

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
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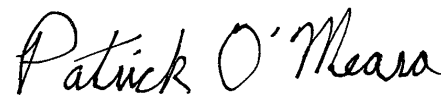
Laboratory Job ID: 240-123968-1

Client Project/Site: Satralloy Industrial SWPPP

For:

Golder Associates Inc.
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Suite 126-D
Columbus, Ohio 43215

Attn: Mr. Bob Ireson



Authorized for release by:

12/26/2019 4:37:22 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Job ID: 240-123968-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: Golder Associates Inc.

Project: Satralloy Industrial SWPPP

Report Number: 240-123968-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 12/17/2019 5:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

TOTAL RECOVERABLE METALS (ICPMS)

Samples FD (240-123968-1), DS01 (240-123968-2), ISWP-001 (GC-01D) (240-123968-3), ISWP-002 (GC-02D) (240-123968-4), ISWP-003 (GC-03D) (240-123968-5), ISWP-004 (GC-04D) (240-123968-6), ISWP-005 (GC-05D) (240-123968-7), ISWP-006 (GC-06D) (240-123968-8), ISWP-007 (GC-09D) (240-123968-9), ISWP-009 (GC-11D) (240-123968-10) and US01 (240-123968-11) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 12/19/2019 and analyzed on 12/20/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples FD (240-123968-1), DS01 (240-123968-2), ISWP-001 (GC-01D) (240-123968-3), ISWP-002 (GC-02D) (240-123968-4), ISWP-003 (GC-03D) (240-123968-5), ISWP-004 (GC-04D) (240-123968-6), ISWP-005 (GC-05D) (240-123968-7), ISWP-006 (GC-06D) (240-123968-8), ISWP-007 (GC-09D) (240-123968-9), ISWP-009 (GC-11D) (240-123968-10) and US01 (240-123968-11) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 12/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Case Narrative

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Job ID: 240-123968-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

TOTAL SUSPENDED SOLIDS

Samples FD (240-123968-1), DS01 (240-123968-2), ISWP-001 (GC-01D) (240-123968-3), ISWP-002 (GC-02D) (240-123968-4), ISWP-003 (GC-03D) (240-123968-5), ISWP-004 (GC-04D) (240-123968-6), ISWP-005 (GC-05D) (240-123968-7), ISWP-006 (GC-06D) (240-123968-8), ISWP-007 (GC-09D) (240-123968-9), ISWP-009 (GC-11D) (240-123968-10) and US01 (240-123968-11) were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/19/2019 and 12/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Samples FD (240-123968-1), DS01 (240-123968-2), ISWP-001 (GC-01D) (240-123968-3), ISWP-002 (GC-02D) (240-123968-4), ISWP-003 (GC-03D) (240-123968-5), ISWP-004 (GC-04D) (240-123968-6), ISWP-005 (GC-05D) (240-123968-7), ISWP-006 (GC-06D) (240-123968-8), ISWP-007 (GC-09D) (240-123968-9), ISWP-009 (GC-11D) (240-123968-10) and US01 (240-123968-11) were analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 12/18/2019.

Filtration through a 0.45um filter within 15 minutes of sampling is required for CWA reporting of hexavalent chromium to prevent interconversion of chromium species.

Samples ISWP-003 (GC-03D) (240-123968-5)[2X] and ISWP-004 (GC-04D) (240-123968-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH

Samples FD (240-123968-1), DS01 (240-123968-2), ISWP-001 (GC-01D) (240-123968-3), ISWP-002 (GC-02D) (240-123968-4), ISWP-003 (GC-03D) (240-123968-5), ISWP-004 (GC-04D) (240-123968-6), ISWP-005 (GC-05D) (240-123968-7), ISWP-006 (GC-06D) (240-123968-8), ISWP-007 (GC-09D) (240-123968-9), ISWP-009 (GC-11D) (240-123968-10) and US01 (240-123968-11) were analyzed for pH in accordance with SM 4500 H+ B. The samples were analyzed on 12/18/2019.

