



Silver State Labs-Reno
1135 Financial Blvd
Reno, NV 89502
(775) 857-2400 FAX: (888) 398-7002
www.ssalabs.com

December 05, 2018
Workorder 18110712

Jay Flakus
CITY OF YERINGTON
102 South Main Street
Yerington, NV 89447

Project: IOC PH V

Dear Jay Flakus:

It is the policy of Silver State Analytical Laboratory - Reno to strictly adhere to a comprehensive Quality Assurance Plan that ensures the data presented in this report are both accurate and precise. Silver State Analytical Laboratory - Reno maintains accreditation in the State of Nevada (NV-00015) and the State of California (ELAP 2990).

The data presented in this report was obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with an appropriate explanation in the Analysis Report section of the Laboratory Report.

Sincerely,

A handwritten signature in black ink that reads "Carly Wood".

Carly Wood
Laboratory Director
1135 Financial Blvd
Reno, NV 89502



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Analytical Report

Workorder#: 18110712
 Date Reported: 12/5/2018

Client: CITY OF YERINGTON

Sampled By J. Flakus

Project Name: IOC PH V

PO #:

Laboratory Accreditation Number NV015/CA2990

Laboratory ID	Client Sample ID	Date/Time Sampled	Date Received
18110712-01	IOCS PH V	11/14/2018 12:10	11/14/2018

Parameter	Method	Result	Units	MCL	Analyst	Date/Time Analyzed	Data Flag
Antimony	EPA 200.8	<0.001	mg/L	0.006	JF	11/30/2018 2:55	
Beryllium	EPA 200.8	<0.001	mg/L	2	JF	11/30/2018 2:55	
Cyanide, Free	SM 4500 CN-E	< 0.05	mg/L	0.2	LRB	11/19/2018 15:45	
Digestion Turbidity Check	EPA 200.8	< 1.0	NTU		KL	11/15/2018 14:37	
Fluoride	EPA 300.0	0.2	mg/L	4	JF	11/26/2018 23:11	
Nickel	EPA 200.8	0.006	mg/L		JF	11/30/2018 2:55	
Thallium	EPA 200.8	<0.0005	mg/L	0.002	JF	11/30/2018 2:55	

Analysis: Cyanide, Free
Method: SM 4500 CN-E

Batch ID: R23553

Method Blank

RunID: 23553 SeqNo 522186 Units: mg/L
Analysis Date: 11/19/2018 3:45:00 PM Analyst: LRB

Analyte	Result	Rep Limit	Rep Qual
Cyanide, Free	< 0.05	0.05	

Laboratory Control Sample (LCS)

RunID: 23553 SeqNo 522187 Units: mg/L
Analysis Date: 11/19/2018 3:45:00 PM Analyst: LRB

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	LCSD Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Cyanide, Free	0.4000	0.404	101	0.4000	0.381	95.2	5.86	20	70	130	

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18110712-01C

RunID: 23553 SeqNo 522192 Units: mg/L
Analysis Date: 11/19/2018 3:45:00 PM Analyst: LRB

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Cyanide, Free	0	0.2000	0.195	97.5	0.2000	0.181	90.5	7.45	20	70	130	

Analysis: Anions 300.0
Method: EPA 300.0

Batch ID: R23805

Method Blank

RunID: 23805 SeqNo 529408 Units: mg/L
Analysis Date: 10/22/2018 10:12:18 AM Analyst: JF

Analyte	Result	Rep Limit	Rep Qual
Fluoride	< 0.10	0.10	

Laboratory Control Sample (LCS)

RunID: 23805 SeqNo 529411 Units: mg/L
Analysis Date: 10/22/2018 12:55:43 PM Analyst: JF

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	LCSD Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Fluoride	4.000	3.6	90.6								

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18110286-04B

RunID: 23805 SeqNo 529417 Units: mg/L
Analysis Date: 11/26/2018 5:24:07 PM Analyst: JF

Original

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Fluoride	0	100.0	100	99.8	100.0	100	101	0.796	20	90	110	

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18111139-02A

RunID: 23805 SeqNo 529486 Units: mg/L

Analysis Date: 11/28/2018 12:05:51 AM Analyst: JF

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Fluoride	0	10.00	11	105	10.00	11	106	0.909	20	90	110	

Analysis: Metals 200.8

Method: EPA 200.8

Batch ID: R23935

Laboratory Control Sample (LCS)

RunID: 23935 SeqNo 533354 Units: mg/L

Analysis Date: 11/29/2018 9:40:23 PM Analyst: JF

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	LCSD Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Antimony	0.1000	0.098	98.0								
Beryllium	0.1000	0.10	102								
Nickel	0.1000	0.11	106								
Thallium	0.1000	0.11	107								

Laboratory Control Sample (LCS)

RunID: 23935 SeqNo 533394 Units: mg/L

Analysis Date: 11/30/2018 2:48:39 AM Analyst: JF

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	LCSD Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Antimony	0.1000	0.11	107								
Beryllium	0.1000	0.10	101								
Nickel	0.1000	0.11	108								
Thallium	0.1000	0.10	101								

