRANS-1,2-DICHLOROETHENE	U	U	ug/L				0	20	RA
TRANS-1,3-DICHLOROPROPENE	U	U	ug/L				0	20	RA
TRICHLOROETHENE	U	U	ug/L				0	20	RA
TRICHLOROFLUOROMETHANE	U	U	ug/L				0	20	RA
VINYL ACETATE	U	U	ug/L				0	20	RA
VINYL CHLORIDE	U	U	ug/L				0	20	RA
BROMOFLUOROBENZENE (surr)			%	100.7	70	130			
DIBROMOFLUOROMETHANE (surr)			%	100.3	70	130			
TOLUENE-D8 (surr)			%	98.3	70	130			

LCSW **Sample ID: WG405852LCSW** **PCN/SCN: V160630-1-CCV** **Analyzed: 07/06/16 10:13**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
1,1,1,2-TETRACHLOROETHANE	10		10.28	ug/L	103.0	70	130			
1,1,1-TRICHLOROETHANE	9.9		10.72	ug/L	108.0	70	130			
1,1,2,2-TETRACHLOROETHANE	10		10.53	ug/L	105.0	70	130			
1,1,2-TRICHLOROETHANE	10		10.07	ug/L	100.0	70	130			
1,1-DICHLOROETHANE	9.9		10.49	ug/L	106.0	70	130			
1,1-DICHLOROETHENE	10		10.73	ug/L	108.0	70	130			
1,1-DICHLOROPROPENE	10		11	ug/L	110.0	70	130			
1,2,3-TRICHLOROBENZENE	10		10.3	ug/L	103.0	70	130			
1,2,3-TRICHLOROPROPANE	10		10.13	ug/L	101.0	70	130			
1,2,4-TRICHLOROBENZENE	10		10.4	ug/L	104.0	70	130			
1,2,4-TRIMETHYLBENZENE	10		10.41	ug/L	104.0	70	130			
1,2-DIBROMO-3-CHLOROPROPANE	10		9.7	ug/L	97.0	70	130			
1,2-DIBROMOETHANE	10		9.74	ug/L	97.0	70	130			
1,2-DICHLOROBENZENE	10.1		10.26	ug/L	102.0	70	130			
1,2-DICHLOROETHANE	10.1		10.11	ug/L	101.0	70	130			
1,2-DICHLOROPROPANE	10		10.69	ug/L	107.0	70	130			
1,3,5-TRIMETHYLBENZENE	10		10.44	ug/L	104.0	70	130			
1,3-DICHLOROBENZENE	10.1		10.47	ug/L	104.0	70	130			
1,3-DICHLOROPROPANE	9.9		10.16	ug/L	102.0	70	130			
1,4-DICHLOROBENZENE	10		10.24	ug/L	102.0	70	130			
2,2-DICHLOROPROPANE	9.9		11.21	ug/L	113.0	70	130			