The pH for the following samples were outside the instrument calibration range of 2 to 12: ISWP-002 (GC-02D) (240-123968-4), ISWP-003 (GC-03D) (240-123968-5) and ISWP-009 (GC-11D) (240-123968-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL CAN
3500-Cr B-2009	Chromium, Hexavalent	SM	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 4500 H+ B	pH	SM	TAL CAN
200.8	Preparation, Total Recoverable Metals	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-123968-1	FD	Water	12/17/19 00:00	12/17/19 17:05	
240-123968-2	DS01	Water	12/17/19 14:30	12/17/19 17:05	
240-123968-3	ISWP-001 (GC-01D)	Water	12/17/19 14:21	12/17/19 17:05	
240-123968-4	ISWP-002 (GC-02D)	Water	12/17/19 14:15	12/17/19 17:05	
240-123968-5	ISWP-003 (GC-03D)	Water	12/17/19 14:10	12/17/19 17:05	
240-123968-6	ISWP-004 (GC-04D)	Water	12/17/19 13:59	12/17/19 17:05	
240-123968-7	ISWP-005 (GC-05D)	Water	12/17/19 13:53	12/17/19 17:05	
240-123968-8	ISWP-006 (GC-06D)	Water	12/17/19 13:45	12/17/19 17:05	
240-123968-9	ISWP-007 (GC-09D)	Water	12/17/19 13:35	12/17/19 17:05	
240-123968-10	ISWP-009 (GC-11D)	Water	12/17/19 13:15	12/17/19 17:05	
240-123968-11	US01	Water	12/17/19 13:00	12/17/19 17:05	

Detection Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: FD

Lab Sample ID: 240-123968-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	390		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.42	H	0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	500		10	7.8	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	47		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	9.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DS01

Lab Sample ID: 240-123968-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.4		2.0	0.98	ug/L	1		200.8	Total Recoverable
Total Dissolved Solids	520		10	7.8	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	10		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	8.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-001 (GC-01D)

Lab Sample ID: 240-123968-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	46		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.041		0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	1100		10	7.8	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	8.0		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	8.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-002 (GC-02D)

Lab Sample ID: 240-123968-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	240		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.26		0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	540		20	16	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	15		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	12.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-003 (GC-03D)

Lab Sample ID: 240-123968-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	510		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.62		0.040	0.014	mg/L	2		3500-Cr B-2009	Total/NA
Total Dissolved Solids	1300		50	39	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	5.0		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	12.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-004 (GC-04D)

Lab Sample ID: 240-123968-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	470		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.55		0.040	0.014	mg/L	2		3500-Cr B-2009	Total/NA
Total Dissolved Solids	1100		20	16	mg/L	1		SM 2540C	Total/NA
pH	11.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Detection Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-005 (GC-05D)

Lab Sample ID: 240-123968-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	380		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.44		0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	500		10	7.8	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	73		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	9.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-006 (GC-06D)

Lab Sample ID: 240-123968-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	46		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.034		0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	220		10	7.8	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	3.0	J	4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	8.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-007 (GC-09D)

Lab Sample ID: 240-123968-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	240		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.23		0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	260		10	7.8	mg/L	1		SM 2540C	Total/NA
pH	9.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: ISWP-009 (GC-11D)

Lab Sample ID: 240-123968-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	270		2.0	0.98	ug/L	1		200.8	Total Recoverable
Cr (VI)	0.27		0.020	0.0070	mg/L	1		3500-Cr B-2009	Total/NA
Total Dissolved Solids	400		20	16	mg/L	1		SM 2540C	Total/NA
pH	12.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: US01

Lab Sample ID: 240-123968-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	340		10	7.8	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	11		4.0	2.2	mg/L	1		SM 2540D	Total/NA
pH	8.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: FD

Lab Sample ID: 240-123968-1

Date Collected: 12/17/19 00:00

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	390		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 18:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.42	H	0.020	0.0070	mg/L			12/18/19 10:04	1
Total Dissolved Solids	500		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	47		4.0	2.2	mg/L			12/19/19 13:09	1
pH	9.2	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: DS01

