



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Tuesday, September 12, 2023

John Renda  
Anchor QEA, LLC  
6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

RE: A3F1256 - Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon. - 000029-02.84 T-01.001E

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 A3F1256, which was received by the laboratory on 6/16/2023 at 3:04:00PM.

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](mailto: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

Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.

(See Cooler Receipt Form for details)

Default Cooler 2.4 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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.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

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Darwin Thomas, Business Development Director



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Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

### ANALYTICAL REPORT FOR SAMPLES

#### SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GS-061623-17	A3F1256-01	Water	06/16/23 09:25	06/16/23 15:04
GS-061623-18	A3F1256-02	Water	06/16/23 11:00	06/16/23 15:04
TB-061623	A3F1256-03	Water	06/16/23 12:00	06/16/23 15:04

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ANALYTICAL CASE NARRATIVE

A3F1256

Apex Laboratories

Benzofluoranthene Isomer Reporting:

Due to coelution on the analytical column, the Benzo(b)fluoranthene results represent the concentration of both Benzo(b)fluoranthene and Benzo(j)fluoranthene. Calibration is based on the response of Benzo(b)fluoranthene, and the results represent the combined Benzo(b,j)fluoranthene(s).

David Jack  
Technical Manager  
September 1, 2023

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ANALYTICAL CASE NARRATIVE

23F0472

Analytical Resources, LLC

Apex Laboratories

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Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

**Client:** Apex Laboratories LLC

**Project:** EPH VPH TBT

**Project Number:** A3F1256

**Work Order:** 23F0472

### Sample receipt

Sample(s) as listed on the preceding page were received 20-Jun-2023 10:30 under ARI work order 23F0472. For details regarding sample receipt, please refer to the Cooler Receipt Form.

### Volatile Petroleum Hydrocarbons - WA-Ecology VPH

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits except both surrogates in the samples. The sample was reanalyzed which resulted in passing surrogates. Both data sets have been reported. Additionally, PID: 2,5-Dibromotoluene which was out of control low in the blank spike BLF06191-BSD. The deviations have been flagged.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries except surrogate PID: 2,5-Dibromotoluene which was out of control low in BLF06191-BSD. The BS/BSD relative percent difference (RPD) were within control limits except n-Decane. The deviations have been flagged.

Note that per the method, the C12-C13 Aromatic range for the VPH should only be used for evaluating samples when VPH is analyzed without an accompanying EPH method request.

### Extractable Organic Hydrocarbons - WA-Ecology

The sample(s) were extracted and analyzed within the recommended holding times except Aromatics. The original extraction had very low Naphthalene and Acenaphthalene (~10%). Investigation determined that there was excessive blow-down affecting the lower carbon ranges. There was an attempt to re-fractionate the extracts however due to a computer program error the wrong solvents were used and full extracts were lost. The re-extract occurred out of hold and the deviation has been flagged. Both data sets have been reported.

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

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The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries except >C10-12 Aromatics and >C12-16 Aromatics as describe above. The deviations have been flagged.

Apex Laboratories

A handwritten signature in black ink, appearing to read "Darwin Thomas".

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SUBCONTRACT LABORATORY ANALYTICAL CASE NARRATIVE

Analytical Resources, LLC

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## ANALYTICAL SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01RE1)		Matrix: Water			Batch: 23F1082			
Diesel	974000	4820	9640	ug/L	40	06/30/23 09:02	NWTPH-Dx	
Oil	ND	9640	19300	ug/L	40	06/30/23 09:02	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: %		Limits: 50-150 %	40	06/30/23 09:02	NWTPH-Dx	S-01
GS-061623-18 (A3F1256-02)		Matrix: Water			Batch: 23F1082			
Diesel	194	98.0	196	ug/L	1	06/29/23 23:43	NWTPH-Dx	J
Oil	229	196	392	ug/L	1	06/29/23 23:43	NWTPH-Dx	J
Surrogate: o-Terphenyl (Surr)		Recovery: 96 %		Limits: 50-150 %	1	06/29/23 23:43	NWTPH-Dx	

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## ANALYTICAL SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01RE1)		Matrix: Water			Batch: 23F0871			
Gasoline Range Organics	720	50.0	100	ug/L	1	06/23/23 16:28	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 114 %	Limits: 50-150 %	1	06/23/23 16:28	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		100 %	50-150 %	1	06/23/23 16:28	NWTPH-Gx (MS)		
GS-061623-18 (A3F1256-02RE1)		Matrix: Water			Batch: 23F0871			
Gasoline Range Organics	ND	50.0	100	ug/L	1	06/23/23 16:55	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 104 %	Limits: 50-150 %	1	06/23/23 16:55	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	06/23/23 16:55	NWTPH-Gx (MS)		

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## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01RE1)				Matrix: Water		Batch: 23F0871		
Acetone	ND	20.0	20.0	ug/L	1	06/23/23 16:28	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/23/23 16:28	EPA 8260D	
<b>Benzene</b>	<b>1.32</b>	0.100	0.200	ug/L	1	06/23/23 16:28	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/23/23 16:28	EPA 8260D	
<b>2-Butanone (MEK)</b>	<b>40.6</b>	5.00	10.0	ug/L	1	06/23/23 16:28	EPA 8260D	
<b>n-Butylbenzene</b>	<b>1.40</b>	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
<b>sec-Butylbenzene</b>	<b>1.36</b>	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/23/23 16:28	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/23/23 16:28	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	

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Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01RE1)		Matrix: Water			Batch: 23F0871			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Ethylbenzene	0.800	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/23/23 16:28	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	06/23/23 16:28	EPA 8260D	
Isopropylbenzene	4.09	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/23/23 16:28	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	06/23/23 16:28	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Naphthalene	2.13	1.00	2.00	ug/L	1	06/23/23 16:28	EPA 8260D	
n-Propylbenzene	1.59	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.500	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	06/23/23 16:28	EPA 8260D	
m,p-Xylene	0.530	0.500	1.00	ug/L	1	06/23/23 16:28	EPA 8260D	J
o-Xylene	1.17	0.250	0.500	ug/L	1	06/23/23 16:28	EPA 8260D	

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01RE1)		Matrix: Water			Batch: 23F0871			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %	Limits: 80-120 %	1	06/23/23 16:28	EPA 8260D		
Toluene-d8 (Surr)		95 %	80-120 %	1	06/23/23 16:28	EPA 8260D		
4-Bromofluorobenzene (Surr)		95 %	80-120 %	1	06/23/23 16:28	EPA 8260D		
GS-061623-18 (A3F1256-02RE1)		Matrix: Water			Batch: 23F0871			
Acetone	ND	10.0	20.0	ug/L	1	06/23/23 16:55	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	06/23/23 16:55	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/23/23 16:55	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/23/23 16:55	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/23/23 16:55	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/23/23 16:55	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	

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Darwin Thomas, Business Development Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-061623-18 (A3F1256-02RE1)</b>		<b>Matrix: Water</b>			<b>Batch: 23F0871</b>			
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/23/23 16:55	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	06/23/23 16:55	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/23/23 16:55	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	06/23/23 16:55	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	06/23/23 16:55	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-061623-18 (A3F1256-02RE1)</b>		<b>Matrix: Water</b>			<b>Batch: 23F0871</b>			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	06/23/23 16:55	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	06/23/23 16:55	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	06/23/23 16:55	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>06/23/23 16:55</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/23/23 16:55</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/23/23 16:55</i>	<i>EPA 8260D</i>	
<b>TB-061623 (A3F1256-03)</b>		<b>Matrix: Water</b>			<b>Batch: 23F0811</b>			
Acetone	ND	10.0	20.0	ug/L	1	06/22/23 13:47	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	06/22/23 13:47	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/22/23 13:47	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/22/23 13:47	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/22/23 13:47	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/22/23 13:47	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-061623 (A3F1256-03)		Matrix: Water			Batch: 23F0811			
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/22/23 13:47	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	06/22/23 13:47	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/22/23 13:47	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	06/22/23 13:47	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	06/22/23 13:47	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>TB-061623 (A3F1256-03)</b>		<b>Matrix: Water</b>			<b>Batch: 23F0811</b>			
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	06/22/23 13:47	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	06/22/23 13:47	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	06/22/23 13:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 110 %		Limits: 80-120 %	1	06/22/23 13:47	EPA 8260D	
Toluene-d8 (Surr)		103 %		80-120 %	1	06/22/23 13:47	EPA 8260D	
4-Bromofluorobenzene (Surr)		107 %		80-120 %	1	06/22/23 13:47	EPA 8260D	

Apex Laboratories

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## ANALYTICAL SAMPLE RESULTS

## Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01)		Matrix: Water			Batch: 23F0769			
Acenaphthene	13.2	0.199	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Acenaphthylene	ND	1.12	1.12	ug/L	10	06/21/23 17:19	EPA 8270E LVI	R-02
Anthracene	ND	0.398	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Benz(a)anthracene	0.129	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	J
Benzo(a)pyrene	ND	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.199	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Chrysene	0.134	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	J
Dibenz(a,h)anthracene	ND	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Fluoranthene	0.219	0.199	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	J
Fluorene	8.44	0.199	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	0.104	0.0994	0.199	ug/L	10	06/21/23 17:19	EPA 8270E LVI	J
1-Methylnaphthalene	2.19	0.398	0.795	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.795	0.795	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Naphthalene	ND	1.61	1.61	ug/L	10	06/21/23 17:19	EPA 8270E LVI	R-02
Phenanthrene	ND	0.398	0.795	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Pyrene	0.348	0.199	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	J
Carbazole	ND	0.199	0.398	ug/L	10	06/21/23 17:19	EPA 8270E LVI	
Dibenzofuran	ND	0.994	0.994	ug/L	10	06/21/23 17:19	EPA 8270E LVI	R-02
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: %		Limits: 78-134 %	10	06/21/23 17:19	EPA 8270E LVI	S-01
Benzo(a)pyrene-d12 (Surr)		87 %		80-132 %	10	06/21/23 17:19	EPA 8270E LVI	S-05

## GS-061623-18 (A3F1256-02)

Matrix: Water

Batch: 23F0769

Acenaphthene	0.796	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Acenaphthylene	1.53	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Anthracene	1.05	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Benz(a)anthracene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Benzo(a)pyrene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Benzo(b)fluoranthene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Benzo(k)fluoranthene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Benzo(g,h,i)perylene	ND	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI
Chrysene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## ANALYTICAL SAMPLE RESULTS

## Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-18 (A3F1256-02)		Matrix: Water			Batch: 23F0769			
Dibenz(a,h)anthracene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Fluoranthene	ND	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Fluorene	ND	0.337	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0843	0.169	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.337	0.674	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.337	0.674	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Naphthalene	ND	0.337	0.674	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Phenanthrene	ND	0.337	0.674	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Pyrene	ND	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Carbazole	ND	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Dibenzofuran	ND	0.169	0.337	ug/L	10	06/21/23 18:24	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 804 %		Limits: 78-134 %	10	06/21/23 18:24	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)		1090 %		80-132 %	10	06/21/23 18:24	EPA 8270E LVI	S-05

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## ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01)				Matrix: Water				
Batch: 23F0976								
Aluminum	ND	25.0	50.0	ug/L	1	06/28/23 19:08	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	06/28/23 19:08	EPA 6020B	
Arsenic	4.66	0.500	1.00	ug/L	1	06/28/23 19:08	EPA 6020B	
Barium	67.1	1.00	2.00	ug/L	1	06/28/23 19:08	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	06/28/23 19:08	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	06/28/23 19:08	EPA 6020B	
Chromium	1.04	1.00	2.00	ug/L	1	06/28/23 19:08	EPA 6020B	J
Copper	3.70	1.00	2.00	ug/L	1	06/28/23 19:08	EPA 6020B	
Iron	26300	25.0	50.0	ug/L	1	06/28/23 19:08	EPA 6020B	
Lead	2.44	0.110	0.200	ug/L	1	06/28/23 19:08	EPA 6020B	
Manganese	1730	0.500	1.00	ug/L	1	06/28/23 19:08	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	06/28/23 19:08	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	06/28/23 19:08	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	06/28/23 19:08	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	06/28/23 19:08	EPA 6020B	
Zinc	3.36	2.00	4.00	ug/L	1	06/28/23 19:08	EPA 6020B	J
GS-061623-17 (A3F1256-01RE1)				Matrix: Water				
Batch: 23F0976								
Nickel	8.74	1.00	2.00	ug/L	1	06/29/23 20:31	EPA 6020B	
Vanadium	16.4	1.00	2.00	ug/L	1	06/29/23 20:31	EPA 6020B	
GS-061623-18 (A3F1256-02)				Matrix: Water				
Batch: 23F0976								
Aluminum	ND	25.0	50.0	ug/L	1	06/28/23 19:13	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Barium	6.20	1.00	2.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	06/28/23 19:13	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	06/28/23 19:13	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Iron	219	25.0	50.0	ug/L	1	06/28/23 19:13	EPA 6020B	

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# ANALYTICAL REPORT

Apex Laboratories, LLC

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ORELAP ID: OR100062

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-18 (A3F1256-02)		Matrix: Water						
Lead	ND	0.110	0.200	ug/L	1	06/28/23 19:13	EPA 6020B	
Manganese	55.7	0.500	1.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	06/28/23 19:13	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	06/28/23 19:13	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	06/28/23 19:13	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	06/28/23 19:13	EPA 6020B	
Zinc	5.68	2.00	4.00	ug/L	1	06/28/23 19:13	EPA 6020B	
GS-061623-18 (A3F1256-02RE1)		Matrix: Water						
Batch: 23F0976								
Nickel	2.42	1.00	2.00	ug/L	1	06/29/23 20:36	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	06/29/23 20:36	EPA 6020B	

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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****ANALYTICAL SAMPLE RESULTS****Total Cyanide by Flow Analysis (Aqueous)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-061623-17 (A3F1256-01)</b>				<b>Matrix: Water</b>		<b>Batch: 23F0720</b>		
<b>Total Cyanide</b>	<b>0.0143</b>	0.00500	0.00500	mg/L	1	06/21/23 14:04	EPA 335.4	
<b>GS-061623-18 (A3F1256-02)</b>				<b>Matrix: Water</b>		<b>Batch: 23F0720</b>		
<b>Total Cyanide</b>	<b>0.202</b>	0.00500	0.00500	mg/L	1	06/21/23 14:06	EPA 335.4	

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Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

## ANALYTICAL SAMPLE RESULTS

### Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-061623-17 (A3F1256-01)</b>				<b>Matrix: Water</b>		<b>Batch: 23F0918</b>		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	06/27/23 11:51	D6888-09	
<b>GS-061623-18 (A3F1256-02)</b>				<b>Matrix: Water</b>		<b>Batch: 23F0918</b>		
Available Cyanide	<b>0.00332</b>	0.00100	0.00200	mg/L	1	06/27/23 11:52	D6888-09	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****ANALYTICAL SAMPLE RESULTS****Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-061623-17 (A3F1256-01)</b>				<b>Matrix: Water</b>		<b>Batch: 23F0695</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	06/20/23 15:16	D4282-02	
<b>GS-061623-18 (A3F1256-02)</b>				<b>Matrix: Water</b>		<b>Batch: 23F0695</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	06/20/23 15:16	D4282-02	