2-BUTANONE	20	20.21	ug/L	101.0	70	130
2-CHLOROTOLUENE	10	10.27	ug/L	103.0	70	130
2-HEXANONE	20.1	19.41	ug/L	97.0	70	130
4-CHLOROTOLUENE	10	10.35	ug/L	103.0	70	130
4-ISOPROPYLTOLUENE	10	10.68	ug/L	107.0	70	130
4-METHYL-2-PENTANONE	20	20.73	ug/L	104.0	70	130
ACETONE	20	20.7	ug/L	104.0	70	130
ACRYLONITRILE	10	10.37	ug/L	104.0	70	130
BENZENE	10	10.46	ug/L	104.0	70	130
BROMOBENZENE	10	9.68	ug/L	97.0	70	130
BROMOCHLOROMETHANE	10	10.28	ug/L	103.0	70	130
BROMODICHLOROMETHANE	10.1	10.48	ug/L	104.0	70	130
BROMOFORM	10	10.08	ug/L	101.0	70	130
BROMOMETHANE	10.1	11.28	ug/L	111.0	70	130
CARBON DISULFIDE	10	11.36	ug/L	113.0	70	130
CARBON TETRACHLORIDE	10	10.88	ug/L	109.0	70	130
CHLOROBENZENE	10	10.35	ug/L	104.0	70	130
CHLOROETHANE	9.9	11.15	ug/L	112.0	70	130
CHLOROFORM	10	10.38	ug/L	104.0	70	130
CHLOROMETHANE	9.9	10.41	ug/L	105.0	70	130
CIS-1,2-DICHLOROETHENE	9.9	10.64	ug/L	107.0	70	130
CIS-1,3-DICHLOROPROPENE	10	10.5	ug/L	105.0	70	130
DIBROMOCHLOROMETHANE	10	10.35	ug/L	103.0	70	130
DIBROMOMETHANE	10	10.14	ug/L	101.0	70	130
DICHLORODIFLUOROMETHANE	10	11.21	ug/L	113.0	70	130
ETHYLBENZENE	10	10.58	ug/L	106.0	70	130
HEXACHLOROBUTADIENE	10	11	ug/L	110.0	70	130
ISOPROPYLBENZENE	10	10.64	ug/L	106.0	70	130
M P XYLENE	20	20.99	ug/L	105.0	70	130
METHYL TERT BUTYL ETHER	10	10.42	ug/L	104.0	70	130
METHYLENE CHLORIDE	10	10.06	ug/L	101.0	70	130
NAPHTHALENE	10	10.2	ug/L	102.0	70	130
N-BUTYLBENZENE	10	10.83	ug/L	108.0	70	130
N-PROPYLBENZENE	10	10.46	ug/L	104.0	70	130
O XYLENE	10	10.48	ug/L	105.0	70	130
SEC-BUTYLBENZENE	10	10.63	ug/L	106.0	70	130
STYRENE	10	10.52	ug/L	105.0	70	130
TERT-BUTYLBENZENE	10	10.47	ug/L	105.0	70	130
TETRACHLOROETHENE	10.1	10.59	ug/L	105.0	71	130
TOLUENE	10	10.29	ug/L	103.0	70	130
TRANS-1,2-DICHLOROETHENE	10	10.57	ug/L	105.0	70	130
TRANS-1,3-DICHLOROPROPENE	10	10.14	ug/L	102.0	70	130
TRICHLOROETHENE	10	10.23	ug/L	102.0	71	130
TRICHLOROFLUOROMETHANE	10	12.76	ug/L	128.0	70	130
VINYL ACETATE	10	12.44	ug/L	124.0	70	130
VINYL CHLORIDE	10	10.3	ug/L	103.0	70	130
BROMOFLUOROBENZENE (surr)			%	99.8	70	130
DIBROMOFLUOROMETHANE (surr)			%	100.2	70	130
TOLUENE-D8 (surr)			%	97.6	70	130