Lab Sample ID: 240-123968-2

Date Collected: 12/17/19 14:30

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.4		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 19:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0070		0.020	0.0070	mg/L			12/18/19 10:02	1
Total Dissolved Solids	520		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	10		4.0	2.2	mg/L			12/19/19 13:09	1
pH	8.4	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-001 (GC-01D)

Lab Sample ID: 240-123968-3

Date Collected: 12/17/19 14:21

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	46		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 19:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.041		0.020	0.0070	mg/L			12/18/19 10:01	1
Total Dissolved Solids	1100		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	8.0		4.0	2.2	mg/L			12/19/19 13:09	1
pH	8.0	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-002 (GC-02D)

Lab Sample ID: 240-123968-4

Date Collected: 12/17/19 14:15

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	240		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 19:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.26		0.020	0.0070	mg/L			12/18/19 09:55	1
Total Dissolved Solids	540		20	16	mg/L			12/23/19 09:05	1
Total Suspended Solids	15		4.0	2.2	mg/L			12/19/19 13:09	1
pH	12.3	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-003 (GC-03D)

Lab Sample ID: 240-123968-5

Date Collected: 12/17/19 14:10

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	510		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 19:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.62		0.040	0.014	mg/L			12/18/19 09:54	2
Total Dissolved Solids	1300		50	39	mg/L			12/23/19 09:05	1
Total Suspended Solids	5.0		4.0	2.2	mg/L			12/19/19 13:09	1
pH	12.6	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-004 (GC-04D)

Lab Sample ID: 240-123968-6

Date Collected: 12/17/19 13:59

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	470		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 19:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.55		0.040	0.014	mg/L			12/18/19 09:43	2
Total Dissolved Solids	1100		20	16	mg/L			12/23/19 09:05	1
Total Suspended Solids	<2.2		4.0	2.2	mg/L			12/19/19 13:09	1
pH	11.5	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-005 (GC-05D)

Lab Sample ID: 240-123968-7

Date Collected: 12/17/19 13:53

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	380		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 19:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.44		0.020	0.0070	mg/L			12/18/19 09:52	1
Total Dissolved Solids	500		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	73		4.0	2.2	mg/L			12/19/19 13:09	1
pH	9.1	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-006 (GC-06D)

Lab Sample ID: 240-123968-8

Date Collected: 12/17/19 13:45

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	46		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 20:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.034		0.020	0.0070	mg/L			12/18/19 09:50	1
Total Dissolved Solids	220		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	3.0	J	4.0	2.2	mg/L			12/19/19 13:09	1
pH	8.4	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-007 (GC-09D)

Lab Sample ID: 240-123968-9

Date Collected: 12/17/19 13:35

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	240		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 20:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.23		0.020	0.0070	mg/L			12/18/19 09:48	1
Total Dissolved Solids	260		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	<2.2		4.0	2.2	mg/L			12/23/19 11:21	1
pH	9.0	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-009 (GC-11D)

Lab Sample ID: 240-123968-10

Date Collected: 12/17/19 13:15

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	270		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 20:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.27		0.020	0.0070	mg/L			12/18/19 09:41	1
Total Dissolved Solids	400		20	16	mg/L			12/23/19 09:05	1
Total Suspended Solids	<2.2		4.0	2.2	mg/L			12/23/19 11:21	1
pH	12.2	HF	0.1	0.1	SU			12/18/19 13:29	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: US01

Lab Sample ID: 240-123968-11

Date Collected: 12/17/19 13:00

Matrix: Water

Date Received: 12/17/19 17:05

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.98		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0070		0.020	0.0070	mg/L			12/18/19 09:39	1
Total Dissolved Solids	340		10	7.8	mg/L			12/23/19 09:05	1
Total Suspended Solids	11		4.0	2.2	mg/L			12/23/19 11:21	1
pH	8.3	HF	0.1	0.1	SU			12/18/19 13:29	1