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## Analytical Resources, LLC

## ANALYTICAL SAMPLE RESULTS (Subcontracted)

## Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01)				Matrix: Water		Batch: BLF0596		
Batch: BLF0596								
C8-C10 Aliphatics	ND	---	40	ug/L	1	07/11/23 15:45	WA EPH	U
>C10-C12 Aliphatics	160	---	40	ug/L	1	07/11/23 15:45	WA EPH	
>C12-C16 Aliphatics	512	---	40	ug/L	1	07/11/23 15:45	WA EPH	
>C16-C21 Aliphatics	352	---	40	ug/L	1	07/11/23 15:45	WA EPH	
>C21-C34 Aliphatics	64	---	40	ug/L	1	07/11/23 15:45	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	07/12/23 17:09	WA EPH	U
>C10-C12 Aromatics	52	---	40	ug/L	1	07/12/23 17:09	WA EPH	
>C12-C16 Aromatics	248	---	40	ug/L	1	07/12/23 17:09	WA EPH	
>C16-C21 Aromatics	242	---	40	ug/L	1	07/12/23 17:09	WA EPH	
>C21-C34 Aromatics	ND	---	40	ug/L	1	07/12/23 17:09	WA EPH	U
Batch: BLF0691								
C5-C6 Aliphatics	ND	---	50	ug/L	1	06/23/23 19:34	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	06/23/23 19:34	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	06/23/23 19:34	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	06/23/23 19:34	WA VPH	U
C8-C10 Aromatics	ND	---	50	ug/L	1	06/23/23 19:34	WA VPH	U
>C10-C12 Aromatics	93	---	50	ug/L	1	06/23/23 19:34	WA VPH	
>C12-C13 Aromatics	130	---	50	ug/L	1	06/23/23 19:34	WA VPH	
Methyl tert-butyl Ether	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
Benzene	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
Toluene	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	06/23/23 19:34	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
1-Methylnaphthalene	5	---	5	ug/L	1	06/23/23 19:34	WA VPH	
o-Xylene	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	06/23/23 19:34	WA VPH	U
n-Octane	7	---	5	ug/L	1	06/23/23 19:34	WA VPH	
n-Decane	17	---	5	ug/L	1	06/23/23 19:34	WA VPH	

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## ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****ANALYTICAL SAMPLE RESULTS (Subcontracted)****Washington Department of Ecology Methods**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01)			Matrix: Water			Batch: BLF0691		
n-Dodecane Batch: BLF0596	21	---	5	ug/L	1	06/23/23 19:34	WA VPH	
Surrogate: o-Terphenyl		Recovery:	48.1 %	Limits:	41-120 %	1	07/12/23 17:09	WA EPH
1-Chloro-octadecane			46.0 %		36-120 %	1	07/11/23 15:45	WA EPH
Batch: BLF0691								
PID: 2,5-Dibromotoluene			44.2 %	60-140 %	1	06/23/23 19:34	WA VPH	*
FID: 2,5-Dibromotoluene			55.0 %	60-140 %	1	06/23/23 19:34	WA VPH	*
GS-061623-17 (A3F1256-01RE1)			Matrix: Water			Batch: BLF0696		
Batch: BLF0696								
C5-C6 Aliphatics	ND	---	50	ug/L	1	06/26/23 12:32	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	06/26/23 12:32	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	06/26/23 12:32	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	06/26/23 12:32	WA VPH	U
C8-C10 Aromatics	51	---	50	ug/L	1	06/26/23 12:32	WA VPH	
>C10-C12 Aromatics	230	---	50	ug/L	1	06/26/23 12:32	WA VPH	
>C12-C13 Aromatics	320	---	50	ug/L	1	06/26/23 12:32	WA VPH	
Methyl tert-butyl Ether	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
Benzene	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
Toluene	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	06/26/23 12:32	WA VPH	U
Naphthalene	6	---	5	ug/L	1	06/26/23 12:32	WA VPH	
1-Methylnaphthalene	10	---	5	ug/L	1	06/26/23 12:32	WA VPH	
o-Xylene	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
n-Octane	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
n-Decane	ND	---	5	ug/L	1	06/26/23 12:32	WA VPH	U
n-Dodecane Batch: BLG0608	15	---	5	ug/L	1	06/26/23 12:32	WA VPH	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****ANALYTICAL SAMPLE RESULTS (Subcontracted)****Washington Department of Ecology Methods**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-17 (A3F1256-01RE1)			Matrix: Water			Batch: BLG0608		
C8-C10 Aliphatics	ND	---	66	ug/L	1	07/28/23 20:44	WA EPH	H, U
>C10-C12 Aliphatics	134	---	66	ug/L	1	07/28/23 20:44	WA EPH	H
>C12-C16 Aliphatics	542	---	66	ug/L	1	07/28/23 20:44	WA EPH	H
>C16-C21 Aliphatics	436	---	66	ug/L	1	07/28/23 20:44	WA EPH	H
>C21-C34 Aliphatics	91	---	66	ug/L	1	07/28/23 20:44	WA EPH	H
C8-C10 Aromatics	ND	---	66	ug/L	1	07/28/23 16:02	WA EPH	H, U
>C10-C12 Aromatics	ND	---	66	ug/L	1	07/28/23 16:02	WA EPH	H, U
>C12-C16 Aromatics	238	---	66	ug/L	1	07/28/23 16:02	WA EPH	H
>C16-C21 Aromatics	289	---	66	ug/L	1	07/28/23 16:02	WA EPH	H
>C21-C34 Aromatics	ND	---	66	ug/L	1	07/28/23 16:02	WA EPH	H, U
Batch: BLF0696								
Surrogate: PID: 2,5-Dibromotoluene		Recovery:	88.0 %	Limits:	60-140 %	1	06/26/23 12:32	WA VPH
FID: 2,5-Dibromotoluene			84.6 %		60-140 %	1	06/26/23 12:32	WA VPH
Batch: BLG0608								
o-Terphenyl			71.9 %		41-120 %	1	07/28/23 16:02	WA EPH H
1-Chloro-octadecane			62.3 %		36-120 %	1	07/28/23 20:44	WA EPH H
GS-061623-18 (A3F1256-02)			Matrix: Water			Batch: BLF0596		
Batch: BLF0596								
C8-C10 Aliphatics	ND	---	40	ug/L	1	07/11/23 16:11	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	07/11/23 16:11	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	07/11/23 16:11	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	07/11/23 16:11	WA EPH	U
>C21-C34 Aliphatics	65	---	40	ug/L	1	07/11/23 16:11	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	07/12/23 17:34	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	07/12/23 17:34	WA EPH	U
>C12-C16 Aromatics	ND	---	40	ug/L	1	07/12/23 17:34	WA EPH	U
>C16-C21 Aromatics	ND	---	40	ug/L	1	07/12/23 17:34	WA EPH	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	07/12/23 17:34	WA EPH	U
Batch: BLF0691								
C5-C6 Aliphatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## Analytical Resources, LLC

## ANALYTICAL SAMPLE RESULTS (Subcontracted)

## Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-18 (A3F1256-02)				Matrix: Water		Batch: BLF0691		
>C8-C10 Aliphatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U
C8-C10 Aromatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	06/23/23 20:05	WA VPH	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
Benzene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
Toluene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	06/23/23 20:05	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
1-Methylnaphthalene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
o-Xylene	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
n-Octane	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
n-Decane	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
n-Dodecane	ND	---	5	ug/L	1	06/23/23 20:05	WA VPH	U
Batch: BLF0596								
Surrogate: o-Terphenyl		Recovery: 67.3 %		Limits: 41-120 %	1	07/12/23 17:34	WA EPH	
1-Chloro-octadecane		58.4 %		36-120 %	1	07/11/23 16:11	WA EPH	
Batch: BLF0691								
PID: 2,5-Dibromotoluene			77.4 %	60-140 %	1	06/23/23 20:05	WA VPH	
FID: 2,5-Dibromotoluene			82.3 %	60-140 %	1	06/23/23 20:05	WA VPH	

## GS-061623-18 (A3F1256-02RE1)

Matrix: Water

Batch: BLG0608

Batch: BLG0608								
C8-C10 Aliphatics	ND	---	40	ug/L	1	07/28/23 21:09	WA EPH	H, U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	07/28/23 21:09	WA EPH	H, U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	07/28/23 21:09	WA EPH	H, U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	07/28/23 21:09	WA EPH	H, U

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Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-061623-18 (A3F1256-02RE1)		Matrix: Water			Batch: BLG0608			
>C21-C34 Aliphatics	ND	---	40	ug/L	1	07/28/23 21:09	WA EPH	H, U
C8-C10 Aromatics	ND	---	40	ug/L	1	07/28/23 16:27	WA EPH	H, U
>C10-C12 Aromatics	ND	---	40	ug/L	1	07/28/23 16:27	WA EPH	H, U
>C12-C16 Aromatics	ND	---	40	ug/L	1	07/28/23 16:27	WA EPH	H, U
>C16-C21 Aromatics	ND	---	40	ug/L	1	07/28/23 16:27	WA EPH	H, U
>C21-C34 Aromatics	ND	---	40	ug/L	1	07/28/23 16:27	WA EPH	H, U
Batch: BLG0608								
Surrogate: o-Terphenyl		Recovery:	73.5 %	Limits:	41-120 %	1	07/28/23 16:27	WA EPH H
1-Chloro-octadecane			61.9 %		36-120 %	1	07/28/23 21:09	WA EPH H

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street  
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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****QUALITY CONTROL (QC) SAMPLE RESULTS****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23F1082 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (23F1082-BLK1)			Prepared: 06/29/23 07:18    Analyzed: 06/29/23 20:37										
NWTPH-Dx													
Diesel	ND	100	200	ug/L	1	---	---	---	---	---	---		
Oil	ND	200	400	ug/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x							
LCS (23F1082-BS1)			Prepared: 06/29/23 07:18    Analyzed: 06/29/23 20:58										
NWTPH-Dx													
Diesel	963	100	200	ug/L	1	1250	---	77	36-132%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (23F1082-BSD1)			Prepared: 06/29/23 07:18    Analyzed: 06/29/23 21:19										Q-19
NWTPH-Dx													
Diesel	907	100	200	ug/L	1	1250	---	73	36-132%	6	30%		
Surr: o-Terphenyl (Surr)		Recovery: 101 %		Limits: 50-150 %		Dilution: 1x							

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Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Blank (23F0811-BLK1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 11:58							
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		109 %		50-150 %		"						
LCS (23F0811-BS2)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 11:31							
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	494	50.0	100	ug/L	1	500	---	99	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"						
Duplicate (23F0811-DUP1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 19:13							
<u>QC Source Sample: Non-SDG (A3F1273-01)</u>												
Gasoline Range Organics	51.0	50.0	100	ug/L	1	---	51.2	---	---	0.5	30%	J
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		110 %		50-150 %		"						

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## ANALYTICAL REPORT

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
Blank (23F0871-BLK1)			Prepared: 06/23/23 10:58   Analyzed: 06/23/23 15:06									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 103 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						
LCS (23F0871-BS2)			Prepared: 06/23/23 10:58   Analyzed: 06/23/23 14:38									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	493	50.0	100	ug/L	1	500	---	99	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 100 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		101 %		50-150 %		"						
Duplicate (23F0871-DUP1)			Prepared: 06/23/23 10:58   Analyzed: 06/23/23 19:11									
<u>QC Source Sample: Non-SDG (A3F1342-07)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 104 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Blank (23F0811-BLK1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 11:58							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Blank (23F0811-BLK1)						Prepared: 06/22/23 09:04 Analyzed: 06/22/23 11:58						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 108 % Limits: 80-120 % Dilution: 1x												

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Blank (23F0811-BLK1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 11:58							
Surr: Toluene-d8 (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		107 %		80-120 %		"						
LCS (23F0811-BS1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 10:51							
EPA 8260D												
Acetone	39.5	10.0	20.0	ug/L	1	40.0	---	99	80-120%	---	---	
Acrylonitrile	22.2	1.00	2.00	ug/L	1	20.0	---	111	80-120%	---	---	
Benzene	20.6	0.100	0.200	ug/L	1	20.0	---	103	80-120%	---	---	
Bromobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromodichloromethane	23.9	0.500	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
Bromoform	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromomethane	26.9	5.00	5.00	ug/L	1	20.0	---	134	80-120%	---	---	Q-56
2-Butanone (MEK)	44.9	5.00	10.0	ug/L	1	40.0	---	112	80-120%	---	---	
n-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
sec-Butylbenzene	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
tert-Butylbenzene	17.4	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Carbon disulfide	21.0	5.00	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
Carbon tetrachloride	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	32.2	5.00	5.00	ug/L	1	20.0	---	161	80-120%	---	---	Q-56, ICV-01
Chloroform	21.3	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Chloromethane	20.0	2.50	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
2-Chlorotoluene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	18.9	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromochloromethane	20.5	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.1	2.50	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.3	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromomethane	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dichlorobenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1-Dichloroethane	21.9	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
LCS (23F0811-BS1)						Prepared: 06/22/23 09:04 Analyzed: 06/22/23 10:51						
1,2-Dichloroethane (EDC)	21.7	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethene	20.3	0.200	0.200	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,2-Dichloroethene	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloropropane	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	19.7	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloropropene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	20.7	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,3-Dichloropropene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Ethylbenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	22.1	2.50	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
2-Hexanone	42.2	5.00	10.0	ug/L	1	40.0	---	106	80-120%	---	---	
Isopropylbenzene	18.9	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Isopropyltoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	20.7	5.00	10.0	ug/L	1	20.0	---	104	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	41.8	5.00	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.5	0.500	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Naphthalene	13.6	2.00	2.00	ug/L	1	20.0	---	68	80-120%	---	---	Q-55
n-Propylbenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Styrene	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1,2-Tetrachloroethane	24.8	0.200	0.400	ug/L	1	20.0	---	124	80-120%	---	---	Q-56
1,1,2,2-Tetrachloroethane	21.3	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Tetrachloroethene (PCE)	19.4	0.200	0.200	ug/L	1	20.0	---	97	80-120%	---	---	
Toluene	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	18.6	1.00	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,4-Trichlorobenzene	18.5	1.00	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1-Trichloroethane	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,2-Trichloroethane	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Trichloroethene (TCE)	20.3	0.200	0.200	ug/L	1	20.0	---	102	80-120%	---	---	
Trichlorofluoromethane	29.5	1.00	2.00	ug/L	1	20.0	---	147	80-120%	---	---	Q-56
1,2,3-Trichloropropane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trimethylbenzene	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,3,5-Trimethylbenzene	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
LCS (23F0811-BS1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 10:51							
Vinyl chloride	20.8	0.200	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
m,p-Xylene	39.9	0.500	1.00	ug/L	1	40.0	---	100	80-120%	---	---	
o-Xylene	17.9	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

