April 19, 2016

Report to:

Philip Nerenberg
Apex Laboratories
12232 S W Garden Place
Tigard, OR 97223

Bill to:

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Project ID: A6C1124 ACZ Project ID: L29960

#### Philip Nerenberg:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 16, 2016. This project has been assigned to ACZ's project number, L29960. 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 L29960. 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 May 19, 2016. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Sue Webber has reviewed and approved this report.

ne Well





L29960-1604191556 Page 1 of 35

#### **APEX LABORATORIES**

#### Level IV Data Package – L29960 Table of Contents

- 1. Analytical Report Cover Page 1
- 2. Table of Contents 2
- 3. Sample Summary Page <u>3</u>
- 4. Case Narrative 4
- 5. Inorganic Analytical Results Pages 5 to 16
  - a. Total Metals, Dissolved Metals
  - b. Inorganic Reference Page
  - c. Inorganic QC Summary
    - i. Calibration data
    - ii. LCSW, LFB, PBW, PQV results
    - iii. Matrix/Analytical Spike Recoveries
    - iv. Duplicate Precision
  - d. Inorganic Extended Qualifier Page
  - e. Certification Qualifiers
- **6.** Inorganic Raw Data- Pages Pages <u>17</u> to <u>29</u>
- 7. Run Logs- Page <u>30</u> to <u>31</u>
- 8. Sample Receipt Documents- Pages 32 to 35
  - a. Sample Receipt Form
  - b. Chain of Custody Copy

L29960-1604191556 Page 2 of 35



ACZ Project ID: L29960

SAMPLE ID	LAB NO.	SAMPLE DATE	SAMPLE TIME
A6C1124-02	L29960-01	3/29/2016	10:15
A6C1124-04	L29960-02	3/29/2016	10:35
A6C1124-06	L29960-03	3/29/2016	11:15
A6C1124-08	L29960-04	3/29/2016	12:00
A6C1124-10	L29960-05	3/29/2016	13:15
A6C1124-12	L29960-06	3/29/2016	13:40
A6C1124-14	L29960-07	3/29/2016	14:25
A6C1124-16	L29960-08	3/29/2016	15:10

L29960-1604191556 Page 3 of 35

Apex Laboratories April 19, 2016

Project ID: A6C1124 ACZ Project ID: L29960

#### Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 8 miscellaneous samples from Apex Laboratories on April 16, 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 L29960. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

#### **Holding Times**

The analysis was not performed within EPA recommended holding times. Samples were received after the hold time had expired.

#### Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

L29960-160419156 Page 4 of 35

**Apex Laboratories** 

ACZ Sample ID: **L29960-01** Project ID: A6C1124 Date Sampled: 03/29/16 10:15

Sample ID: A6C1124-02 Date Received: 04/16/16

Sample Matrix: Leachate

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	mg/L	0.1	0.5	04/18/16 16:26	sck

L29960-1604191556 Page 5 of 35

**Apex Laboratories** 

ACZ Sample ID: **L29960-02** Project ID: A6C1124 Date Sampled: 03/29/16 10:35

Sample ID: A6C1124-04 Date Received: 04/16/16

Sample Matrix: Leachate

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	mg/L	0.1	0.5	04/18/16 16:29	sck

L29960-1604191556 Page 6 of 35

**Apex Laboratories** 

ACZ Sample ID: **L29960-03** 

Date Sampled: 03/29/16 11:15

Date Received: 04/16/16

Sample Matrix: Leachate

Project ID: A6C1124

Sample ID: A6C1124-06

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	ma/l	0.1	0.5	04/18/16 16:32	sck

L29960-1604191556 Page 7 of 35

**Apex Laboratories** 

ACZ Sample ID: **L29960-04**A6C1124 Date Sampled: 03/29/16 12:00

Sample ID: A6C1124-08 Date Received: 04/16/16

Sample Matrix: Leachate

Wet Chemistry

Project ID:

Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH *	mg/L	0.1	0.5	04/18/16 16:35	sck

L29960-1604191556 Page 8 of 35

**Apex Laboratories** 

Project ID: A6C1124 Date Sampled: 03/29/16 13:15 Sample ID: A6C1124-10

Date Received: 04/16/16 Sample Matrix: Leachate

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	mg/L	0.1	0.5	04/18/16 16:38	sck

Page 9 of 35 L29960-1604191556

**Apex Laboratories** 

ACZ Sample ID: **L29960-06** Project ID: A6C1124 Date Sampled: 03/29/16 13:40

Sample ID: A6C1124-12 Date Received: 04/16/16

Sample Matrix: Leachate

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	mg/L	0.1	0.5	04/18/16 16:47	sck