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 240-416387/1-A
Matrix: Water
Analysis Batch: 416840

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 416387

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.98		2.0	0.98	ug/L		12/19/19 14:00	12/20/19 18:51	1

Lab Sample ID: LCS 240-416387/2-A
Matrix: Water
Analysis Batch: 416840

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 416387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	500	471		ug/L		94	85 - 115

Lab Sample ID: 240-123968-1 MS
Matrix: Water
Analysis Batch: 416840

Client Sample ID: FD
Prep Type: Total Recoverable
Prep Batch: 416387

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	390		500	862		ug/L		94	70 - 130

Lab Sample ID: 240-123968-1 MSD
Matrix: Water
Analysis Batch: 416840

Client Sample ID: FD
Prep Type: Total Recoverable
Prep Batch: 416387

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chromium	390		500	882		ug/L		98	70 - 130	2	20

Lab Sample ID: 240-123968-2 MS
Matrix: Water
Analysis Batch: 416840

Client Sample ID: DS01
Prep Type: Total Recoverable
Prep Batch: 416387

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	2.4		500	487		ug/L		97	70 - 130

Lab Sample ID: 240-123968-2 MSD
Matrix: Water
Analysis Batch: 416840

Client Sample ID: DS01
Prep Type: Total Recoverable
Prep Batch: 416387

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chromium	2.4		500	472		ug/L		94	70 - 130	3	20

Method: 3500-Cr B-2009 - Chromium, Hexavalent

Lab Sample ID: MB 240-416145/3
Matrix: Water
Analysis Batch: 416145

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0070		0.020	0.0070	mg/L			12/18/19 09:27	1

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QC Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Method: 3500-Cr B-2009 - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 240-416145/4

Matrix: Water

Analysis Batch: 416145

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.305		mg/L		122	80 - 123

Lab Sample ID: 240-123968-4 MS

Matrix: Water

Analysis Batch: 416145

Client Sample ID: ISWP-002 (GC-02D)

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.26		0.250	0.509		mg/L		100	31 - 151

Lab Sample ID: 240-123968-4 MSD

Matrix: Water

Analysis Batch: 416145

Client Sample ID: ISWP-002 (GC-02D)

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.26		0.250	0.507		mg/L		99	31 - 151	1	20

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

Lab Sample ID: MB 240-416860/1

Matrix: Water

Analysis Batch: 416860

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<7.8		10	7.8	mg/L			12/23/19 09:05	1

Lab Sample ID: LCS 240-416860/2

Matrix: Water

Analysis Batch: 416860

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	718	680		mg/L		95	80 - 120

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-416437/1

Matrix: Water

Analysis Batch: 416437

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.2		4.0	2.2	mg/L			12/19/19 13:09	1

Lab Sample ID: LCS 240-416437/2

Matrix: Water

Analysis Batch: 416437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	44.1	42.0		mg/L		95	64 - 120

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QC Sample Results

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: MB 240-416908/1
Matrix: Water
Analysis Batch: 416908

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.2		4.0	2.2	mg/L			12/23/19 11:21	1

Lab Sample ID: LCS 240-416908/2
Matrix: Water
Analysis Batch: 416908

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	44.1	40.0		mg/L		91	64 - 120

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 240-416193/2
Matrix: Water
Analysis Batch: 416193

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	6.00	6.1		SU		102	97 - 103

Lab Sample ID: 240-123968-6 DU
Matrix: Water
Analysis Batch: 416193

Client Sample ID: ISWP-004 (GC-04D)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	11.5	HF	11.5		SU		0.3	20

