



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Friday, May 19, 2023

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

RE: A3C0869 - Gasco-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon. - 000029-02.84 T-01.001 H

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 A3C0869, which was received by the laboratory on 3/24/2023 at 8:41:00AM.

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

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

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 1.3 degC

Cooler #2 1.7 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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.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

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GS-032323-53	A3C0869-01	WG	03/23/23 10:15	03/24/23 08:41
GS-032323-54	A3C0869-02	WG	03/23/23 11:00	03/24/23 08:41
GS-032323-57	A3C0869-03	WG	03/23/23 11:45	03/24/23 08:41
GS-032323-58	A3C0869-04	WG	03/23/23 13:00	03/24/23 08:41
GS-032323-59	A3C0869-05	WG	03/23/23 13:40	03/24/23 08:41
TB-032323	A3C0869-06	W	03/23/23 15:30	03/24/23 08:41

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)		Matrix: WG			Batch: 23C1116			
Acetone	ND	20.0	20.0	ug/L	1	03/29/23 03:12	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Benzene	24.5	0.100	0.200	ug/L	1	03/29/23 03:12	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/29/23 03:12	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/29/23 03:12	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/29/23 03:12	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Chlorobenzene	0.780	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/29/23 03:12	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2-Dichlorobenzene	1.38	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
cis-1,2-Dichloroethene	3.64	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)		Matrix: WG			Batch: 23C1116			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/29/23 03:12	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/29/23 03:12	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/29/23 03:12	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/29/23 03:12	EPA 8260D	
Methyl tert-butyl ether (MTBE)	4.45	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	03/29/23 03:12	EPA 8260D	Q-54c
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	
Trichloroethene (TCE)	0.460	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
Vinyl chloride	13.1	0.200	0.400	ug/L	1	03/29/23 03:12	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/29/23 03:12	EPA 8260D	
o-Xylene	0.350	0.250	0.500	ug/L	1	03/29/23 03:12	EPA 8260D	J

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)		Matrix: WG			Batch: 23C1116			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 91 %	Limits: 80-120 %	1		03/29/23 03:12	EPA 8260D	
Toluene-d8 (Surr)		103 %	80-120 %	1		03/29/23 03:12	EPA 8260D	
4-Bromofluorobenzene (Surr)		99 %	80-120 %	1		03/29/23 03:12	EPA 8260D	
GS-032323-54 (A3C0869-02)		Matrix: WG			Batch: 23C1116			
Acetone	ND	10.0	20.0	ug/L	1	03/29/23 03:34	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Benzene	4.39	0.100	0.200	ug/L	1	03/29/23 03:34	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/29/23 03:34	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/29/23 03:34	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/29/23 03:34	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/29/23 03:34	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-54 (A3C0869-02)		Matrix: WG			Batch: 23C1116			
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
cis-1,2-Dichloroethene	0.620	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/29/23 03:34	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/29/23 03:34	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/29/23 03:34	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/29/23 03:34	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	03/29/23 03:34	EPA 8260D	Q-54c
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-54 (A3C0869-02)		Matrix: WG			Batch: 23C1116			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
Vinyl chloride	1.00	0.200	0.400	ug/L	1	03/29/23 03:34	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/29/23 03:34	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	03/29/23 03:34	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/29/23 03:34</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/29/23 03:34</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/29/23 03:34</i>	<i>EPA 8260D</i>	
GS-032323-57 (A3C0869-03)		Matrix: WG			Batch: 23C1116			
Acetone	ND	10.0	20.0	ug/L	1	03/29/23 03:57	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Benzene	0.370	0.100	0.200	ug/L	1	03/29/23 03:57	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/29/23 03:57	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/29/23 03:57	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/29/23 03:57	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/29/23 03:57	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-57 (A3C0869-03)		Matrix: WG			Batch: 23C1116			
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
cis-1,2-Dichloroethene	0.350	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	J
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/29/23 03:57	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/29/23 03:57	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/29/23 03:57	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/29/23 03:57	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	03/29/23 03:57	EPA 8260D	Q-54c
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-57 (A3C0869-03)		Matrix: WG			Batch: 23C1116			
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
Vinyl chloride	0.870	0.200	0.400	ug/L	1	03/29/23 03:57	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/29/23 03:57	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	03/29/23 03:57	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/29/23 03:57</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/29/23 03:57</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/29/23 03:57</i>	<i>EPA 8260D</i>	
GS-032323-58 (A3C0869-04)		Matrix: WG			Batch: 23C1116			
Acetone	ND	10.0	20.0	ug/L	1	03/29/23 05:26	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Benzene	46.8	0.100	0.200	ug/L	1	03/29/23 05:26	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/29/23 05:26	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/29/23 05:26	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/29/23 05:26	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/29/23 05:26	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-58 (A3C0869-04)		Matrix: WG			Batch: 23C1116			
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
cis-1,2-Dichloroethene	3.25	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Ethylbenzene	5.06	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/29/23 05:26	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/29/23 05:26	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/29/23 05:26	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/29/23 05:26	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Naphthalene	79.9	2.00	2.00	ug/L	1	03/29/23 05:26	EPA 8260D	Q-54c
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
Toluene	1.11	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-58 (A3C0869-04)		Matrix: WG			Batch: 23C1116			
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
1,2,4-Trimethylbenzene	1.71	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	Q-42
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	
Vinyl chloride	18.3	0.200	0.400	ug/L	1	03/29/23 05:26	EPA 8260D	
m,p-Xylene	1.73	0.500	1.00	ug/L	1	03/29/23 05:26	EPA 8260D	Q-42
o-Xylene	2.89	0.250	0.500	ug/L	1	03/29/23 05:26	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/29/23 05:26</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/29/23 05:26</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/29/23 05:26</i>	<i>EPA 8260D</i>	
GS-032323-59 (A3C0869-05)		Matrix: WG			Batch: 23C1073			V-25
Acetone	ND	1000	2000	ug/L	100	03/28/23 19:08	EPA 8260D	
Acrylonitrile	ND	100	200	ug/L	100	03/28/23 19:08	EPA 8260D	
Benzene	278	10.0	20.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Bromobenzene	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Bromochloromethane	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Bromodichloromethane	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Bromoform	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54e
Bromomethane	ND	500	500	ug/L	100	03/28/23 19:08	EPA 8260D	
2-Butanone (MEK)	ND	500	1000	ug/L	100	03/28/23 19:08	EPA 8260D	
n-Butylbenzene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
sec-Butylbenzene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
tert-Butylbenzene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Carbon disulfide	ND	500	1000	ug/L	100	03/28/23 19:08	EPA 8260D	
Carbon tetrachloride	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54f
Chlorobenzene	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Chloroethane	ND	500	500	ug/L	100	03/28/23 19:08	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-59 (A3C0869-05)		Matrix: WG			Batch: 23C1073		V-25	
Chloroform	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Chloromethane	ND	250	500	ug/L	100	03/28/23 19:08	EPA 8260D	
2-Chlorotoluene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
4-Chlorotoluene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Dibromochloromethane	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54d
1,2-Dibromo-3-chloropropane	ND	500	500	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54i
1,2-Dibromoethane (EDB)	ND	50.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Dibromomethane	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2-Dichlorobenzene	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
1,3-Dichlorobenzene	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
1,4-Dichlorobenzene	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Dichlorodifluoromethane	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
1,1-Dichloroethane	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
1,1-Dichloroethene	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
cis-1,2-Dichloroethene	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
trans-1,2-Dichloroethene	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2-Dichloropropane	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
1,3-Dichloropropane	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
2,2-Dichloropropane	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54k
1,1-Dichloropropene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
cis-1,3-Dichloropropene	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54b
trans-1,3-Dichloropropene	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54g
Ethylbenzene	427	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Hexachlorobutadiene	ND	250	500	ug/L	100	03/28/23 19:08	EPA 8260D	
2-Hexanone	ND	500	1000	ug/L	100	03/28/23 19:08	EPA 8260D	
Isopropylbenzene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
4-Isopropyltoluene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Methylene chloride	ND	500	1000	ug/L	100	03/28/23 19:08	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	500	1000	ug/L	100	03/28/23 19:08	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	100	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Naphthalene	15900	100	200	ug/L	100	03/28/23 19:08	EPA 8260D	
n-Propylbenzene	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-59 (A3C0869-05)		Matrix: WG			Batch: 23C1073		V-25	
Styrene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	40.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54d
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Tetrachloroethene (PCE)	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Toluene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2,3-Trichlorobenzene	ND	100	200	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	100	200	ug/L	100	03/28/23 19:08	EPA 8260D	
1,1,1-Trichloroethane	ND	40.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	Q-54c
1,1,2-Trichloroethane	ND	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Trichloroethene (TCE)	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Trichlorofluoromethane	ND	100	200	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2,3-Trichloropropane	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
1,2,4-Trimethylbenzene	146	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
1,3,5-Trimethylbenzene	ND	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
Vinyl chloride	ND	20.0	40.0	ug/L	100	03/28/23 19:08	EPA 8260D	
m,p-Xylene	302	50.0	100	ug/L	100	03/28/23 19:08	EPA 8260D	
o-Xylene	166	25.0	50.0	ug/L	100	03/28/23 19:08	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %	1	03/28/23 19:08	EPA 8260D	
Toluene-d8 (Surr)		100 %		80-120 %	1	03/28/23 19:08	EPA 8260D	
4-Bromofluorobenzene (Surr)		95 %		80-120 %	1	03/28/23 19:08	EPA 8260D	
TB-032323 (A3C0869-06)		Matrix: W			Batch: 23C1116			
Acetone	ND	10.0	20.0	ug/L	1	03/28/23 22:19	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	03/28/23 22:19	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/28/23 22:19	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/28/23 22:19	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-032323 (A3C0869-06)		Matrix: W			Batch: 23C1116			
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/28/23 22:19	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/28/23 22:19	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/28/23 22:19	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/28/23 22:19	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/28/23 22:19	EPA 8260D	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-032323 (A3C0869-06)		Matrix: W			Batch: 23C1116			
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/28/23 22:19	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	03/28/23 22:19	EPA 8260D	Q-54c
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	03/28/23 22:19	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/28/23 22:19	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	03/28/23 22:19	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>03/28/23 22:19</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/28/23 22:19</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/28/23 22:19</i>	<i>EPA 8260D</i>