Page 10 of 35 L29960-1604191556

**Apex Laboratories** 

ratories ACZ Sample ID: L29960-07

Project ID: A6C1124 Date Sampled: 03/29/16 14:25
Sample ID: A6C1124-14 Date Received: 04/16/16

Date Received: 04/16/16
Sample Matrix: Leachate

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	mg/L	0.1	0.5	04/18/16 16:50	sck

L29960-1604191556 Page 11 of 35

**Apex Laboratories** 

ACZ Sample ID: **L29960-08** Project ID: A6C1124 Date Sampled: 03/29/16 15:10

Sample ID: A6C1124-16 Date Received: 04/16/16

Sample Matrix: Leachate

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Thiocyanate as SCN	SM4500-CN M	1		UH	*	mg/L	0.1	0.5	04/18/16 16:53	sck

L29960-1604191556 Page 12 of 35 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report I	leader l	Explan	ations
----------	----------	--------	--------

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.
- 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

REP001.03.15.02

L29960-1604191556 Page 13 of 35

Apex Laboratories ACZ Project ID: L29960

Thiocyanate as	SCN		SM4500-C	EN M									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG401560													
WG401560ICV	ICV	04/18/16 15:30	WC151217-3	2		1.97	mg/L	99	90	110			
WG401560ICB	ICB	04/18/16 15:32				U	mg/L		-0.3	0.3			
WG401560LFB	LFB	04/18/16 15:35	WC151217-7	2.5		2.43	mg/L	97	80	120			
WG401560CCV1	CCV	04/18/16 16:05	WC151217-6	5		5	mg/L	100	90	110			
WG401560CCB1	CCB	04/18/16 16:08				U	mg/L		-0.3	0.3			
WG401560CCV2	CCV	04/18/16 16:41	WC151217-6	5		5	mg/L	100	90	110			
WG401560CCB2	CCB	04/18/16 16:44				U	mg/L		-0.3	0.3			
L29960-08AS	AS	04/18/16 16:56	WC151217-7	2.5	U	2.57	mg/L	103	80	120			
L29960-08DUP	DUP	04/18/16 16:59			U	U	mg/L				0	20	R
WG401560CCV3	CCV	04/18/16 17:01	WC151217-6	5		5	mg/L	100	90	110			
WG401560CCB3	CCB	04/18/16 17:04				U	mg/L		-0.3	0.3			

L29960-1604191556 Page 14 of 35

Apex Laboratories ACZ Project ID: L29960

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L29960-01	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-02	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-03	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-04	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-05	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-06	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-07	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).
L29960-08	WG401560	Thiocyanate as SCN	SM4500-CN M	НЗ	Sample was received and analyzed past holding time.
			SM4500-CN M	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).