Golder Associates

ACZ Project ID: ***L31382***

LCSWD **Sample ID: WG405852LCSWD** **PCN/SCN: V160630-1-CCV** **Analyzed: 07/06/16 10:41**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
1,1,1,2-TETRACHLOROETHANE	10		9.89	ug/L	99.0	70	130	4	20	
1,1,1-TRICHLOROETHANE	9.9		10.47	ug/L	106.0	70	130	2	20	
1,1,2,2-TETRACHLOROETHANE	10		10.17	ug/L	101.0	70	130	3	20	
1,1,2-TRICHLOROETHANE	10		9.92	ug/L	99.0	70	130	2	20	
1,1-DICHLOROETHANE	9.9		10.13	ug/L	103.0	70	130	3	20	
1,1-DICHLOROETHENE	10		10.24	ug/L	103.0	70	130	5	20	
1,1-DICHLOROPROPENE	10		10.3	ug/L	103.0	70	130	7	20	
1,2,3-TRICHLOROBENZENE	10		10.4	ug/L	104.0	70	130	1	20	
1,2,3-TRICHLOROPROPANE	10		9.85	ug/L	98.0	70	130	3	20	
1,2,4-TRICHLOROBENZENE	10		10.4	ug/L	104.0	70	130	0	20	
1,2,4-TRIMETHYLBENZENE	10		10.05	ug/L	100.0	70	130	4	20	
1,2-DIBROMO-3-CHLOROPROPANE	10		9.3	ug/L	93.0	70	130	4	20	
1,2-DIBROMOETHANE	10		9.59	ug/L	96.0	70	130	2	20	
1,2-DICHLOROBENZENE	10.1		10.07	ug/L	100.0	70	130	2	20	
1,2-DICHLOROETHANE	10.1		10.01	ug/L	100.0	70	130	1	20	
1,2-DICHLOROPROPANE	10		10.46	ug/L	105.0	70	130	2	20	
1,3,5-TRIMETHYLBENZENE	10		9.98	ug/L	100.0	70	130	5	20	
1,3-DICHLOROBENZENE	10.1		10.05	ug/L	100.0	70	130	4	20	
1,3-DICHLOROPROPANE	9.9		9.95	ug/L	100.0	70	130	2	20	
1,4-DICHLOROBENZENE	10		9.95	ug/L	99.0	70	130	3	20	
2,2-DICHLOROPROPANE	9.9		10.72	ug/L	108.0	70	130	4	20	
2-BUTANONE	20		19.84	ug/L	99.0	70	130	2	20	
2-CHLOROTOLUENE	10		9.87	ug/L	99.0	70	130	4	20	
2-HEXANONE	20.1		19.26	ug/L	96.0	70	130	1	20	
4-CHLOROTOLUENE	10		9.84	ug/L	98.0	70	130	5	20	
4-ISOPROPYLTOLUENE	10		10.31	ug/L	103.0	70	130	4	20	
4-METHYL-2-PENTANONE	20		20.18	ug/L	101.0	70	130	3	20	
ACETONE	20		20.2	ug/L	101.0	70	130	2	20	
ACRYLONITRILE	10		10.15	ug/L	102.0	70	130	2	20	
BENZENE	10		10.27	ug/L	102.0	70	130	2	20	
BROMOBENZENE	10		9.49	ug/L	95.0	70	130	2	20	
BROMOCHLOROMETHANE	10		10.1	ug/L	101.0	70	130	2	20	
BROMODICHLOROMETHANE	10.1		10.22	ug/L	101.0	70	130	3	20	
BROMOFORM	10		9.8	ug/L	98.0	70	130	3	20	
BROMOMETHANE	10.1		10.8	ug/L	106.0	70	130	4	20	
CARBON DISULFIDE	10		11.03	ug/L	110.0	70	130	3	20	
CARBON TETRACHLORIDE	10		10.5	ug/L	105.0	70	130	4	20	
CHLOROBENZENE	10		10.05	ug/L	101.0	70	130	3	20	
CHLOROETHANE	9.9		10.7	ug/L	108.0	70	130	4	20	
CHLOROFORM	10		10.24	ug/L	102.0	70	130	1	20	
CHLOROMETHANE	9.9		9.9	ug/L	100.0	70	130	5	20	
CIS-1,2-DICHLOROETHENE	9.9		10.3	ug/L	104.0	70	130	3	20	
CIS-1,3-DICHLOROPROPENE	10		10.31	ug/L	103.0	70	130	2	20	
DIBROMOCHLOROMETHANE	10		9.86	ug/L	98.0	70	130	5	20	
DIBROMOMETHANE	10		10.04	ug/L	100.0	70	130	1	20	
DICHLORODIFLUOROMETHANE	10		10.84	ug/L	109.0	70	130	3	20	

ETHYLBENZENE	10	10.01	ug/L	100.0	70	130	6	20
HEXACHLOROBUTADIENE	10	10.9	ug/L	109.0	70	130	1	20
ISOPROPYLBENZENE	10	10.29	ug/L	103.0	70	130	3	20
M P XYLENE	20	20.19	ug/L	101.0	70	130	4	20
METHYL TERT BUTYL ETHER	10	10.24	ug/L	102.0	70	130	2	20
METHYLENE CHLORIDE	10	9.78	ug/L	98.0	70	130	3	20
NAPHTHALENE	10	10.3	ug/L	103.0	70	130	1	20
N-BUTYLBENZENE	10	10.32	ug/L	103.0	70	130	5	20
N-PROPYLBENZENE	10	10.07	ug/L	100.0	70	130	4	20
O XYLENE	10	10.02	ug/L	100.0	70	130	4	20
SEC-BUTYLBENZENE	10	10.19	ug/L	102.0	70	130	4	20
STYRENE	10	10.03	ug/L	100.0	70	130	5	20
TERT-BUTYLBENZENE	10	9.99	ug/L	100.0	70	130	5	20
TETRACHLOROETHENE	10.1	10.19	ug/L	101.0	70	130	4	20
TOLUENE	10	9.9	ug/L	99.0	70	130	4	20
TRANS-1,2-DICHLOROETHENE	10	10.17	ug/L	101.0	70	130	4	20
TRANS-1,3-DICHLOROPROPENE	10	10.04	ug/L	101.0	70	130	1	20
TRICHLOROETHENE	10	9.92	ug/L	99.0	71	130	3	20
TRICHLOROFLUOROMETHANE	10	11.08	ug/L	111.0	70	130	14	20
VINYL ACETATE	10	11.83	ug/L	118.0	70	130	5	20
VINYL CHLORIDE	10	9.83	ug/L	98.0	70	130	5	20
BROMOFLUOROBENZENE (surr)			%	99.6	70	130		
DIBROMOFLUOROMETHANE (surr)			%	99.5	70	130		
TOLUENE-D8 (surr)			%	96.7	70	130		