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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-032323-53 (A3C0869-01RE1)		Matrix: WG			Batch: 23C1086			
Acenaphthene	0.107	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Acenaphthylene	0.185	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Anthracene	0.190	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Chrysene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Fluoranthene	ND	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Fluorene	ND	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00983	0.0197	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
1-Methylnaphthalene	0.0703	0.0393	0.0786	ug/L	1	03/29/23 00:03	EPA 8270E LVI	J
2-Methylnaphthalene	ND	0.0393	0.0786	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Naphthalene	0.319	0.0393	0.0786	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Phenanthrene	ND	0.0393	0.0786	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Pyrene	ND	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Carbazole	ND	0.0393	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Dibenzofuran	ND	0.0197	0.0393	ug/L	1	03/29/23 00:03	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 124 %		Limits: 78-134 %	1	03/29/23 00:03	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		128 %		80-132 %	1	03/29/23 00:03	EPA 8270E LVI	

GS-032323-54 (A3C0869-02)

Matrix: WG

Batch: 23C1086

Acenaphthene	0.0694	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Acenaphthylene	0.115	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Anthracene	0.209	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Benz(a)anthracene	ND	0.0210	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Benzo(a)pyrene	ND	0.0105	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Benzo(b)fluoranthene	ND	0.0105	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Benzo(k)fluoranthene	ND	0.0105	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Benzo(g,h,i)perylene	ND	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI
Chrysene	ND	0.0105	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

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-032323-54 (A3C0869-02)		Matrix: WG			Batch: 23C1086			
Dibenz(a,h)anthracene	ND	0.0105	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Fluoranthene	ND	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Fluorene	ND	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0105	0.0210	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0421	0.0841	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0421	0.0841	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Naphthalene	0.0652	0.0421	0.0841	ug/L	1	03/28/23 19:05	EPA 8270E LVI	J
Phenanthrene	ND	0.0421	0.0841	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Pyrene	ND	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Carbazole	ND	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Dibenzofuran	ND	0.0210	0.0421	ug/L	1	03/28/23 19:05	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	121 %	Limits:	78-134 %	1	03/28/23 19:05	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			128 %		80-132 %	1	03/28/23 19:05	EPA 8270E LVI
GS-032323-57 (A3C0869-03)		Matrix: WG			Batch: 23C1086			
Acenaphthene	3.23	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Acenaphthylene	0.198	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Anthracene	0.616	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Benz(a)anthracene	0.0499	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Benzo(b)fluoranthene	0.0149	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	J
Benzo(k)fluoranthene	ND	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Chrysene	0.0437	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Fluoranthene	0.511	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Fluorene	1.41	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0103	0.0206	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
1-Methylnaphthalene	0.224	0.0411	0.0823	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0411	0.0823	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Naphthalene	0.0941	0.0411	0.0823	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Phenanthrene	0.358	0.0411	0.0823	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Pyrene	0.637	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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-032323-57 (A3C0869-03)		Matrix: WG			Batch: 23C1086			
Carbazole	ND	0.0411	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Dibenzofuran	0.196	0.0206	0.0411	ug/L	1	03/28/23 19:38	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 119 %		Limits: 78-134 %	1	03/28/23 19:38	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		127 %		80-132 %	1	03/28/23 19:38	EPA 8270E LVI	
GS-032323-58 (A3C0869-04)		Matrix: WG			Batch: 23C1086			
Acenaphthene	3.63	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Acenaphthylene	ND	0.518	0.518	ug/L	1	03/28/23 20:11	EPA 8270E LVI	R-02
Anthracene	0.171	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0104	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0104	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0104	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0207	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Chrysene	ND	0.0104	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0104	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Fluoranthene	0.0388	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	J
Fluorene	0.474	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0104	0.0207	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
1-Methylnaphthalene	5.62	0.0414	0.0829	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
2-Methylnaphthalene	6.33	0.0414	0.0829	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Phenanthrene	0.241	0.0414	0.0829	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Pyrene	0.0477	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Carbazole	1.39	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Dibenzofuran	0.0932	0.0207	0.0414	ug/L	1	03/28/23 20:11	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 121 %		Limits: 78-134 %	1	03/28/23 20:11	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		127 %		80-132 %	1	03/28/23 20:11	EPA 8270E LVI	
GS-032323-58 (A3C0869-04RE1)		Matrix: WG			Batch: 23C1086			
Naphthalene	47.3	0.414	0.829	ug/L	10	03/30/23 21:44	EPA 8270E LVI	
GS-032323-59 (A3C0869-05)		Matrix: WG			Batch: 23C1086			
Acenaphthene	199	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Acenaphthylene	ND	11.5	11.5	ug/L	100	03/28/23 16:50	EPA 8270E LVI	R-02

