

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits/

Service Request: K1902735

Sample Name: MW-14B
Lab Code: K1902735-003
Sample Matrix: Water

Date Collected: 03/26/19
Date Received: 03/29/19

Analysis Method
PFC/537M

Extracted/Digested By
KPETERSEN

Analyzed By
CMULLER

Sample Name: MW-14B
Lab Code: K1902735-003.R01
Sample Matrix: Water

Date Collected: 03/26/19
Date Received: 03/29/19

Analysis Method
PFC/537M

Extracted/Digested By
KPETERSEN

Analyzed By
CMULLER

Sample Name: MW-14B
Lab Code: K1902735-003.R02
Sample Matrix: Water

Date Collected: 03/26/19
Date Received: 03/29/19

Analysis Method
PFC/537M

Extracted/Digested By
KPETERSEN

Analyzed By
CMULLER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Organic Compounds by HPLC

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits
Sample Matrix: Water

Service Request: K1902735
Date Collected: 03/26/19
Date Received: 03/29/19 09:30

Sample Name: MW-13A
Lab Code: K1902735-001

Units: ng/L
Basis: NA

Perfluorinated Sulfonic Acids and Perfluorinated Carboxylic Acids by HPLC/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorooctane sulfonic acid (PFOS)	480	4.2	1	04/03/19 16:30	4/1/19	
Perfluoroalkane Carboxylic Acids						
Perfluorooctanoic acid (PFOA)	60	1.7	1	04/03/19 16:30	4/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFOS	97	25 - 121	04/03/19 16:30	
13C4-PFOA	87	22 - 130	04/03/19 16:30	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits
Sample Matrix: Water

Service Request: K1902735
Date Collected: 03/26/19
Date Received: 03/29/19 09:30

Sample Name: MW-13B
Lab Code: K1902735-002

Units: ng/L
Basis: NA

Perfluorinated Sulfonic Acids and Perfluorinated Carboxylic Acids by HPLC/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorooctane sulfonic acid (PFOS)	5200	420	100	04/08/19 12:37	4/1/19	
Perfluoroalkane Carboxylic Acids						
Perfluorooctanoic acid (PFOA)	1100	17	10	04/08/19 12:27	4/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFOS	87	25 - 121	04/08/19 12:37	
13C4-PFOA	86	22 - 130	04/08/19 12:27	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits
Sample Matrix: Water

Service Request: K1902735
Date Collected: 03/26/19
Date Received: 03/29/19 09:30

Sample Name: MW-14B
Lab Code: K1902735-003

Units: ng/L
Basis: NA

Perfluorinated Sulfonic Acids and Perfluorinated Carboxylic Acids by HPLC/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorooctane sulfonic acid (PFOS)	860	43	10	04/08/19 12:48	4/1/19	
Perfluoroalkane Carboxylic Acids						
Perfluorooctanoic acid (PFOA)	230	1.7	1	04/03/19 16:51	4/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFOS	91	25 - 121	04/08/19 12:48	
13C4-PFOA	85	22 - 130	04/03/19 16:51	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Organic Compounds by HPLC

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits
Sample Matrix: Water

Service Request: K1902735

SURROGATE RECOVERY SUMMARY

Perfluorinated Sulfonic Acids and Perfluorinated Carboxylic Acids by HPLC/MS

Analysis Method: PFC/537M
Extraction Method: EPA 3535A

Sample Name	Lab Code	13C4-PFOS	13C4-PFOA
		25-121	22-130
MW-13A	K1902735-001	97	87
MW-13B	K1902735-002	87	86
MW-14B	K1902735-003	91	85
Method Blank	KQ1904177-04	93	80
Lab Control Sample	KQ1904177-03	90	82

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits
Sample Matrix: Water

Service Request: K1902735
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1904177-04

Units: ng/L
Basis: NA

Perfluorinated Sulfonic Acids and Perfluorinated Carboxylic Acids by HPLC/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorooctane sulfonic acid (PFOS)	ND U	5.0	1	04/03/19 14:04	4/1/19	
Perfluoroalkane Carboxylic Acids						
Perfluorooctanoic acid (PFOA)	ND U	2.0	1	04/03/19 14:04	4/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFOS	93	25 - 121	04/03/19 14:04	
13C4-PFOA	80	22 - 130	04/03/19 14:04	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Spokane Environmental Solutions, LLC
Project: Burn Pits
Sample Matrix: Water