L29960-1604191556 Page 15 of 35

Certification Qualifiers

Apex Laboratories ACZ Project ID: L29960

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Thiocyanate as SCN

SM4500-CN M

L29960-1604191556 Page 16 of 35

QC List Type: QC-SPEC-CN-THIO

QCListMatClass: LIQUID

Bench Sheet List: I-SPEC-CN-THIO

QC Ref: icv/b-ccv/b-dup-as Group ID: WC-G-SPC-CN-THIO

Method Ref: SM4500 CN M SOP Ref: SOPWC022

# WG401560



#### ACZ Laboratories, Inc

Instrument ID: SPEC2

Analyst: sck

ACZ Dept: 37

Create Date: 04/18/2016 13:14

Start Date/Time: 04/18/2016 15:30

End Date/Time: 04/18/2016 17:05

SE	ACZ ID	Client ID	SubSX	Pri Analysis Date	Cyanide	pН	filter date	Dilution	Comments
Q					•				
					(mg/L)	(pH)			
1	WG401560ICV	WC151217-3	black	04/18/16 15:30	1.969	1		1	
2	WG401560ICB	NONE	black	04/18/16 15:32	0	1		1	
3	WG401560LFB	WC151217-7	black	04/18/16 15:35	2.427	1		1	
4	L29915-01	A6C1076-02	black	04/18/16 15:38	0	1		1	
5	L29915-02	A6C1076-04	black	04/18/16 15:41	0	1		1	
6	L29915-03	A6C1076-06	black	04/18/16 15:44	0	1		1	
7	L29915-04	A6C1076-08	black	04/18/16 15:47	0.016	1		1	
8	L29915-05	A6C1076-10	black	04/18/16 15:50	Ò	1		1	
9	L29915-06	A6C1076-12	black	04/18/16 15:53	0	1		1	
10	L29915-07	A6C1076-14	black	04/18/16 15:56	0	1		1	
11	L29915-08	A6C1076-16	black	04/18/16 15:59	0	1		1	
12	L29915-09	A6C1076-18	black	04/18/16 16:02	0	1		1	
13	WG401560CCV1	WC151217-6	black	04/18/16 16:05	4.995	1		1	
14	WG401560CCB1	NONE	black	04/18/16 16:08	0	1		1	
15	L29915-10	A6C1076-20	black	04/18/16 16:11	0	1		1	
16	L29915-10AS	WC151217-7	black	04/18/16 16:14	2.498	1		1	
17	L29915-10DUP	NONE	black	04/18/16 16:17	0	1		1	
18	L29915-11	A6C1076-22	black	04/18/16 16:20	0	1		1	
19	L29959-04	A6C1134-08	black	04/18/16 16:23	0.008	1		1	
20	L29960-01	A6C1124-02	black	04/18/16 16:26	0	1		1	
21	L29960-02	A6C1124-04	black	04/18/16 16:29	0	1		1	
22	L29960-03	A6C1124-06	black	04/18/16 16:32	0	1		1	
23	L29960-04	A6C1124-08	black	04/18/16 16:35	0.019	1		1	
24	L29960-05	A6C1124-10	black	04/18/16 16:38	0.033	1		1	

Page 1 of 3

Report Comments:		
Internal Comments	 	 
L29960-16041 <u>91556</u>	 	 

4/19114 AREV: Initials, Date

QC List Type: QC-SPEC-CN-THIO

QCListMatClass: LIQUID

Bench Sheet List: I-SPEC-CN-THIO

QC Ref: icv/b-ccv/b-dup-as

Group ID: WC-G-SPC-CN-THIO

Method Ref: SM4500 CN M SOP Ref: SOPWC022



#### ACZ Laboratories, Inc.

Instrument ID: SPEC2

Analyst: sck

ACZ Dept: 37

Create Date: 04/18/2016 13:14

Start Date/Time: 04/18/2016 15:30

End Date/Time: 04/18/2016 17:05

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Cyanide	рН	filter date	Dilution	Comments
· ·						(mg/L)	(pH)			
25	WG401560CCV2	WC151217-6	black		04/18/16 16:41	4.998	1		1	
26	WG401560CCB2	NONE	black		04/18/16 16:44	0	1		1	
27	L29960-06	A6C1124-12	black		04/18/16 16:47	0.089	1		1	
28	L29960-07	A6C1124-14	black		04/18/16 16:50	0.014	1		1	
29	L29960-08	A6C1124-16	black		04/18/16 16:53	0.022	1		1	
30	L29960-08AS	WC151217-7	black		04/18/16 16:56	2.571	1		1	
31	L29960-08DUP	NONE	black		04/18/16 16:59	0.024	1		1	
32	WG401560CCV3	WC151217-6	black		04/18/16 17:01	5.003	1		1	
33	WG401560CCB3	NONE	black		04/18/16 17:04	0	1		1	

Report Comments:	 	 	 
_	 	 	 
Internal Comments _	 •	 	 

AREV:		
	Initials, Date	

SREV:

Initials, Date

QC List Type: QC-SPEC-CN-THIO

QCListMatClass: LIQUID

Bench Sheet List: I-SPEC-CN-THIO

QC Ref: icv/b-ccv/b-dup-as Group ID: WC-G-SPC-CN-THIO

Method Ref: SM4500 CN M SOP Ref: SOPWC022



#### ACZ Laboratories, Inc.

Instrument ID: SPEC2

Analyst: sck

ACZ Dept: 37

Create Date: 04/18/2016 13:14

Start Date/Time: 04/18/2016 15:30

End Date/Time: 04/18/2016 17:05

Sample	Login Comments	
<u></u>		
L29915-01	BK	
L29915-02	BK	
L29915-03	вк II	
L29915-04	вк	
L29915-05	BK	
L29915-06	BK	
L29915-07	BK	
L29915-08	вк ІІ	
L29915-09	вк ()	
L29915-10	BK [[	
L29915-11	BK	
L29959-04	вк∥	
L29960-01	BK	
L29960-02	BK	
L29960-03	BK	
L29960-04	BK	
L29960-05	BK	
L29960-06	8K	
L29960-07	BK	
L29960-08	BK	

Report Comments:	 	
Internal Comments		
L29960-1604191556		

AREV:	
	Initials Date

SREV:

Initials, Page 19 of 35

ACZ Laboratories, Inc. WET CHEMISTRY SPEC / ISE PROBE DATA REVIEW CHEC	AREV:	
Work Group: <u>4の560</u> Sample Type: <u>5Cい</u> Analysis Date: <u>41816</u> Analyst: <u>5C</u>	SREV Date	
Instrument Checklist		Yes No N/A
1.) Is the calibration passing (r $\geq$ 0.995 for Spec or m = - 59.16	+/- 5% for Fluoride)?	
2.) Are all of the QC critera listed in LIMS within specified limits	s?	
3.) Are dilutions in the appropriate range (explain if "B" or "U" r	eported for sample)?	
4.) Is any sample analyzed on dilution appropriately "D" qualified	ed (not required for o-cal)?	
5.) Was each sample analyzed within method holding time? F	lag data if "No."	
6.) Are all errors properly corrected (i.e. single-line crossout, d	ated & initialed)?	
7.) Is a current standard/reagent sheet attached to the workgroup	oup?	
8.) FOR SREV: QA/QC approval for initial training or 2 sets of	initials for WG & LIMS?	
"R" or "m" = 1.000	pec Calibration Workgroup	: 401560
Digestion Temp °C :	Time In:	
Disposable Vessel Lot	Time Out:	
For any item listed above that is checked "No" state the corre	ective action/explanation in	the sections below.
QC/Sample ID Analytical Problem	C	orrective action
915-01 to-11 post hald	H3	
959-04 1 960-01 to-08	<u></u>	
100 01 10 00		
Comments:		

\*Workgroup documentation must include the lot number(s) of all disposable vessels used for volumetric measurements.

QC List Type: QC-SPEC-CN-THIO

QCListMatClass: LIQUID

Bench Sheet List: I-SPEC-CN-THIO

QC Ref: icv/b-ccv/b-dup-as Group ID: WC-G-SPC-CN-THIO

Method Ref: SM4500 CN M SOP Ref: SOPWC022

# WG401560



#### **ACZ** Laboratories, Inc

Instrument ID: SPEC2

Analyst: Sck

ACZ Dept: 37

Create Date: 04/18/2016 13:14

Start Date/Time:

3:30pm

End Date/Time: 5:05 pm

Q Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Cyanide		pН	filter date	Dilution	Comments
						(mg/L)	•	pH)			
1	WG401560ICV	WC151217-3				1.969	1.0	)	1.01.10	. 1	
2	WG401560ICB	NONE				-0.013	1.0		MIN	1	
3	WG401560LFB	WC151217-7				2.427			- <del></del>	1	
4	L29915-01	A6C1076-02				-0.04H				1	
5	L29915-02	A6C1076-04	-		SUK (	-3-029 -0.3	7.0			1	
6	L29915-03	A6C1076-06			41.310					1	
7	L29915-04	✓ A6C1076-08				0.016	31			1	
8	L29915-05	/ A6C1076-10				-0.019	-			1	
9	L29915-06	A6C1076-12		$\Box$		-0.031				1	
10	L29915-07	/ A6C1076-14				-0.047				1	
11	L29915-08	✓ A6C1076-16				-0.054		<del></del>		1	
12	L29915-09	A6C1076-18				-0.039				1	
13	WG401560CCV1	WC151217-6				4.995				1	
14	WG401560CCB1	NONE				-0.030				1	
15	L29915-10	A6C1076-20				-0.063				1	
16	L29915-10AS	WC151217-7	i			2.498				1	
17	L29915-10DUP	NONE				-0.06Z			<del>                                     </del>	1	
18	L29915-11	A6C1076-22			-	-3.046				1	
19	L29959-04	A6C1134-08				0.008				1	
20	L29960-01	A6C1124-02				-0.025	~			1	
21	L29960-02	A6C1124-04				-0.051				1	
22	L29960-03	A6C1124-06				-0.05T	-			1	
23	L29960-04	A6C1124-08				2019				1	
24	L29960-05	A6C1124-10								1.	
1				LI		0.033		<del></del>		1 .	
Den	ort Comments:										
iveh	on Comments	·								AREV:	
											Initials, Date
Inter	nal Comments										
										SREV:	
											Initials, Date

QC List Type: QC-SPEC-CN-THIO

QCListMatClass: LIQUID

Bench Sheet List: I-SPEC-CN-THIO

QC Ref: icv/b-ccv/b-dup-as Group ID: WC-G-SPC-CN-THIO

Method Ref: SM4500 CN M SOP Ref: SOPWC022

# WG401560



Instrument ID:	SPEC2
Analyst:	
ACZ Dept:	37
Create Date:	<b>04/18/2016 13:14</b>

Start Date/Time:
End Date/Time:

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Cyanide		рН	filt	er date	Dilution	Comments
						(mg/L)		(pH)	Sc	८ भा । छेल		
25	WG401560CCV2	WC151217-6				4,998	١.	3	ا کو ں	( PA	1	
26	WG401560CCB2	NONE				-0.023	i			i	1	
27	L29960-06 🗸	A6C1124-12				୦.୦ଟ୍ର					1	
28	L29960-07 🗸	A6C1124-14				0.014					1	
29	L29960-08 🗸	A6C1124-16			0,02	00240.	252				1	
30	L29960-08AS 🗸	WC151217-7				2.571					1	
31	L29960-08DUP ¥	NONE			5.02		3 500				1	
32	WG401560CCV3	WC151217-6			<u> </u>	5-003	नारअप				1	
33	WG401560CCB3	NONE				-3.023		<u></u>	_		1	

kepon Comments			.,	
nternal Comments _				

AREV: \_\_\_\_\_\_\_Initials, Date

SREV: \_\_\_\_\_

Initials, Date

QC List Type: QC-SPEC-CN-THIO

QCListMatClass: LIQUID

Bench Sheet List: I-SPEC-CN-THIO

QC Ref: icv/b-ccv/b-dup-as
Group ID: WC-G-SPC-CN-THIO

Method Ref: SM4500 CN M SOP Ref: SOPWC022

# WG401560

ACZ Laboratories, In	c
----------------------	---

Instrument ID:	SPEC2
Analyst:	
ACZ Dept:	37
Create Date:	04/18/2016 13:14
Start Date/Time:	
End Date/Time:	

Sample	Login Comments
L29915-01	BK
L29915-02	BK
L29915-03	BK
L29915-04	BK
L29915-05	BK
L29915-06	BK
L29915-07	BK
L29915-08	вк
L29915-09	BK
L29915-10	вк II
L29915-11	BK
L29959-04	BK
L29960-01	BK
L29960-02	BK
L29960-03	BK
L29960-04	BK
L29960-05	BK
L29960-06	BK
L29960-07	BK
L29960-08	BK

eport Comments:		 	 
ternal Comments	 	 	

AREV: \_\_\_\_\_\_Initials, Date

SREV: \_\_\_\_\_

Initials, Date

4/18/2016 1:15:09 PM P2998 23 of 35

ACZ LABORATORIES, INC 2773 Downhill Drive Steamboat Springs, CO 80487

#### Wet Chemistry Standards/Reagents Information

4/18/2016

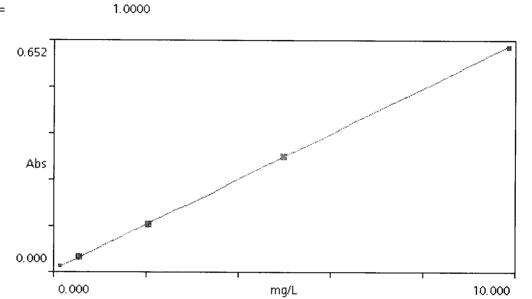
Parameter:	Thiocyanate	_ Instr:	SPEC	
	REAGENT	PCN/SCN	EXPIRATION DATE	
Reagents:	Ferric Nitrate Color Reagent	WC160129-1	1/29/2017	
	l Nitric Acid	IPNIAGAZA	120807	

L29960-1604191556 Page 24 of 35

15.353

Program:	9004	
Name:	Thiocyana	te
Units:	mg/L	
VVavelength:	460 nm	
Resolution:	0.001	
Chemical Form 1:	SCN	
Calibration:	C = a + b	Д
	a:	-0.021

Curve Fit r2=



b:

mg/L	Abs
0.0000	0.000
0.5000	0.035
2.0000	0.130
5.0000	0.330
10.000	0.652
Upper Limit:	13.000
Lower Limit:	-0.100
Timer 1:	Off
Timer 2:	Off
Timer 3:	Off
Timer 4:	Off
Chemical Form 2:	Off
Chemical Form 3:	Off
Chemical Form 4:	Off
Created:	04-18-2016 1

Page 25 of 35 L29960-1604191556

## Workgroup Review and Approval

### WG401560

Date Reported: 19-Apr-16

Run ID: R1391883

Date Analyzed: 18-Apr-16

ICAL Workgroup:

Instrument ID: SPEC2

WG4	01560ICV		Tag:					М	leasure	d: 4/18/	2016 3:30	:00 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Арру	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	1.97	1		mg/L	++	0.1	0.5			
SREV	CYANIDE	REC	99	1		%	++	0.1	0.5			
WG4	01560ICB		Tag:					М	easure	d: 4/18/	2016 3:32	2:58 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND		1	U	mg/L	++	0.1	0.5			
WG4	01560LFB		Tag:					М	easure	d: 4/18/	2016 3:35	5:56 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	2.43	1		mg/L	++	0.1	0.5			
SREV	CYANIDE	REC	97	1		%	++	0.1	0.5			
L299	15-01		Tag:					М	easure	d: 4/18/	2016 3:38	3:54 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		pН	++				НЗ ТА ТВ	
L299	15-02		Tag:					М	easure	d: 4/18/	2016 3:41	:52 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Арру	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		pН	++				НЗ ТА ТВ	
L299	15-03		Tag:					М	easure	d: 4/18/	2016 3:44	:50 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		рН	++				НЗ ТА ТВ	
L299	15-04		Tag:					М	leasure	d: 4/18/	2016 3:47	':48 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		pН	++				НЗ ТА ТВ	
			Tag:					М	easure	d: 4/18/	2016 3:50	:46 PM
L299	15-05		. ag.							-		
L299 Status	<b>15-05</b> Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value		
		<b>Type</b> CN-THIO		Dil 1	<b>Qual</b> UH	Units mg/L	Appv ++					Signal

Page 1 of 4

L29960-1604191556 Page 26 of 35



L299	15-06		Tag:					N	leasure	d: 4/18/	2016 3:53	3:44 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		рН	++				НЗ ТА ТВ	
L299	15-07		Tag:					N	leasure	d: 4/18/	2016 3:56	:42 PM
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		pН	++				НЗ ТА ТВ	
L299	15-08		Tag:					N	leasure	d: 4/18/	2016 3:59	:40 PM
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		рН	++				НЗ ТА ТВ	
L299	15-09		Tag:					N	leasure	d: 4/18/	2016 4:02	2:38 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		рН	++				НЗ ТА ТВ	
WG4	01560CCV1		Tag:					N	leasure	d: 4/18/	2016 4:05	5:36 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	5	1		mg/L	++	0.1	0.5			
SREV	CYANIDE	REC	100	1		%	++	0.1	0.5			
WG4	01560CCB1		Tag:					N	leasure	d: 4/18/	2016 4:08	3:34 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND		1	U	mg/L	++	0.1	0.5			
L299	15-10		Tag:					N	leasure	d: 4/18/	2016 4:11	:32 PN
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
NEED	PH	PREP	1	1		рН	++				НЗ ТА ТВ	
L299	15-10AS		Tag:					N	leasure	d: 4/18/	2016 4:14	:30 PN
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	2.5	1		mg/L	++	0.1	0.5			-
SREV	CYANIDE	REC	100	1		%	++	0.1	0.5			
L299	15-10DUP		Tag:					N	leasure	d: 4/18/	2016 4:17	:28 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND		1	U	mg/L	++	0.1	0.5			
SREV	CYANIDE	RPD	0	1		%	++	0.1	0.5		RA	
L299	15-11		Tag:					N	leasure	d: 4/18/	2016 4:20	:26 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TA TB	
SKEV												

Page 2 of 4

L29960-1604191556 Page 27 of 35



L299	59-04		Tag:					N	<i>l</i> leasure	d: 4/18/	2016 4:23	3:24 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		pН	++				Н3 ТВ	
L299	60-01		Tag:					N	<b>l</b> easure	d: 4/18/	2016 4:26	6:22 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		pН	++				нз тв	
L299	60-02		Tag:					N	/leasure	d: 4/18/	2016 4:29	9:20 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		pН	++				Н3 ТВ	
L299	60-03		Tag:					N	/leasure	d: 4/18/	2016 4:32	2:18 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		рН	++				Н3 ТВ	
L299	60-04		Tag:					N	/leasure	d: 4/18/	2016 4:3	5:16 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		рН	++				Н3 ТВ	
L299	60-05		Tag:					N	/leasure	d: 4/18/	2016 4:38	3:14 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		pН	++				Н3 ТВ	
WG4	01560CCV2		Tag:					N	/leasure	d: 4/18/	2016 4:41	1:12 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	5	1		mg/L	++	0.1	0.5			
SREV	CYANIDE	REC	100	1		%	++	0.1	0.5			
WG4	01560CCB2		Tag:					N	/leasure	d: 4/18/	2016 4:44	4:10 PM
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND		1	U	mg/L	++	0.1	0.5			
L299	60-06		Tag:					N	/leasure	d: 4/18/	2016 4:47	7:08 PN
	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
Status		CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
<b>Status</b> SREV	CYANIDE		1	1		рН	++				нз тв	
	CYANIDE PH	PREP	1	•								
SREV	PH	PREP	Tag:					N	<b>l</b> easure	d: 4/18/	2016 4:50	0:06 PN
SREV NEED	PH	PREP Type			Qual	Units	Appv	MDL	leasure PQL	d: 4/18/ Text Value	2016 4:50 Ext Qual	
SREV NEED L299	рн <b>60-07</b>		Tag:		<b>Qual</b> UH	<b>Units</b> mg/L	Appv ++					