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

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-032323-59 (A3C0869-05)		Matrix: WG			Batch: 23C1086			
Anthracene	13.8	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Benz(a)anthracene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Benzo(a)pyrene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Chrysene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Fluoranthene	6.33	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Fluorene	58.7	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	1.15	2.30	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
1-Methylnaphthalene	522	4.61	9.21	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
2-Methylnaphthalene	814	4.61	9.21	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Phenanthrene	82.1	4.61	9.21	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Pyrene	6.05	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Carbazole	159	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Dibenzofuran	13.5	2.30	4.61	ug/L	100	03/28/23 16:50	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 246 %		Limits: 78-134 %	100	03/28/23 16:50	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)		64 %		80-132 %	100	03/28/23 16:50	EPA 8270E LVI	S-05
GS-032323-59 (A3C0869-05RE1)		Matrix: WG			Batch: 23C1086			
Naphthalene	7330	46.1	92.1	ug/L	1000	03/29/23 00:36	EPA 8270E LVI	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)		Matrix: WG						
Batch: 23C1227								
Aluminum	ND	25.0	50.0	ug/L	1	04/01/23 02:35	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Arsenic	4.62	0.500	1.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Barium	50.5	1.00	2.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 02:35	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 02:35	EPA 6020B	
Calcium	49900	300	600	ug/L	1	04/01/23 02:35	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Iron	30200	25.0	50.0	ug/L	1	04/01/23 02:35	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 02:35	EPA 6020B	
Manganese	1110	0.500	1.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 02:35	EPA 6020B	
Nickel	2.18	1.00	2.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Potassium	2480	50.0	100	ug/L	1	04/01/23 02:35	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 02:35	EPA 6020B	
Sodium	19700	50.0	100	ug/L	1	04/01/23 02:35	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 02:35	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/01/23 02:35	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/01/23 02:35	EPA 6020B	
GS-032323-53 (A3C0869-01RE1)		Matrix: WG						
Batch: 23C1227								
Magnesium	34900	750	1500	ug/L	10	04/04/23 16:26	EPA 6020B	
GS-032323-54 (A3C0869-02)		Matrix: WG						
Batch: 23C1227								
Aluminum	ND	25.0	50.0	ug/L	1	04/01/23 02:39	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Arsenic	3.60	0.500	1.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Barium	57.3	1.00	2.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 02:39	EPA 6020B	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-54 (A3C0869-02)		Matrix: WG						
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 02:39	EPA 6020B	
Calcium	50400	300	600	ug/L	1	04/01/23 02:39	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Iron	38300	25.0	50.0	ug/L	1	04/01/23 02:39	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 02:39	EPA 6020B	
Manganese	1140	0.500	1.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 02:39	EPA 6020B	
Nickel	5.47	1.00	2.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Potassium	2470	50.0	100	ug/L	1	04/01/23 02:39	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 02:39	EPA 6020B	
Sodium	30400	50.0	100	ug/L	1	04/01/23 02:39	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 02:39	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/01/23 02:39	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/01/23 02:39	EPA 6020B	
GS-032323-54 (A3C0869-02RE1)		Matrix: WG						
Batch: 23C1227								
Magnesium	38600	750	1500	ug/L	10	04/04/23 16:31	EPA 6020B	
GS-032323-57 (A3C0869-03)		Matrix: WG						
Batch: 23C1227								
Aluminum	ND	25.0	50.0	ug/L	1	04/01/23 02:44	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Arsenic	1.91	0.500	1.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Barium	68.7	1.00	2.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 02:44	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 02:44	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Iron	33300	25.0	50.0	ug/L	1	04/01/23 02:44	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 02:44	EPA 6020B	
Manganese	1110	0.500	1.00	ug/L	1	04/01/23 02:44	EPA 6020B	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-57 (A3C0869-03) Matrix: WG								
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 02:44	EPA 6020B	
Nickel	10.7	1.00	2.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Potassium	2650	50.0	100	ug/L	1	04/01/23 02:44	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 02:44	EPA 6020B	
Sodium	37500	50.0	100	ug/L	1	04/01/23 02:44	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 02:44	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/01/23 02:44	EPA 6020B	
Zinc	13.9	2.00	4.00	ug/L	1	04/01/23 02:44	EPA 6020B	
GS-032323-57 (A3C0869-03RE1) Matrix: WG								
Batch: 23C1227								
Calcium	76000	3000	6000	ug/L	10	04/04/23 16:35	EPA 6020B	
Magnesium	48100	750	1500	ug/L	10	04/04/23 16:35	EPA 6020B	
GS-032323-58 (A3C0869-04) Matrix: WG								
Batch: 23C1227								