PBW **Sample ID: WG405852PBW** **Analyzed: 07/06/16 12:07**

Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
1,1,1,2-TETRACHLOROETHANE			U	ug/L		-1	1			
1,1,1-TRICHLOROETHANE			U	ug/L		-2	2			
1,1,2,2-TETRACHLOROETHANE			U	ug/L		-.01	.01			
1,1,2-TRICHLOROETHANE			U	ug/L		-1	1			
1,1-DICHLOROETHANE			U	ug/L		-1	1			
1,1-DICHLOROETHENE			U	ug/L		-1	1			
1,1-DICHLOROPROPENE			U	ug/L		-1	1			
1,2,3-TRICHLOROBENZENE			U	ug/L		-4	4			
1,2,3-TRICHLOROPROPANE			U	ug/L		-1	1			
1,2,4-TRICHLOROBENZENE			U	ug/L		-4	4			
1,2,4-TRIMETHYLBENZENE			U	ug/L		-1	1			
1,2-DIBROMO-3-CHLOROPROPANE			U	ug/L		-1	1			
1,2-DIBROMOETHANE			U	ug/L		-.01	.01			
1,2-DICHLOROBENZENE			U	ug/L		-1	1			
1,2-DICHLOROETHANE			U	ug/L		-1	1			
1,2-DICHLOROPROPANE			U	ug/L		-1	1			
1,3,5-TRIMETHYLBENZENE			U	ug/L		-1	1			
1,3-DICHLOROBENZENE			U	ug/L		-1	1			
1,3-DICHLOROPROPANE			U	ug/L		-1	1			
1,4-DICHLOROBENZENE			U	ug/L		-1	1			
2,2-DICHLOROPROPANE			U	ug/L		-1	1			
2-BUTANONE			U	ug/L		-2	2			