Page 3 of 4

L29960-1604191556 Page 28 of 35



L299	60-08		Tag:					M	leasure	d: 4/18/	2016 4:53	3:04 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	CN-THIO		1	UH	mg/L	++	0.1	0.5		H3 RA TB	
NEED	PH	PREP	1	1		рН	++				нз тв	
L299	60-08AS		Tag:					M	leasure	d: 4/18/	2016 4:56	6:02 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	2.57	1		mg/L	++	0.1	0.5			
SREV	CYANIDE	REC	103	1		%	++	0.1	0.5			
L299	60-08DUP		Tag:					M	leasure	d: 4/18/	2016 4:59	9:00 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Арру	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND		1	U	mg/L	++	0.1	0.5			
SREV	CYANIDE	RPD	0	1		%	++	0.1	0.5		RA	
WG4	01560CCV3		Tag:					M	leasure	d: 4/18/	2016 5:0°	1:58 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Арру	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND	5	1		mg/L	++	0.1	0.5			
SREV	CYANIDE	REC	100	1		%	++	0.1	0.5			
WG4	01560CCB3		Tag:					M	leasure	d: 4/18/	2016 5:04	4:56 PN
Status	Parm_Stored	Туре	Value	Dil	Qual	Units	Арру	MDL	PQL	Text Value	Ext Qual	Signal
SREV	CYANIDE	FOUND		1	U	mg/L	++	0.1	0.5			

L29960-1604191556 Page 29 of 35

#### **Apex Laboratories**

Project ID: L29960

#### **Wet Chemistry**

WG401560 Thiocyanate

Sample	Date	SCN	CYANIDE
WG401560ICV	04/18/16 15:30	WC151217-3	X
WG401560ICB	04/18/16 15:32		X
WG401560LFB	04/18/16 15:35	WC151217-7	X
L29915-01	04/18/16 15:38		X
L29915-02	04/18/16 15:41		X
L29915-03	04/18/16 15:44		X
L29915-04	04/18/16 15:47		X
L29915-05	04/18/16 15:50		X
L29915-06	04/18/16 15:53		X
L29915-07	04/18/16 15:56		X
L29915-08	04/18/16 15:59		X
L29915-09	04/18/16 16:02		X
WG401560CCV1	04/18/16 16:05	WC151217-6	X
WG401560CCB1	04/18/16 16:08		X
L29915-10	04/18/16 16:11		X
L29915-10AS	04/18/16 16:14	WC151217-7	X
L29915-10DUP	04/18/16 16:17		X
L29915-11	04/18/16 16:20		X
L29959-04	04/18/16 16:23		X
L29960-01	04/18/16 16:26		X
L29960-02	04/18/16 16:29		X
L29960-03	04/18/16 16:32		X
L29960-04	04/18/16 16:35		X
L29960-05	04/18/16 16:38		X
WG401560CCV2	04/18/16 16:41	WC151217-6	X
WG401560CCB2	04/18/16 16:44		Χ

L29960-1604191556 Page 30 of 35

**Apex Laboratories** 

Project ID: L29960

#### **Wet Chemistry**

WG401560 Thiocyanate

Sample	Date	SCN	CYANIDE
L29960-06	04/18/16 16:47		Χ
L29960-07	04/18/16 16:50		X
L29960-08	04/18/16 16:53		X
L29960-08AS	04/18/16 16:56	WC151217-7	X
L29960-08DUP	04/18/16 16:59		X
WG401560CCV3	04/18/16 17:01	WC151217-6	X
WG401560CCB3	04/18/16 17:04		X

L29960-1604191556 Page 31 of 35



## Sample Receipt

#### **Apex Laboratories**

A6C1124

ACZ Project ID: L29960 Date Received: 04/16/2016 10:48

Received By: ddp

Date Printed: 4/18/2016

YES

YES

#### **Receipt Verification**

- 1) Is a foreign soil permit included for applicable samples?
- 2) Is the Chain of Custody form or other directive shipping papers present?
- 3) Does this project require special handling procedures such as CLP protocol?
- 4) Are any samples NRC licensable material?
- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody form complete and accurate?
- 7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?

