NW Natural®

250 SW Taylor Street
Portland, OR 97204

503-226-4211
nwnatural.com

August 15, 2020

Angelica Greene
Industrial Stormwater Permit Manager
City of Portland Bureau of Environmental Services
6543 N. Burlington Avenue
Portland, OR 97203

Re: 1200-Z Permit Fourth Quarter 2019–2020 Discharge Monitoring Report
NW Natural Gasco Property
DEQ File Number 62231

Dear Ms. Greene,

Attached please find the Discharge Monitoring Report, as well as the laboratory report, chain of custody, and field sheet, for the NW Natural Gasco Property for the 1200-Z fourth quarter reporting period.

For those parameters that were monitored, all benchmarks and impairment pollutant concentrations were met for the quarter. A monitoring waiver is in place for pH, TSS, copper, lead, zinc, oil & grease, aldrin, chlordane, dissolved copper, DDE, DDT, dieldrin, dissolved lead, total mercury, and total PCBs because of the demonstrated compliance record for those parameters in previous sampling events.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is—to the best of my knowledge and belief—true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 122.22(d)).

If you have any questions about this package, please contact Kendra Skellenger with Anchor QEA, LLC, at 503-924-6179.

Very truly yours,

Kathryn Williams
Vice President of Public Affairs
NW Natural

Oregon Department of Environmental Quality
Stormwater Program

Discharge Monitoring Report
1200-Z Permit

National Pollutant Discharge Elimination System Permit
Industrial Stormwater Discharge General Permit

Instructions: This report must be completed for each quarter and submitted by the 15th of February, May, August and Novembe to the appropriate DEQ regional or agent office. The report must contain the results of all stormwater monitoring conducted during each quarter, and variance requests are due semi-annually, in February and August. Sample for the pollutants at monitoring location(s) specified in your SWPCP and use the monitoring location(s) number from your SWPCP. You must include the laboratory results, including minimum detection level, Quality Assurance/Quality Control and analytical methods for the parameters analyzed. You must also submit pH field notes and chain of custody.

Facility Information

Legal name: Northwest Natural Gas Company
DEQ File No: 62231
Common name: NW Natural
EPA #: ORR706061
Facility address: 7900 NW St Helens Rd
Reporting Quarter: ☐ 1st ☐ 2nd ☐ 3rd ☑ 4th
Facility City, Zip: Portland, OR 97210
Reporting Year: 2019 to 2020
Geo-Region: ☐ Columbia Slough ☐ Columbia River ☑ Portland Harbor ☐ Regional
2nd Geo-Region ☐ Columbia Slough ☐ Columbia River ☐ Portland Harbor ☐ Regional
Administrated by: ☐ DEQ ☐ Clean Water Services ☑ City of Portland ☐ City of Eugene
Primary SIC Code: 4925
Secondary SIC Code:

Monitoring Information

Number of discharge point(s): 1
Number of monitoring location(s): 1

If different, you certify that the facility has established either: 1) the area has no exposure of stormwater to industrial activities, or 2) the effluent is substantially similar to effluent(s) monitored and the same BMPs are implemented and maintained. (See permit pg 23)

Monitoring Waiver(s) If yes list date on DEQ or Agent approval letter.

3/24/2020

DMR Submittal Checklist Please check all applicable documents are included with you DMR submittal:

☑ Original Signature ☑ Laboratory Reports ☑ Chain of Custody ☑ QA/QC form Lab ☑ pH field sheets

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 122.22(d)).

Signature: Kathryn M. Williams
Date:
Printed Name: Kathryn Williams
Legally Authorized Representative
Title: Vice President of Public Affairs
Email: kathryn.williams@nwnatural.com
Telephone : 503.220.2370

Oregon Department of Environmental Quality
Stormwater Program

Discharge Monitoring Report
1200-Z Permit

For official use only:
Legal Name: Northwest Natural Gas Company
DEQ File No: 62231

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Impairment Pollutants and Reference Concentrations
(see permit assignment letter for identification of required parameters)

Monitoring Location(s)	Sample Date	Copper, Dissolved	Cyanide	DDT or DDT+ metabolites	DDE	Dieldrin	E. Coli	Endrin Aldehyde	Endosulfan
		mg/L	mg/L	mg/L	mg/L	mg/L	counts/ 100 ml	mg/L	mg/L
001	05/18/20		ND (0.00250)						
Geometric Mean			0.001						
Geometric Mean									
Geometric Mean									
Geometric Mean									

Impairment Ref. Concentration	See Letter	0.022	0.0011	0.00001	0.00024	406	0.00003	0.00022

Oregon Department of Environmental Quality
Stormwater Program

Discharge Monitoring Report
1200-Z Permit

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Monitoring Location(s)	Sample Date	Guthion	Heptachlor	Hexachlo-robenzene	Iron, Total	Lead, Dissolved	Malathion	Mercury, Total	Nickel, Dissolved
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
001	05/18/20			ND(0.00000971)	0.737				
Geometric Mean				0.000	0.7				
Geometric Mean									
Geometric Mean									
Geometric Mean									