Service Request: K1902735
Date Analyzed: 04/03/19
Date Extracted: 04/01/19

Lab Control Sample Summary

Perfluorinated Sulfonic Acids and Perfluorinated Carboxylic Acids by HPLC/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Units: ng/L
Basis: NA
Analysis Lot: 630513

Lab Control Sample
KQ1904177-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Perfluorooctane sulfonic acid (PFOS)	35.0	29.7	118	71-139
Perfluorooctanoic acid (PFOA)	42.7	32.0	133	74-146

ANALYTICAL REPORT

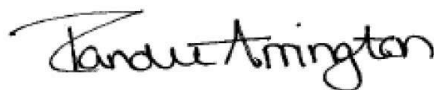
Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-10668-1
Client Project/Site: SIA Burn Pits

For:

Spokane Environmental Solutions LLC
3810 E. Boone Avenue
Suite #101
Spokane, Washington 99202

Attn: Gary Panther



Authorized for release by:
4/10/2019 11:38:58 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Definitions	5
Client Sample Results	6
QC Sample Results	9
Chronicle	14
Certification Summary	15
Method Summary	16
Chain of Custody	17
Receipt Checklists	19

Case Narrative

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Job ID: 590-10668-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 3/26/2019 5:07 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 12.6° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): Trip Blank (590-10668-5)

The following samples were received at the laboratory outside the required temperature criteria: MW-14b (590-10668-1), MW-13b (590-10668-2), MW-8b (590-10668-3), MW-7 (590-10668-4) and Trip Blank (590-10668-5). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

The following samples were put on hold by the client on 03/27/2019: MW-8b (590-10668-3), MW-7 (590-10668-4).

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons appear to be due to heavily weathered diesel and/or biogenic interference in the following sample: MW-14b (590-10668-1).

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

Metals

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-10668-1	MW-14b	Water	03/26/19 14:00	03/26/19 17:07
590-10668-2	MW-13b	Water	03/26/19 14:45	03/26/19 17:07

Definitions/Glossary

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Client Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Client Sample ID: MW-14b

Lab Sample ID: 590-10668-1

Date Collected: 03/26/19 14:00

Matrix: Water

Date Received: 03/26/19 17:07

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40		ug/L			03/27/19 21:57	1
Ethylbenzene	ND		1.0		ug/L			03/27/19 21:57	1
m,p-Xylene	ND		2.0		ug/L			03/27/19 21:57	1
o-Xylene	ND		1.0		ug/L			03/27/19 21:57	1
Toluene	ND		1.0		ug/L			03/27/19 21:57	1
Xylenes, Total	ND		3.0		ug/L			03/27/19 21:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		03/27/19 21:57	1
4-Bromofluorobenzene (Surr)	102		80 - 120		03/27/19 21:57	1
Dibromofluoromethane (Surr)	103		80 - 120		03/27/19 21:57	1
Toluene-d8 (Surr)	105		80 - 120		03/27/19 21:57	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
2-Methylnaphthalene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Acenaphthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Acenaphthylene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Anthracene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Benzo[a]anthracene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Benzo[a]pyrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Benzo[b]fluoranthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Benzo[g,h,i]perylene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Benzo[k]fluoranthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Chrysene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Dibenz(a,h)anthracene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Fluoranthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Fluorene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Indeno[1,2,3-cd]pyrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Naphthalene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Phenanthrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1
Pyrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		44 - 120	03/28/19 13:33	03/28/19 15:27	1
Nitrobenzene-d5	49		36 - 126	03/28/19 13:33	03/28/19 15:27	1
p-Terphenyl-d14	71		51 - 121	03/28/19 13:33	03/28/19 15:27	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.34		0.24		mg/L		04/05/19 10:17	04/05/19 16:42	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40		mg/L		04/05/19 10:17	04/05/19 16:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150				04/05/19 10:17	04/05/19 16:42	1
n-Triacontane-d62	87		50 - 150				04/05/19 10:17	04/05/19 16:42	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Client Sample ID: MW-14b