**Duplicate (23F0811-DUP1)**

Prepared: 06/22/23 09:04 Analyzed: 06/22/23 19:13

**QC Source Sample: Non-SDG (A3F1273-01)**

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.500	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Duplicate (23F0811-DUP1)			Prepared: 06/22/23 09:04   Analyzed: 06/22/23 19:13									
QC Source Sample: Non-SDG (A3F1273-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	0.210	0.200	0.200	ug/L	1	---	0.210	---	---	0	30%	
cis-1,2-Dichloroethene	0.250	0.200	0.400	ug/L	1	---	0.250	---	---	0	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	2.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	2.57	0.200	0.200	ug/L	1	---	2.52	---	---	2	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Duplicate (23F0811-DUP1)			Prepared: 06/22/23 09:04   Analyzed: 06/22/23 19:13									
QC Source Sample: Non-SDG (A3F1273-01)												
Trichloroethene (TCE)	4.17	0.200	0.200	ug/L	1	---	4.09	---	---	2	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.200	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 111 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		107 %		80-120 %		"						
Matrix Spike (23F0811-MS1)						Prepared: 06/22/23 09:04   Analyzed: 06/22/23 22:24						
QC Source Sample: Non-SDG (A3F1234-08)												
EPA 8260D												
Acetone	39.9	10.0	20.0	ug/L	1	40.0	ND	100	39-160%	---	---	
Acrylonitrile	20.5	1.00	2.00	ug/L	1	20.0	ND	102	63-135%	---	---	
Benzene	19.3	0.100	0.200	ug/L	1	20.0	ND	96	79-120%	---	---	
Bromobenzene	18.4	0.250	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
Bromochloromethane	21.8	0.500	1.00	ug/L	1	20.0	ND	109	78-123%	---	---	
Bromodichloromethane	22.0	0.500	1.00	ug/L	1	20.0	ND	110	79-125%	---	---	
Bromoform	19.5	0.500	1.00	ug/L	1	20.0	ND	98	66-130%	---	---	
Bromomethane	25.7	5.00	5.00	ug/L	1	20.0	ND	129	53-141%	---	---	Q-54
2-Butanone (MEK)	40.8	5.00	10.0	ug/L	1	40.0	ND	102	56-143%	---	---	
n-Butylbenzene	17.6	0.500	1.00	ug/L	1	20.0	ND	88	75-128%	---	---	
sec-Butylbenzene	17.5	0.500	1.00	ug/L	1	20.0	ND	87	77-126%	---	---	
tert-Butylbenzene	16.0	0.500	1.00	ug/L	1	20.0	ND	80	78-124%	---	---	
Carbon disulfide	19.4	5.00	10.0	ug/L	1	20.0	ND	97	64-133%	---	---	
Carbon tetrachloride	20.2	0.500	1.00	ug/L	1	20.0	ND	101	72-136%	---	---	
Chlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	2.47	93	80-120%	---	---	
Chloroethane	32.2	5.00	5.00	ug/L	1	20.0	ND	161	60-138%	---	---	Q-54e, ICV-01
Chloroform	20.0	0.500	1.00	ug/L	1	20.0	ND	100	79-124%	---	---	

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Darwin Thomas, Business Development Director

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# ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike (23F0811-MS1)				Prepared: 06/22/23 09:04		Analyzed: 06/22/23 22:24						
QC Source Sample: Non-SDG (A3F1234-08)												
Chloromethane	20.3	2.50	5.00	ug/L	1	20.0	ND	102	50-139%	---	---	
2-Chlorotoluene	17.1	0.500	1.00	ug/L	1	20.0	ND	86	79-122%	---	---	
4-Chlorotoluene	17.5	0.500	1.00	ug/L	1	20.0	ND	88	78-122%	---	---	
Dibromochloromethane	18.8	0.500	1.00	ug/L	1	20.0	ND	94	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.9	2.50	5.00	ug/L	1	20.0	ND	89	62-128%	---	---	
1,2-Dibromoethane (EDB)	18.8	0.250	0.500	ug/L	1	20.0	ND	94	77-121%	---	---	
Dibromomethane	21.1	0.500	1.00	ug/L	1	20.0	ND	106	79-123%	---	---	
1,2-Dichlorobenzene	18.6	0.250	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
1,3-Dichlorobenzene	18.8	0.250	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
1,4-Dichlorobenzene	18.0	0.250	0.500	ug/L	1	20.0	ND	90	79-120%	---	---	
Dichlorodifluoromethane	19.0	0.500	1.00	ug/L	1	20.0	ND	95	32-152%	---	---	
1,1-Dichloroethane	20.5	0.200	0.400	ug/L	1	20.0	0.310	101	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.2	0.200	0.400	ug/L	1	20.0	ND	101	73-128%	---	---	
1,1-Dichloroethene	19.2	0.200	0.200	ug/L	1	20.0	0.260	95	71-131%	---	---	
cis-1,2-Dichloroethene	21.5	0.200	0.400	ug/L	1	20.0	2.26	96	78-123%	---	---	
trans-1,2-Dichloroethene	18.9	0.200	0.400	ug/L	1	20.0	ND	95	75-124%	---	---	
1,2-Dichloropropane	19.4	0.250	0.500	ug/L	1	20.0	ND	97	78-122%	---	---	
1,3-Dichloropropane	18.2	0.500	1.00	ug/L	1	20.0	ND	91	80-120%	---	---	
2,2-Dichloropropane	16.0	0.500	1.00	ug/L	1	20.0	ND	80	60-139%	---	---	
1,1-Dichloropropene	18.7	0.500	1.00	ug/L	1	20.0	ND	93	79-125%	---	---	
cis-1,3-Dichloropropene	16.3	0.500	1.00	ug/L	1	20.0	ND	81	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	0.500	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Ethylbenzene	18.6	0.250	0.500	ug/L	1	20.0	ND	93	79-121%	---	---	
Hexachlorobutadiene	19.2	2.50	5.00	ug/L	1	20.0	ND	96	66-134%	---	---	
2-Hexanone	38.1	5.00	10.0	ug/L	1	40.0	ND	95	57-139%	---	---	
Isopropylbenzene	17.2	0.500	1.00	ug/L	1	20.0	ND	86	72-131%	---	---	
4-Isopropyltoluene	17.1	0.500	1.00	ug/L	1	20.0	ND	86	77-127%	---	---	
Methylene chloride	19.0	5.00	10.0	ug/L	1	20.0	ND	95	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	38.0	5.00	10.0	ug/L	1	40.0	ND	95	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	16.3	0.500	1.00	ug/L	1	20.0	ND	82	71-124%	---	---	
Naphthalene	12.5	2.00	2.00	ug/L	1	20.0	ND	62	61-128%	---	---	Q-54g
n-Propylbenzene	17.6	0.250	0.500	ug/L	1	20.0	ND	88	76-126%	---	---	
Styrene	18.0	0.500	1.00	ug/L	1	20.0	ND	90	78-123%	---	---	

Apex Laboratories

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23F0811 - EPA 5030C						Water							
Matrix Spike (23F0811-MS1)			Prepared: 06/22/23 09:04    Analyzed: 06/22/23 22:24										
QC Source Sample: Non-SDG (A3F1234-08)													
1,1,1,2-Tetrachloroethane	23.0	0.200	0.400	ug/L	1	20.0	ND	115	78-124%	---	---	Q-54d	
1,1,2,2-Tetrachloroethane	20.3	0.250	0.500	ug/L	1	20.0	ND	102	71-121%	---	---		
Tetrachloroethene (PCE)	19.7	0.200	0.200	ug/L	1	20.0	1.27	92	74-129%	---	---		
Toluene	18.0	0.500	1.00	ug/L	1	20.0	ND	90	80-121%	---	---		
1,2,3-Trichlorobenzene	17.6	1.00	2.00	ug/L	1	20.0	ND	88	69-129%	---	---	Q-54b	
1,2,4-Trichlorobenzene	16.9	1.00	2.00	ug/L	1	20.0	ND	84	69-130%	---	---		
1,1,1-Trichloroethane	19.9	0.200	0.400	ug/L	1	20.0	ND	100	74-131%	---	---		
1,1,2-Trichloroethane	19.2	0.250	0.500	ug/L	1	20.0	ND	96	80-120%	---	---		
Trichloroethene (TCE)	20.0	0.200	0.200	ug/L	1	20.0	1.34	93	79-123%	---	---		
Trichlorofluoromethane	28.6	1.00	2.00	ug/L	1	20.0	ND	143	65-141%	---	---		
1,2,3-Trichloropropane	18.9	0.500	1.00	ug/L	1	20.0	ND	94	73-122%	---	---		
1,2,4-Trimethylbenzene	18.4	0.500	1.00	ug/L	1	20.0	ND	92	76-124%	---	---		
1,3,5-Trimethylbenzene	18.1	0.500	1.00	ug/L	1	20.0	ND	90	75-124%	---	---		
Vinyl chloride	20.6	0.200	0.200	ug/L	1	20.0	ND	103	58-137%	---	---		
m,p-Xylene	36.7	0.500	1.00	ug/L	1	40.0	ND	92	80-121%	---	---		
o-Xylene	16.4	0.250	0.500	ug/L	1	20.0	ND	82	78-122%	---	---		
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x							
Toluene-d8 (Surr)		98 %		80-120 %		"							
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"							

## Matrix Spike (23F0811-MS2)

Prepared: 06/22/23 09:04 Analyzed: 06/22/23 23:46

T-02

## QC Source Sample: Non-SDG (A3F1273-03)

## EPA 8260D

Acetone	46.0	10.0	20.0	ug/L	1	40.0	ND	115	39-160%	---	---	Q-54
Acrylonitrile	21.3	1.00	2.00	ug/L	1	20.0	ND	107	63-135%	---	---	
Benzene	20.0	0.100	0.200	ug/L	1	20.0	ND	100	79-120%	---	---	
Bromobenzene	19.1	0.250	0.500	ug/L	1	20.0	ND	95	80-120%	---	---	
Bromochloromethane	22.3	0.500	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
Bromodichloromethane	22.6	0.500	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
Bromoform	20.0	0.500	1.00	ug/L	1	20.0	ND	100	66-130%	---	---	
Bromomethane	23.5	5.00	5.00	ug/L	1	20.0	ND	118	53-141%	---	---	
2-Butanone (MEK)	44.0	5.00	10.0	ug/L	1	40.0	ND	110	56-143%	---	---	
n-Butylbenzene	19.5	0.500	1.00	ug/L	1	20.0	ND	98	75-128%	---	---	

Apex Laboratories

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike (23F0811-MS2)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 23:46		T-02					
QC Source Sample: Non-SDG (A3F1273-03)												
sec-Butylbenzene	18.9	0.500	1.00	ug/L	1	20.0	ND	95	77-126%	---	---	Q-54e, ICV-01
tert-Butylbenzene	17.1	0.500	1.00	ug/L	1	20.0	ND	85	78-124%	---	---	
Carbon disulfide	18.2	5.00	10.0	ug/L	1	20.0	ND	91	64-133%	---	---	
Carbon tetrachloride	21.3	0.500	1.00	ug/L	1	20.0	ND	107	72-136%	---	---	
Chlorobenzene	19.1	0.250	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	Q-54e, ICV-01
Chloroethane	32.4	5.00	5.00	ug/L	1	20.0	ND	162	60-138%	---	---	
Chloroform	20.4	0.500	1.00	ug/L	1	20.0	ND	102	79-124%	---	---	
Chloromethane	21.6	2.50	5.00	ug/L	1	20.0	ND	108	50-139%	---	---	
2-Chlorotoluene	18.0	0.500	1.00	ug/L	1	20.0	ND	90	79-122%	---	---	Q-54e, ICV-01
4-Chlorotoluene	18.3	0.500	1.00	ug/L	1	20.0	ND	91	78-122%	---	---	
Dibromochloromethane	19.1	0.500	1.00	ug/L	1	20.0	ND	96	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.7	2.50	5.00	ug/L	1	20.0	ND	94	62-128%	---	---	
1,2-Dibromoethane (EDB)	19.4	0.250	0.500	ug/L	1	20.0	ND	97	77-121%	---	---	Q-54e, ICV-01
Dibromomethane	21.3	0.500	1.00	ug/L	1	20.0	ND	106	79-123%	---	---	
1,2-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	0.610	97	80-120%	---	---	
1,3-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
1,4-Dichlorobenzene	19.2	0.250	0.500	ug/L	1	20.0	0.650	93	79-120%	---	---	Q-54e, ICV-01
Dichlorodifluoromethane	20.5	0.500	1.00	ug/L	1	20.0	ND	103	32-152%	---	---	
1,1-Dichloroethane	21.0	0.200	0.400	ug/L	1	20.0	ND	105	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.6	0.200	0.400	ug/L	1	20.0	ND	103	73-128%	---	---	
1,1-Dichloroethene	17.9	0.200	0.200	ug/L	1	20.0	ND	90	71-131%	---	---	Q-54e, ICV-01
cis-1,2-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	0.280	98	78-123%	---	---	
trans-1,2-Dichloroethene	20.3	0.200	0.400	ug/L	1	20.0	ND	101	75-124%	---	---	
1,2-Dichloropropane	20.5	0.250	0.500	ug/L	1	20.0	ND	103	78-122%	---	---	
1,3-Dichloropropane	18.8	0.500	1.00	ug/L	1	20.0	ND	94	80-120%	---	---	Q-54e, ICV-01
2,2-Dichloropropane	17.9	0.500	1.00	ug/L	1	20.0	ND	90	60-139%	---	---	
1,1-Dichloropropene	19.8	0.500	1.00	ug/L	1	20.0	ND	99	79-125%	---	---	
cis-1,3-Dichloropropene	17.2	0.500	1.00	ug/L	1	20.0	ND	86	75-124%	---	---	
trans-1,3-Dichloropropene	19.0	0.500	1.00	ug/L	1	20.0	ND	95	73-127%	---	---	Q-54e, ICV-01
Ethylbenzene	19.3	0.250	0.500	ug/L	1	20.0	ND	96	79-121%	---	---	
Hexachlorobutadiene	21.8	2.50	5.00	ug/L	1	20.0	ND	109	66-134%	---	---	
2-Hexanone	41.2	5.00	10.0	ug/L	1	40.0	ND	103	57-139%	---	---	
Isopropylbenzene	18.3	0.500	1.00	ug/L	1	20.0	ND	92	72-131%	---	---	Q-54e, ICV-01