Impairment Ref. Concentration	**0.001**	**0.00052**	**0.001**	**1.0**	**See Letter**	**0.0002**	**0.0024**	**See Letter**

Oregon Department of Environmental Quality
Stormwater Program

State of Oregon Department of Environmental Quality

Discharge Monitoring Report
1200-Z Permit

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Impairment Pollutants and Reference Concentrations
(see permit assignment letter for identification of required parameters)

Monitoring Location(s)	Sample Date	Turbidity	Zinc, Dissolved	Acenaphthene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene 3,4	Benzo(k) fluoranthene
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
001	05/18/20			ND(0.00000971)	ND(0.00000971)	ND(0.00000971)	ND(0.0000146)	0.0000152	ND(0.0000146)
Geometric Mean				0.000	0.0	0.000	0.000	0.000	0.000
Geometric Mean									
Geometric Mean									
Geometric Mean									

Impairment Ref. Concentration	**100**	**See Letter**	**0.095**	**2.9**	**0.001**	**0.001**	**0.001**	**0.001**

Oregon Department of Environmental Quality
Stormwater Program

State of Oregon Department of Environmental Quality

Discharge Monitoring Report
1200-Z Permit

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Impairment Pollutants and Reference Concentrations
(see permit assignment letter for identification of required parameters)

Monitoring Location(s)	Sample Date	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Pyrene
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
001	05/18/20	ND(0.00000971	ND(0.00000971	0.00000996	ND(0.00000971)	ND(0.00000971)	0.0000109
Geometric Mean		0.000	0.000	0.000	0.00	0.000	0.00
Geometric Mean							
Geometric Mean							
Geometric Mean							

Impairment Ref. Concentration	**0.001**	**0.001**	**0.014**	**0.39**	**0.001**	**0.29**	

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Tuesday, June 16, 2020

Kendra Skellenger
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A0E0517 - Gasco - 1200Z - 2020 - 000029-02.63 Task 14

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0E0517, which was received by the laboratory on 5/19/2020 at 8:20:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 0.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Darwin Thomas, Business Development Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Anchor QEA, LLC	Project: **Gasco - 1200Z - 2020**	
6720 SW Macadam Ave. Suite 125	Project Number: **000029-02.63 Task 14**	**Report ID:**
Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
O107-04-051820	A0E0517-01	Water	05/18/20 09:55	05/19/20 08:20
TB-051820	A0E0517-02	Water	05/18/20 10:40	05/19/20 08:20

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Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

ANALYTICAL SAMPLE RESULTS

Purgeable Organic Compounds by EPA 624.1

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
O107-04-051820 (A0E0517-01)				**Matrix: Water**		**Batch: 0050662**		
Benzene	ND	0.000125	0.000250	mg/L	1	05/19/20 14:40	EPA 624.1	
Toluene	ND	0.000500	0.00100	mg/L	1	05/19/20 14:40	EPA 624.1	
Xylenes, total	ND	0.000750	0.00150	mg/L	1	05/19/20 14:40	EPA 624.1	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*05/19/20 14:40*	*EPA 624.1*	
Toluene-d8 (Surr)			*100 %*	*85-120 %*	*1*	*05/19/20 14:40*	*EPA 624.1*	
4-Bromofluorobenzene (Surr)			*101 %*	*75-120 %*	*1*	*05/19/20 14:40*	*EPA 624.1*	
TB-051820 (A0E0517-02)				**Matrix: Water**		**Batch: 0050662**		V-01
Benzene	ND	0.000125	0.000250	mg/L	1	05/19/20 14:13	EPA 624.1	
Toluene	ND	0.000500	0.00100	mg/L	1	05/19/20 14:13	EPA 624.1	
Xylenes, total	ND	0.000750	0.00150	mg/L	1	05/19/20 14:13	EPA 624.1	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*05/19/20 14:13*	*EPA 624.1*	
Toluene-d8 (Surr)			*100 %*	*85-120 %*	*1*	*05/19/20 14:13*	*EPA 624.1*	
4-Bromofluorobenzene (Surr)			*102 %*	*75-120 %*	*1*	*05/19/20 14:13*	*EPA 624.1*	

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Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 625