Aluminum	ND	25.0	50.0	ug/L	1	04/01/23 02:49	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Arsenic	2.00	0.500	1.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Barium	44.2	1.00	2.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 02:49	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 02:49	EPA 6020B	
Calcium	41700	300	600	ug/L	1	04/01/23 02:49	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Copper	1.12	1.00	2.00	ug/L	1	04/01/23 02:49	EPA 6020B	J
Iron	21800	25.0	50.0	ug/L	1	04/01/23 02:49	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 02:49	EPA 6020B	
Manganese	724	0.500	1.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 02:49	EPA 6020B	
Nickel	1.88	1.00	2.00	ug/L	1	04/01/23 02:49	EPA 6020B	J
Potassium	2210	50.0	100	ug/L	1	04/01/23 02:49	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 02:49	EPA 6020B	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-58 (A3C0869-04)		Matrix: WG						
Sodium	21100	50.0	100	ug/L	1	04/01/23 02:49	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 02:49	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/01/23 02:49	EPA 6020B	
Zinc	11.7	2.00	4.00	ug/L	1	04/01/23 02:49	EPA 6020B	
GS-032323-58 (A3C0869-04RE1)		Matrix: WG						
Batch: 23C1227								
Magnesium	34500	750	1500	ug/L	10	04/04/23 16:40	EPA 6020B	
GS-032323-59 (A3C0869-05)		Matrix: WG						
Batch: 23C1227								
Aluminum	ND	25.0	50.0	ug/L	1	04/01/23 02:54	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Arsenic	6.42	0.500	1.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Barium	95.3	1.00	2.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 02:54	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 02:54	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Iron	33500	25.0	50.0	ug/L	1	04/01/23 02:54	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 02:54	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 02:54	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Potassium	5170	50.0	100	ug/L	1	04/01/23 02:54	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 02:54	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 02:54	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/01/23 02:54	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/01/23 02:54	EPA 6020B	
GS-032323-59 (A3C0869-05RE1)		Matrix: WG						
Batch: 23C1227								
Calcium	95500	3000	6000	ug/L	10	04/03/23 19:47	EPA 6020B	
Magnesium	41700	750	1500	ug/L	10	04/03/23 19:47	EPA 6020B	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-59 (A3C0869-05RE1)				Matrix: WG				
Manganese	3250	5.00	10.0	ug/L	10	04/03/23 19:47	EPA 6020B	
Sodium	72300	500	1000	ug/L	10	04/03/23 19:47	EPA 6020B	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)		Matrix: WG						
Batch: 23C1274								
Iron	32000	25.0	50.0	ug/L	1	04/01/23 20:04	EPA 6020B (Diss)	
Magnesium	31200	75.0	150	ug/L	1	04/01/23 20:04	EPA 6020B (Diss)	
GS-032323-54 (A3C0869-02)		Matrix: WG						
Batch: 23C1274								
Iron	40700	25.0	50.0	ug/L	1	04/01/23 20:10	EPA 6020B (Diss)	
Magnesium	34900	75.0	150	ug/L	1	04/01/23 20:10	EPA 6020B (Diss)	
GS-032323-57 (A3C0869-03)		Matrix: WG						
Batch: 23C1274								
Iron	38900	25.0	50.0	ug/L	1	04/01/23 20:15	EPA 6020B (Diss)	
Magnesium	44200	75.0	150	ug/L	1	04/01/23 20:15	EPA 6020B (Diss)	
GS-032323-58 (A3C0869-04)		Matrix: WG						
Batch: 23C1274								
Iron	22500	25.0	50.0	ug/L	1	04/01/23 20:20	EPA 6020B (Diss)	
Magnesium	29500	75.0	150	ug/L	1	04/01/23 20:20	EPA 6020B (Diss)	
GS-032323-59 (A3C0869-05)		Matrix: WG						
Batch: 23C1274								
Iron	35100	25.0	50.0	ug/L	1	04/01/23 20:25	EPA 6020B (Diss)	
Magnesium	36000	75.0	150	ug/L	1	04/01/23 20:25	EPA 6020B (Diss)	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)		Matrix: WG						
Batch: 23C0995								
Chloride	37.3	0.500	1.00	mg/L	1	03/24/23 18:39	EPA 300.0	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	03/24/23 18:39	EPA 300.0	
Sulfate	3.21	0.500	1.00	mg/L	1	03/24/23 18:39	EPA 300.0	
GS-032323-54 (A3C0869-02)		Matrix: WG						
Batch: 23C0995								
Chloride	15.4	0.500	1.00	mg/L	1	03/24/23 19:44	EPA 300.0	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	03/24/23 19:44	EPA 300.0	
Sulfate	0.523	0.500	1.00	mg/L	1	03/24/23 19:44	EPA 300.0	J
GS-032323-57 (A3C0869-03)		Matrix: WG						
Batch: 23C0995								
Chloride	8.61	0.500	1.00	mg/L	1	03/24/23 20:05	EPA 300.0	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	03/24/23 20:05	EPA 300.0	
Sulfate	ND	0.500	1.00	mg/L	1	03/24/23 20:05	EPA 300.0	
GS-032323-58 (A3C0869-04)		Matrix: WG						
Batch: 23C0995								
Chloride	18.0	0.500	1.00	mg/L	1	03/24/23 20:27	EPA 300.0	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	03/24/23 20:27	EPA 300.0	
Sulfate	ND	0.500	1.00	mg/L	1	03/24/23 20:27	EPA 300.0	
GS-032323-59 (A3C0869-05)		Matrix: WG						
Batch: 23C0995								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	03/24/23 21:32	EPA 300.0	
Sulfate	2.20	0.500	1.00	mg/L	1	03/24/23 21:32	EPA 300.0	
GS-032323-59 (A3C0869-05RE1)		Matrix: WG						
Batch: 23C0995								
Chloride	258	5.00	10.0	mg/L	10	03/27/23 19:38	EPA 300.0	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01RE1)				Matrix: WG		Batch: 23D0035		PRES
Total Cyanide	0.276	0.00500	0.00500	mg/L	1	04/03/23 15:17	EPA 335.4	
GS-032323-54 (A3C0869-02)				Matrix: WG		Batch: 23D0035		PRES
Total Cyanide	0.339	0.00500	0.00500	mg/L	1	04/03/23 14:49	EPA 335.4	
GS-032323-57 (A3C0869-03)				Matrix: WG		Batch: 23D0035		
Total Cyanide	0.210	0.00500	0.00500	mg/L	1	04/03/23 14:51	EPA 335.4	
GS-032323-58 (A3C0869-04)				Matrix: WG		Batch: 23D0035		
Total Cyanide	0.252	0.00500	0.00500	mg/L	1	04/03/23 14:53	EPA 335.4	
GS-032323-59 (A3C0869-05)				Matrix: WG		Batch: 23D0035		
Total Cyanide	0.0363	0.00500	0.00500	mg/L	1	04/03/23 14:55	EPA 335.4	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

