FIGURE 1: VICINITY MAP

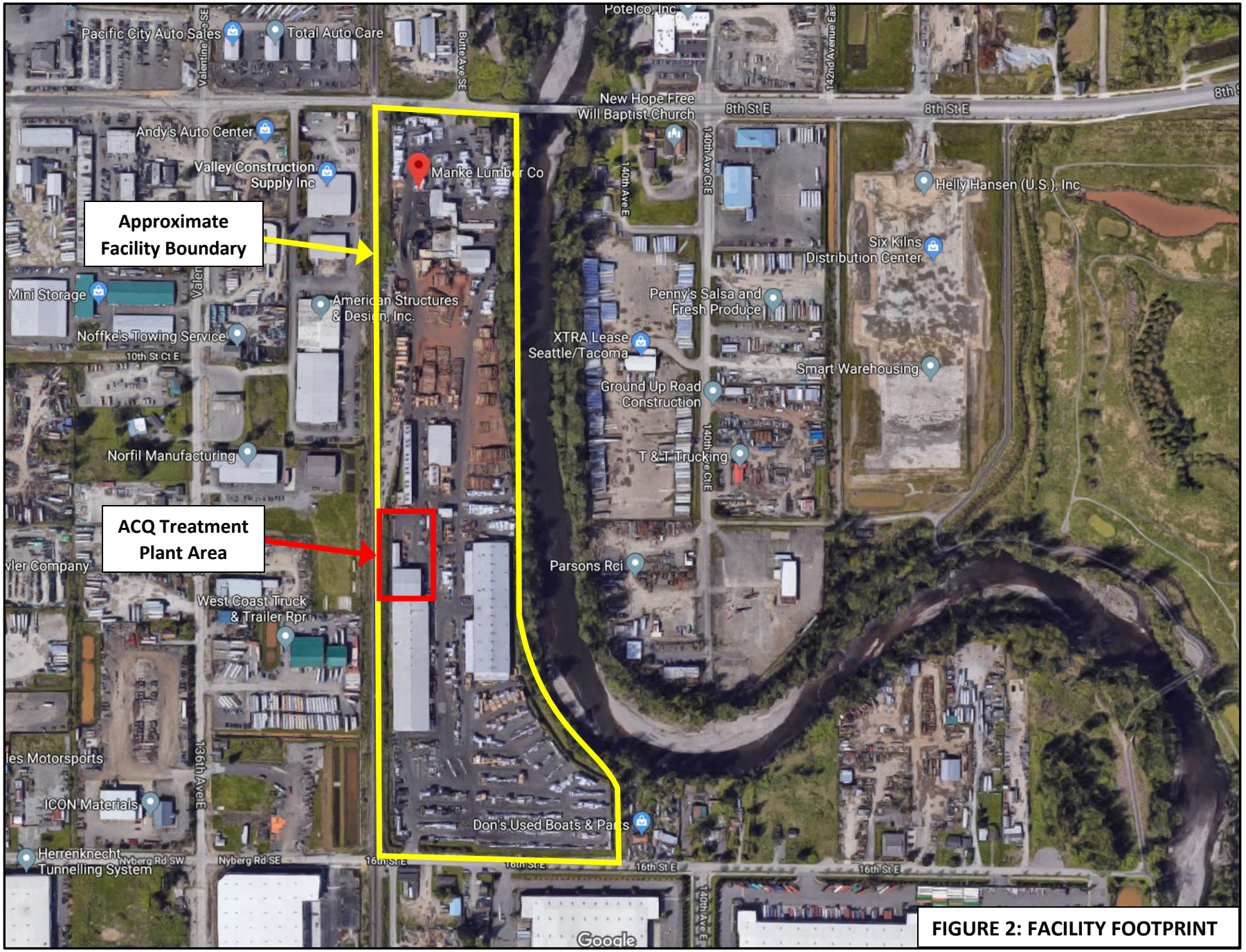

FIGURE 2: FACILITY FOOTPRINT

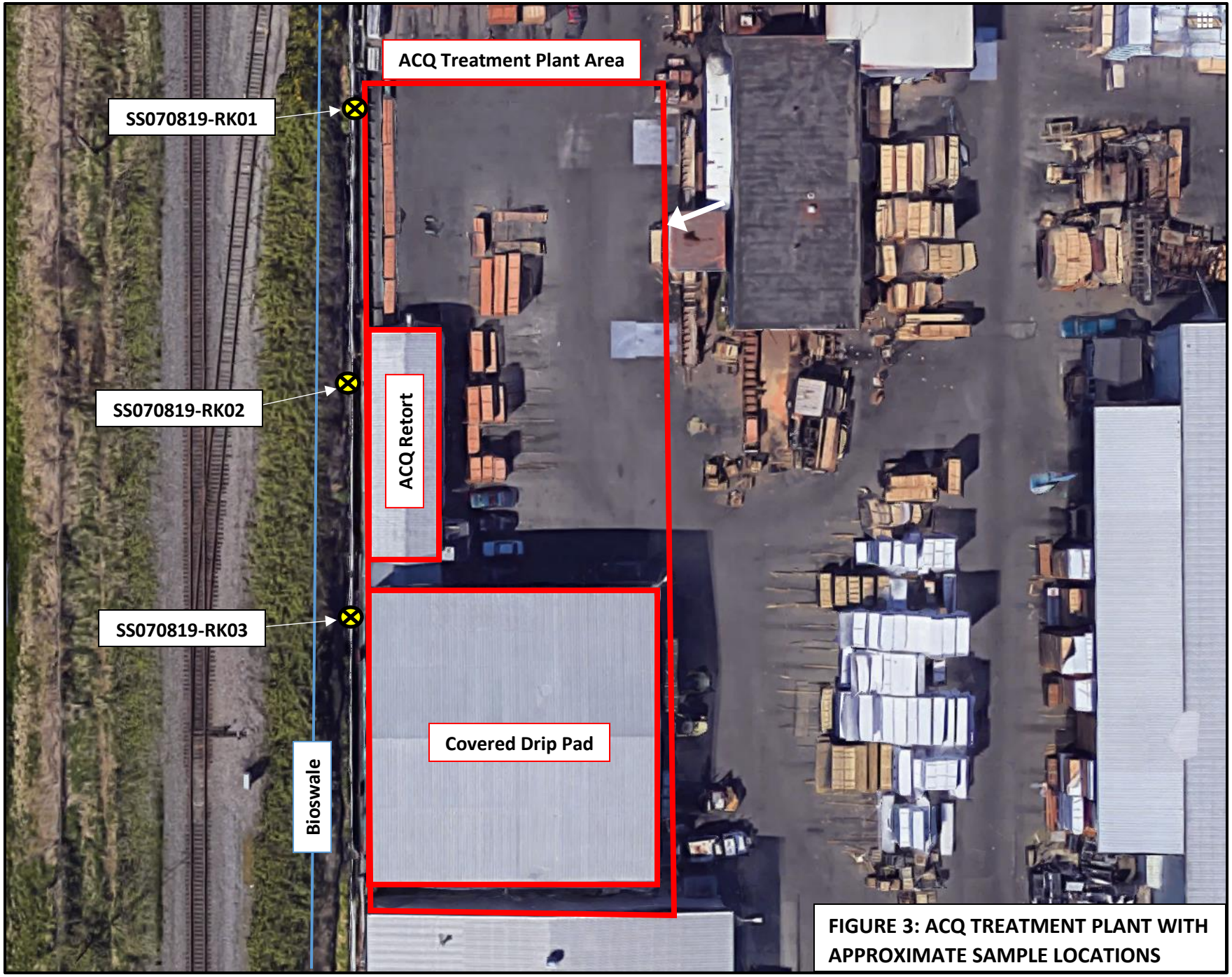

FIGURE 3: ACQ TREATMENT PLANT WITH APPROXIMATE SAMPLE LOCATIONS

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-87462-1
Client Project/Site: Wood Treater

For:
Washington State Dept of Ecology
PO BOX 47775
Olympia, Washington 98504

Attn: Stephanie Heiges

Ashley L Worthy

Authorized for release by:
7/19/2019 4:08:57 PM

Ashley Worthy, Project Manager I
(253)922-2310
ashley.worthy@testamericainc.com

Table of Contents

Case Narrative

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Job ID: 580-87462-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

Job Narrative
580-87462-1

Comments
No additional comments.

Receipt
The samples were received on 7/8/2019 2:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.0° C.