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
O107-04-051820 (A0E0517-01RE2)				**Matrix: Water**		**Batch: 0050849**		
Acenaphthene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Acenaphthylene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Anthracene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Benz(a)anthracene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Benzo(a)pyrene	ND	0.0000146	0.0000291	mg/L	1	05/26/20 14:42	EPA 625.1	
Benzo(b)fluoranthene	**0.0000152**	0.0000146	0.0000291	mg/L	1	05/26/20 14:42	EPA 625.1	**J**
Benzo(k)fluoranthene	ND	0.0000146	0.0000291	mg/L	1	05/26/20 14:42	EPA 625.1	
Benzo(g,h,i)perylene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Chrysene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Dibenz(a,h)anthracene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Fluoranthene	**0.00000996**	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	**J**
Fluorene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Indeno(1,2,3-cd)pyrene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
2-Methylnaphthalene	ND	0.0000194	0.0000388	mg/L	1	05/26/20 14:42	EPA 625.1	
Naphthalene	ND	0.0000194	0.0000388	mg/L	1	05/26/20 14:42	EPA 625.1	
Phenanthrene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Pyrene	**0.0000109**	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	**J**
Hexachlorobenzene	ND	0.00000971	0.0000194	mg/L	1	05/26/20 14:42	EPA 625.1	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*56 %*	*Limits:* *35-120 %*	*1*	*05/26/20 14:42*	*EPA 625.1*	
2-Fluorobiphenyl (Surr)			*53 %*	*45-120 %*	*1*	*05/26/20 14:42*	*EPA 625.1*	
Phenol-d6 (Surr)			*17 %*	*10-120 %*	*1*	*05/26/20 14:42*	*EPA 625.1*	
p-Terphenyl-d14 (Surr)			*67 %*	*30-125 %*	*1*	*05/26/20 14:42*	*EPA 625.1*	
2-Fluorophenol (Surr)			*21 %*	*20-120 %*	*1*	*05/26/20 14:42*	*EPA 625.1*	
2,4,6-Tribromophenol (Surr)			*73 %*	*35-125 %*	*1*	*05/26/20 14:42*	*EPA 625.1*	

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Darwin Thomas, Business Development Director

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ORELAP ID: **OR100062**

Anchor QEA, LLC	Project: **Gasco - 1200Z - 2020**	
6720 SW Macadam Ave. Suite 125	Project Number: **000029-02.63 Task 14**	**Report ID:**
Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
O107-04-051820 (A0E0517-01)				**Matrix: Water**				
Batch: 0060006								
Iron	**0.737**	0.0250	0.0500	mg/L	1	06/01/20 18:55	EPA 200.8	

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ANALYTICAL SAMPLE RESULTS

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
O107-04-051820 (A0E0517-01)				**Matrix: Water**		**Batch: 0050892**		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	05/26/20 14:25	D4282-02	

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ANALYTICAL SAMPLE RESULTS

Weak Acid Dissociable (WAD) Cyanide by Flow Analysis (Aqueous)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
O107-04-051820 (A0E0517-01)				**Matrix: Water**		**Batch: 0050942**		
WAD Cyanide	ND	0.00500	0.00500	mg/L	1	05/27/20 13:23	SM 4500-CN I	B-02

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QUALITY CONTROL (QC) SAMPLE RESULTS

Purgeable Organic Compounds by EPA 624.1

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050662 - EPA 5030B							**Water**					
Blank (0050662-BLK1)			Prepared: 05/19/20 07:45 Analyzed: 05/19/20 09:42									
EPA 624.1												
Benzene	ND	0.000125	0.000250	mg/L	1	---	---	---	---	---	---	
Toluene	ND	0.000500	0.00100	mg/L	1	---	---	---	---	---	---	
Xylenes, total	ND	0.000750	0.00150	mg/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*85-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*75-120 %*			*"*				
LCS (0050662-BS1)			Prepared: 05/19/20 07:45 Analyzed: 05/19/20 08:48									
EPA 624.1												
Benzene	0.0210	0.000125	0.000250	mg/L	1	0.0200	---	105	65-135%	---	---	
Toluene	0.0195	0.000500	0.00100	mg/L	1	0.0200	---	98	70-130%	---	---	
Xylenes, total	0.0589	0.000750	0.00150	mg/L	1	0.0600	---	98	79-121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*85-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*75-120 %*			*"*				
Duplicate (0050662-DUP1)			Prepared: 05/19/20 09:00 Analyzed: 05/19/20 12:25									
QC Source Sample: Non-SDG (A0E0473-05RE1)												
Benzene	**0.0238**	0.00125	0.00250	mg/L	10	---	0.0234	---	---	2	61%	
Toluene	**0.00740**	0.00500	0.0100	mg/L	10	---	0.00780	---	---	5	41%	J
Xylenes, total	**0.958**	0.00750	0.0150	mg/L	10	---	0.955	---	---	0.4	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*85-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*75-120 %*			*"*				
Matrix Spike (0050662-MS1)			Prepared: 05/19/20 09:00 Analyzed: 05/19/20 10:36									
QC Source Sample: Non-SDG (A0E0413-01)												
EPA 624.1												
Benzene	0.0227	0.000125	0.000250	mg/L	1	0.0200	ND	114	37-151%	---	---	
Toluene	0.0209	0.000500	0.00100	mg/L	1	0.0200	ND	104	47-150%	---	---	
Xylenes, total	0.0643	0.000750	0.00150	mg/L	1	0.0600	ND	107	79-121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				