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Page 43 of 87



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A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike (23F0811-MS2)			Prepared: 06/22/23 09:04				Analyzed: 06/22/23 23:46				T-02	
QC Source Sample: Non-SDG (A3F1273-03)												
4-Isopropyltoluene	18.5	0.500	1.00	ug/L	1	20.0	ND	92	77-127%	---	---	
Methylene chloride	19.5	5.00	10.0	ug/L	1	20.0	ND	98	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	40.5	5.00	10.0	ug/L	1	40.0	ND	101	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	16.9	0.500	1.00	ug/L	1	20.0	ND	84	71-124%	---	---	
Naphthalene	13.2	2.00	2.00	ug/L	1	20.0	ND	66	61-128%	---	---	Q-54g
n-Propylbenzene	19.0	0.250	0.500	ug/L	1	20.0	ND	95	76-126%	---	---	
Styrene	19.0	0.500	1.00	ug/L	1	20.0	ND	95	78-123%	---	---	
1,1,1,2-Tetrachloroethane	23.4	0.200	0.400	ug/L	1	20.0	ND	117	78-124%	---	---	Q-54d
1,1,2,2-Tetrachloroethane	21.3	0.250	0.500	ug/L	1	20.0	ND	107	71-121%	---	---	
Tetrachloroethene (PCE)	19.6	0.200	0.200	ug/L	1	20.0	0.840	94	74-129%	---	---	
Toluene	18.6	0.500	1.00	ug/L	1	20.0	ND	93	80-121%	---	---	
1,2,3-Trichlorobenzene	18.3	1.00	2.00	ug/L	1	20.0	ND	92	69-129%	---	---	
1,2,4-Trichlorobenzene	18.2	1.00	2.00	ug/L	1	20.0	ND	91	69-130%	---	---	
1,1,1-Trichloroethane	20.9	0.200	0.400	ug/L	1	20.0	ND	105	74-131%	---	---	
1,1,2-Trichloroethane	19.4	0.250	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Trichloroethene (TCE)	20.5	0.200	0.200	ug/L	1	20.0	1.18	96	79-123%	---	---	
Trichlorofluoromethane	30.2	1.00	2.00	ug/L	1	20.0	ND	151	65-141%	---	---	Q-54b
1,2,3-Trichloropropane	19.0	0.500	1.00	ug/L	1	20.0	ND	95	73-122%	---	---	
1,2,4-Trimethylbenzene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	76-124%	---	---	
1,3,5-Trimethylbenzene	19.3	0.500	1.00	ug/L	1	20.0	ND	97	75-124%	---	---	
Vinyl chloride	21.7	0.200	0.200	ug/L	1	20.0	ND	108	58-137%	---	---	
m,p-Xylene	38.7	0.500	1.00	ug/L	1	40.0	ND	97	80-121%	---	---	
o-Xylene	17.2	0.250	0.500	ug/L	1	20.0	ND	86	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

## Matrix Spike Dup (23F0811-MSD1)

Prepared: 06/22/23 09:04 Analyzed: 06/22/23 22:51

## QC Source Sample: Non-SDG (A3F1234-08)

Acetone	44.6	10.0	20.0	ug/L	1	40.0	ND	111	39-160%	11	30%
Acrylonitrile	22.8	1.00	2.00	ug/L	1	20.0	ND	114	63-135%	11	30%
Benzene	21.3	0.100	0.200	ug/L	1	20.0	ND	106	79-120%	10	30%
Bromobenzene	20.7	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	12	30%

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike Dup (23F0811-MSD1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 22:51							
QC Source Sample: Non-SDG (A3F1234-08)												
Bromochloromethane	23.4	0.500	1.00	ug/L	1	20.0	ND	117	78-123%	7	30%	Q-54
Bromodichloromethane	24.5	0.500	1.00	ug/L	1	20.0	ND	122	79-125%	10	30%	
Bromoform	21.7	0.500	1.00	ug/L	1	20.0	ND	109	66-130%	11	30%	
Bromomethane	27.6	5.00	5.00	ug/L	1	20.0	ND	138	53-141%	7	30%	
2-Butanone (MEK)	45.8	5.00	10.0	ug/L	1	40.0	ND	115	56-143%	12	30%	Q-54e, ICV-01
n-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	ND	100	75-128%	13	30%	
sec-Butylbenzene	19.7	0.500	1.00	ug/L	1	20.0	ND	98	77-126%	12	30%	
tert-Butylbenzene	18.4	0.500	1.00	ug/L	1	20.0	ND	92	78-124%	14	30%	
Carbon disulfide	21.7	5.00	10.0	ug/L	1	20.0	ND	108	64-133%	11	30%	
Carbon tetrachloride	22.4	0.500	1.00	ug/L	1	20.0	ND	112	72-136%	11	30%	
Chlorobenzene	23.1	0.250	0.500	ug/L	1	20.0	2.47	103	80-120%	9	30%	
Chloroethane	35.4	5.00	5.00	ug/L	1	20.0	ND	177	60-138%	9	30%	
Chloroform	22.1	0.500	1.00	ug/L	1	20.0	ND	110	79-124%	10	30%	
Chloromethane	22.2	2.50	5.00	ug/L	1	20.0	ND	111	50-139%	9	30%	
2-Chlorotoluene	19.4	0.500	1.00	ug/L	1	20.0	ND	97	79-122%	12	30%	
4-Chlorotoluene	19.5	0.500	1.00	ug/L	1	20.0	ND	98	78-122%	11	30%	
Dibromochloromethane	20.6	0.500	1.00	ug/L	1	20.0	ND	103	74-126%	9	30%	
1,2-Dibromo-3-chloropropane	19.9	2.50	5.00	ug/L	1	20.0	ND	99	62-128%	11	30%	
1,2-Dibromoethane (EDB)	20.8	0.250	0.500	ug/L	1	20.0	ND	104	77-121%	10	30%	
Dibromomethane	22.7	0.500	1.00	ug/L	1	20.0	ND	114	79-123%	7	30%	
1,2-Dichlorobenzene	20.9	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	12	30%	
1,3-Dichlorobenzene	20.9	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	10	30%	
1,4-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	ND	100	79-120%	11	30%	
Dichlorodifluoromethane	20.9	0.500	1.00	ug/L	1	20.0	ND	105	32-152%	9	30%	
1,1-Dichloroethane	22.6	0.200	0.400	ug/L	1	20.0	0.310	111	77-125%	9	30%	
1,2-Dichloroethane (EDC)	22.2	0.200	0.400	ug/L	1	20.0	ND	111	73-128%	9	30%	
1,1-Dichloroethene	21.2	0.200	0.200	ug/L	1	20.0	0.260	105	71-131%	10	30%	
cis-1,2-Dichloroethene	23.5	0.200	0.400	ug/L	1	20.0	2.26	106	78-123%	9	30%	
trans-1,2-Dichloroethene	21.2	0.200	0.400	ug/L	1	20.0	ND	106	75-124%	11	30%	
1,2-Dichloropropane	21.6	0.250	0.500	ug/L	1	20.0	ND	108	78-122%	11	30%	
1,3-Dichloropropane	20.2	0.500	1.00	ug/L	1	20.0	ND	101	80-120%	10	30%	
2,2-Dichloropropane	17.6	0.500	1.00	ug/L	1	20.0	ND	88	60-139%	10	30%	
1,1-Dichloropropene	21.1	0.500	1.00	ug/L	1	20.0	ND	105	79-125%	12	30%	

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike Dup (23F0811-MSD1)			Prepared: 06/22/23 09:04		Analyzed: 06/22/23 22:51							
QC Source Sample: Non-SDG (A3F1234-08)												
cis-1,3-Dichloropropene	18.2	0.500	1.00	ug/L	1	20.0	ND	91	75-124%	11	30%	
trans-1,3-Dichloropropene	20.1	0.500	1.00	ug/L	1	20.0	ND	101	73-127%	10	30%	
Ethylbenzene	20.7	0.250	0.500	ug/L	1	20.0	ND	103	79-121%	11	30%	
Hexachlorobutadiene	22.4	2.50	5.00	ug/L	1	20.0	ND	112	66-134%	16	30%	
2-Hexanone	42.5	5.00	10.0	ug/L	1	40.0	ND	106	57-139%	11	30%	
Isopropylbenzene	19.7	0.500	1.00	ug/L	1	20.0	ND	99	72-131%	14	30%	
4-Isopropyltoluene	19.9	0.500	1.00	ug/L	1	20.0	ND	99	77-127%	15	30%	
Methylene chloride	20.9	5.00	10.0	ug/L	1	20.0	ND	104	74-124%	9	30%	
4-Methyl-2-pentanone (MiBK)	41.9	5.00	10.0	ug/L	1	40.0	ND	105	67-130%	10	30%	
Methyl tert-butyl ether (MTBE)	18.4	0.500	1.00	ug/L	1	20.0	ND	92	71-124%	12	30%	
Naphthalene	14.9	2.00	2.00	ug/L	1	20.0	ND	74	61-128%	18	30%	Q-54g
n-Propylbenzene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	76-126%	12	30%	
Styrene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	78-123%	12	30%	
1,1,1,2-Tetrachloroethane	25.4	0.200	0.400	ug/L	1	20.0	ND	127	78-124%	10	30%	Q-54d
1,1,2,2-Tetrachloroethane	22.2	0.250	0.500	ug/L	1	20.0	ND	111	71-121%	9	30%	
Tetrachloroethene (PCE)	21.7	0.200	0.200	ug/L	1	20.0	1.27	102	74-129%	10	30%	
Toluene	19.9	0.500	1.00	ug/L	1	20.0	ND	99	80-121%	10	30%	
1,2,3-Trichlorobenzene	19.8	1.00	2.00	ug/L	1	20.0	ND	99	69-129%	12	30%	
1,2,4-Trichlorobenzene	19.6	1.00	2.00	ug/L	1	20.0	ND	98	69-130%	15	30%	
1,1,1-Trichloroethane	22.1	0.200	0.400	ug/L	1	20.0	ND	110	74-131%	10	30%	
1,1,2-Trichloroethane	20.9	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	8	30%	
Trichloroethene (TCE)	22.4	0.200	0.200	ug/L	1	20.0	1.34	105	79-123%	11	30%	
Trichlorofluoromethane	30.1	1.00	2.00	ug/L	1	20.0	ND	150	65-141%	5	30%	Q-54b
1,2,3-Trichloropropane	20.1	0.500	1.00	ug/L	1	20.0	ND	101	73-122%	6	30%	
1,2,4-Trimethylbenzene	20.8	0.500	1.00	ug/L	1	20.0	ND	104	76-124%	12	30%	
1,3,5-Trimethylbenzene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	75-124%	13	30%	
Vinyl chloride	23.0	0.200	0.200	ug/L	1	20.0	ND	115	58-137%	11	30%	
m,p-Xylene	41.2	0.500	1.00	ug/L	1	40.0	ND	103	80-121%	11	30%	
o-Xylene	18.6	0.250	0.500	ug/L	1	20.0	ND	93	78-122%	13	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike Dup (23F0811-MSD2)			Prepared: 06/22/23 09:04		Analyzed: 06/23/23 00:13		T-02					
QC Source Sample: Non-SDG (A3F1273-03)												
Acetone	50.8	10.0	20.0	ug/L	1	40.0	ND	127	39-160%	10	30%	
Acrylonitrile	23.7	1.00	2.00	ug/L	1	20.0	ND	118	63-135%	10	30%	
Benzene	22.0	0.100	0.200	ug/L	1	20.0	ND	110	79-120%	10	30%	
Bromobenzene	21.4	0.250	0.500	ug/L	1	20.0	ND	107	80-120%	12	30%	
Bromochloromethane	24.4	0.500	1.00	ug/L	1	20.0	ND	122	78-123%	9	30%	
Bromodichloromethane	25.2	0.500	1.00	ug/L	1	20.0	ND	126	79-125%	11	30%	Q-01
Bromoform	22.3	0.500	1.00	ug/L	1	20.0	ND	111	66-130%	11	30%	
Bromomethane	28.0	5.00	5.00	ug/L	1	20.0	ND	140	53-141%	17	30%	Q-54
2-Butanone (MEK)	48.6	5.00	10.0	ug/L	1	40.0	ND	122	56-143%	10	30%	
n-Butylbenzene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	75-128%	12	30%	
sec-Butylbenzene	21.5	0.500	1.00	ug/L	1	20.0	ND	107	77-126%	13	30%	
tert-Butylbenzene	19.5	0.500	1.00	ug/L	1	20.0	ND	98	78-124%	13	30%	
Carbon disulfide	22.9	5.00	10.0	ug/L	1	20.0	ND	115	64-133%	23	30%	
Carbon tetrachloride	23.6	0.500	1.00	ug/L	1	20.0	ND	118	72-136%	10	30%	
Chlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	10	30%	
Chloroethane	36.7	5.00	5.00	ug/L	1	20.0	ND	183	60-138%	12	30%	ICV-01, Q-54e
Chloroform	22.7	0.500	1.00	ug/L	1	20.0	ND	114	79-124%	11	30%	
Chloromethane	24.4	2.50	5.00	ug/L	1	20.0	ND	122	50-139%	12	30%	
2-Chlorotoluene	20.3	0.500	1.00	ug/L	1	20.0	ND	101	79-122%	12	30%	
4-Chlorotoluene	20.7	0.500	1.00	ug/L	1	20.0	ND	103	78-122%	12	30%	
Dibromochloromethane	21.4	0.500	1.00	ug/L	1	20.0	ND	107	74-126%	11	30%	
1,2-Dibromo-3-chloropropane	20.7	2.50	5.00	ug/L	1	20.0	ND	104	62-128%	10	30%	
1,2-Dibromoethane (EDB)	21.6	0.250	0.500	ug/L	1	20.0	ND	108	77-121%	11	30%	
Dibromomethane	23.3	0.500	1.00	ug/L	1	20.0	ND	116	79-123%	9	30%	
1,2-Dichlorobenzene	22.3	0.250	0.500	ug/L	1	20.0	0.610	108	80-120%	11	30%	
1,3-Dichlorobenzene	22.2	0.250	0.500	ug/L	1	20.0	ND	111	80-120%	13	30%	
1,4-Dichlorobenzene	21.5	0.250	0.500	ug/L	1	20.0	0.650	104	79-120%	11	30%	
Dichlorodifluoromethane	22.9	0.500	1.00	ug/L	1	20.0	ND	114	32-152%	11	30%	
1,1-Dichloroethane	23.2	0.200	0.400	ug/L	1	20.0	ND	116	77-125%	10	30%	
1,2-Dichloroethane (EDC)	22.8	0.200	0.400	ug/L	1	20.0	ND	114	73-128%	10	30%	
1,1-Dichloroethene	22.7	0.200	0.200	ug/L	1	20.0	ND	113	71-131%	23	30%	
cis-1,2-Dichloroethene	22.4	0.200	0.400	ug/L	1	20.0	0.280	111	78-123%	12	30%	
trans-1,2-Dichloroethene	22.3	0.200	0.400	ug/L	1	20.0	ND	111	75-124%	9	30%	

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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ORELAP ID: OR100062