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
GS-032323-53 (A3C0869-01)				Matrix: WG		Batch: 23C1246		
Available Cyanide	0.00135	0.00100	0.00200	mg/L	1	03/31/23 17:05	D6888-09	J
GS-032323-54 (A3C0869-02)				Matrix: WG		Batch: 23C1246		
Available Cyanide	0.00119	0.00100	0.00200	mg/L	1	03/31/23 17:06	D6888-09	J
GS-032323-57 (A3C0869-03)				Matrix: WG		Batch: 23C1246		
Available Cyanide	0.00117	0.00100	0.00200	mg/L	1	03/31/23 17:08	D6888-09	J
GS-032323-58 (A3C0869-04)				Matrix: WG		Batch: 23C1246		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/31/23 17:09	D6888-09	
GS-032323-59 (A3C0869-05)				Matrix: WG		Batch: 23C1246		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/31/23 17:11	D6888-09	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01)				Matrix: WG		Batch: 23D0024		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/03/23 17:19	D4282-02	
GS-032323-54 (A3C0869-02)				Matrix: WG		Batch: 23D0024		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/03/23 17:19	D4282-02	
GS-032323-57 (A3C0869-03)				Matrix: WG		Batch: 23D0024		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/03/23 17:25	D4282-02	
GS-032323-58 (A3C0869-04)				Matrix: WG		Batch: 23D0024		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/03/23 17:25	D4282-02	
GS-032323-59 (A3C0869-05)				Matrix: WG		Batch: 23D0024		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/03/23 17:30	D4282-02	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032323-53 (A3C0869-01) Matrix: WG								
Batch: 23C1252								
Total Alkalinity	277	20.0	20.0	mg CaCO3/L	1	03/31/23 10:12	SM 2320 B	
Bicarbonate Alkalinity	277	20.0	20.0	mg CaCO3/L	1	03/31/23 10:12	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:12	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:12	SM 2320 B	
GS-032323-54 (A3C0869-02) Matrix: WG								
Batch: 23C1252								
Total Alkalinity	346	20.0	20.0	mg CaCO3/L	1	03/31/23 10:21	SM 2320 B	
Bicarbonate Alkalinity	346	20.0	20.0	mg CaCO3/L	1	03/31/23 10:21	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:21	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:21	SM 2320 B	
GS-032323-57 (A3C0869-03) Matrix: WG								
Batch: 23C1252								
Total Alkalinity	443	20.0	20.0	mg CaCO3/L	1	03/31/23 10:32	SM 2320 B	
Bicarbonate Alkalinity	443	20.0	20.0	mg CaCO3/L	1	03/31/23 10:32	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:32	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:32	SM 2320 B	
GS-032323-58 (A3C0869-04) Matrix: WG								
Batch: 23C1252								
Total Alkalinity	268	20.0	20.0	mg CaCO3/L	1	03/31/23 10:42	SM 2320 B	
Bicarbonate Alkalinity	268	20.0	20.0	mg CaCO3/L	1	03/31/23 10:42	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:42	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:42	SM 2320 B	
GS-032323-59 (A3C0869-05) Matrix: WG								
Batch: 23C1252								
Total Alkalinity	219	20.0	20.0	mg CaCO3/L	1	03/31/23 10:56	SM 2320 B	
Bicarbonate Alkalinity	219	20.0	20.0	mg CaCO3/L	1	03/31/23 10:56	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:56	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	03/31/23 10:56	SM 2320 B	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Blank (23C1073-BLK1)			Prepared: 03/28/23 12:00		Analyzed: 03/28/23 14:08							
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	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54e
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	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54f
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	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54d
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	Q-54i
1,2-Dibromoethane (EDB)	ND	0.500	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	---	---	---	---	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Blank (23C1073-BLK1)						Prepared: 03/28/23 12:00 Analyzed: 03/28/23 14:08						
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	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54k
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54b
trans-1,3-Dichloropropene	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54g
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	1.00	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	0.400	0.400	ug/L	1	---	---	---	---	---	---	Q-54d
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	0.400	0.400	ug/L	1	---	---	---	---	---	---	Q-54c
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: 98 % Limits: 80-120 % Dilution: 1x												