Apex Laboratories

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Anchor QEA, LLC	Project: **Gasco - 1200Z - 2020**	
6720 SW Macadam Ave. Suite 125	Project Number: **000029-02.63 Task 14**	**Report ID:**
Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

QUALITY CONTROL (QC) SAMPLE RESULTS

Purgeable Organic Compounds by EPA 624.1

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050662 - EPA 5030B												**Water**
Matrix Spike (0050662-MS1)					Prepared: 05/19/20 09:00 Analyzed: 05/19/20 10:36							
QC Source Sample: Non-SDG (A0E0413-01)												
Surr: Toluene-d8 (Surr)			*Recovery: 96 %*		*Limits: 85-120 %*							*Dilution: 1x*
4-Bromofluorobenzene (Surr)			*94 %*		*75-120 %*							*"*

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Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 625

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050849 - EPA 3510C (Acid Extraction)							**Water**					
Blank (0050849-BLK2)			Prepared: 05/22/20 11:10 Analyzed: 05/22/20 22:58									
EPA 625.1												
Acenaphthene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0000136	0.0000273	mg/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0000136	0.0000273	mg/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0000136	0.0000273	mg/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0000182	0.0000364	mg/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0000182	0.0000364	mg/L	1	---	---	---	---	---	---	
Naphthalene	**0.0000916**	0.0000182	0.0000364	mg/L	1	---	---	---	---	---	---	B
Phenanthrene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00000909	0.0000182	mg/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 70 %*		*Limits: 40-110 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*63 %*		*50-110 %*			*"*				
Phenol-d6 (Surr)			*21 %*		*8-424 %*			*"*				
p-Terphenyl-d14 (Surr)			*72 %*		*50-135 %*			*"*				
2-Fluorophenol (Surr)			*35 %*		*20-110 %*			*"*				
2,4,6-Tribromophenol (Surr)			*73 %*		*40-125 %*			*"*				
LCS (0050849-BS2)			Prepared: 05/22/20 11:10 Analyzed: 05/22/20 23:34									
EPA 625.1												
Acenaphthene	0.00281	0.0000200	0.0000400	mg/L	2	0.00400	---	70	47-145%	---	---	
Acenaphthylene	0.00299	0.0000200	0.0000400	mg/L	2	0.00400	---	75	33-145%	---	---	
Anthracene	0.00304	0.0000200	0.0000400	mg/L	2	0.00400	---	76	43-120%	---	---	
Benz(a)anthracene	0.00311	0.0000200	0.0000400	mg/L	2	0.00400	---	78	33-143%	---	---	
Benzo(a)pyrene	0.00323	0.0000300	0.0000600	mg/L	2	0.00400	---	81	17-163%	---	---	

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6720 SW Macadam Ave. Suite 125	Project Number: **000029-02.63 Task 14**	**Report ID:**
Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 625

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050849 - EPA 3510C (Acid Extraction)							**Water**					
LCS (0050849-BS2)			Prepared: 05/22/20 11:10		Analyzed: 05/22/20 23:34							
Benzo(b)fluoranthene	0.00325	0.0000300	0.0000600	mg/L	2	0.00400	---	81	24-159%	---	---	
Benzo(k)fluoranthene	0.00327	0.0000300	0.0000600	mg/L	2	0.00400	---	82	11-162%	---	---	
Benzo(g,h,i)perylene	0.00322	0.0000200	0.0000400	mg/L	2	0.00400	---	81	1-219%	---	---	
Chrysene	0.00315	0.0000200	0.0000400	mg/L	2	0.00400	---	79	17-168%	---	---	
Dibenz(a,h)anthracene	0.00315	0.0000200	0.0000400	mg/L	2	0.00400	---	79	1-227%	---	---	
Fluoranthene	0.00301	0.0000200	0.0000400	mg/L	2	0.00400	---	75	26-137%	---	---	
Fluorene	0.00293	0.0000200	0.0000400	mg/L	2	0.00400	---	73	59-121%	---	---	
Indeno(1,2,3-cd)pyrene	0.00300	0.0000200	0.0000400	mg/L	2	0.00400	---	75	1-171%	---	---	
1-Methylnaphthalene	0.00272	0.0000400	0.0000800	mg/L	2	0.00400	---	68	41-120%	---	---	
2-Methylnaphthalene	0.00261	0.0000400	0.0000800	mg/L	2	0.00400	---	65	40-121%	---	---	
Naphthalene	0.00259	0.0000400	0.0000800	mg/L	2	0.00400	---	65	21-133%	---	---	B
Phenanthrene	0.00294	0.0000200	0.0000400	mg/L	2	0.00400	---	74	54-120%	---	---	
Pyrene	0.00308	0.0000200	0.0000400	mg/L	2	0.00400	---	77	52-120%	---	---	
Hexachlorobenzene	0.00295	0.0000200	0.0000400	mg/L	2	0.00400	---	74	1-152%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 73 %*		*Limits: 40-110 %*			*Dilution: 2x*				
2-Fluorobiphenyl (Surr)			*73 %*		*50-110 %*			*"*				
Phenol-d6 (Surr)			*27 %*		*8-424 %*			*"*				
p-Terphenyl-d14 (Surr)			*81 %*		*50-135 %*			*"*				
2-Fluorophenol (Surr)			*40 %*		*20-110 %*			*"*				
2,4,6-Tribromophenol (Surr)			*84 %*		*40-125 %*			*"*				
LCS Dup (0050849-BSD2)			Prepared: 05/22/20 11:10		Analyzed: 05/23/20 00:10							**Q-19**
EPA 625.1												
Acenaphthene	0.00276	0.0000200	0.0000400	mg/L	2	0.00400	---	69	47-145%	2	30%	
Acenaphthylene	0.00289	0.0000200	0.0000400	mg/L	2	0.00400	---	72	33-145%	3	30%	
Anthracene	0.00294	0.0000200	0.0000400	mg/L	2	0.00400	---	74	43-120%	3	30%	
Benz(a)anthracene	0.00294	0.0000200	0.0000400	mg/L	2	0.00400	---	73	33-143%	6	30%	
Benzo(a)pyrene	0.00316	0.0000300	0.0000600	mg/L	2	0.00400	---	79	17-163%	2	30%	
Benzo(b)fluoranthene	0.00311	0.0000300	0.0000600	mg/L	2	0.00400	---	78	24-159%	5	30%	
Benzo(k)fluoranthene	0.00308	0.0000300	0.0000600	mg/L	2	0.00400	---	77	11-162%	6	30%	
Benzo(g,h,i)perylene	0.00315	0.0000200	0.0000400	mg/L	2	0.00400	---	79	1-219%	2	30%	
Chrysene	0.00301	0.0000200	0.0000400	mg/L	2	0.00400	---	75	17-168%	5	30%	
Dibenz(a,h)anthracene	0.00307	0.0000200	0.0000400	mg/L	2	0.00400	---	77	1-227%	3	30%	
Fluoranthene	0.00304	0.0000200	0.0000400	mg/L	2	0.00400	---	76	26-137%	0.9	30%	