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike Dup (23F0811-MSD2)			Prepared: 06/22/23 09:04		Analyzed: 06/23/23 00:13		T-02					
QC Source Sample: Non-SDG (A3F1273-03)												
1,2-Dichloropropane	22.6	0.250	0.500	ug/L	1	20.0	ND	113	78-122%	9	30%	
1,3-Dichloropropane	21.1	0.500	1.00	ug/L	1	20.0	ND	106	80-120%	12	30%	
2,2-Dichloropropane	19.8	0.500	1.00	ug/L	1	20.0	ND	99	60-139%	10	30%	
1,1-Dichloropropene	22.3	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	12	30%	
cis-1,3-Dichloropropene	19.7	0.500	1.00	ug/L	1	20.0	ND	98	75-124%	14	30%	
trans-1,3-Dichloropropene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	73-127%	12	30%	
Ethylbenzene	21.4	0.250	0.500	ug/L	1	20.0	ND	107	79-121%	10	30%	
Hexachlorobutadiene	24.1	2.50	5.00	ug/L	1	20.0	ND	120	66-134%	10	30%	
2-Hexanone	45.6	5.00	10.0	ug/L	1	40.0	ND	114	57-139%	10	30%	
Isopropylbenzene	20.8	0.500	1.00	ug/L	1	20.0	ND	104	72-131%	13	30%	
4-Isopropyltoluene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	77-127%	15	30%	
Methylene chloride	21.6	5.00	10.0	ug/L	1	20.0	ND	108	74-124%	10	30%	
4-Methyl-2-pentanone (MiBK)	45.1	5.00	10.0	ug/L	1	40.0	ND	113	67-130%	11	30%	
Methyl tert-butyl ether (MTBE)	18.8	0.500	1.00	ug/L	1	20.0	ND	94	71-124%	11	30%	
Naphthalene	15.7	2.00	2.00	ug/L	1	20.0	ND	78	61-128%	17	30%	Q-54g
n-Propylbenzene	21.4	0.250	0.500	ug/L	1	20.0	ND	107	76-126%	12	30%	
Styrene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	78-123%	12	30%	
1,1,1,2-Tetrachloroethane	26.1	0.200	0.400	ug/L	1	20.0	ND	130	78-124%	11	30%	Q-54d
1,1,2,2-Tetrachloroethane	23.5	0.250	0.500	ug/L	1	20.0	ND	117	71-121%	10	30%	
Tetrachloroethene (PCE)	22.2	0.200	0.200	ug/L	1	20.0	0.840	107	74-129%	12	30%	
Toluene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	80-121%	10	30%	
1,2,3-Trichlorobenzene	20.8	1.00	2.00	ug/L	1	20.0	ND	104	69-129%	13	30%	
1,2,4-Trichlorobenzene	21.2	1.00	2.00	ug/L	1	20.0	ND	106	69-130%	15	30%	
1,1,1-Trichloroethane	23.3	0.200	0.400	ug/L	1	20.0	ND	116	74-131%	11	30%	
1,1,2-Trichloroethane	21.8	0.250	0.500	ug/L	1	20.0	ND	109	80-120%	12	30%	
Trichloroethene (TCE)	22.7	0.200	0.200	ug/L	1	20.0	1.18	108	79-123%	10	30%	
Trichlorofluoromethane	32.4	1.00	2.00	ug/L	1	20.0	ND	162	65-141%	7	30%	Q-54b
1,2,3-Trichloropropane	21.4	0.500	1.00	ug/L	1	20.0	ND	107	73-122%	12	30%	
1,2,4-Trimethylbenzene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	76-124%	14	30%	
1,3,5-Trimethylbenzene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	75-124%	12	30%	
Vinyl chloride	24.2	0.200	0.200	ug/L	1	20.0	ND	121	58-137%	11	30%	
m,p-Xylene	42.8	0.500	1.00	ug/L	1	40.0	ND	107	80-121%	10	30%	
o-Xylene	19.5	0.250	0.500	ug/L	1	20.0	ND	98	78-122%	12	30%	

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Darwin Thomas, Business Development Director

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# ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0811 - EPA 5030C						Water						
Matrix Spike Dup (23F0811-MSD2)			Prepared: 06/22/23 09:04		Analyzed: 06/23/23 00:13		T-02					
QC Source Sample: Non-SDG (A3F1273-03)												
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

Apex Laboratories

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A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
Blank (23F0871-BLK1)			Prepared: 06/23/23 10:58		Analyzed: 06/23/23 15:06							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Darwin Thomas, Business Development Director

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street  
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503-718-2323  
ORELAP ID: OR100062

## Anchor QEA, LLC

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Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
Blank (23F0871-BLK1)						Prepared: 06/23/23 10:58 Analyzed: 06/23/23 15:06						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 109 % Limits: 80-120 % Dilution: 1x												

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
Blank (23F0871-BLK1)			Prepared: 06/23/23 10:58		Analyzed: 06/23/23 15:06							
Surr: Toluene-d8 (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		101 %		80-120 %		"						
LCS (23F0871-BS1)			Prepared: 06/23/23 10:58		Analyzed: 06/23/23 14:07							
EPA 8260D												
Acetone	39.2	10.0	20.0	ug/L	1	40.0	---	98	80-120%	---	---	
Acrylonitrile	22.2	1.00	2.00	ug/L	1	20.0	---	111	80-120%	---	---	
Benzene	20.1	0.100	0.200	ug/L	1	20.0	---	100	80-120%	---	---	
Bromobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	22.8	0.500	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Bromodichloromethane	23.7	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
Bromoform	21.9	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromomethane	25.0	5.00	5.00	ug/L	1	20.0	---	125	80-120%	---	---	Q-56
2-Butanone (MEK)	44.3	5.00	10.0	ug/L	1	40.0	---	111	80-120%	---	---	
n-Butylbenzene	20.9	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
sec-Butylbenzene	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
tert-Butylbenzene	17.6	0.500	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Carbon disulfide	17.9	5.00	10.0	ug/L	1	20.0	---	89	80-120%	---	---	
Carbon tetrachloride	23.1	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Chlorobenzene	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	29.8	5.00	5.00	ug/L	1	20.0	---	149	80-120%	---	---	ICV-01, Q-56
Chloroform	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Chloromethane	18.5	2.50	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
4-Chlorotoluene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromochloromethane	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.8	2.50	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromomethane	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,3-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	19.1	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1-Dichloroethane	21.1	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	

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ORELAP ID: OR100062

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## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
LCS (23F0871-BS1)						Prepared: 06/23/23 10:58 Analyzed: 06/23/23 14:07						
1,2-Dichloroethane (EDC)	21.4	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloroethene	17.3	0.200	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
cis-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,2-Dichloroethene	19.5	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	20.7	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichloropropane	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
2,2-Dichloropropane	21.3	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloropropene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,3-Dichloropropene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
trans-1,3-Dichloropropene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Ethylbenzene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Hexachlorobutadiene	22.5	2.50	5.00	ug/L	1	20.0	---	113	80-120%	---	---	
2-Hexanone	42.8	5.00	10.0	ug/L	1	40.0	---	107	80-120%	---	---	
Isopropylbenzene	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Isopropyltoluene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Methylene chloride	20.4	5.00	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	41.6	5.00	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.4	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Naphthalene	16.3	1.00	2.00	ug/L	1	20.0	---	82	80-120%	---	---	
n-Propylbenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Styrene	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	24.8	0.200	0.400	ug/L	1	20.0	---	124	80-120%	---	---	Q-56
1,1,2,2-Tetrachloroethane	21.4	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Tetrachloroethene (PCE)	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Toluene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2,3-Trichlorobenzene	20.8	1.00	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	20.1	1.00	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1-Trichloroethane	20.8	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2-Trichloroethane	20.3	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	29.2	1.00	2.00	ug/L	1	20.0	---	146	80-120%	---	---	Q-56
1,2,3-Trichloropropane	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,4-Trimethylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,3,5-Trimethylbenzene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	

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Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028**

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
LCS (23F0871-BS1)			Prepared: 06/23/23 10:58   Analyzed: 06/23/23 14:07									
Vinyl chloride	20.6	0.200	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
m,p-Xylene	40.0	0.500	1.00	ug/L	1	40.0	---	100	80-120%	---	---	
o-Xylene	18.1	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

**Duplicate (23F0871-DUP1)**

Prepared: 06/23/23 10:58 Analyzed: 06/23/23 19:11

**QC Source Sample: Non-SDG (A3F1342-07)**

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

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Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
Duplicate (23F0871-DUP1)			Prepared: 06/23/23 10:58		Analyzed: 06/23/23 19:11							
QC Source Sample: Non-SDG (A3F1342-07)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23F0871 - EPA 5030C						Water							
Duplicate (23F0871-DUP1)				Prepared: 06/23/23 10:58		Analyzed: 06/23/23 19:11							
QC Source Sample: Non-SDG (A3F1342-07)													
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%		
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%		
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%		
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%		
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%		
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%		
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%		
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%		
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x							
Toluene-d8 (Surr)		101 %		80-120 %		"							
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"							
Matrix Spike (23F0871-MS1)				Prepared: 06/23/23 10:58		Analyzed: 06/23/23 17:49							V-01
QC Source Sample: Non-SDG (A3F1451-01)													
EPA 8260D													
Acetone	50.4	10.0	20.0	ug/L	1	40.0	ND	126	39-160%	---	---		
Acrylonitrile	26.5	1.00	2.00	ug/L	1	20.0	ND	133	63-135%	---	---		
Benzene	25.3	0.100	0.200	ug/L	1	20.0	ND	126	79-120%	---	---		
Bromobenzene	24.7	0.250	0.500	ug/L	1	20.0	ND	124	80-120%	---	---		
Bromochloromethane	27.3	0.500	1.00	ug/L	1	20.0	ND	137	78-123%	---	---		
Bromodichloromethane	29.5	0.500	1.00	ug/L	1	20.0	ND	148	79-125%	---	---		
Bromoform	27.4	0.500	1.00	ug/L	1	20.0	ND	137	66-130%	---	---		
Bromomethane	28.5	5.00	5.00	ug/L	1	20.0	ND	142	53-141%	---	---	Q-54f	
2-Butanone (MEK)	54.8	5.00	10.0	ug/L	1	40.0	ND	137	56-143%	---	---		
n-Butylbenzene	27.2	0.500	1.00	ug/L	1	20.0	ND	136	75-128%	---	---		
sec-Butylbenzene	25.4	0.500	1.00	ug/L	1	20.0	ND	127	77-126%	---	---		
tert-Butylbenzene	22.8	0.500	1.00	ug/L	1	20.0	ND	114	78-124%	---	---		
Carbon disulfide	25.0	5.00	10.0	ug/L	1	20.0	ND	125	64-133%	---	---		
Carbon tetrachloride	26.5	0.500	1.00	ug/L	1	20.0	ND	133	72-136%	---	---		
Chlorobenzene	24.8	0.250	0.500	ug/L	1	20.0	ND	124	80-120%	---	---		
Chloroethane	38.1	5.00	5.00	ug/L	1	20.0	ND	190	60-138%	---	---	ICV-01, Q-54c	
Chloroform	41.5	0.500	1.00	ug/L	1	20.0	15.5	130	79-124%	---	---		

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503-718-2323

ORELAP ID: OR100062

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Portland, OR 97219

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0871 - EPA 5030C						Water						
Matrix Spike (23F0871-MS1)			Prepared: 06/23/23 10:58		Analyzed: 06/23/23 17:49		V-01					
QC Source Sample: Non-SDG (A3F1451-01)												
Chloromethane	23.6	2.50	5.00	ug/L	1	20.0	ND	118	50-139%	---	---	
2-Chlorotoluene	23.7	0.500	1.00	ug/L	1	20.0	ND	118	79-122%	---	---	
4-Chlorotoluene	24.4	0.500	1.00	ug/L	1	20.0	ND	122	78-122%	---	---	
Dibromochloromethane	25.4	0.500	1.00	ug/L	1	20.0	ND	127	74-126%	---	---	
1,2-Dibromo-3-chloropropane	25.0	2.50	5.00	ug/L	1	20.0	ND	125	62-128%	---	---	
1,2-Dibromoethane (EDB)	25.5	0.250	0.500	ug/L	1	20.0	ND	127	77-121%	---	---	
Dibromomethane	27.0	0.500	1.00	ug/L	1	20.0	ND	135	79-123%	---	---	
1,2-Dichlorobenzene	25.8	0.250	0.500	ug/L	1	20.0	ND	129	80-120%	---	---	
1,3-Dichlorobenzene	25.9	0.250	0.500	ug/L	1	20.0	ND	130	80-120%	---	---	
1,4-Dichlorobenzene	24.8	0.250	0.500	ug/L	1	20.0	ND	124	79-120%	---	---	
Dichlorodifluoromethane	18.4	0.500	1.00	ug/L	1	20.0	ND	92	32-152%	---	---	
1,1-Dichloroethane	26.0	0.200	0.400	ug/L	1	20.0	ND	130	77-125%	---	---	
1,2-Dichloroethane (EDC)	25.8	0.200	0.400	ug/L	1	20.0	ND	129	73-128%	---	---	
1,1-Dichloroethene	23.6	0.200	0.400	ug/L	1	20.0	ND	118	71-131%	---	---	
cis-1,2-Dichloroethene	25.0	0.200	0.400	ug/L	1	20.0	ND	125	78-123%	---	---	
trans-1,2-Dichloroethene	25.0	0.200	0.400	ug/L	1	20.0	ND	125	75-124%	---	---	
1,2-Dichloropropane	25.8	0.250	0.500	ug/L	1	20.0	ND	129	78-122%	---	---	
1,3-Dichloropropane	24.8	0.500	1.00	ug/L	1	20.0	ND	124	80-120%	---	---	
2,2-Dichloropropane	24.5	0.500	1.00	ug/L	1	20.0	ND	122	60-139%	---	---	
1,1-Dichloropropene	24.3	0.500	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	26.3	0.500	1.00	ug/L	1	20.0	ND	132	75-124%	---	---	
trans-1,3-Dichloropropene	25.4	0.500	1.00	ug/L	1	20.0	ND	127	73-127%	---	---	
Ethylbenzene	25.2	0.250	0.500	ug/L	1	20.0	ND	126	79-121%	---	---	
Hexachlorobutadiene	29.2	2.50	5.00	ug/L	1	20.0	ND	146	66-134%	---	---	
2-Hexanone	54.8	5.00	10.0	ug/L	1	40.0	ND	137	57-139%	---	---	
Isopropylbenzene	25.6	0.500	1.00	ug/L	1	20.0	ND	128	72-131%	---	---	
4-Isopropyltoluene	26.3	0.500	1.00	ug/L	1	20.0	ND	132	77-127%	---	---	
Methylene chloride	24.2	5.00	10.0	ug/L	1	20.0	ND	121	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	52.4	5.00	10.0	ug/L	1	40.0	ND	131	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	22.2	0.500	1.00	ug/L	1	20.0	ND	111	71-124%	---	---	
Naphthalene	22.8	1.00	2.00	ug/L	1	20.0	ND	114	61-128%	---	---	
n-Propylbenzene	24.7	0.250	0.500	ug/L	1	20.0	ND	123	76-126%	---	---	
Styrene	26.8	0.500	1.00	ug/L	1	20.0	ND	134	78-123%	---	---	