		X
Χ		
		Х
		Х
X		
X		
	Χ	

NO

NO

NA

NA

#### Samples/Containers

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

Some parameters were received past hold time.

#### 

#### **Chain of Custody Related Remarks**

#### **Client Contact Remarks**

#### **Shipping Containers**

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
NA23727	3.8	<=6.0	13	N/A

#### 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.



Sample Receipt

**Apex Laboratories** 

A6C1124

ACZ Project ID: L29960
Date Received: 04/16/2016 10:48
Received By: ddp
Date Printed: 4/18/2016

L29960-1604191556 Page 33 of 35

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).

#### SUBCONTRACT ORDER

Apex Laboratories
A6C1124

29960

#### **SENDING LABORATORY:**

Apex Laboratories

12232 S.W. Garden Place

Tigard, OR 97223 Phone: (503) 718-2323 Fax: (503) 718-0333

Project Manager:

Philip Nerenberg

#### **RECEIVING LABORATORY:**

ACZ Laboratories
2773 Downhill Drive

Steamboat Springs, CO 80487

Phone :(800) 334-5493 Fax: (815) 301-3857

Soil Embankmebnt-010 (0-3.5)

Sample Name: 5237-160329-DC-EMB010 Soil Sampled: 03/29/16 10:15 (A6C1124-02) Due **Expires** Comments Analysis Thiocyanate by SPLP/SM 4500 (SUB) 04/12/16 17:00 04/12/16 10:15 Level IV DP needed Sample will be leached in house prior to sending to ACZ Containers Supplied: (C)4 oz Glass Jar

		Soil Embankmebnt-010 (0-3.5)					
Sample Name: 5237-160329-DC-EMB00	5	Soil	Sampled:	03/29/16 10:35	(A6C1124-04)		
Analysis	Due	Expires		Comments			
Thiocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00			Level IV DP needed Sar house prior to sending to			
Containers Supplied:							

		Soil Embankmebnt-010 (0-3.5)				
<b>Sample Name: 5237-160329-DC-EMB0</b>	004	Soil 5	Sampled: 03/29/16 11:1:	5 (A6C1124-06)		
Analysis	Due	Expires	Comments			
Thiocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00	04/12/16 11:15	Level IV DP need house prior to ser	led Sample will be leached in ding to ACZ		

Containers Supplied: (C)4 oz Glass Jar

(C)4 oz Glass Jar

				Soil Emb	ankmebnt-010 (0-3.5)	
•	ple Name: 5237-160329-DC-EMB00	1	Soil	Sampled:	03/29/16 12:00	(A6C1124-08)
	alysis	Due	Expires		Comments	
	ocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00	04/12/16 12:00	)	Level IV DP needed Sam house prior to sending to	1

Containers Supplied: (C)4 oz Glass Jar

Standard TAT

DP

Released By

Date

Received By

4-16-16 1048

Date

#### SUBCONTRACT ORDER

## Apex Laboratories A6C1124



		Soil Embankmebnt-010 (0-3.5)				
Sample Name: 5237-160329-DC-EMB013		Soil	Sampled:	03/29/16 13:15	(A6C1124-10	
Analysis	Due	Expires		Comments		
Thiocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00	04/12/16 13:	15	Level IV DP needed Sam house prior to sending to		
Containers Supplied: (C)4 oz Glass Jar						
			Soil Emb	oankmebnt-010 (0-3.5)		
Sample Name: 5237-160329-DC-EMB014		Soil	Sampled:	03/29/16 13:40	(A6C1124-12)	
Analysis	Due	Expires		Comments		
Thiocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00	04/12/16 13:40		Level IV DP needed Sample will be leached in house prior to sending to ACZ		
Containers Supplied: (C)4 oz Glass Jar						
			Soil Emb	oankmebnt-010 (0-3.5)		
Sample Name: 5237-160329-DC-EMB017		Soil	Sampled:	03/29/16 14:25	(A6C1124-14)	
Analysis	Due	Expires		Comments		
Thiocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00	04/12/16 14:	25	Level IV DP needed Samphouse prior to sending to A		
Containers Supplied: (C)4 oz Glass Jar						
		-	Soil Emb	oankmebnt-010 (0-3.5)		
Sample Name: 5237-160329-DC-EMB020		Soil	Sampled:	03/29/16 15:10	(A6C1124-16)	
Analysis	Due	Expires		Comments		
Thiocyanate by SPLP/SM 4500 (SUB)	04/12/16 17:00	04/12/16 15:	10	Level IV DP needed Samphouse prior to sending to A	-	
Containers Supplied: (C)4 oz Glass Jar						

Refeased By

Released By

HALL Date

Date

Received By

Date

Received By

Doto