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6720 SW Macadam Ave. Suite 125	Project Number: **000029-02.63 Task 14**	**Report ID:**
Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 625

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050849 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (0050849-BSD2)			Prepared: 05/22/20 11:10		Analyzed: 05/23/20 00:10							**Q-19**
Fluorene	0.00281	0.0000200	0.0000400	mg/L	2	0.00400	---	70	59-121%	4	30%	
Indeno(1,2,3-cd)pyrene	0.00294	0.0000200	0.0000400	mg/L	2	0.00400	---	74	1-171%	2	30%	
1-Methylnaphthalene	0.00253	0.0000400	0.0000800	mg/L	2	0.00400	---	63	41-120%	7	30%	
2-Methylnaphthalene	0.00260	0.0000400	0.0000800	mg/L	2	0.00400	---	65	40-121%	0.4	30%	
Naphthalene	0.00260	0.0000400	0.0000800	mg/L	2	0.00400	---	65	21-133%	0.5	30%	B
Phenanthrene	0.00291	0.0000200	0.0000400	mg/L	2	0.00400	---	73	54-120%	1	30%	
Pyrene	0.00306	0.0000200	0.0000400	mg/L	2	0.00400	---	76	52-120%	0.7	30%	
Hexachlorobenzene	0.00292	0.0000200	0.0000400	mg/L	2	0.00400	---	73	1-152%	1	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 73 %*		*Limits: 40-110 %*		*Dilution: 2x*					
2-Fluorobiphenyl (Surr)			*70 %*		*50-110 %*		*"*					
Phenol-d6 (Surr)			*26 %*		*8-424 %*		*"*					
p-Terphenyl-d14 (Surr)			*74 %*		*50-135 %*		*"*					
2-Fluorophenol (Surr)			*41 %*		*20-110 %*		*"*					
2,4,6-Tribromophenol (Surr)			*84 %*		*40-125 %*		*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0060006 - EPA 3015A							**Water**					
Blank (0060006-BLK1)			Prepared: 06/01/20 08:05		Analyzed: 06/01/20 18:41							
EPA 200.8												
Iron	ND	0.0250	0.0500	mg/L	1	---	---	---	---	---	---	
LCS (0060006-BS1)			Prepared: 06/01/20 08:05		Analyzed: 06/01/20 18:46							
EPA 200.8												
Iron	2.86	0.0250	0.0500	mg/L	1	2.78	---	103	85-115%	---	---	
Matrix Spike (0060006-MS1)			Prepared: 06/01/20 08:05		Analyzed: 06/01/20 19:34							
QC Source Sample: Non-SDG (A0E0604-01)												
EPA 200.8												
Iron	3.06	0.0250	0.0500	mg/L	1	2.78	0.228	102	70-130%	---	---	
Matrix Spike (0060006-MS2)			Prepared: 06/01/20 08:05		Analyzed: 06/01/20 20:42							
QC Source Sample: Non-SDG (A0E0706-11)												
EPA 200.8												
Iron	2.83	0.0250	0.0500	mg/L	1	2.78	ND	102	70-130%	---	---	
Matrix Spike Dup (0060006-MSD1)			Prepared: 06/01/20 08:05		Analyzed: 06/01/20 19:39							
QC Source Sample: Non-SDG (A0E0604-01)												
Iron	3.25	0.0250	0.0500	mg/L	1	2.78	0.228	109	70-130%	6	20%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050892 - Method Prep: Aq							**Water**					
Blank (0050892-BLK1)			Prepared: 05/26/20 09:05		Analyzed: 05/26/20 14:19							
D4282-02												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (0050892-BS1)			Prepared: 05/26/20 09:05		Analyzed: 05/26/20 14:19							
D4282-02												
Free Cyanide	0.0674	0.00250	0.00500	mg/L	1	0.0667	---	101	85-115%	---	---	
LCS Dup (0050892-BSD1)			Prepared: 05/26/20 09:05		Analyzed: 05/26/20 14:25							
D4282-02												
Free Cyanide	0.0699	0.00250	0.00500	mg/L	1	0.0667	---	105	85-115%	4	10%	
Duplicate (0050892-DUP1)			Prepared: 05/26/20 09:05		Analyzed: 05/26/20 14:25							
QC Source Sample: O107-04-051820 (A0E0517-01)												