Date Collected: 03/26/19 14:00

Date Received: 03/26/19 17:07

Lab Sample ID: 590-10668-1

Matrix: Water

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0050		mg/L		04/08/19 17:43	04/09/19 15:50	5

Client Sample ID: MW-13b

Date Collected: 03/26/19 14:45

Date Received: 03/26/19 17:07

Lab Sample ID: 590-10668-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40		ug/L			03/27/19 22:18	1
Ethylbenzene	ND		1.0		ug/L			03/27/19 22:18	1
m,p-Xylene	ND		2.0		ug/L			03/27/19 22:18	1
o-Xylene	ND		1.0		ug/L			03/27/19 22:18	1
Toluene	ND		1.0		ug/L			03/27/19 22:18	1
Xylenes, Total	ND		3.0		ug/L			03/27/19 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		03/27/19 22:18	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/27/19 22:18	1
Dibromofluoromethane (Surr)	98		80 - 120		03/27/19 22:18	1
Toluene-d8 (Surr)	105		80 - 120		03/27/19 22:18	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
2-Methylnaphthalene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Acenaphthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Acenaphthylene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Anthracene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Benzo[a]anthracene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Benzo[a]pyrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Benzo[b]fluoranthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Benzo[g,h,i]perylene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Benzo[k]fluoranthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Chrysene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Dibenz(a,h)anthracene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Fluoranthene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Fluorene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Indeno[1,2,3-cd]pyrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Naphthalene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Phenanthrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1
Pyrene	ND		0.091		ug/L		03/28/19 13:33	03/28/19 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		44 - 120	03/28/19 13:33	03/28/19 15:54	1
Nitrobenzene-d5	69		36 - 126	03/28/19 13:33	03/28/19 15:54	1
p-Terphenyl-d14	86		51 - 121	03/28/19 13:33	03/28/19 15:54	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.23		mg/L		04/05/19 10:17	04/05/19 17:01	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Client Sample ID: MW-13b

Date Collected: 03/26/19 14:45

Date Received: 03/26/19 17:07

Lab Sample ID: 590-10668-2

Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Residual Range Organics (RRO) (C25-C36)	ND		0.38		mg/L		04/05/19 10:17	04/05/19 17:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	89		50 - 150				04/05/19 10:17	04/05/19 17:01	1
<i>n</i> -Triacontane-d62	88		50 - 150				04/05/19 10:17	04/05/19 17:01	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0050		mg/L		04/04/19 14:09	04/05/19 13:11	5

QC Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-21494/5

Matrix: Water

Analysis Batch: 21494

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40		ug/L			03/27/19 14:59	1
Ethylbenzene	ND		1.0		ug/L			03/27/19 14:59	1
m,p-Xylene	ND		2.0		ug/L			03/27/19 14:59	1
o-Xylene	ND		1.0		ug/L			03/27/19 14:59	1
Toluene	ND		1.0		ug/L			03/27/19 14:59	1
Xylenes, Total	ND		3.0		ug/L			03/27/19 14:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 120		03/27/19 14:59	1
4-Bromofluorobenzene (Surr)	100		80 - 120		03/27/19 14:59	1
Dibromofluoromethane (Surr)	95		80 - 120		03/27/19 14:59	1
Toluene-d8 (Surr)	108		80 - 120		03/27/19 14:59	1

Lab Sample ID: LCS 590-21494/1003

Matrix: Water

Analysis Batch: 21494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.35		ug/L		93	80 - 126
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
m,p-Xylene	10.0	10.0		ug/L		100	80 - 120
o-Xylene	10.0	9.77		ug/L		98	80 - 120
Toluene	10.0	10.2		ug/L		102	80 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	105		80 - 120

Lab Sample ID: LCSD 590-21494/6

Matrix: Water

Analysis Batch: 21494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	10.0	8.86		ug/L		89	80 - 126	5	25
Ethylbenzene	10.0	10.0		ug/L		100	80 - 120	1	25
m,p-Xylene	10.0	10.0		ug/L		100	80 - 120	0	25
o-Xylene	10.0	9.75		ug/L		97	80 - 120	0	25
Toluene	10.0	9.74		ug/L		97	80 - 123	5	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	108		80 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-21528/1-A