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Blank (23C1073-BLK1)			Prepared: 03/28/23 12:00		Analyzed: 03/28/23 14:08							
Surr: Toluene-d8 (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
LCS (23C1073-BS1)			Prepared: 03/28/23 12:00		Analyzed: 03/28/23 12:41							
EPA 8260D												
Acetone	36.5	10.0	20.0	ug/L	1	40.0	---	91	80-120%	---	---	
Acrylonitrile	19.0	1.00	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
Benzene	19.0	0.100	0.200	ug/L	1	20.0	---	95	80-120%	---	---	
Bromobenzene	18.6	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Bromodichloromethane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Bromoform	12.4	1.00	1.00	ug/L	1	20.0	---	62	80-120%	---	---	Q-54e
Bromomethane	21.7	5.00	5.00	ug/L	1	20.0	---	108	80-120%	---	---	
2-Butanone (MEK)	40.5	5.00	10.0	ug/L	1	40.0	---	101	80-120%	---	---	
n-Butylbenzene	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
sec-Butylbenzene	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
tert-Butylbenzene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Carbon disulfide	19.6	5.00	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
Carbon tetrachloride	12.0	1.00	1.00	ug/L	1	20.0	---	60	80-120%	---	---	Q-54f
Chlorobenzene	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	20.4	5.00	5.00	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroform	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chloromethane	19.1	2.50	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
2-Chlorotoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Chlorotoluene	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromochloromethane	13.7	1.00	1.00	ug/L	1	20.0	---	68	80-120%	---	---	Q-54d
1,2-Dibromo-3-chloropropane	9.47	5.00	5.00	ug/L	1	20.0	---	47	80-120%	---	---	Q-54i
1,2-Dibromoethane (EDB)	15.1	0.500	0.500	ug/L	1	20.0	---	76	80-120%	---	---	Q-55
Dibromomethane	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichlorobenzene	20.5	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,4-Dichlorobenzene	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dichlorodifluoromethane	21.7	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethane	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 33 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
LCS (23C1073-BS1)			Prepared: 03/28/23 12:00		Analyzed: 03/28/23 12:41							
1,2-Dichloroethane (EDC)	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethene	19.7	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
cis-1,2-Dichloroethene	19.7	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,2-Dichloroethene	19.7	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	18.2	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,3-Dichloropropane	20.5	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	8.01	1.00	1.00	ug/L	1	20.0	---	40	80-120%	---	---	Q-54k
1,1-Dichloropropene	20.5	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,3-Dichloropropene	14.0	1.00	1.00	ug/L	1	20.0	---	70	80-120%	---	---	Q-54b
trans-1,3-Dichloropropene	10.4	1.00	1.00	ug/L	1	20.0	---	52	80-120%	---	---	Q-54g
Ethylbenzene	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Hexachlorobutadiene	22.9	2.50	5.00	ug/L	1	20.0	---	115	80-120%	---	---	
2-Hexanone	42.8	5.00	10.0	ug/L	1	40.0	---	107	80-120%	---	---	
Isopropylbenzene	21.1	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
4-Isopropyltoluene	22.3	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Methylene chloride	18.3	5.00	10.0	ug/L	1	20.0	---	91	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	41.3	5.00	10.0	ug/L	1	40.0	---	103	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	15.4	1.00	1.00	ug/L	1	20.0	---	77	80-120%	---	---	Q-55
Naphthalene	18.5	1.00	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
n-Propylbenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Styrene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	13.6	0.400	0.400	ug/L	1	20.0	---	68	80-120%	---	---	Q-54d
1,1,2,2-Tetrachloroethane	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	20.5	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Toluene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,3-Trichlorobenzene	19.3	1.00	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,4-Trichlorobenzene	19.8	1.00	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,1-Trichloroethane	13.9	0.400	0.400	ug/L	1	20.0	---	69	80-120%	---	---	Q-54c
1,1,2-Trichloroethane	19.7	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Trichloroethene (TCE)	19.7	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
Trichlorofluoromethane	24.4	1.00	2.00	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
1,2,3-Trichloropropane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,4-Trimethylbenzene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,3,5-Trimethylbenzene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 34 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
LCS (23C1073-BS1)			Prepared: 03/28/23 12:00		Analyzed: 03/28/23 12:41							
Vinyl chloride	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
m,p-Xylene	40.7	0.500	1.00	ug/L	1	40.0	---	102	80-120%	---	---	
o-Xylene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			Recovery: 98 %		Limits: 80-120 %		Dilution: 1x					
Toluene-d8 (Surr)			99 %		80-120 %		"					
4-Bromofluorobenzene (Surr)			93 %		80-120 %		"					
Duplicate (23C1073-DUP1)			Prepared: 03/28/23 13:31		Analyzed: 03/28/23 19:35							
QC Source Sample: GS-032323-59 (A3C0869-05)												
EPA 8260D												
Acetone	ND	1000	2000	ug/L	100	---	ND	---	---	---	30%	
Acrylonitrile	ND	100	200	ug/L	100	---	ND	---	---	---	30%	
Benzene	274	10.0	20.0	ug/L	100	---	278	---	---	1	30%	
Bromobenzene	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	100	100	ug/L	100	---	ND	---	---	---	30%	Q-54e
Bromomethane	ND	500	500	ug/L	100	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	500	1000	ug/L	100	---	ND	---	---	---	30%	
n-Butylbenzene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Carbon disulfide	ND	500	1000	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	100	100	ug/L	100	---	ND	---	---	---	30%	Q-54f
Chlorobenzene	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	500	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	250	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	100	100	ug/L	100	---	ND	---	---	---	30%	Q-54d
1,2-Dibromo-3-chloropropane	ND	500	500	ug/L	100	---	ND	---	---	---	30%	Q-54i
1,2-Dibromoethane (EDB)	ND	50.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Duplicate (23C1073-DUP1)			Prepared: 03/28/23 13:31 Analyzed: 03/28/23 19:35									
QC Source Sample: GS-032323-59 (A3C0869-05)												
1,2-Dichlorobenzene	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	100	100	ug/L	100	---	ND	---	---	---	30%	Q-54k
1,1-Dichloropropene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	100	100	ug/L	100	---	ND	---	---	---	30%	Q-54b
trans-1,3-Dichloropropene	ND	100	100	ug/L	100	---	ND	---	---	---	30%	Q-54g
Ethylbenzene	413	25.0	50.0	ug/L	100	---	427	---	---	3	30%	
Hexachlorobutadiene	ND	250	500	ug/L	100	---	ND	---	---	---	30%	
2-Hexanone	ND	500	1000	ug/L	100	---	ND	---	---	---	30%	
Isopropylbenzene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	500	1000	ug/L	100	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	500	1000	ug/L	100	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	100	100	ug/L	100	---	ND	---	---	---	30%	
Naphthalene	16000	100	200	ug/L	100	---	15900	---	---	0.6	30%	
n-Propylbenzene	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Styrene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	40.0	40.0	ug/L	100	---	ND	---	---	---	30%	Q-54d
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
Toluene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	100	200	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	100	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	40.0	40.0	ug/L	100	---	ND	---	---	---	30%	Q-54c

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 36 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 23C1073 - EPA 5030C						Water						
Duplicate (23C1073-DUP1)			Prepared: 03/28/23 13:31 Analyzed: 03/28/23 19:35									
QC Source Sample: GS-032323-59 (A3C0869-05)												
1,1,2-Trichloroethane	ND	25.0	50.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	100	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	141	50.0	100	ug/L	100	---	146	---	---	3	30%	
1,3,5-Trimethylbenzene	ND	50.0	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	20.0	40.0	ug/L	100	---	ND	---	---	---	30%	
m,p-Xylene	294	50.0	100	ug/L	100	---	302	---	---	3	30%	
o-Xylene	165	25.0	50.0	ug/L	100	---	166	---	---	0.6	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						
Duplicate (23C1073-DUP2)			Prepared: 03/28/23 13:31 Analyzed: 03/28/23 21:23									
QC Source Sample: Non-SDG (A3C0959-01)												
Acetone	ND	100	200	ug/L	10	---	ND	---	---	---	30%	
Acrylonitrile	ND	20.0	20.0	ug/L	10	---	ND	---	---	---	30%	
Benzene	76.0	1.00	2.00	ug/L	10	---	77.7	---	---	2	30%	
Bromobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	Q-54e
Bromomethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
n-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Carbon disulfide	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	Q-54f
Chlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

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 23C1073 - EPA 5030C						Water						
Duplicate (23C1073-DUP2)			Prepared: 03/28/23 13:31 Analyzed: 03/28/23 21:23									
QC Source Sample: Non-SDG (A3C0959-01)												
2-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	Q-54d
1,2-Dibromo-3-chloropropane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	Q-54i
1,2-Dibromoethane (EDB)	ND	5.00	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	Q-54k
1,1-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	Q-54b
trans-1,3-Dichloropropene	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	Q-54g
Ethylbenzene	190	2.50	5.00	ug/L	10	---	194	---	---	2	30%	
Hexachlorobutadiene	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Hexanone	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Isopropylbenzene	12.9	5.00	10.0	ug/L	10	---	12.6	---	---	2	30%	
4-Isopropyltoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	
Naphthalene	80.7	10.0	20.0	ug/L	10	---	83.8	---	---	4	30%	
n-Propylbenzene	25.5	2.50	5.00	ug/L	10	---	26.1	---	---	2	30%	
Styrene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	4.00	4.00	ug/L	10	---	ND	---	---	---	30%	Q-54d

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Duplicate (23C1073-DUP2)			Prepared: 03/28/23 13:31		Analyzed: 03/28/23 21:23							
QC Source Sample: Non-SDG (A3C0959-01)												
1,1,2,2-Tetrachloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	Q-54c
Tetrachloroethene (PCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	20.3	5.00	10.0	ug/L	10	---	20.8	---	---	2	30%	
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	4.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	308	5.00	10.0	ug/L	10	---	314	---	---	2	30%	
1,3,5-Trimethylbenzene	56.1	5.00	10.0	ug/L	10	---	56.9	---	---	1	30%	
Vinyl chloride	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
m,p-Xylene	698	5.00	10.0	ug/L	10	---	717	---	---	3	30%	
o-Xylene	33.7	2.50	5.00	ug/L	10	---	34.8	---	---	3	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