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Metals

Prep Batch: 416387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-1	FD	Total Recoverable	Water	200.8	
240-123968-2	DS01	Total Recoverable	Water	200.8	
240-123968-3	ISWP-001 (GC-01D)	Total Recoverable	Water	200.8	
240-123968-4	ISWP-002 (GC-02D)	Total Recoverable	Water	200.8	
240-123968-5	ISWP-003 (GC-03D)	Total Recoverable	Water	200.8	
240-123968-6	ISWP-004 (GC-04D)	Total Recoverable	Water	200.8	
240-123968-7	ISWP-005 (GC-05D)	Total Recoverable	Water	200.8	
240-123968-8	ISWP-006 (GC-06D)	Total Recoverable	Water	200.8	
240-123968-9	ISWP-007 (GC-09D)	Total Recoverable	Water	200.8	
240-123968-10	ISWP-009 (GC-11D)	Total Recoverable	Water	200.8	
240-123968-11	US01	Total Recoverable	Water	200.8	
MB 240-416387/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 240-416387/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
240-123968-1 MS	FD	Total Recoverable	Water	200.8	
240-123968-1 MSD	FD	Total Recoverable	Water	200.8	
240-123968-2 MS	DS01	Total Recoverable	Water	200.8	
240-123968-2 MSD	DS01	Total Recoverable	Water	200.8	

Analysis Batch: 416840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-1	FD	Total Recoverable	Water	200.8	416387
240-123968-2	DS01	Total Recoverable	Water	200.8	416387
240-123968-3	ISWP-001 (GC-01D)	Total Recoverable	Water	200.8	416387
240-123968-4	ISWP-002 (GC-02D)	Total Recoverable	Water	200.8	416387
240-123968-5	ISWP-003 (GC-03D)	Total Recoverable	Water	200.8	416387
240-123968-6	ISWP-004 (GC-04D)	Total Recoverable	Water	200.8	416387
240-123968-7	ISWP-005 (GC-05D)	Total Recoverable	Water	200.8	416387
240-123968-8	ISWP-006 (GC-06D)	Total Recoverable	Water	200.8	416387
240-123968-9	ISWP-007 (GC-09D)	Total Recoverable	Water	200.8	416387
240-123968-10	ISWP-009 (GC-11D)	Total Recoverable	Water	200.8	416387
240-123968-11	US01	Total Recoverable	Water	200.8	416387
MB 240-416387/1-A	Method Blank	Total Recoverable	Water	200.8	416387
LCS 240-416387/2-A	Lab Control Sample	Total Recoverable	Water	200.8	416387
240-123968-1 MS	FD	Total Recoverable	Water	200.8	416387
240-123968-1 MSD	FD	Total Recoverable	Water	200.8	416387
240-123968-2 MS	DS01	Total Recoverable	Water	200.8	416387
240-123968-2 MSD	DS01	Total Recoverable	Water	200.8	416387

General Chemistry

Analysis Batch: 416145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-1	FD	Total/NA	Water	3500-Cr B-2009	
240-123968-2	DS01	Total/NA	Water	3500-Cr B-2009	
240-123968-3	ISWP-001 (GC-01D)	Total/NA	Water	3500-Cr B-2009	
240-123968-4	ISWP-002 (GC-02D)	Total/NA	Water	3500-Cr B-2009	
240-123968-5	ISWP-003 (GC-03D)	Total/NA	Water	3500-Cr B-2009	
240-123968-6	ISWP-004 (GC-04D)	Total/NA	Water	3500-Cr B-2009	
240-123968-7	ISWP-005 (GC-05D)	Total/NA	Water	3500-Cr B-2009	
240-123968-8	ISWP-006 (GC-06D)	Total/NA	Water	3500-Cr B-2009	
240-123968-9	ISWP-007 (GC-09D)	Total/NA	Water	3500-Cr B-2009	

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QC Association Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

General Chemistry (Continued)

Analysis Batch: 416145 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-10	ISWP-009 (GC-11D)	Total/NA	Water	3500-Cr B-2009	
240-123968-11	US01	Total/NA	Water	3500-Cr B-2009	
MB 240-416145/3	Method Blank	Total/NA	Water	3500-Cr B-2009	
LCS 240-416145/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2009	
240-123968-4 MS	ISWP-002 (GC-02D)	Total/NA	Water	3500-Cr B-2009	
240-123968-4 MSD	ISWP-002 (GC-02D)	Total/NA	Water	3500-Cr B-2009	