2-CHLOROTOLUENE	U	ug/L		-1	1
2-HEXANONE	U	ug/L		-2	2
4-CHLOROTOLUENE	U	ug/L		-1	1
4-ISOPROPYLTOLUENE	U	ug/L		-1	1
4-METHYL-2-PENTANONE	U	ug/L		-2	2
ACETONE	U	ug/L		-4	4
ACRYLONITRILE	U	ug/L		-.05	.05
BENZENE	U	ug/L		-1	1
BROMOBENZENE	U	ug/L		-1	1
BROMOCHLOROMETHANE	U	ug/L		-1	1
BROMODICHLOROMETHANE	U	ug/L		-1	1
BROMOFORM	U	ug/L		-1	1
BROMOMETHANE	U	ug/L		-2	2
CARBON DISULFIDE	U	ug/L		-1	1
CARBON TETRACHLORIDE	U	ug/L		-1	1
CHLOROBENZENE	U	ug/L		-1	1
CHLOROETHANE	U	ug/L		-2	2
CHLOROFORM	U	ug/L		-1	1
CHLOROMETHANE	U	ug/L		-1	1
CIS-1,2-DICHLOROETHENE	U	ug/L		-1	1
CIS-1,3-DICHLOROPROPENE	U	ug/L		-1	1
DIBROMOCHLOROMETHANE	U	ug/L		-1	1
DIBROMOMETHANE	U	ug/L		-.01	.01
DICHLORODIFLUOROMETHANE	U	ug/L		-1	1
ETHYLBENZENE	U	ug/L		-1	1
HEXACHLOROBUTADIENE	U	ug/L		-4	4
ISOPROPYLBENZENE	U	ug/L		-1	1
M P XYLENE	U	ug/L		-2	2
METHYL TERT BUTYL ETHER	U	ug/L		-1	1
METHYLENE CHLORIDE	U	ug/L		-1	1
NAPHTHALENE	U	ug/L		-4	4
N-BUTYLBENZENE	U	ug/L		-1	1
N-PROPYLBENZENE	U	ug/L		-1	1
O XYLENE	U	ug/L		-1	1
SEC-BUTYLBENZENE	U	ug/L		-1	1
STYRENE	U	ug/L		-1	1
TERT-BUTYLBENZENE	U	ug/L		-1	1
TETRACHLOROETHENE	U	ug/L		-1	1
TOLUENE	U	ug/L		-1	1
TRANS-1,2-DICHLOROETHENE	U	ug/L		-1	1
TRANS-1,3-DICHLOROPROPENE	U	ug/L		-1	1
TRICHLOROETHENE	U	ug/L		-1	1
TRICHLOROFLUOROMETHANE	U	ug/L		-1	1
VINYL ACETATE	U	ug/L		-2	2
VINYL CHLORIDE	U	ug/L		-.05	.05
BROMOFLUOROBENZENE (surr)		%	99.5	70	130
DIBROMOFLUOROMETHANE (surr)		%	99.0	70	130
TOLUENE-D8 (surr)		%	97.8	70	130

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L31382-01	WG405984	TPH C10 to C28	M8015D GC/FID	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG405852	1,1,1,2-Tetrachloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1,1-Trichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1,2,2-Tetrachloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1,2-Trichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1-Dichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1-Dichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1-Dichloropropene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,3-Trichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,3-Trichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,4-Trichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,4-Trimethylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dibromo-3-chloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dibromoethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,3,5-Trimethylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,3-Dichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,3-Dichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,4-Dichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2,2-Dichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2-Butanone	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2-Chlorotoluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2-Hexanone	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		4-Chlorotoluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		4-Isopropyltoluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		4-Methyl-2-Pentanone	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Acetone	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	N1	See Case Narrative.
		Acrylonitrile	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Benzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromochloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromodichloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromoform	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromomethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Carbon Disulfide	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Carbon Tetrachloride	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chloroform	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		cis-1,2-Dichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		cis-1,3-Dichloropropene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Dibromochloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					sample is too low for accurate evaluation (< 10x MDL).
		Dibromomethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Dichlorodifluoromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Ethylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Hexachlorobutadiene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Isopropylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		m p Xylene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Methyl Tert Butyl Ether	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Methylene Chloride	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Naphthalene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		n-Butylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		n-Propylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		o Xylene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		sec-Butylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Styrene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		tert-Butylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Tetrachloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Toluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		trans-1,2-Dichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		trans-1,3-Dichloropropene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Trichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Trichlorofluoromethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					analyte was not detected in the sample [< MDL].
		Vinyl Acetate	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
		Vinyl Chloride	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L31382-02	WG405852	1,1,1,2-Tetrachloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1,1-Trichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1,2,2-Tetrachloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1,2-Trichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1-Dichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1-Dichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,1-Dichloropropene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,3-Trichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,3-Trichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,4-Trichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2,4-Trimethylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dibromo-3-chloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dibromoethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dichloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,2-Dichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,3,5-Trimethylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,3-Dichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		1,3-Dichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
		1,4-Dichlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2,2-Dichloropropane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2-Butanone	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2-Chlorotoluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		2-Hexanone	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		4-Chlorotoluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		4-Isopropyltoluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		4-Methyl-2-Pentanone	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Acetone	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	N1	See Case Narrative.
		Acrylonitrile	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Benzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromochloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromodichloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromoform	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Bromomethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Carbon Disulfide	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Carbon Tetrachloride	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chlorobenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chloroethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chloroform	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Chloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
		cis-1,2-Dichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		cis-1,3-Dichloropropene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Dibromochloromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Dibromomethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Dichlorodifluoromethane	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Ethylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Hexachlorobutadiene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Isopropylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		m p Xylene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Methyl Tert Butyl Ether	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Methylene Chloride	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Naphthalene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		n-Butylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		n-Propylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		o Xylene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		sec-Butylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Styrene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		tert-Butylbenzene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Tetrachloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Toluene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		trans-1,2-Dichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		trans-1,3-Dichloropropene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Trichloroethene	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Trichlorofluoromethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
		Vinyl Acetate	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
		Vinyl Chloride	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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RadioChemistry Analytical Results