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A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23F0871 - EPA 5030C						Water							
Matrix Spike (23F0871-MS1)				Prepared: 06/23/23 10:58		Analyzed: 06/23/23 17:49					V-01		
QC Source Sample: Non-SDG (A3F1451-01)													
1,1,1,2-Tetrachloroethane	31.0	0.200	0.400	ug/L	1	20.0	ND	155	78-124%	---	---	Q-54d	
1,1,2,2-Tetrachloroethane	7.84	0.250	0.500	ug/L	1	20.0	ND	39	71-121%	---	---		
Tetrachloroethene (PCE)	24.0	0.200	0.400	ug/L	1	20.0	ND	120	74-129%	---	---	Q-54a	
Toluene	23.8	0.500	1.00	ug/L	1	20.0	ND	119	80-121%	---	---		
1,2,3-Trichlorobenzene	27.1	1.00	2.00	ug/L	1	20.0	ND	136	69-129%	---	---		
1,2,4-Trichlorobenzene	28.0	1.00	2.00	ug/L	1	20.0	ND	140	69-130%	---	---		
1,1,1-Trichloroethane	24.7	0.200	0.400	ug/L	1	20.0	ND	123	74-131%	---	---		
1,1,2-Trichloroethane	25.1	0.250	0.500	ug/L	1	20.0	ND	125	80-120%	---	---		
Trichloroethene (TCE)	39.6	0.200	0.400	ug/L	1	20.0	ND	198	79-123%	---	---		
Trichlorofluoromethane	29.2	1.00	2.00	ug/L	1	20.0	ND	146	65-141%	---	---		
1,2,3-Trichloropropane	23.8	0.500	1.00	ug/L	1	20.0	ND	119	73-122%	---	---		
1,2,4-Trimethylbenzene	26.2	0.500	1.00	ug/L	1	20.0	ND	131	76-124%	---	---		
1,3,5-Trimethylbenzene	25.5	0.500	1.00	ug/L	1	20.0	ND	128	75-124%	---	---		
Vinyl chloride	24.8	0.200	0.400	ug/L	1	20.0	ND	124	58-137%	---	---		
m,p-Xylene	52.2	0.500	1.00	ug/L	1	40.0	ND	130	80-121%	---	---		
o-Xylene	24.3	0.250	0.500	ug/L	1	20.0	ND	122	78-122%	---	---		
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x							
Toluene-d8 (Surr)		97 %		80-120 %		"							
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"							

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Report ID:

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## QUALITY CONTROL (QC) SAMPLE RESULTS

## Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0769 - EPA 3511 (Bottle Extraction)						Water						
Blank (23F0769-BLK1)			Prepared: 06/21/23 10:29    Analyzed: 06/21/23 15:41									
EPA 8270E LVI												
Acenaphthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 85 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		102 %		80-132 %		"						

LCS (23F0769-BS1)

Prepared: 06/21/23 10:29 Analyzed: 06/21/23 16:14

EPA 8270E LV1												
Acenaphthene	1.59	0.0160	0.0320	ug/L	1	1.60	---	99	80-120%	---	---	
Acenaphthylene	1.41	0.0160	0.0320	ug/L	1	1.60	---	88	80-124%	---	---	
Anthracene	1.55	0.0160	0.0320	ug/L	1	1.60	---	97	80-123%	---	---	
Benz(a)anthracene	1.50	0.00800	0.0160	ug/L	1	1.60	---	94	80-122%	---	---	
Benzo(a)pyrene	1.60	0.00800	0.0160	ug/L	1	1.60	---	100	80-129%	---	---	
Benzo(b)fluoranthene	1.62	0.00800	0.0160	ug/L	1	1.60	---	101	80-124%	---	---	
Benzo(k)fluoranthene	1.59	0.00800	0.0160	ug/L	1	1.60	---	99	80-125%	---	---	
Benzo(g,h,i)perylene	1.60	0.0160	0.0320	ug/L	1	1.60	---	100	80-120%	---	---	
Chrysene	1.50	0.00800	0.0160	ug/L	1	1.60	---	94	80-120%	---	---	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0769 - EPA 3511 (Bottle Extraction)						Water						
LCS (23F0769-BS1)			Prepared: 06/21/23 10:29		Analyzed: 06/21/23 16:14							
Dibenz(a,h)anthracene	1.45	0.00800	0.0160	ug/L	1	1.60	---	91	80-120%	---	---	
Fluoranthene	1.59	0.0160	0.0320	ug/L	1	1.60	---	99	80-126%	---	---	
Fluorene	1.66	0.0160	0.0320	ug/L	1	1.60	---	104	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.46	0.00800	0.0160	ug/L	1	1.60	---	91	80-121%	---	---	
1-Methylnaphthalene	1.53	0.0320	0.0640	ug/L	1	1.60	---	95	53-148%	---	---	
2-Methylnaphthalene	1.51	0.0320	0.0640	ug/L	1	1.60	---	94	48-150%	---	---	
Naphthalene	1.59	0.0320	0.0640	ug/L	1	1.60	---	99	78-120%	---	---	
Phenanthrene	1.49	0.0320	0.0640	ug/L	1	1.60	---	93	80-120%	---	---	
Pyrene	1.59	0.0160	0.0320	ug/L	1	1.60	---	99	80-125%	---	---	
Dibenzofuran	1.49	0.0160	0.0320	ug/L	1	1.60	---	93	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 84 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		105 %		80-132 %		"						
LCS Dup (23F0769-BS1)			Prepared: 06/21/23 10:29		Analyzed: 06/21/23 16:46							Q-19
EPA 8270E LVI												
Acenaphthene	1.62	0.0160	0.0320	ug/L	1	1.60	---	101	80-120%	2	30%	
Acenaphthylene	1.43	0.0160	0.0320	ug/L	1	1.60	---	90	80-124%	1	30%	
Anthracene	1.55	0.0160	0.0320	ug/L	1	1.60	---	97	80-123%	0.6	30%	
Benz(a)anthracene	1.53	0.00800	0.0160	ug/L	1	1.60	---	95	80-122%	2	30%	
Benzo(a)pyrene	1.60	0.00800	0.0160	ug/L	1	1.60	---	100	80-129%	0.1	30%	
Benzo(b)fluoranthene	1.61	0.00800	0.0160	ug/L	1	1.60	---	101	80-124%	0.5	30%	
Benzo(k)fluoranthene	1.60	0.00800	0.0160	ug/L	1	1.60	---	100	80-125%	0.7	30%	
Benzo(g,h,i)perylene	1.64	0.0160	0.0320	ug/L	1	1.60	---	102	80-120%	2	30%	
Chrysene	1.51	0.00800	0.0160	ug/L	1	1.60	---	94	80-120%	0.5	30%	
Dibenz(a,h)anthracene	1.49	0.00800	0.0160	ug/L	1	1.60	---	93	80-120%	3	30%	
Fluoranthene	1.58	0.0160	0.0320	ug/L	1	1.60	---	99	80-126%	0.2	30%	
Fluorene	1.67	0.0160	0.0320	ug/L	1	1.60	---	105	77-127%	0.8	30%	
Indeno(1,2,3-cd)pyrene	1.47	0.00800	0.0160	ug/L	1	1.60	---	92	80-121%	1	30%	
1-Methylnaphthalene	1.55	0.0320	0.0640	ug/L	1	1.60	---	97	53-148%	1	30%	
2-Methylnaphthalene	1.53	0.0320	0.0640	ug/L	1	1.60	---	96	48-150%	2	30%	
Naphthalene	1.63	0.0320	0.0640	ug/L	1	1.60	---	102	78-120%	3	30%	
Phenanthrene	1.48	0.0320	0.0640	ug/L	1	1.60	---	93	80-120%	0.2	30%	
Pyrene	1.58	0.0160	0.0320	ug/L	1	1.60	---	99	80-125%	0.4	30%	
Dibenzofuran	1.49	0.0160	0.0320	ug/L	1	1.60	---	93	76-121%	0.03	30%	

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# ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0769 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (23F0769-BSD1)			Prepared: 06/21/23 10:29 Analyzed: 06/21/23 16:46								Q-19	
Surr: Acenaphthylene-d8 (Surr)			Recovery: 82 %	Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)			104 %	80-132 %		"						

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0976 - EPA 3015A						Water						
Blank (23F0976-BLK1)				Prepared: 06/27/23 07:39		Analyzed: 06/28/23 17:40						
EPA 6020B												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Blank (23F0976-BLK2)												
				Prepared: 06/27/23 07:39		Analyzed: 06/29/23 20:05						
EPA 6020B												
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	Q-16
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	Q-16
LCS (23F0976-BS1)												
				Prepared: 06/27/23 07:39		Analyzed: 06/28/23 17:45						
EPA 6020B												
Aluminum	2870	25.0	50.0	ug/L	1	2780	---	103	80-120%	---	---	
Antimony	28.5	0.500	1.00	ug/L	1	27.8	---	103	80-120%	---	---	
Arsenic	54.4	0.500	1.00	ug/L	1	55.6	---	98	80-120%	---	---	
Barium	59.2	1.00	2.00	ug/L	1	55.6	---	107	80-120%	---	---	
Beryllium	27.7	0.100	0.200	ug/L	1	27.8	---	100	80-120%	---	---	
Cadmium	54.1	0.100	0.200	ug/L	1	55.6	---	97	80-120%	---	---	
Chromium	53.3	1.00	2.00	ug/L	1	55.6	---	96	80-120%	---	---	
Copper	55.4	1.00	2.00	ug/L	1	55.6	---	100	80-120%	---	---	
Iron	2880	25.0	50.0	ug/L	1	2780	---	104	80-120%	---	---	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0976 - EPA 3015A						Water						
LCS (23F0976-BS1)				Prepared: 06/27/23 07:39		Analyzed: 06/28/23 17:45						
Lead	55.5	0.110	0.200	ug/L	1	55.6	---	100	80-120%	---	---	
Manganese	56.6	0.500	1.00	ug/L	1	55.6	---	102	80-120%	---	---	
Mercury	1.03	0.0400	0.0800	ug/L	1	1.11	---	92	80-120%	---	---	
Selenium	27.9	0.500	1.00	ug/L	1	27.8	---	101	80-120%	---	---	
Silver	26.7	0.100	0.200	ug/L	1	27.8	---	96	80-120%	---	---	
Thallium	28.2	0.100	0.200	ug/L	1	27.8	---	102	80-120%	---	---	
Vanadium	55.3	1.00	2.00	ug/L	1	55.6	---	100	80-120%	---	---	
Zinc	55.1	2.00	4.00	ug/L	1	55.6	---	99	80-120%	---	---	
LCS (23F0976-BS2)				Prepared: 06/27/23 07:39		Analyzed: 06/29/23 20:10						
EPA 6020B												
Nickel	62.1	1.00	2.00	ug/L	1	55.6	---	112	80-120%	---	---	Q-16
Matrix Spike (23F0976-MS1)				Prepared: 06/27/23 07:39		Analyzed: 06/28/23 18:42						
QC Source Sample: Non-SDG (A3F1234-08)												
EPA 6020B												
Aluminum	3610	25.0	50.0	ug/L	1	2780	668	106	75-125%	---	---	
Antimony	29.3	0.500	1.00	ug/L	1	27.8	ND	106	75-125%	---	---	
Arsenic	56.5	0.500	1.00	ug/L	1	55.6	3.49	95	75-125%	---	---	
Barium	72.0	1.00	2.00	ug/L	1	55.6	14.2	104	75-125%	---	---	
Beryllium	28.4	0.100	0.200	ug/L	1	27.8	ND	102	75-125%	---	---	
Cadmium	54.9	0.100	0.200	ug/L	1	55.6	ND	99	75-125%	---	---	
Chromium	52.0	1.00	2.00	ug/L	1	55.6	3.10	88	75-125%	---	---	
Copper	54.7	1.00	2.00	ug/L	1	55.6	1.27	96	75-125%	---	---	
Iron	3560	25.0	50.0	ug/L	1	2780	780	100	75-125%	---	---	
Lead	54.1	0.110	0.200	ug/L	1	55.6	0.167	97	75-125%	---	---	
Manganese	768	0.500	1.00	ug/L	1	55.6	724	79	75-125%	---	---	
Mercury	1.05	0.0400	0.0800	ug/L	1	1.11	ND	95	75-125%	---	---	
Selenium	28.3	0.500	1.00	ug/L	1	27.8	ND	102	75-125%	---	---	
Silver	26.6	0.100	0.200	ug/L	1	27.8	ND	96	75-125%	---	---	
Thallium	27.4	0.100	0.200	ug/L	1	27.8	ND	99	75-125%	---	---	
Vanadium	62.6	1.00	2.00	ug/L	1	55.6	9.90	95	75-125%	---	---	
Zinc	57.3	2.00	4.00	ug/L	1	55.6	4.24	95	75-125%	---	---	

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## ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0976 - EPA 3015A						Water						
Matrix Spike (23F0976-MS2)			Prepared: 06/27/23 07:39    Analyzed: 06/29/23 20:21									
QC Source Sample: Non-SDG (A3F1234-08RE1)												
EPA 6020B												
Nickel	62.2	1.00	2.00	ug/L	1	55.6	11.4	91	75-125%	---	---	Q-16
Matrix Spike Dup (23F0976-MSD1)			Prepared: 06/27/23 07:39    Analyzed: 06/28/23 18:47									
QC Source Sample: Non-SDG (A3F1234-08)												
Aluminum	3690	25.0	50.0	ug/L	1	2780	668	109	75-125%	2	20%	
Antimony	29.9	0.500	1.00	ug/L	1	27.8	ND	108	75-125%	2	20%	
Arsenic	58.2	0.500	1.00	ug/L	1	55.6	3.49	99	75-125%	3	20%	
Barium	72.4	1.00	2.00	ug/L	1	55.6	14.2	105	75-125%	0.6	20%	
Beryllium	28.2	0.100	0.200	ug/L	1	27.8	ND	101	75-125%	0.7	20%	
Cadmium	54.5	0.100	0.200	ug/L	1	55.6	ND	98	75-125%	0.6	20%	
Chromium	52.9	1.00	2.00	ug/L	1	55.6	3.10	90	75-125%	2	20%	
Copper	55.8	1.00	2.00	ug/L	1	55.6	1.27	98	75-125%	2	20%	
Iron	3630	25.0	50.0	ug/L	1	2780	780	103	75-125%	2	20%	
Lead	55.3	0.110	0.200	ug/L	1	55.6	0.167	99	75-125%	2	20%	
Manganese	786	0.500	1.00	ug/L	1	55.6	724	112	75-125%	2	20%	
Mercury	1.06	0.0400	0.0800	ug/L	1	1.11	ND	95	75-125%	0.8	20%	
Selenium	29.0	0.500	1.00	ug/L	1	27.8	ND	105	75-125%	3	20%	
Silver	27.1	0.100	0.200	ug/L	1	27.8	ND	97	75-125%	2	20%	
Thallium	27.8	0.100	0.200	ug/L	1	27.8	ND	100	75-125%	1	20%	
Vanadium	65.1	1.00	2.00	ug/L	1	55.6	9.90	99	75-125%	4	20%	
Zinc	58.4	2.00	4.00	ug/L	1	55.6	4.24	97	75-125%	2	20%	
Matrix Spike Dup (23F0976-MSD2)			Prepared: 06/27/23 07:39    Analyzed: 06/29/23 20:26									
QC Source Sample: Non-SDG (A3F1234-08RE1)												
Nickel	62.4	1.00	2.00	ug/L	1	55.6	11.4	92	75-125%	0.5	20%	Q-16