D4282-02												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	ND	---	---	---	20%	
Matrix Spike (0050892-MS1)			Prepared: 05/26/20 09:05		Analyzed: 05/26/20 14:26							
QC Source Sample: O107-04-051820 (A0E0517-01)												
D4282-02												
Free Cyanide	0.0664	0.00250	0.00500	mg/L	1	0.0667	ND	100	80-120%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Weak Acid Dissociable (WAD) Cyanide by Flow Analysis (Aqueous)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050942 - Lachat Micro Dist - aqueous							**Water**					
Blank (0050942-BLK1)			Prepared: 05/27/20 09:08		Analyzed: 05/27/20 13:19							
SM 4500-CN I												
WAD Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	B-02
LCS (0050942-BS1)			Prepared: 05/27/20 09:08		Analyzed: 05/27/20 13:21							
SM 4500-CN I												
WAD Cyanide	0.253	0.00500	0.00500	mg/L	1	0.250	---	101	85-115%	---	---	
Duplicate (0050942-DUP1)			Prepared: 05/27/20 09:08		Analyzed: 05/27/20 13:25							
QC Source Sample: O107-04-051820 (A0E0517-01)												
SM 4500-CN I												
WAD Cyanide	ND	0.00500	0.00500	mg/L	1	---	ND	---	---	---	20%	B-02
Matrix Spike (0050942-MS1)			Prepared: 05/27/20 09:08		Analyzed: 05/27/20 13:27							
QC Source Sample: O107-04-051820 (A0E0517-01)												
SM 4500-CN I												
WAD Cyanide	0.256	0.00500	0.00500	mg/L	1	0.250	ND	103	80-120%	---	---	B-02

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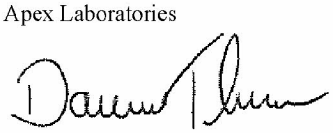

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SAMPLE PREPARATION INFORMATION

Purgeable Organic Compounds by EPA 624.1

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050662							
A0E0517-01	Water	EPA 624.1	05/18/20 09:55	05/19/20 13:50	5mL/5mL	5mL/5mL	1.00
A0E0517-02	Water	EPA 624.1	05/18/20 10:40	05/19/20 13:50	5mL/5mL	5mL/5mL	1.00

Semivolatile Organic Compounds by EPA 625

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050849							
A0E0517-01RE2	Water	EPA 625.1	05/18/20 09:55	05/22/20 11:10	1030mL/1mL	1000mL/1mL	0.97

Total Metals by EPA 200.8 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0060006							
A0E0517-01	Water	EPA 200.8	05/18/20 09:55	06/01/20 08:05	45mL/50mL	45mL/50mL	1.00

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050892							
A0E0517-01	Water	D4282-02	05/18/20 09:55	05/26/20 09:05	3mL/3mL	3mL/3mL	1.00

Weak Acid Dissociable (WAD) Cyanide by Flow Analysis (Aqueous)

Prep: Lachat Micro Dist - aqueous

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050942							
A0E0517-01	Water	SM 4500-CN I	05/18/20 09:55	05/27/20 09:08	6mL/6mL	6mL/6mL	1.00

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

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B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
V-01	Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Anchor QEA, LLC	Project: **Gasco - 1200Z - 2020**	
6720 SW Macadam Ave. Suite 125	Project Number: **000029-02.63 Task 14**	**Report ID:**
Portland, OR 97219	Project Manager: **Kendra Skellenger**	**A0E0517 - 06 16 20 0725**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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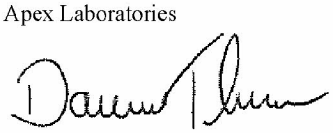