Matrix: Water

Analysis Batch: 21519

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
2-Methylnaphthalene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Acenaphthene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Acenaphthylene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Anthracene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Benzo[a]anthracene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Benzo[a]pyrene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Benzo[b]fluoranthene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Benzo[g,h,i]perylene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Benzo[k]fluoranthene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Chrysene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Dibenz(a,h)anthracene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Fluoranthene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Fluorene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Indeno[1,2,3-cd]pyrene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Naphthalene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Phenanthrene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1
Pyrene	ND		0.090		ug/L		03/28/19 13:33	03/28/19 14:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		44 - 120	03/28/19 13:33	03/28/19 14:08	1
Nitrobenzene-d5	85		36 - 126	03/28/19 13:33	03/28/19 14:08	1
p-Terphenyl-d14	93		51 - 121	03/28/19 13:33	03/28/19 14:08	1

Lab Sample ID: LCS 590-21528/2-A

Matrix: Water

Analysis Batch: 21519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	1.60	1.06		ug/L		66	49 - 120
2-Methylnaphthalene	1.60	1.04		ug/L		65	44 - 120
Acenaphthene	1.60	1.11		ug/L		69	54 - 120
Acenaphthylene	1.60	1.11		ug/L		69	57 - 120
Anthracene	1.60	1.19		ug/L		74	66 - 120
Benzo[a]anthracene	1.60	1.21		ug/L		76	68 - 120
Benzo[a]pyrene	1.60	1.20		ug/L		75	70 - 120
Benzo[b]fluoranthene	1.60	1.22		ug/L		76	63 - 120
Benzo[g,h,i]perylene	1.60	1.13		ug/L		71	56 - 120
Benzo[k]fluoranthene	1.60	1.31		ug/L		82	67 - 120
Chrysene	1.60	1.32		ug/L		82	69 - 120
Dibenz(a,h)anthracene	1.60	1.11		ug/L		69	58 - 120
Fluoranthene	1.60	1.26		ug/L		79	64 - 120
Fluorene	1.60	1.11		ug/L		70	59 - 120
Indeno[1,2,3-cd]pyrene	1.60	1.11		ug/L		70	58 - 120
Naphthalene	1.60	1.04		ug/L		65	52 - 120
Phenanthrene	1.60	1.19		ug/L		74	57 - 120
Pyrene	1.60	1.26		ug/L		79	52 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-21528/2-A

Matrix: Water

Analysis Batch: 21519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21528

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	64		44 - 120
Nitrobenzene-d5	84		36 - 126
p-Terphenyl-d14	86		51 - 121

Lab Sample ID: LCSD 590-21528/3-A

Matrix: Water

Analysis Batch: 21519

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21528

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1-Methylnaphthalene	1.60	1.11		ug/L		69	49 - 120	4	35
2-Methylnaphthalene	1.60	1.06		ug/L		66	44 - 120	2	35
Acenaphthene	1.60	1.15		ug/L		72	54 - 120	3	30
Acenaphthylene	1.60	1.15		ug/L		72	57 - 120	3	30
Anthracene	1.60	1.34		ug/L		84	66 - 120	12	30
Benzo[a]anthracene	1.60	1.24		ug/L		78	68 - 120	3	30
Benzo[a]pyrene	1.60	1.32		ug/L		82	70 - 120	9	30
Benzo[b]fluoranthene	1.60	1.37		ug/L		85	63 - 120	12	30
Benzo[g,h,i]perylene	1.60	1.22		ug/L		76	56 - 120	7	35
Benzo[k]fluoranthene	1.60	1.40		ug/L		87	67 - 120	7	30
Chrysene	1.60	1.35		ug/L		85	69 - 120	3	24
Dibenz(a,h)anthracene	1.60	1.16		ug/L		73	58 - 120	5	30
Fluoranthene	1.60	1.33		ug/L		83	64 - 120	5	30
Fluorene	1.60	1.17		ug/L		73	59 - 120	5	30
Indeno[1,2,3-cd]pyrene	1.60	1.17		ug/L		73	58 - 120	5	30
Naphthalene	1.60	1.07		ug/L		67	52 - 120	3	30
Phenanthrene	1.60	1.27		ug/L		79	57 - 120	6	30
Pyrene	1.60	1.39		ug/L		87	52 - 120	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	66		44 - 120
Nitrobenzene-d5	85		36 - 126
p-Terphenyl-d14	96		51 - 121