Analysis Batch: 416193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-1	FD	Total/NA	Water	SM 4500 H+ B	
240-123968-2	DS01	Total/NA	Water	SM 4500 H+ B	
240-123968-3	ISWP-001 (GC-01D)	Total/NA	Water	SM 4500 H+ B	
240-123968-4	ISWP-002 (GC-02D)	Total/NA	Water	SM 4500 H+ B	
240-123968-5	ISWP-003 (GC-03D)	Total/NA	Water	SM 4500 H+ B	
240-123968-6	ISWP-004 (GC-04D)	Total/NA	Water	SM 4500 H+ B	
240-123968-7	ISWP-005 (GC-05D)	Total/NA	Water	SM 4500 H+ B	
240-123968-8	ISWP-006 (GC-06D)	Total/NA	Water	SM 4500 H+ B	
240-123968-9	ISWP-007 (GC-09D)	Total/NA	Water	SM 4500 H+ B	
240-123968-10	ISWP-009 (GC-11D)	Total/NA	Water	SM 4500 H+ B	
240-123968-11	US01	Total/NA	Water	SM 4500 H+ B	
LCS 240-416193/2	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
240-123968-6 DU	ISWP-004 (GC-04D)	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 416437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-1	FD	Total/NA	Water	SM 2540D	
240-123968-2	DS01	Total/NA	Water	SM 2540D	
240-123968-3	ISWP-001 (GC-01D)	Total/NA	Water	SM 2540D	
240-123968-4	ISWP-002 (GC-02D)	Total/NA	Water	SM 2540D	
240-123968-5	ISWP-003 (GC-03D)	Total/NA	Water	SM 2540D	
240-123968-6	ISWP-004 (GC-04D)	Total/NA	Water	SM 2540D	
240-123968-7	ISWP-005 (GC-05D)	Total/NA	Water	SM 2540D	
240-123968-8	ISWP-006 (GC-06D)	Total/NA	Water	SM 2540D	
MB 240-416437/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-416437/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 416860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-1	FD	Total/NA	Water	SM 2540C	
240-123968-2	DS01	Total/NA	Water	SM 2540C	
240-123968-3	ISWP-001 (GC-01D)	Total/NA	Water	SM 2540C	
240-123968-4	ISWP-002 (GC-02D)	Total/NA	Water	SM 2540C	
240-123968-5	ISWP-003 (GC-03D)	Total/NA	Water	SM 2540C	
240-123968-6	ISWP-004 (GC-04D)	Total/NA	Water	SM 2540C	
240-123968-7	ISWP-005 (GC-05D)	Total/NA	Water	SM 2540C	
240-123968-8	ISWP-006 (GC-06D)	Total/NA	Water	SM 2540C	
240-123968-9	ISWP-007 (GC-09D)	Total/NA	Water	SM 2540C	
240-123968-10	ISWP-009 (GC-11D)	Total/NA	Water	SM 2540C	
240-123968-11	US01	Total/NA	Water	SM 2540C	
MB 240-416860/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-416860/2	Lab Control Sample	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

General Chemistry

Analysis Batch: 416908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-123968-9	ISWP-007 (GC-09D)	Total/NA	Water	SM 2540D	
240-123968-10	ISWP-009 (GC-11D)	Total/NA	Water	SM 2540D	
240-123968-11	US01	Total/NA	Water	SM 2540D	
MB 240-416908/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-416908/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: FD

Date Collected: 12/17/19 00:00

Date Received: 12/17/19 17:05

Lab Sample ID: 240-123968-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 18:59	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 10:04	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: DS01

Date Collected: 12/17/19 14:30

Date Received: 12/17/19 17:05

Lab Sample ID: 240-123968-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 19:20	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 10:02	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: ISWP-001 (GC-01D)

Date Collected: 12/17/19 14:21

Date Received: 12/17/19 17:05

Lab Sample ID: 240-123968-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 19:41	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 10:01	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: ISWP-002 (GC-02D)