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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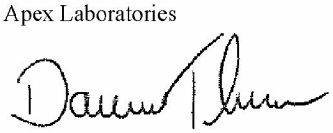

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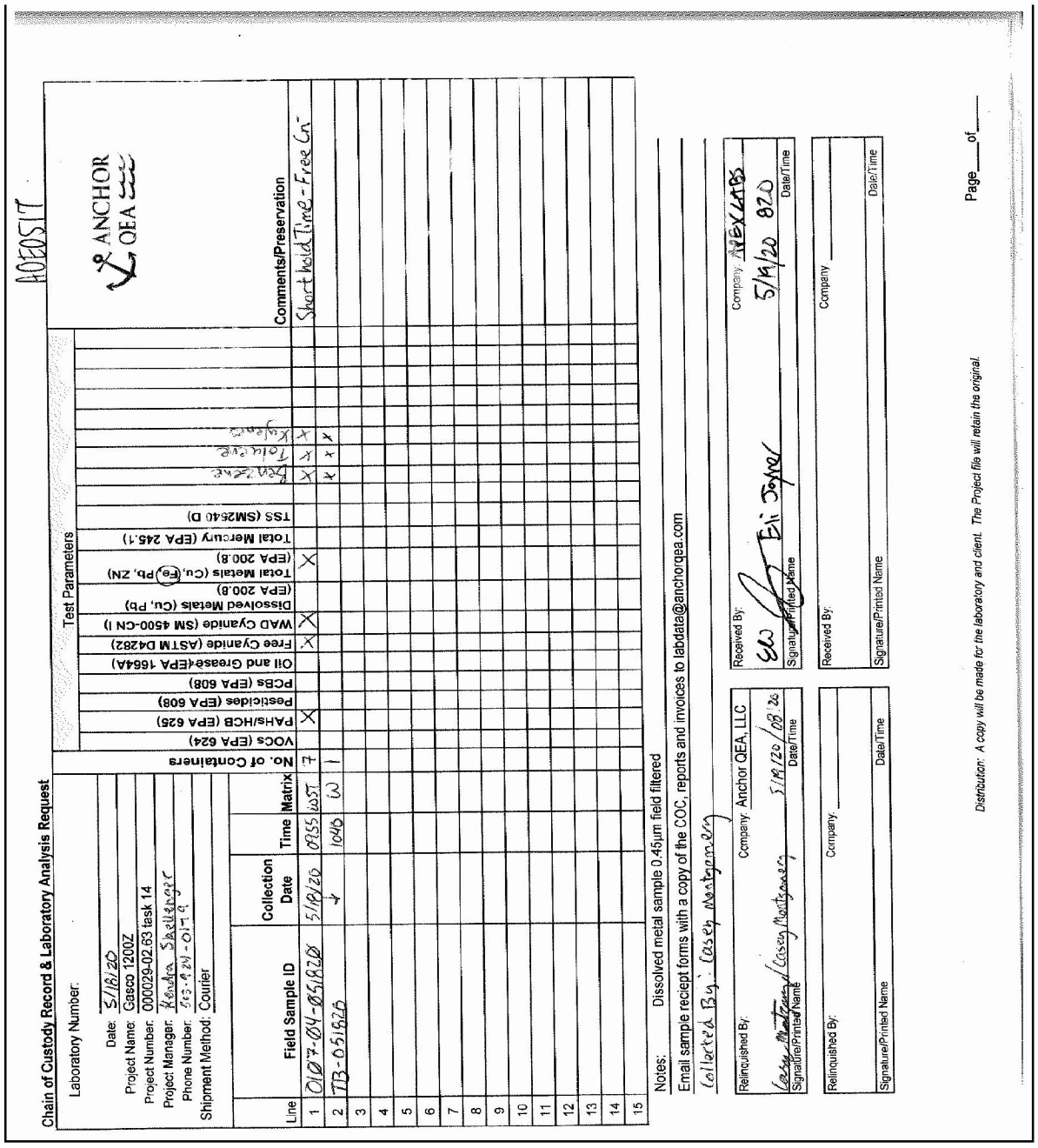

AOE0517

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number:
Date: 5/18/20
Project Name: Gasco 1200Z
Project Number: 000029-02.63 task 14
Project Manager: Kendra Skellenger
Phone Number: 503-924-0179
Shipment Method: Courier

Line	Field Sample ID	Collection Date	Time	Matrix	No. of Containers	VOCs (EPA 624)	PAHs/HCB (EPA 625)	Pesticides (EPA 608)	PCBs (EPA 608)	Oil and Grease (EPA 1664A)	Free Cyanide (ASTM D4282)	WAD Cyanide (SM 4500-CN I)	Dissolved Metals (Cu, Pb) (EPA 200.8)	Total Metals (Cu, Fe, Pb, Zn) (EPA 200.8)	Total Mercury (EPA 245.1)	TSS (SM2540 D)				Comments/Preservation
1	DUP-04-051820	5/18/20	0955	WST	7	X					X			X			X	X	X	Short hold Time - Free Cn
2	TB-051820	↓	1040	W	1															
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Notes: Dissolved metal sample 0.45µm field filtered
Email sample reciept forms with a copy of the COC, reports and invoices to labdata@anchorqea.com
Collected By: Casey Montgomery