Matrix Spike (23C1073-MS1)

Prepared: 03/28/23 13:31 Analyzed: 03/28/23 23:38

QC Source Sample: Non-SDG (A3C0969-18)

EPA 8260D

Acetone	401	100	200	ug/L	10	400	ND	100	39-160%	---	---	Q-54e
Acrylonitrile	196	10.0	20.0	ug/L	10	200	ND	98	63-135%	---	---	
Benzene	202	1.00	2.00	ug/L	10	200	ND	101	79-120%	---	---	
Bromobenzene	201	2.50	5.00	ug/L	10	200	ND	101	80-120%	---	---	
Bromochloromethane	204	5.00	10.0	ug/L	10	200	ND	102	78-123%	---	---	
Bromodichloromethane	216	5.00	10.0	ug/L	10	200	ND	108	79-125%	---	---	
Bromoform	150	10.0	10.0	ug/L	10	200	ND	75	66-130%	---	---	
Bromomethane	240	50.0	50.0	ug/L	10	200	ND	120	53-141%	---	---	
2-Butanone (MEK)	409	50.0	100	ug/L	10	400	ND	102	56-143%	---	---	
n-Butylbenzene	250	5.00	10.0	ug/L	10	200	ND	125	75-128%	---	---	
sec-Butylbenzene	234	5.00	10.0	ug/L	10	200	ND	117	77-126%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Matrix Spike (23C1073-MS1)			Prepared: 03/28/23 13:31		Analyzed: 03/28/23 23:38							
QC Source Sample: Non-SDG (A3C0969-18)												
tert-Butylbenzene	224	5.00	10.0	ug/L	10	200	ND	112	78-124%	---	---	
Carbon disulfide	222	50.0	100	ug/L	10	200	ND	111	64-133%	---	---	
Carbon tetrachloride	158	10.0	10.0	ug/L	10	200	ND	79	72-136%	---	---	Q-54f
Chlorobenzene	202	2.50	5.00	ug/L	10	200	ND	101	80-120%	---	---	
Chloroethane	236	50.0	50.0	ug/L	10	200	ND	118	60-138%	---	---	
Chloroform	208	5.00	10.0	ug/L	10	200	ND	104	79-124%	---	---	
Chloromethane	206	25.0	50.0	ug/L	10	200	ND	103	50-139%	---	---	
2-Chlorotoluene	209	5.00	10.0	ug/L	10	200	ND	104	79-122%	---	---	
4-Chlorotoluene	212	5.00	10.0	ug/L	10	200	ND	106	78-122%	---	---	
Dibromochloromethane	162	10.0	10.0	ug/L	10	200	ND	81	74-126%	---	---	Q-54d
1,2-Dibromo-3-chloropropane	128	50.0	50.0	ug/L	10	200	ND	64	62-128%	---	---	Q-54i
1,2-Dibromoethane (EDB)	188	5.00	5.00	ug/L	10	200	ND	94	77-121%	---	---	Q-54j
Dibromomethane	222	5.00	10.0	ug/L	10	200	ND	111	79-123%	---	---	
1,2-Dichlorobenzene	216	2.50	5.00	ug/L	10	200	ND	108	80-120%	---	---	
1,3-Dichlorobenzene	214	2.50	5.00	ug/L	10	200	ND	107	80-120%	---	---	
1,4-Dichlorobenzene	202	2.50	5.00	ug/L	10	200	ND	101	79-120%	---	---	
Dichlorodifluoromethane	230	5.00	10.0	ug/L	10	200	ND	115	32-152%	---	---	
1,1-Dichloroethane	206	2.00	4.00	ug/L	10	200	ND	103	77-125%	---	---	
1,2-Dichloroethane (EDC)	209	2.00	4.00	ug/L	10	200	ND	104	73-128%	---	---	
1,1-Dichloroethene	215	2.00	4.00	ug/L	10	200	ND	107	71-131%	---	---	
cis-1,2-Dichloroethene	210	2.00	4.00	ug/L	10	200	ND	105	78-123%	---	---	
trans-1,2-Dichloroethene	214	2.00	4.00	ug/L	10	200	ND	107	75-124%	---	---	
1,2-Dichloropropane	196	2.50	5.00	ug/L	10	200	ND	98	78-122%	---	---	
1,3-Dichloropropane	211	5.00	10.0	ug/L	10	200	ND	106	80-120%	---	---	
2,2-Dichloropropane	93.6	10.0	10.0	ug/L	10	200	ND	47	60-139%	---	---	Q-54k
1,1-Dichloropropene	226	5.00	10.0	ug/L	10	200	ND	113	79-125%	---	---	
cis-1,3-Dichloropropene	166	10.0	10.0	ug/L	10	200	ND	83	75-124%	---	---	Q-54b
trans-1,3-Dichloropropene	130	10.0	10.0	ug/L	10	200	ND	65	73-127%	---	---	Q-54g
Ethylbenzene	218	2.50	5.00	ug/L	10	200	ND	109	79-121%	---	---	
Hexachlorobutadiene	239	25.0	50.0	ug/L	10	200	ND	119	66-134%	---	---	
2-Hexanone	437	50.0	100	ug/L	10	400	ND	109	57-139%	---	---	
Isopropylbenzene	227	5.00	10.0	ug/L	10	200	ND	114	72-131%	---	---	
4-Isopropyltoluene	240	5.00	10.0	ug/L	10	200	ND	120	77-127%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 40 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1073 - EPA 5030C						Water						
Matrix Spike (23C1073-MS1)			Prepared: 03/28/23 13:31 Analyzed: 03/28/23 23:38									
QC Source Sample: Non-SDG (A3C0969-18)												
Methylene chloride	194	50.0	100	ug/L	10	200	ND	97	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	422	50.0	100	ug/L	10	400	ND	105	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	171	10.0	10.0	ug/L	10	200	ND	86	71-124%	---	---	Q-54h
Naphthalene	186	10.0	20.0	ug/L	10	200	ND	93	61-128%	---	---	
n-Propylbenzene	221	2.50	5.00	ug/L	10	200	ND	111	76-126%	---	---	
Styrene	221	5.00	10.0	ug/L	10	200	ND	110	78-123%	---	---	
1,1,1,2-Tetrachloroethane	170	4.00	4.00	ug/L	10	200	ND	85	78-124%	---	---	Q-54d
1,1,2,2-Tetrachloroethane	206	2.50	5.00	ug/L	10	200	ND	103	71-121%	---	---	
Tetrachloroethene (PCE)	218	2.00	4.00	ug/L	10	200	ND	109	74-129%	---	---	
Toluene	198	5.00	10.0	ug/L	10	200	ND	99	80-121%	---	---	
1,2,3-Trichlorobenzene	198	10.0	20.0	ug/L	10	200	ND	99	69-129%	---	---	
1,2,4-Trichlorobenzene	201	10.0	20.0	ug/L	10	200	ND	100	69-130%	---	---	
1,1,1-Trichloroethane	176	4.00	4.00	ug/L	10	200	ND	88	74-131%	---	---	Q-54c
1,1,2-Trichloroethane	204	2.50	5.00	ug/L	10	200	ND	102	80-120%	---	---	
Trichloroethene (TCE)	210	2.00	4.00	ug/L	10	200	ND	105	79-123%	---	---	
Trichlorofluoromethane	267	10.0	20.0	ug/L	10	200	ND	133	65-141%	---	---	Q-54
1,2,3-Trichloropropane	207	5.00	10.0	ug/L	10	200	ND	104	73-122%	---	---	
1,2,4-Trimethylbenzene	226	5.00	10.0	ug/L	10	200	ND	113	76-124%	---	---	
1,3,5-Trimethylbenzene	229	5.00	10.0	ug/L	10	200	ND	115	75-124%	---	---	
Vinyl chloride	219	2.00	4.00	ug/L	10	200	ND	110	58-137%	---	---	
m,p-Xylene	436	5.00	10.0	ug/L	10	400	ND	109	80-121%	---	---	
o-Xylene	217	2.50	5.00	ug/L	10	200	ND	109	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629****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 23C1116 - EPA 5030C						Water						
Blank (23C1116-BLK1)			Prepared: 03/28/23 15:28		Analyzed: 03/28/23 21:34							
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	---	---	---	---	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
Blank (23C1116-BLK1)						Prepared: 03/28/23 15:28 Analyzed: 03/28/23 21:34						
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	---	---	---	---	---	---	Q-54c
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: 100 % Limits: 80-120 % Dilution: 1x												