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## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Total 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 23F0720 - Lachat Micro Dist - aqueous						Water						
Blank (23F0720-BLK1)			Prepared: 06/20/23 12:04   Analyzed: 06/21/23 12:42									
<u>EPA 335.4</u>												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23F0720-BS1)			Prepared: 06/20/23 12:04   Analyzed: 06/21/23 12:44									
<u>EPA 335.4</u>												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	---	96	90-110%	---	---	
Duplicate (23F0720-DUP3)			Prepared: 06/20/23 12:04   Analyzed: 06/21/23 14:14									
<u>QC Source Sample: Non-SDG (A3F1178-01RE1)</u>												
Total Cyanide	0.579	0.0100	0.0100	mg/L	2	---	0.587	---	---	1	10%	Q-16
Matrix Spike (23F0720-MS1)			Prepared: 06/20/23 12:04   Analyzed: 06/21/23 12:52									
<u>QC Source Sample: Non-SDG (A3F1132-01)</u>												
<u>EPA 335.4</u>												
Total Cyanide	0.240	0.00500	0.00500	mg/L	1	0.250	0.00690	93	90-110%	---	---	
Matrix Spike (23F0720-MS3)			Prepared: 06/20/23 12:04   Analyzed: 06/21/23 14:16									
<u>QC Source Sample: Non-SDG (A3F1178-01RE1)</u>												
<u>EPA 335.4</u>												
Total Cyanide	0.813	0.0100	0.0100	mg/L	2	0.250	0.587	90	90-110%	---	---	Q-16
Matrix Spike Dup (23F0720-MSD1)			Prepared: 06/20/23 12:04   Analyzed: 06/21/23 12:54									
<u>QC Source Sample: Non-SDG (A3F1132-01)</u>												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	0.00690	93	90-110%	0.5	10%	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0918 - Method Prep: Aq						Water						
Blank (23F0918-BLK1)			Prepared: 06/26/23 08:35    Analyzed: 06/27/23 11:09									
<u>D6888-09</u>												
Available Cyanide	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
LCS (23F0918-BS1)			Prepared: 06/26/23 08:35    Analyzed: 06/27/23 11:10									
<u>D6888-09</u>												
Available Cyanide	0.0246	0.00100	0.00200	mg/L	1	0.0250	---	98	90-117%	---	---	
Matrix Spike (23F0918-MS1)			Prepared: 06/26/23 08:35    Analyzed: 06/27/23 11:19									
<u>QC Source Sample: Non-SDG (A3F1178-03)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0254	0.00101	0.00201	mg/L	1	0.0251	0.00164	95	82-130%	---	---	
Matrix Spike (23F0918-MS2)			Prepared: 06/26/23 08:35    Analyzed: 06/27/23 11:40									
<u>QC Source Sample: Non-SDG (A3F1249-04)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0253	0.00101	0.00201	mg/L	1	0.0251	0.00160	94	82-130%	---	---	
Matrix Spike Dup (23F0918-MSD1)			Prepared: 06/26/23 08:35    Analyzed: 06/27/23 11:21									
<u>QC Source Sample: Non-SDG (A3F1178-03)</u>												
Available Cyanide	0.0258	0.00101	0.00201	mg/L	1	0.0251	0.00164	96	82-130%	1	11%	
Matrix Spike Dup (23F0918-MSD2)			Prepared: 06/26/23 08:35    Analyzed: 06/27/23 11:42									
<u>QC Source Sample: Non-SDG (A3F1249-04)</u>												
Available Cyanide	0.0252	0.00101	0.00201	mg/L	1	0.0251	0.00160	94	82-130%	0.06	11%	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## 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 23F0695 - Microdiffusion						Water						
Blank (23F0695-BLK1)			Prepared: 06/20/23 09:00		Analyzed: 06/20/23 14:50							
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23F0695-BS1)			Prepared: 06/20/23 09:00		Analyzed: 06/20/23 14:50							
<u>D4282-02</u>												
Free Cyanide	0.0634	0.00250	0.00500	mg/L	1	0.0667	---	95	74-120%	---	---	
LCS Dup (23F0695-BSD1)			Prepared: 06/20/23 09:00		Analyzed: 06/20/23 14:56							
<u>D4282-02</u>												
Free Cyanide	0.0637	0.00250	0.00500	mg/L	1	0.0667	---	96	74-120%	0.4	20%	
Duplicate (23F0695-DUP1)			Prepared: 06/20/23 09:00		Analyzed: 06/20/23 14:57							
<u>QC Source Sample: Non-SDG (A3F1249-01)</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	ND	---	---	---	20%	
Matrix Spike (23F0695-MS1)			Prepared: 06/20/23 09:00		Analyzed: 06/20/23 14:57							
<u>QC Source Sample: Non-SDG (A3F1249-01)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0669	0.00250	0.00500	mg/L	1	0.0667	ND	100	74-120%	---	---	

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A3F1256 - 09 12 23 1028

## Analytical Resources, LLC

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0596 - EPA 3510C SepF						Water						
Blank (BLF0596-BLK1)			Prepared: 06/23/23 10:13    Analyzed: 07/11/23 12:45									
WAEPH												
C8-C10 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: 1-Chloro-octadecane		Recovery: 46.3 %		Limits: 36-120 %		Dilution: 1x						
Blank (BLF0596-BLK2)			Prepared: 06/23/23 10:13    Analyzed: 07/12/23 13:47									
WAEPH												
C8-C10 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: o-Terphenyl		Recovery: 58.1 %		Limits: 41-120 %		Dilution: 1x						
LCS (BLF0596-BS1)			Prepared: 06/23/23 10:13    Analyzed: 07/11/23 13:11									
WAEPH												
C8-C10 Aliphatics	140	---	40	ug/L	1	300.00	---	46.8	12-130%	---	---	
>C10-C12 Aliphatics	353	---	40	ug/L	1	300.00	---	118	10-130%	---	---	
>C12-C16 Aliphatics	358	---	40	ug/L	1	300.00	---	119	35-130%	---	---	
>C16-C21 Aliphatics	240	---	40	ug/L	1	300.00	---	80.1	45-130%	---	---	
>C21-C34 Aliphatics	164	---	40	ug/L	1	300.00	---	54.7	19-130%	---	---	
Surr: 1-Chloro-octadecane		Recovery: 56.4 %		Limits: 36-120 %		Dilution: 1x						
LCS (BLF0596-BS2)			Prepared: 06/23/23 10:13    Analyzed: 07/12/23 14:12									
WAEPH												
>C10-C12 Aromatics	ND	---	40	ug/L	1	300.00	---	7.53	12-130%	---	---	*, U
>C12-C16 Aromatics	40.6	---	40	ug/L	1	300.00	---	13.5	31-130%	---	---	*
>C16-C21 Aromatics	452	---	40	ug/L	1	600.00	---	75.3	48-130%	---	---	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0596 - EPA 3510C SepF						Water						
LCS (BLF0596-BS2)			Prepared: 06/23/23 10:13		Analyzed: 07/12/23 14:12							
>C21-C34 Aromatics	214	---	40	ug/L	1	300.00	---	71.5	33-130%	---	---	
Surr: o-Terphenyl		Recovery: 61.9 %		Limits: 41-120 %		Dilution: 1x						
LCS Dup (BLF0596-BSD1)			Prepared: 06/23/23 10:13		Analyzed: 07/11/23 13:36							
WAEPH												
C8-C10 Aliphatics	143	---	40	ug/L	1	300.00	---	47.8	12-130%	2.11	30%	
>C10-C12 Aliphatics	353	---	40	ug/L	1	300.00	---	118	10-130%	0.113	30%	
>C12-C16 Aliphatics	382	---	40	ug/L	1	300.00	---	127	35-130%	6.60	30%	
>C16-C21 Aliphatics	273	---	40	ug/L	1	300.00	---	90.9	45-130%	12.6	30%	
>C21-C34 Aliphatics	183	---	40	ug/L	1	300.00	---	61.1	19-130%	11.0	30%	
Surr: 1-Chloro-octadecane		Recovery: 58.5 %		Limits: 36-120 %		Dilution: 1x						
LCS Dup (BLF0596-BSD2)			Prepared: 06/23/23 10:13		Analyzed: 07/12/23 14:37							
WAEPH												
>C10-C12 Aromatics	ND	---	40	ug/L	1	300.00	---	7.27	12-130%	3.60	30%	*, U
>C12-C16 Aromatics	ND	---	40	ug/L	1	300.00	---	9.93	31-130%	30.7	30%	*, U
>C16-C21 Aromatics	441	---	40	ug/L	1	600.00	---	73.5	48-130%	2.33	30%	
>C21-C34 Aromatics	222	---	40	ug/L	1	300.00	---	73.9	33-130%	3.39	30%	
Surr: o-Terphenyl		Recovery: 64.5 %		Limits: 41-120 %		Dilution: 1x						

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street  
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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## Analytical Resources, LLC

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0691 - EPA 5030C (Purge and Trap)						Water						
Blank (BLF0691-BLK1)			Prepared: 06/23/23 07:16   Analyzed: 06/23/23 17:02									
WAVPH												
C5-C6 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
C8-C10 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Benzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Toluene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Ethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
m,p-Xylene	ND	---	10	ug/L	1	---	---	---	---	---	---	U
Naphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1-Methylnaphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
o-Xylene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Pentane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Hexane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Octane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Decane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Dodecane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Surr: PID: 2,5-Dibromotoluene		Recovery: 67.6 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		72.2 %		60-140 %		"						

## LCS (BLF0691-BS1)

Prepared: 06/23/23 07:16 Analyzed: 06/23/23 16:00

WAVPH												
C5-C6 Aliphatics	98.0	---	50	ug/L	1	---	---	---	---	---	---	
>C6-C8 Aliphatics	53.6	---	50	ug/L	1	---	---	---	---	---	---	
>C8-C10 Aliphatics	75.1	---	50	ug/L	1	---	---	---	---	---	---	
>C10-C12 Aliphatics	84.2	---	50	ug/L	1	---	---	---	---	---	---	
C8-C10 Aromatics	317	---	50	ug/L	1	---	---	---	---	---	---	

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Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0691 - EPA 5030C (Purge and Trap)						Water						
LCS (BLF0691-BS1)			Prepared: 06/23/23 07:16 Analyzed: 06/23/23 16:00									
>C10-C12 Aromatics	57.7	---	50	ug/L	1		---			---	---	
>C12-C13 Aromatics	ND	---	50	ug/L	1		---			---	---	U
Methyl tert-butyl Ether	57.7	---	5	ug/L	1	50.000	---	115	80-131%	---	---	
Benzene	59.5	---	5	ug/L	1	50.000	---	119	68-136%	---	---	
Toluene	56.6	---	5	ug/L	1	50.000	---	113	70-145%	---	---	
Ethylbenzene	48.0	---	5	ug/L	1	50.000	---	96.0	70-130%	---	---	
1,2,3-Trimethylbenzene	47.8	---	5	ug/L	1	50.000	---	95.6	70-130%	---	---	
m,p-Xylene	95.3	---	10	ug/L	1	100.00	---	95.3	70-133%	---	---	
Naphthalene	47.4	---	5	ug/L	1	50.000	---	94.8	70-130%	---	---	
1-Methylnaphthalene	44.1	---	5	ug/L	1	50.000	---	88.2	70-130%	---	---	
o-Xylene	51.9	---	5	ug/L	1	50.000	---	104	70-130%	---	---	
n-Pentane	53.5	---	5	ug/L	1	50.000	---	107	70-130%	---	---	
n-Hexane	48.9	---	5	ug/L	1	50.000	---	97.8	70-130%	---	---	
n-Octane	37.6	---	5	ug/L	1	50.000	---	75.2	56-120%	---	---	
n-Decane	39.9	---	5	ug/L	1	50.000	---	79.8	61-120%	---	---	
n-Dodecane	47.6	---	5	ug/L	1	50.000	---	95.2	70-130%	---	---	
Surr: PID: 2,5-Dibromotoluene		Recovery: 78.9 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		81.8 %		60-140 %		"						

**LCS Dup (BLF0691-BSD1)**

Prepared: 06/23/23 07:16 Analyzed: 06/23/23 16:31

<b>WAVPH</b>												
C5-C6 Aliphatics	62.8	---	50	ug/L	1	---	---	---	---	<b>43.8</b>	<b>30%</b>	*
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	17.0	30%	U
>C8-C10 Aliphatics	75.1	---	50	ug/L	1	---	---	---	---	0.00	30%	
>C10-C12 Aliphatics	78.6	---	50	ug/L	1	---	---	---	---	6.88	30%	
C8-C10 Aromatics	273	---	50	ug/L	1	---	---	---	---	15.2	30%	
>C10-C12 Aromatics	52.6	---	50	ug/L	1	---	---	---	---	9.25	30%	
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	16.2	30%	U
Methyl tert-butyl Ether	51.4	---	5	ug/L	1	50.000	---	103	80-131%	11.5	30%	
Benzene	50.6	---	5	ug/L	1	50.000	---	101	68-136%	16.2	30%	
Toluene	46.4	---	5	ug/L	1	50.000	---	92.8	70-145%	19.8	30%	
Ethylbenzene	40.4	---	5	ug/L	1	50.000	---	80.8	70-130%	17.2	30%	

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Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

## Analytical Resources, LLC

### QUALITY CONTROL (QC) SAMPLE RESULTS

#### Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0691 - EPA 5030C (Purge and Trap)							Water					
LCS Dup (BLF0691-BSD1)			Prepared: 06/23/23 07:16 Analyzed: 06/23/23 16:31									
1,2,3-Trimethylbenzene	40.3	---	5	ug/L	1	50.000	---	80.6	70-130%	17.0	30%	
m,p-Xylene	80.2	---	10	ug/L	1	100.00	---	80.2	70-133%	17.2	30%	
Naphthalene	42.6	---	5	ug/L	1	50.000	---	85.2	70-130%	10.7	30%	
1-Methylnaphthalene	37.5	---	5	ug/L	1	50.000	---	75.0	70-130%	16.2	30%	
o-Xylene	44.3	---	5	ug/L	1	50.000	---	88.6	70-130%	15.8	30%	
n-Pentane	40.2	---	5	ug/L	1	50.000	---	80.4	70-130%	28.4	30%	
n-Hexane	36.7	---	5	ug/L	1	50.000	---	73.4	70-130%	28.5	30%	
n-Octane	36.7	---	5	ug/L	1	50.000	---	73.4	56-120%	2.42	30%	
n-Decane	56.7	---	5	ug/L	1	50.000	---	113	61-120%	34.8	30%	
n-Dodecane	49.5	---	5	ug/L	1	50.000	---	99.0	70-130%	3.91	30%	
Surr: PID: 2,5-Dibromotoluene		Recovery: 59.3 %		Limits: 60-140 %		Dilution: 1x		*				
FID: 2,5-Dibromotoluene		64.0 %		60-140 %		"						

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Darwin Thomas, Business Development Director





# ANALYTICAL REPORT

Apex Laboratories, LLC

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

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**  
Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

## Analytical Resources, LLC

### QUALITY CONTROL (QC) SAMPLE RESULTS

#### Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0696 - EPA 5030C (Purge and Trap)						Water						
Blank (BLF0696-BLK1)			Prepared: 06/26/23 07:19 Analyzed: 06/26/23 10:10									
WAVPH												
C5-C6 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
C8-C10 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Benzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Toluene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Ethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
m,p-Xylene	ND	---	10	ug/L	1	---	---	---	---	---	---	U
Naphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1-Methylnaphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
o-Xylene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Pentane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Hexane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Octane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Decane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Dodecane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Surr: PID: 2,5-Dibromotoluene		Recovery: 71.7 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		75.1 %		60-140 %		"						

**LCS (BLF0696-BS1)**

Prepared: 06/26/23 07:19 Analyzed: 06/26/23 09:09

<b>WAVPH</b>												
C5-C6 Aliphatics	91.6	---	50	ug/L	1	---	---	---	---	---	---	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C8-C10 Aliphatics	68.9	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	81.1	---	50	ug/L	1	---	---	---	---	---	---	U
C8-C10 Aromatics	299	---	50	ug/L	1	---	---	---	---	---	---	U