Relinquished By: Casey Montgomery / Company: Anchor QEA, LLC
Signature/Printed Name: 5/19/20 / 08:26 Date/Time

Received By: Company: APEXLABS
Signature/Printed Name: Eli Jones 5/19/20 820 Date/Time

Relinquished By: Company:
Signature/Printed Name: Date/Time

Received By: Company:
Signature/Printed Name: Date/Time

Page ___ of ___

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

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APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A0 E0517

Project/Project #: Gasco 1200Z

Delivery Info:
Date/time received: 5/19/20 @ 820 By: EJ
Delivered by: Apex X Client ___ ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___
Cooler Inspection Date/time inspected: 5/19/20 @ 912 By: EJ
Chain of Custody included? Yes X No ___ Custody seals? Yes ___ No X
Signed/dated by client? Yes X No ___
Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.4						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition:	Good						

Cooler out of temp? (Y/N) Possible reason why:
If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA
Out of temperature samples form initiated? Yes/No/NA
Samples Inspection: Date/time inspected: 5/19/20 @ 921 By:
All samples intact? Yes X No ___ Comments:
Bottle labels/COCs agree? Yes X No ___ Comments:
COC/container discrepancies form initiated? Yes ___ No X
Containers/volumes received appropriate for analysis? Yes X No ___ Comments:
Do VOA vials have visible headspace? Yes X No ___ NA ___
Comments HS in TB-051820
Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes X No ___ NA ___
Comments:
Additional information: Trip blank not created in lab
Labeled by: Witness: Cooler Inspected by: See Project Contact Form: Y

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FIELD SAMPLING DATA SHEET

ANCHOR QEA

6720 SW Macadam Ave, Suite 125, Portland, OR 97219
Office: (503) 670-1108

PROJECT NAME:	1200Z Stormwater Monitoring 000029-02.58	**Location ID:**	Outfall 107
SITE ADDRESS:	7900 NW St Helens Rd, Portland, OR	**BLIND ID:**	O107- 04 - 051820

Easting: 7624051.869 **Northing:** 705434.910

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		PRTLY CLDY		CLOUDY		RAIN		No Wind	**TEMPERATURE:**	56 °F

YSI Calibration

Date:	5/18/20		
Probe S/N:	18A100119		
Calibration Solution	**Initial**	**Final**	**Temperature**
pH 4.01	4.05	4.0	19.0
pH 7.0	7.05	7.0	19.0

Water Quality Data

Sampling Method:	Grab
Time (24 hour):	0950
pH (SU):	6.59

§ METHODS: (A) Grab (B) Composite (C) Disposable Bailer (D) Peristaltic Pump (E) Waterra inertial pump (F) Other_____

STORMWATER SAMPLING

Date: 5/18/20 **Time:** 0955 Method Grab [√ if used]

Bottle Type			#	Volume	Preservative [circle]	Ice	Filter	pH	√
VOA Glass			3	40 ml	HCl	YES	NO	---	✓
Amber Glass			2	1L	None	YES	NO	---	✓
Green Poly			1	125ml	NaOH	YES	NO	---	✓
Red Poly-total			1	250ml	HNO_3	YES	NO	---	✓
Red Poly-dissolved**				250ml	HNO_3	YES	YES	---	
White Poly**				250ml	None	YES	NO	---	
Amber Glass*				1L	HCl	YES	NO	---	
Total Bottles (include duplicate count):			7	**VOA Trip Blank** (circle if collected)					

BOTTLE TYPE	ANALYSIS PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA vial - Glass	VOCs by EPA 624 (3 VOAs) Benzene, Toluene, Xylenes
AMBER - Glass (Unpreserved)	PAHs/HCB by EPA 625 (1L) Pesticides by EPA 608 (1L) PCBs by EPA 608 (1L)
AMBER - Glass (Preserved)	Oil and Grease by EPA 1664A (2L)
GREEN - Poly	Free Cyanide (ASTM D4282) and WAD Cyanide (SM 4500-CN I) ~~(1 x 125 mL for both)~~
RED DISSOLVED - Poly**	Dissolved Metals (Cu, Pb) by EPA 200.8
RED TOTAL - Poly	Total Metals (Cu, Fe, Pb, Zn) by EPA 200.8 (250 mL) Total Mercury by EPA 245.1 (250 mL)
WHITE - Poly	TSS by SM2540 D

Comments:

Turbidity = 6.94

SAMPLER: Casey Montgomery (PRINTED NAME) Casey Montgomery (SIGNATURE)

NWN-PCI0786859