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

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

Definitions/Glossary

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

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)

Client Sample Results

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Client Sample ID: SS070819-RK01

Date Collected: 07/08/19 12:25
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-1

Matrix: Solid
Percent Solids: 45.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	120		4.8		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Barium	240		0.80		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Cadmium	ND		1.6		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Chromium	170		2.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Lead	23		2.4		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Selenium	ND		8.0		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Silver	ND		4.0		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Nickel	31		1.6		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Copper	1800		4.0		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1
Zinc	890		6.4		mg/Kg	☼	07/11/19 11:27	07/17/19 15:43	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		0.056		mg/Kg	☼	07/17/19 12:31	07/18/19 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	45.3		0.1		%			07/15/19 18:26	1
Percent Moisture	54.7		0.1		%			07/15/19 18:26	1

Client Sample Results

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Client Sample ID: SS070819-RK02

Date Collected: 07/08/19 12:40
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-2

Matrix: Solid
Percent Solids: 63.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**56**		3.3		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Barium	**220**		0.55		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Cadmium	ND		1.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Chromium	**100**		1.4		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Lead	**24**		1.6		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Selenium	ND		5.5		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Silver	ND		2.7		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Nickel	**29**		1.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Copper	**1800**		2.7		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1
Zinc	**620**		4.4		mg/Kg	☼	07/11/19 11:27	07/17/19 15:47	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.14**		0.039		mg/Kg	☼	07/17/19 12:31	07/18/19 10:44	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**63.5**		0.1		%			07/15/19 18:26	1
Percent Moisture	**36.5**		0.1		%			07/15/19 18:26	1

Client Sample Results

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Client Sample ID: SS070819-RK03

Date Collected: 07/08/19 13:00
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-3

Matrix: Solid
Percent Solids: 75.7

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3300		2.5		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Barium	150		0.41		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Cadmium	0.91		0.83		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Chromium	2700		1.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Lead	49		1.2		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Selenium	ND		4.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Silver	ND		2.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Nickel	29		0.83		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Copper	5100		2.1		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1
Zinc	450		3.3		mg/Kg	☼	07/11/19 11:27	07/17/19 15:51	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.3		0.15		mg/Kg	☼	07/17/19 12:31	07/18/19 10:46	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75.7		0.1		%			07/15/19 18:26	1
Percent Moisture	24.3		0.1		%			07/15/19 18:26	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 580-305378/23-A
Matrix: Solid
Analysis Batch: 305957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 305378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Barium	ND		0.50		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Cadmium	ND		1.0		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Chromium	ND		1.3		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Lead	ND		1.5		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Selenium	ND		5.0		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Silver	ND		2.5		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Nickel	ND		1.0		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Copper	ND		2.5		mg/Kg		07/11/19 11:27	07/17/19 14:48	1
Zinc	ND		4.0		mg/Kg		07/11/19 11:27	07/17/19 14:48	1

Lab Sample ID: LCS 580-305378/24-A
Matrix: Solid
Analysis Batch: 305957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 305378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	51.3		mg/Kg		103	80 - 120
Barium	50.0	54.5		mg/Kg		109	80 - 120
Cadmium	50.0	49.8		mg/Kg		100	80 - 120
Chromium	50.0	55.3		mg/Kg		111	80 - 120
Lead	50.0	50.2		mg/Kg		100	80 - 120
Selenium	50.0	51.7		mg/Kg		103	80 - 120
Silver	50.0	49.9		mg/Kg		100	80 - 120
Nickel	50.0	51.1		mg/Kg		102	80 - 120
Copper	50.0	54.3		mg/Kg		109	80 - 120
Zinc	50.0	46.4		mg/Kg		93	80 - 120

Lab Sample ID: LCSD 580-305378/25-A
Matrix: Solid
Analysis Batch: 305957

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 305378

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	50.4		mg/Kg		101	80 - 120	2	20
Barium	50.0	52.8		mg/Kg		106	80 - 120	3	20
Cadmium	50.0	49.0		mg/Kg		98	80 - 120	2	20
Chromium	50.0	54.3		mg/Kg		109	80 - 120	2	20
Lead	50.0	49.5		mg/Kg		99	80 - 120	1	20
Selenium	50.0	50.4		mg/Kg		101	80 - 120	3	20
Silver	50.0	48.3		mg/Kg		97	80 - 120	3	20
Nickel	50.0	50.3		mg/Kg		101	80 - 120	2	20
Copper	50.0	53.4		mg/Kg		107	80 - 120	2	20
Zinc	50.0	45.7		mg/Kg		91	80 - 120	1	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-305892/22-A
Matrix: Solid
Analysis Batch: 305996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 305892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030		mg/Kg		07/17/19 12:31	07/18/19 10:03	1

Lab Sample ID: LCS 580-305892/23-A
Matrix: Solid
Analysis Batch: 305996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 305892

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.167	0.167		mg/Kg		100	80 - 120		

Lab Sample ID: LCSD 580-305892/24-A
Matrix: Solid
Analysis Batch: 305996

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 305892

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.167	0.161		mg/Kg		97	80 - 120	3	20

Lab Chronicle

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Client Sample ID: SS070819-RK01
Date Collected: 07/08/19 12:25
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	305710	07/15/19 18:26	JCM	TAL SEA