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-21626/1-A

Matrix: Water

Analysis Batch: 21628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24		mg/L		04/05/19 10:17	04/05/19 13:06	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40		mg/L		04/05/19 10:17	04/05/19 13:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	81		50 - 150	04/05/19 10:17	04/05/19 13:06	1
n-Triacontane-d62	84		50 - 150	04/05/19 10:17	04/05/19 13:06	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-21626/2-A

Matrix: Water

Analysis Batch: 21628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21626

Top Bottom 17025											
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO) (C10-C25)			1.60	1.31		mg/L		82	50 - 150		
Residual Range Organics (RRO) (C25-C36)			1.60	1.50		mg/L		94	50 - 150		
Surrogate		LCS %Recovery	LCS Qualifier	Limits							
o-Terphenyl		89		50 - 150							
n-Triacontane-d62		88		50 - 150							

Lab Sample ID: LCSD 590-21626/3-A

Matrix: Water

Analysis Batch: 21628

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21626

Top Data: 1/1/20											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limits
Diesel Range Organics (DRO) (C10-C25)			1.60	1.27		mg/L	-	79	50 - 150	3	25
Residual Range Organics (RRO) (C25-C36)			1.60	1.42		mg/L		89	50 - 150	6	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
o-Terphenyl	83		50 - 150								
n-Triacontane-d62	83		50 - 150								

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-298011/22-A

Matrix: Water

Analysis Batch: 298231

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 298011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		04/04/19 14:09	04/05/19 11:40	1

Lab Sample ID: LCS 580-298011/23-A

Matrix: Water

Analysis Batch: 298231

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 298011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.00		mg/L		100	80 - 120

Lab Sample ID: LCSD 580-298011/24-A

Matrix: Water

Analysis Batch: 298231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 298011

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1.00	1.03		mg/L		103	80 - 120	3	20

QC Sample Results

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 580-298224/22-A

Matrix: Water

Analysis Batch: 298325

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 298224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		04/08/19 17:43	04/09/19 14:18	1

Lab Sample ID: LCS 580-298224/23-A

Matrix: Water

Analysis Batch: 298325

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 298224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.05		mg/L		105	80 - 120

Lab Sample ID: LCSD 580-298224/24-A

Matrix: Water

Analysis Batch: 298325

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 298224

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1.00	1.05		mg/L		105	80 - 120	0	20

Lab Chronicle

Client: Spokane Environmental Solutions LLC
Project/Site: SIA Burn Pits

Job ID: 590-10668-1

Client Sample ID: MW-14b

Date Collected: 03/26/19 14:00

Date Received: 03/26/19 17:07

Lab Sample ID: 590-10668-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	21494	03/27/19 21:57	MRS	TAL SPK
Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			246.5 mL	2 mL	21528	03/28/19 13:33	NMI	TAL SPK
Total/NA	Prep	3510C			246.5 mL	2 mL	21528	03/28/19 13:33	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1			21519	03/28/19 15:27	NMI	TAL SPK
Total/NA	Prep	3510C			252.3 mL	2 mL	21626	04/05/19 10:17	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			21628	04/05/19 16:42	NMI	TAL SPK
Total Recoverable	Prep	3005A			50 mL	50 mL	298224	04/08/19 17:43	T1H	TAL SEA
Total Recoverable	Analysis	6020B		5	50 mL	50 mL	298325	04/09/19 15:50	FCW	TAL SEA

Client Sample ID: MW-13b

Date Collected: 03/26/19 14:45

Date Received: 03/26/19 17:07

Lab Sample ID: 590-10668-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	21494	03/27/19 22:18	MRS	TAL SPK
Total/NA	Prep	3510C			247.5 mL	2 mL	21528	03/28/19 13:33	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1			21519	03/28/19 15:54	NMI	TAL SPK
Total/NA	Prep	3510C			265.2 mL	2 mL	21626	04/05/19 10:17	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			21628	04/05/19 17:01	NMI	TAL SPK
Total Recoverable	Prep	3005A			50 mL	50 mL	298011	04/04/19 14:09	JKM	TAL SEA
Total Recoverable	Analysis	6020B		5	50 mL	50 mL	298231	04/05/19 13:11	FCW	TAL SEA

Laboratory References:

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200