Date Collected: 12/17/19 14:15

Date Received: 12/17/19 17:05

Lab Sample ID: 240-123968-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 19:45	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 09:55	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Eurofins TestAmerica, Canton

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-003 (GC-03D)

Lab Sample ID: 240-123968-5

Date Collected: 12/17/19 14:10

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 19:50	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		2	416145	12/18/19 09:54	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: ISWP-004 (GC-04D)

Lab Sample ID: 240-123968-6

Date Collected: 12/17/19 13:59

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 19:54	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		2	416145	12/18/19 09:43	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: ISWP-005 (GC-05D)

Lab Sample ID: 240-123968-7

Date Collected: 12/17/19 13:53

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 19:58	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 09:52	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: ISWP-006 (GC-06D)

Lab Sample ID: 240-123968-8

Date Collected: 12/17/19 13:45

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 20:02	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 09:50	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416437	12/19/19 13:09	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Eurofins TestAmerica, Canton

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Client Sample ID: ISWP-007 (GC-09D)

Lab Sample ID: 240-123968-9

Date Collected: 12/17/19 13:35

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 20:07	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 09:48	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416908	12/23/19 11:21	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: ISWP-009 (GC-11D)

Lab Sample ID: 240-123968-10

Date Collected: 12/17/19 13:15

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 20:11	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 09:41	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416908	12/23/19 11:21	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Client Sample ID: US01

Lab Sample ID: 240-123968-11

Date Collected: 12/17/19 13:00

Matrix: Water

Date Received: 12/17/19 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			416387	12/19/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.8		1	416840	12/20/19 20:15	DTN	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	416145	12/18/19 09:39	JMR	TAL CAN
Total/NA	Analysis	SM 2540C		1	416860	12/23/19 09:05	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	416908	12/23/19 11:21	JMR	TAL CAN
Total/NA	Analysis	SM 4500 H+ B		1	416193	12/18/19 13:29	JR	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

Client: Golder Associates Inc.
Project/Site: Satralloy Industrial SWPPP

Job ID: 240-123968-1

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-20
West Virginia DEP	State	210	12-31-19

1.7/02.4

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify) _____						Special Instructions/QC Requirements:					
Empty Kit Relinquished by: _____						Time: _____ Method of Shipment: _____					
Relinquished by: <i>Dickson Blanner</i>						Requested by: _____ Date/Time: 12/17/19 @ 1705 Company: GOJOLER					
Relinquished by: _____						Received by: _____ Date/Time: _____ Company: _____					
Relinquished by: _____						Received by: _____ Date/Time: _____ Company: _____					
Custody Seal No.: _____						Cooler Temperature(s) °C and Other Remarks: _____					
Custody Seals Intact: A Yes A No											

Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 123968

Canton Facility

Client Golden Associates

Site Name _____

Cooler unpacked by: _____

Cooler Received on 12-17-19Opened on 12-18-19FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time

Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____Packing material used: Bubble Wrap Foam Plastic Bag None Other _____COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
 IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 17 °C Corrected Cooler Temp. 24 °C
 IR GUN #IR-11 (CF +0.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 0 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
 If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC995364
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes  Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) 1ea 250 mL GC03D were further preserved in the laboratory.Time preserved: 0745 Preservative(s) added/Lot number(s): HNO₃/ 221803

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
FD	240-123968-A-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
DS01	240-123968-A-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-001 (GC-01D)	240-123968-A-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-002 (GC-02D)	240-123968-A-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-003 (GC-03D)	240-123968-A-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-004 (GC-04D)	240-123968-A-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-005 (GC-05D)	240-123968-A-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-006 (GC-06D)	240-123968-A-8	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-007 (GC-09D)	240-123968-A-9	Plastic 500ml - with Nitric Acid	<2	_____	_____
ISWP-009 (GC-11D)	240-123968-A-10	Plastic 500ml - with Nitric Acid	<2	_____	_____
US01	240-123968-A-11	Plastic 500ml - with Nitric Acid	<2	_____	_____