Golder Associates
Project ID: 1547878.300
Sample ID: SMITH 2
Locator:

ACZ Sample ID: ***L31382-01***
Date Sampled: *06/30/16 9:10*
Date Received: *07/01/16*
Sample Matrix: *Ground Water*

Combined Radium — Prep Method:
Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium	07/20/16 9:49		0.55	0.57		pCi/L		calc

Gross Alpha - Corrected — Prep Method:
Calculation

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha - Corrected	07/20/16 9:49		-0.18			pCi/L		calc

Gross Alpha & Beta, dissolved — Prep Method:
M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	07/11/16 0:31		2.1	2.3	3.5	pCi/L	*	jjo
Gross Beta	07/11/16 0:31		3.4	3.4	6.8	pCi/L		jjo

Radium 226 — Prep Method:
M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226	07/19/16 0:27		0.05	0.09	0.14	pCi/L		mns

Radium 228 — Prep Method:
M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228	07/13/16 15:52		0.5	0.48	0.48	pCi/L		tjr

Arizona license number: AZ0102

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Error(+/-)	Calculated sample specific uncertainty
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
LCL	Lower Control Limit, in % (except for LCSS, mg/Kg)
LLD	Calculated sample specific Lower Limit of Detection
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RER	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
UCL	Upper Control Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

DUP	Sample Duplicate	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSS	Laboratory Control Sample - Soil	*PBS*	Prep Blank - Soil
LCSW	Laboratory Control Sample - Water	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.

Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

(1) Solid matrices are reported on a dry weight basis.

(2) Preparation method: "Method" indicates preparation defined in analytical method.

(3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.

(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click: http://www.acz.com/public/extquallist.pdf

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Radiochemistry QC Summary

Golder Associates

ACZ Project ID: ***L31382***

Alpha

M900.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG406065																
WG405663PBW	PBW	07/11/16						-.65	0.45	2.4			4.8			
WG405663LCSW	LCSW	07/11/16	PCN50098	100				110	9.2	3.7	110	83	133			
L31334-02DUP	DUP-RER	07/11/16			1.6	2	0.06	1.9	1.7	1.7				0.11	2	
L31381-01DUP	DUP-RER	07/11/16			0.49	1.6	2.1	2.6	2.5	2.3				0.71	2	
L31381-01MS	MS	07/11/16	PCN50098	100	0.49	1.6	2.1	77	9.5	2.2	77	83	133			M2

Beta

M900.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG406065																
WG405663PBW	PBW	07/11/16						.01	2	0.24			0.48			
WG405663LCSW	LCSW	07/11/16	PCN49859	100				110	7	0.57	110	70	129			
L31334-02DUP	DUP-RER	07/11/16			6.2	2.7	0.28	8.3	2.9	6.8				0.53	2	
L31381-01DUP	DUP-RER	07/11/16			5.7	3.2	8.2	2.7	3.2	8.2				0.66	2	
L31381-01MS	MS	07/11/16	PCN49859	100	5.7	3.2	8.2	110	7.6	0.82	104	70	129			

Radium 226

M903.1

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG406641																
WG406169PBW	PBW	07/19/16						.1	0.11	0.12			0.24			
WG406169LCSW	LCSW	07/19/16	PCN51070	20				18	0.53	0.2	90	43	148			
L31218-01DUP	DUP-RER	07/19/16			0.14	0.1	0.19	.13	0.08	0.13				0.08	2	
L31257-01DUP	DUP-RER	07/19/16			0.47	0.13	0.1	.39	0.1	0.11				0.49	2	
L31257-02MS	MS	07/19/16	PCN51070	20	0	0.09	0.31	19	0.53	0.11	95	43	148			