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## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0696 - EPA 5030C (Purge and Trap)						Water						
LCS (BLF0696-BS1)			Prepared: 06/26/23 07:19   Analyzed: 06/26/23 09:09									
>C10-C12 Aromatics	57.4	---	50	ug/L	1		---			---	---	
>C12-C13 Aromatics	ND	---	50	ug/L	1		---			---	---	U
Methyl tert-butyl Ether	54.0	---	5	ug/L	1	50.000	---	108	80-131%	---	---	
Benzene	56.9	---	5	ug/L	1	50.000	---	114	68-136%	---	---	
Toluene	52.4	---	5	ug/L	1	50.000	---	105	70-145%	---	---	
Ethylbenzene	45.0	---	5	ug/L	1	50.000	---	90.0	70-130%	---	---	
1,2,3-Trimethylbenzene	47.2	---	5	ug/L	1	50.000	---	94.4	70-130%	---	---	
m,p-Xylene	87.9	---	10	ug/L	1	100.00	---	87.9	70-133%	---	---	
Naphthalene	47.0	---	5	ug/L	1	50.000	---	94.0	70-130%	---	---	
1-Methylnaphthalene	44.6	---	5	ug/L	1	50.000	---	89.2	70-130%	---	---	
o-Xylene	49.2	---	5	ug/L	1	50.000	---	98.4	70-130%	---	---	
n-Pentane	53.2	---	5	ug/L	1	50.000	---	106	70-130%	---	---	
n-Hexane	46.5	---	5	ug/L	1	50.000	---	93.0	70-130%	---	---	
n-Octane	36.0	---	5	ug/L	1	50.000	---	72.0	56-120%	---	---	
n-Decane	38.9	---	5	ug/L	1	50.000	---	77.8	61-120%	---	---	
n-Dodecane	46.6	---	5	ug/L	1	50.000	---	93.2	70-130%	---	---	
Surr: PID: 2,5-Dibromotoluene		Recovery: 81.2 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		84.0 %		60-140 %		"						

**LCS Dup (BLF0696-BSD1)**

Prepared: 06/26/23 07:19 Analyzed: 06/26/23 09:39

<b>WAVPH</b>												
C5-C6 Aliphatics	87.9	---	50	ug/L	1	---	---	---	---	4.12	30%	
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	1.52	30%	U
>C8-C10 Aliphatics	78.4	---	50	ug/L	1	---	---	---	---	12.9	30%	
>C10-C12 Aliphatics	89.6	---	50	ug/L	1	---	---	---	---	9.96	30%	
C8-C10 Aromatics	329	---	50	ug/L	1	---	---	---	---	9.52	30%	
>C10-C12 Aromatics	62.0	---	50	ug/L	1	---	---	---	---	7.71	30%	
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	6.09	30%	U
Methyl tert-butyl Ether	60.4	---	5	ug/L	1	50.000	---	121	80-131%	11.2	30%	
Benzene	62.3	---	5	ug/L	1	50.000	---	125	68-136%	9.06	30%	
Toluene	57.0	---	5	ug/L	1	50.000	---	114	70-145%	8.41	30%	
Ethylbenzene	49.6	---	5	ug/L	1	50.000	---	99.2	70-130%	9.73	30%	

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Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

**Report ID:**

**A3F1256 - 09 12 23 1028**

## Analytical Resources, LLC

### QUALITY CONTROL (QC) SAMPLE RESULTS

#### Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLF0696 - EPA 5030C (Purge and Trap)						Water						
LCS Dup (BLF0696-BSD1)			Prepared: 06/26/23 07:19		Analyzed: 06/26/23 09:39							
1,2,3-Trimethylbenzene	49.4	---	5	ug/L	1	50.000	---	98.8	70-130%	4.55	30%	
m,p-Xylene	98.4	---	10	ug/L	1	100.00	---	98.4	70-133%	11.3	30%	
Naphthalene	50.4	---	5	ug/L	1	50.000	---	101	70-130%	6.98	30%	
1-Methylnaphthalene	47.4	---	5	ug/L	1	50.000	---	94.8	70-130%	6.09	30%	
o-Xylene	54.3	---	5	ug/L	1	50.000	---	109	70-130%	9.86	30%	
n-Pentane	50.7	---	5	ug/L	1	50.000	---	101	70-130%	4.81	30%	
n-Hexane	44.8	---	5	ug/L	1	50.000	---	89.6	70-130%	3.72	30%	
n-Octane	37.1	---	5	ug/L	1	50.000	---	74.2	56-120%	3.01	30%	
n-Decane	42.1	---	5	ug/L	1	50.000	---	84.2	61-120%	7.90	30%	
n-Dodecane	53.7	---	5	ug/L	1	50.000	---	107	70-130%	14.2	30%	
Surr: PID: 2,5-Dibromotoluene		Recovery: 82.4 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		84.9 %		60-140 %		"						

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Project Manager: John Renda

Report ID:

A3F1256 - 09 12 23 1028

## Analytical Resources, LLC

### QUALITY CONTROL (QC) SAMPLE RESULTS

#### Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLG0608 - EPA 3510C SepF							Water					
Blank (BLG0608-BLK1)			Prepared: 07/27/23 10:30		Analyzed: 07/28/23 13:00							
WAEPH												
C8-C10 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: o-Terphenyl		Recovery: 74.9 %		Limits: 41-120 %		Dilution: 1x						

Blank (BLG0608-BLK2)				Prepared: 07/27/23 10:30   Analyzed: 07/28/23 17:45								
WAEPH												
C8-C10 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: 1-Chloro-octadecane		Recovery: 63.1 %		Limits: 36-120 %		Dilution: 1x						

LCS (BLG0608-BS1)				Prepared: 07/27/23 10:30   Analyzed: 07/28/23 13:26							
WAEPH											
>C10-C12 Aromatics	104	---	40	ug/L	1	300.00	---	34.5	12-130%	---	---
>C12-C16 Aromatics	175	---	40	ug/L	1	300.00	---	58.2	31-130%	---	---
>C16-C21 Aromatics	462	---	40	ug/L	1	600.00	---	77.1	48-130%	---	---
>C21-C34 Aromatics	220	---	40	ug/L	1	300.00	---	73.2	33-130%	---	---
Surr: o-Terphenyl		Recovery: 68.3 %		Limits: 41-120 %		Dilution: 1x					

LCS (BLG0608-BS2)			Prepared: 07/27/23 10:30   Analyzed: 07/28/23 18:11								
WAEPH											
C8-C10 Aliphatics	69.6	---	40	ug/L	1	300.00	---	23.2	12-130%	---	---
>C10-C12 Aliphatics	155	---	40	ug/L	1	300.00	---	51.7	10-130%	---	---
>C12-C16 Aliphatics	195	---	40	ug/L	1	300.00	---	64.9	35-130%	---	---
>C16-C21 Aliphatics	243	---	40	ug/L	1	300.00	---	81.0	45-130%	---	---

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## ANALYTICAL REPORT

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLG0608 - EPA 3510C SepF						Water						
LCS (BLG0608-BS2)			Prepared: 07/27/23 10:30		Analyzed: 07/28/23 18:11							
>C21-C34 Aliphatics	218	---	40	ug/L	1	300.00	---	72.7	19-130%	---	---	
Surr: 1-Chloro-octadecane		Recovery: 64.8 %		Limits: 36-120 %		Dilution: 1x						
LCS Dup (BLG0608-BSD1)			Prepared: 07/27/23 10:30		Analyzed: 07/28/23 13:52							
WAEPH												
>C10-C12 Aromatics	139	---	40	ug/L	1	300.00	---	46.5	12-130%	29.5	30%	
>C12-C16 Aromatics	191	---	40	ug/L	1	300.00	---	63.7	31-130%	9.08	30%	
>C16-C21 Aromatics	490	---	40	ug/L	1	600.00	---	81.7	48-130%	5.88	30%	
>C21-C34 Aromatics	240	---	40	ug/L	1	300.00	---	80.1	33-130%	8.96	30%	
Surr: o-Terphenyl		Recovery: 72.7 %		Limits: 41-120 %		Dilution: 1x						
LCS Dup (BLG0608-BSD2)			Prepared: 07/27/23 10:30		Analyzed: 07/28/23 18:36							
WAEPH												
C8-C10 Aliphatics	81.0	---	40	ug/L	1	300.00	---	27.0	12-130%	15.1	30%	
>C10-C12 Aliphatics	147	---	40	ug/L	1	300.00	---	49.1	10-130%	5.16	30%	
>C12-C16 Aliphatics	194	---	40	ug/L	1	300.00	---	64.8	35-130%	0.206	30%	
>C16-C21 Aliphatics	234	---	40	ug/L	1	300.00	---	78.0	45-130%	3.77	30%	
>C21-C34 Aliphatics	217	---	40	ug/L	1	300.00	---	72.5	19-130%	0.276	30%	
Surr: 1-Chloro-octadecane		Recovery: 63.3 %		Limits: 36-120 %		Dilution: 1x						

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23F1082							
A3F1256-01RE1	Water	NWTPH-Dx	06/16/23 09:25	06/29/23 07:18	830mL/5mL	1000mL/5mL	1.20
A3F1256-02	Water	NWTPH-Dx	06/16/23 11:00	06/29/23 07:18	1020mL/5mL	1000mL/5mL	0.98

**Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23F0871							
A3F1256-01RE1	Water	NWTPH-Gx (MS)	06/16/23 09:25	06/23/23 10:58	5mL/5mL	5mL/5mL	1.00
A3F1256-02RE1	Water	NWTPH-Gx (MS)	06/16/23 11:00	06/23/23 10:58	5mL/5mL	5mL/5mL	1.00

**Volatile Organic Compounds by EPA 8260D**

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23F0811							
A3F1256-03	Water	EPA 8260D	06/16/23 12:00	06/22/23 09:04	5mL/5mL	5mL/5mL	1.00
Batch: 23F0871							
A3F1256-01RE1	Water	EPA 8260D	06/16/23 09:25	06/23/23 10:58	5mL/5mL	5mL/5mL	1.00
A3F1256-02RE1	Water	EPA 8260D	06/16/23 11:00	06/23/23 10:58	5mL/5mL	5mL/5mL	1.00

**Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)**

Prep: EPA 3511 (Bottle Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23F0769							
A3F1256-01	Water	EPA 8270E LVI	06/16/23 09:25	06/21/23 10:29	100.62mL/5mL	125mL/5mL	1.24
A3F1256-02	Water	EPA 8270E LVI	06/16/23 11:00	06/21/23 10:29	118.67mL/5mL	125mL/5mL	1.05

**Total Metals by EPA 6020B (ICPMS)**

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23F0976							
A3F1256-01	Water	EPA 6020B	06/16/23 09:25	06/27/23 07:39	45mL/50mL	45mL/50mL	1.00

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Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3F1256-01RE1	Water	EPA 6020B	06/16/23 09:25	06/27/23 07:39	45mL/50mL	45mL/50mL	1.00
A3F1256-02	Water	EPA 6020B	06/16/23 11:00	06/27/23 07:39	45mL/50mL	45mL/50mL	1.00
A3F1256-02RE1	Water	EPA 6020B	06/16/23 11:00	06/27/23 07:39	45mL/50mL	45mL/50mL	1.00

**Total 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
<b>Batch: 23F0720</b>							
A3F1256-01	Water	EPA 335.4	06/16/23 09:25	06/20/23 12:04	6mL/6mL	6mL/6mL	1.00
A3F1256-02	Water	EPA 335.4	06/16/23 11:00	06/20/23 12:04	6mL/6mL	6mL/6mL	1.00

**Available Cyanide by FIA, Ligand Exchange and Amperometric Detection****Prep: Method Prep: Ag**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<b>Batch: 23F0918</b>							
A3F1256-01	Water	D6888-09	06/16/23 09:25	06/26/23 08:35	5mL/5mL	5mL/5mL	1.00
A3F1256-02	Water	D6888-09	06/16/23 11:00	06/26/23 08:35	5mL/5mL	5mL/5mL	1.00

**Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry****Prep: Microdiffusion**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<b>Batch: 23F0695</b>							
A3F1256-01	Water	D4282-02	06/16/23 09:25	06/20/23 09:00	3mL/3mL	3mL/3mL	1.00
A3F1256-02	Water	D4282-02	06/16/23 11:00	06/20/23 09:00	3mL/3mL	3mL/3mL	1.00

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 2Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3F1256 - 09 12 23 1028****Analytical Resources, LLC****SAMPLE PREPARATION INFORMATION****Washington Department of Ecology Methods****Prep: EPA 3510C SepF**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<b>Batch: BLF0596</b>							
A3F1256-01	Water	WA EPH	06/16/23 09:25	06/23/23 10:12	500mL/1mL	500mL/1mL	1.00
A3F1256-02	Water	WA EPH	06/16/23 11:00	06/23/23 10:12	500mL/1mL	500mL/1mL	1.00
<b>Batch: BLG0608</b>							
A3F1256-01RE1	Water	WA EPH	06/16/23 09:25	07/27/23 10:30	305mL/1mL	500mL/1mL	1.64
A3F1256-02RE1	Water	WA EPH	06/16/23 11:00	07/27/23 10:30	500mL/1mL	500mL/1mL	1.00

**Prep: EPA 5030C (Purge and Trap)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<b>Batch: BLF0691</b>							
A3F1256-01	Water	WA VPH	06/16/23 09:25	06/23/23 07:16	10mL/10ml	10mL/10ml	1.00
A3F1256-02	Water	WA VPH	06/16/23 11:00	06/23/23 07:16	10mL/10ml	10mL/10ml	1.00
<b>Batch: BLF0696</b>							
A3F1256-01RE1	Water	WA VPH	06/16/23 09:25	06/26/23 07:19	10mL/10ml	10mL/10ml	1.00

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**A3F1256 - 09 12 23 1028**

## QUALIFIER DEFINITIONS

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

#### Apex Laboratories

- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +26%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +27%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +29%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +41%. The results are reported as Estimated Values.
- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -12%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-01** Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- T-02** This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.
- V-01** Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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Analytical Resources, LLC

- \* Flagged value is not within established control limits.
- H Hold time violation - Hold time was exceeded.
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

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### 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

**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).

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### REPORTING NOTES AND CONVENTIONS (Cont.):

**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.

-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, if results are not reported to the MDL.

**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
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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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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## APEX LABS COOLER RECEIPT FORM

Client: ANCHOR QEA Element WO#: A3 F1256

Project/Project #: Gasco-MGP ONLY 2Q 2023 T-01.001E

## Delivery Info:

Date/time received: 6/16/23 @ 1504 By: SAT

Delivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐

Cooler Inspection Date/time inspected: 6/16/23 @ 1705 By: SAT

Chain of Custody included? Yes ☒ No ☐Signed/dated by client? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.4						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	IN						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐

Sample Inspection: Date/time inspected: 6/16/23 @ 1936 By: JS

All samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☒ No ☐ Comments:COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information: TB # 3315

Labeled by:

JS

Witness:

JS

Cooler Inspected by:

AJM

Form V-003 R-00

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