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18110686-01B

RunID: 23935 SeqNo 533384 Units: mg/L

Analysis Date: 11/30/2018 12:55:52 AM Analyst: JF

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Antimony	0007892	0.2000	0.20	102	0.2000	0.21	104	1.93	20	70	130	
Beryllium	0	0.2000	0.21	106	0.2000	0.21	107	1.44	20	70	130	
Nickel	0008444	0.2000	0.20	102	0.2000	0.21	105	2.83	20	70	130	

Original



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Quality Control Report

WO#: 18110712
12/5/2018

Thallium	0	0.2000	0.20	99.6	0.2000	0.20	100	0.545	20	70	130	
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SilverState
Analytical Laboratories

Sierra Environmental Monitoring
EnviroTech

ssalabs.com sem-analytical.com envirotechonline.com

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18110712
1135 FINANCIAL BOULEVARD, RENO, NV 89502
Phone (775) 857-2400 Fax: (888) 398-7002 (EPA# NV00015, CA2526)

CHAIN-OF-CUSTODY-RECORD

Report Results To:

Report Attention: Jay Flakus, Public Works Director
Project Number:
Company: City of Yerington Nevada - Public Works
Mailing Address: 102 S Main Street
City, State, Zip: Yerington, NV 89447
Phone: 775-302-1155

Send Invoice To:

Invoice Attention: Jay Flakus
PO# OPEN
Quote #
Company: City of Yerington Nevada - Public Works
Mailing Address: 102 S Main Street
City, State, Zip: Yerington, NV 89447
Phone: 775-302-1155

COMPPLIANCE MONITORING? Yes No
NEW ADDRESS? Results: Invoice:
Applicable Program SDWA CWA RCRA
Mining Other

Sampled by: Sa Flakus
Signature:

Other Pertinent Information / Special Instructions
18024
GC

QC Level Report II
Send Results Via: Mail Email Fax
Send Invoice Via: Mail Email Fax

Standard: Standard TAT 7-10 Business Days. Note that some tests vary.
Rush Same Day: 3 Day: Other (specify):
1 Day: 4 Day: Rush results will be issued after 4:00 p.m.
2 Day: 5 Day:
NOTE: A Rush Surcharge is applied for rush samples

Date Sampled	Time Sampled	Sample Identification	SSAL - SEM Lab No.	Comp. Grab	Matrix	Preservative**	Number / Type of Containers ***	Field Measurements
11/14/18	1210	IOCS PH U		G	DW	?	X FLOURIDE IOCS X CYANIDE IOCS X IOCS IV	On-Site pH: Temperature: Chlorine: Other:

Relinquished By: Signature: _____ Print Name: Sa Flakus
Received By: Signature: _____ Print Name: Jessy Cochran
Relinquished By: Signature: _____ Print Name: Jessy Cochran
Received By: Signature: _____ Print Name: Sa Flakus
Relinquished By: _____ Signature: _____ Print Name: _____
Received By: _____ Signature: _____ Print Name: _____
Authorized By: Signature: _____ Print Name: Jay Flakus, Public Works Director

Authorization is required to process samples. This obligates your organization for service fees. SSAL Standard T & C's or other written agreement applies. If collections or legal services are required to recover said fees, your organization will be responsible for all fees and costs in addition to service fees.

Matrix* DW=Drinking Water, WW=Waste Water, GW=Ground Water, SW=Surface Water, SS=Soil, S-Solid, OT=Other
Preservative** 1=H₂SO₄, 2=HNO₃, 3=HCl, 4=NaOH, 5=Na₂S₂O₃, 6=None, 7=Other

COYPM SDW SAMPLE COC 2018
18024

Arrangements are made and storage fees may apply. Samples as they are received by the laboratory.



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Definitions & Qualifiers

WO#: 18110712

Date: 12/5/2018

Definitions:

LCS: Laboratory Control Sample; prepared by adding a known mass of target analytes to a specified amount of de-ionized water and prepared with the batch of samples, used to calculate Accuracy (%REC).

LCSD: LCS Duplicate; used to calculate both Accuracy (%REC) and Precision (%RPD)

MBLK: Method Blank; a sample of similar matrix that is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses.

MS: Matrix Spike; prepared by adding a known mass of target analytes to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available, used to calculate Accuracy (%REC)

MSD: Matrix Spike Duplicate; used to calculate both Accuracy (%REC) and Precision (%RPD)

RPD: Relative Percent Difference; comparison between sample and duplicate and/or MS and MSD.

PQL: Practical Quantitation Limit; the limit to which data is quantitated for reporting.

MDL: Method Detection Limit; the limit to which the instrument can reliably detect.

MCL: Maximum Contaminant Level; value set according to EPA guidelines.

Qualifiers:

* - Analyte exceeds Safe Drinking Water Act MCL, does not meet drinking water standards.

C - Analyte value below Safe Drinking Water Act MCL, does not meet drinking water standards.

B - Analyte found above the PQL in associated method blank.

G - Calibration blank analyte detected above PQL.

H - Sample analyzed beyond holding time for this parameter.

J - Estimated Value; Analyte found between MDL and PQL limits.

L - Sample concentration is at least 5 times greater than spike contribution. Spike recovery criteria do not apply.

R - RPD between sample and duplicate sample outside the RPD acceptance limits.

S - Batch MS and/or MSD were outside acceptance limits, batch LCS was acceptable.

W - Sample temperature when received was out of limit as specified by method.