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Radiochemistry QC Summary

Golder Associates

ACZ Project ID: ***L31382***

Radium 228 M904.0 **Units:** pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG406263																
WG405837LCSW	LCSW	07/13/16	PCN50551	18.96				17	1.3	0.62	90	47	123			
WG405837PBW	PBW	07/13/16						.36	0.27	0.27			0.54			
L31281-02DUP	DUP-RER	07/13/16			0.23	0.5	0.52	.61	0.49	0.49				0.54	2	
L31281-05DUP	DUP-RER	07/13/16			-0.03	0.48	0.53	.09	0.42	0.45				0.19	2	
L31281-11MS	MS	07/13/16	PCN50551	18.95	0.2	0.46	0.48	13	1.1	0.49	68	47	123			

Golder Associates ACZ Project ID: ***L31382***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L31382-01	WG406065	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.

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Sample Receipt

Golder Associates
1547878.300

ACZ Project ID:	L31382
Date Received:	07/01/2016 10:33
Received By:	ddp
Date Printed:	7/1/2016

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?			X
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?	X		
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?	X		
18) Were all samples received within hold time?	X		

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
3369	0.9	<=6.0	16	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
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Sample Receipt

Golder Associates
1547878.300

ACZ Project ID:	L31382
Date Received:	07/01/2016 10:33
Received By:	ddp
Date Printed:	7/1/2016

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L31382

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Rochelle Destrampe
Company: Golder Associates
E-mail: rdestrampe@golder.com
Address: 1430 W. Broadway Road, Suite 108
Tempe, AZ 85282
Telephone: 480-966-0153

Copy of Report to:

Name: Rochelle Destrampe
Company: Golder Associates
E-mail: rdestrampe@golder.com
Telephone: 480-966-0153

Invoice to:

Name: Rochelle Destrampe
Company: Golder Associates
E-mail: rdestrampe@golder.com
Address: 1430 W. Broadway Road, Suite 108
Tempe, AZ 85282
Telephone: 480-966-0153

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes [ ] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: R. Destrampe **Sampler's Site Information** **State** AZ **Zip code** 85609 **Time Zone** AZ

***Sampler's Signature:** Rochelle Destrampe

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: JCM-GW-A
PO#: 1547878.300
Reporting state for compliance testing:
Check box if samples include NRC licensed material? [ ]

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	Organics, 1L Ambers Unpres, unfiltered - 2	Wet Chem - 500 mL Unpres, unfiltered -1	Diss Wet Chem - 250 mL Unpres (FILTERED) - 1	Total Metals - 250mL Nitric, unfiltered -1	Diss Metals - 125 mL Nitric (FILTERED) -1	Total Radiochem - 4L Nitric, unfiltered - 1	Diss Radiochem - 1L Nitric (FILTERED) -1	VOA, BTEX, TVH -40mL HCl, unfiltered - 3
SMITH 2	6.30.16 09:10	GW	11	X	X	X	X	X	X	X	X
TRIP BLANK	6.30.16	W	1								X

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

FED EX TRACKING: 776604111 3220

See attached list of requested analytes (Table 1)

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Rochelle Destrampe	6.30.16 10:15	NFC	7/16 10:33

FRMAD050.06.14.14 White - Return with sample. Yellow - Retain for your records.