Client Sample ID: SS070819-RK01
Date Collected: 07/08/19 12:25
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-1
Matrix: Solid
Percent Solids: 45.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			305378	07/11/19 11:27	ART	TAL SEA
Total/NA	Analysis	6010D		1	305957	07/17/19 15:43	SPP	TAL SEA
Total/NA	Prep	7471A			305892	07/17/19 12:31	ART	TAL SEA
Total/NA	Analysis	7471A		1	305996	07/18/19 10:41	T1H	TAL SEA

Client Sample ID: SS070819-RK02
Date Collected: 07/08/19 12:40
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	305710	07/15/19 18:26	JCM	TAL SEA

Client Sample ID: SS070819-RK02
Date Collected: 07/08/19 12:40
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-2
Matrix: Solid
Percent Solids: 63.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			305378	07/11/19 11:27	ART	TAL SEA
Total/NA	Analysis	6010D		1	305957	07/17/19 15:47	SPP	TAL SEA
Total/NA	Prep	7471A			305892	07/17/19 12:31	ART	TAL SEA
Total/NA	Analysis	7471A		1	305996	07/18/19 10:44	T1H	TAL SEA

Client Sample ID: SS070819-RK03
Date Collected: 07/08/19 13:00
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	305710	07/15/19 18:26	JCM	TAL SEA

Client Sample ID: SS070819-RK03
Date Collected: 07/08/19 13:00
Date Received: 07/08/19 14:32

Lab Sample ID: 580-87462-3
Matrix: Solid
Percent Solids: 75.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			305378	07/11/19 11:27	ART	TAL SEA
Total/NA	Analysis	6010D		1	305957	07/17/19 15:51	SPP	TAL SEA
Total/NA	Prep	7471A			305892	07/17/19 12:31	ART	TAL SEA
Total/NA	Analysis	7471A		5	305996	07/18/19 10:46	T1H	TAL SEA

Lab Chronicle

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Laboratory References:

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

Accreditation/Certification Summary

Client: Washington State Dept of Ecology
Job ID: 580-87462-1
Project/Site: Wood Treater

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-20
ANAB	Dept. of Defense ELAP		L2236	01-19-22
ANAB	DoD		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-19
Oregon	NELAP		WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-20

Sample Summary

Client: Washington State Dept of Ecology
Project/Site: Wood Treater

Job ID: 580-87462-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-87462-1	SS070819-RK01	Solid	07/08/19 12:25	07/08/19 14:32	
580-87462-2	SS070819-RK02	Solid	07/08/19 12:40	07/08/19 14:32	
580-87462-3	SS070819-RK03	Solid	07/08/19 13:00	07/08/19 14:32	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☐ Short Hold

Chain of Custody Record

Client	Client Contact	Date	Chain of Custody Number
Ecology	Stephanie Heiges	7-8-19	35741
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page ____ of ____**
PO Box 47775	360-407-6332		
City	**State**	**Zip Code**	**Sampler**	**Lab Contact**
~~Lac~~ Olympia	WA	98504	RK	
Project Name and Location (State)	**Billing Contact**	
Wood Treater	Vince Chavez	
Contract/Purchase Order/Quote No.		

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Total Metals 6010 RCRA 8 + Cu, Ni, Zn	Special Instructions/ Conditions of Receipt
SS070819-RK01	7-8-19	1225				X	X						X	Dry weight basis
SS070819-RK02	↓	1240				X	X						X	↓
SS070819-RK03	↓	1300				X	X						X	

580-87462 Chain of Custody

Therm. ID: A2 Cor: 6.0 ° Unc: 6.3 °
Cooler Dsc: Lg Blue
Packing: bub
Cust. Seal: Yes ___ No ☆
Blue Ice, (Wet), Dry, None
FedEx: ____
UPS: ____
Lab Cour: ____
Other: Clidro

Cooler
☐ Yes ☐ No Cooler Temp: ____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal
☑ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)
☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☑ 10 Days ☐ 15 Days ☐ Other ____

QC Requirements (Specify)

	Relinquished By Sign/Print	Date	Time	Received By Sign/Print	Date	Time
1.	Ronald Kaufmann Ronald Kaufmann	7/8/19	2:10pm	Tom Blankinship	7/8/19	1410
2.						
3.						

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

7/19/2019

Login Sample Receipt Checklist

Client: Washington State Dept of Ecology

Job Number: 580-87462-1

Login Number: 87462

List Source: Eurofins TestAmerica, Seattle

List Number: 1

Creator: Luna, Francisco J

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	