L31382 Chain of Custody

Table 1: Ambient Groundwater Monitoring Analytes

Analyte	Method[a]	MRL[b,c]	AWQS[d]	Units
Field Parameters				
Specific Conductance	Field Instrument	NA	NS	umhos/cm
Temperature	Field Instrument	NA	NS	°C
pH	Field Instrument	NA	NS	SU
Indicator Parameters				
Total Dissolved Solids (TDS)	SM 2540C	1	NS	mg/L
Specific Conductance	SM 2510B	1	NS	umhos/cm
Temperature	EPA 170.1	--	NS	°C
pH	SM 4500H+	1	NS	SU
Major Cations				
Calcium (Ca)	EPA 200.7	1	NS	mg/L
Magnesium (Mg)	EPA 200.7	2	NS	mg/L
Potassium (K)	EPA 200.7	2	NS	mg/L
Sodium (Na)	EPA 200.7	2	NS	mg/L
Major Anions				
Carbonate (as $CaCO_3$)	SM2320B	10	NS	mg/L
Bicarbonate (as $CaCO_3$)	SM2320B	10	NS	mg/L
Hydroxide (as $CaCO_3$)	SM2320B	10	NS	mg/L
Total Alkalinity (as $CaCO_3$)	SM2320B	10	NS	mg/L
Chloride (Cl)	EPA 300.0	0	NS	mg/L
Fluoride (F)	SM 4500 F C	0.1	4.0	mg/L
Sulfate (SO_4)	EPA 300.0	5	NS	mg/L
Nitrogen				
Nitrate + Nitrite (as N)	EPA 353.2	0.2	10	mg/L
Nitrate (as N)	Calculation	0.3	10	mg/L
Nitrite (as N)	EPA 353.2	0.1	1	mg/L
Phosphate (PO_4)	EPA 365.3	0.1	NS	mg/L
Metals (Dissolved)				
Aluminum (Al)	EPA 200.7	0.2	NS	mg/L
Antimony (Sb)	EPA 200.8	0.003	0.006	mg/L
Arsenic (As)	EPA 200.8	0.001	0.05	mg/L
Barium (Ba)	EPA 200.7	0.01	2	mg/L
Beryllium (Be)	EPA 200.7	0.002	0.004	mg/L
Cadmium (Cd)	EPA 200.8	0.001	0.005	mg/L
Chromium (Cr)	EPA 200.7	0.001	0.1	mg/L
Cobalt (Co)	EPA 200.7	0.02	NS	mg/L
Copper (Cu)	EPA 200.7	0.01	NS	mg/L
Iron (Fe)	EPA 200.7	0.05	NS	mg/L
Lead (Pb)	EPA 200.8	0.001	0.05	mg/L
Manganese (Mn)	EPA 200.7	0.02	NS	mg/L
Mercury (Hg)	EPA 245.1	0.0002	0.002	mg/L
Molybdenum (Mo)	EPA 200.7	0.02	NS	mg/L
Nickel (Ni)	EPA 200.7	0.02	0.1	mg/L
Selenium (Se)	EPA 200.8	0.002	0.05	mg/L

Table 1: Ambient Groundwater Monitoring Analytes

Analyte	Method[a]	MRL[b,c]	AWQS[d]	Units
Silicon (Si, as SiO_2)	EPA 200.7	0.1	NS	mg/L
Silver (Ag)	EPA 200.8	0.0001	NS	mg/L
Thallium (Tl)	EPA 200.8	0.0005	0.002	mg/L
Zinc (Zn)	EPA 200.7	0.02	NS	mg/L
Radiochemicals				
Gross Alpha Particle Activity	EPA 900.0	1	NS	pCi/L
Adjusted Gross Alpha Particle Activity	EPA 900.0	1	15	pCi/L
Gross Beta Particle Activity	EPA 900.0	4 pCi/L	4	mrem/yr
Radium 226	EPA 903.1	0.3	NS	pCi/L
Radium 228	EPA 904.0	0.4	NS	pCi/L
Radium 226+228	Calculation	0.4	5	pCi/L
Uranium (total)	EPA 200.8	0.5	NS	ug/L
Organic Compounds				
Volatile Organic Compounds	EPA 8260/624	Various	Various	ug/L
Total Petroleum Hydrocarbons (TPH)				
Total Petroleum Hydrocarbons (TPH)	EPA 8015	Various	Various	ug/L

Notes:

a Or equivalent analytical method.

b MRL = Minimum Reporting Limit. MRLs may vary due to matrix interference/dilution.

c MRLs may be difficult to achieve in groundwater with high total dissolved solids.

d AWQS = Aquifer Water Quality Standard.

e AWQS applies to free cyanide. Free cyanide will be analyzed only if cyanide is detected.

NA = Not applicable. NS = no numeric AWQS.

mg/L = milligrams per liter. umhos/cm = micromhos per centimeter.

°C = degrees Celsius. SU = standard units.

pCi/L = picoCuries per liter. mrem/yr = millirems per year. ug/L = micrograms per liter.

EPA = Methods for Chemical Analysis of Water and Waste, EPA-600/4-79-020, USEPA - EMSL, Revised March 1993.

SM = Standard Methods for the Examination of Water and Wastewater, 18th Edition, APHA-AWWA-WPCF, 1992.