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
Blank (23C1116-BLK1)				Prepared: 03/28/23 15:28		Analyzed: 03/28/23 21:34						
Surr: Toluene-d8 (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						
LCS (23C1116-BS1)				Prepared: 03/28/23 15:28		Analyzed: 03/28/23 20:49						
EPA 8260D												
Acetone	39.1	10.0	20.0	ug/L	1	40.0	---	98	80-120%	---	---	Q-56
Acrylonitrile	19.4	1.00	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
Benzene	18.1	0.100	0.200	ug/L	1	20.0	---	90	80-120%	---	---	
Bromobenzene	16.8	0.250	0.500	ug/L	1	20.0	---	84	80-120%	---	---	
Bromochloromethane	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromoform	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromomethane	24.8	5.00	5.00	ug/L	1	20.0	---	124	80-120%	---	---	
2-Butanone (MEK)	41.2	5.00	10.0	ug/L	1	40.0	---	103	80-120%	---	---	
n-Butylbenzene	19.3	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
sec-Butylbenzene	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
tert-Butylbenzene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Carbon disulfide	19.7	5.00	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
Carbon tetrachloride	22.5	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	18.2	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Chloroethane	23.2	5.00	5.00	ug/L	1	20.0	---	116	80-120%	---	---	
Chloroform	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Chloromethane	21.1	2.50	5.00	ug/L	1	20.0	---	106	80-120%	---	---	
2-Chlorotoluene	17.5	0.500	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
4-Chlorotoluene	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.6	2.50	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromomethane	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichlorobenzene	17.9	0.250	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,3-Dichlorobenzene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,4-Dichlorobenzene	17.1	0.250	0.500	ug/L	1	20.0	---	85	80-120%	---	---	
Dichlorodifluoromethane	23.4	0.500	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
1,1-Dichloroethane	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 44 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
LCS (23C1116-BS1)			Prepared: 03/28/23 15:28		Analyzed: 03/28/23 20:49							
1,2-Dichloroethane (EDC)	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	20.6	0.200	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	18.3	0.200	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
trans-1,2-Dichloroethene	18.4	0.200	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloropropane	17.8	0.250	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,3-Dichloropropane	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
2,2-Dichloropropane	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloropropene	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	22.3	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Ethylbenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Hexachlorobutadiene	18.5	2.50	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
2-Hexanone	39.7	5.00	10.0	ug/L	1	40.0	---	99	80-120%	---	---	
Isopropylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Isopropyltoluene	19.7	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Methylene chloride	17.7	5.00	10.0	ug/L	1	20.0	---	89	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	44.9	5.00	10.0	ug/L	1	40.0	---	112	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Naphthalene	13.8	2.00	2.00	ug/L	1	20.0	---	69	80-120%	---	---	Q-54c
n-Propylbenzene	18.6	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Styrene	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.7	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Tetrachloroethene (PCE)	19.0	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Toluene	17.8	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,3-Trichlorobenzene	18.3	1.00	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	1.00	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1-Trichloroethane	20.5	0.200	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	18.8	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Trichloroethene (TCE)	16.6	0.200	0.400	ug/L	1	20.0	---	83	80-120%	---	---	
Trichlorofluoromethane	22.9	1.00	2.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2,3-Trichloropropane	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,4-Trimethylbenzene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,3,5-Trimethylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
LCS (23C1116-BS1)			Prepared: 03/28/23 15:28		Analyzed: 03/28/23 20:49							
Vinyl chloride	20.1	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
m,p-Xylene	42.0	0.500	1.00	ug/L	1	40.0	---	105	80-120%	---	---	
o-Xylene	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 94 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

Duplicate (23C1116-DUP1)

Prepared: 03/28/23 15:28 Analyzed: 03/29/23 00:57

QC Source Sample: Non-SDG (A3C0831-11)

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%

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
Duplicate (23C1116-DUP1)			Prepared: 03/28/23 15:28		Analyzed: 03/29/23 00:57							
QC Source Sample: Non-SDG (A3C0831-11)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	Q-54c
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	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)	1.08	0.200	0.400	ug/L	1	---	1.04	---	---	4	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%	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 23C1116 - EPA 5030C						Water						
Duplicate (23C1116-DUP1)			Prepared: 03/28/23 15:28 Analyzed: 03/29/23 00:57									
QC Source Sample: Non-SDG (A3C0831-11)												
Trichloroethene (TCE)	2.68	0.200	0.400	ug/L	1	---	2.64	---	---	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	0.400	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: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
Matrix Spike (23C1116-MS1)			Prepared: 03/28/23 15:28 Analyzed: 03/29/23 05:49									
QC Source Sample: GS-032323-58 (A3C0869-04)												
EPA 8260D												
Acetone	52.4	10.0	20.0	ug/L	1	40.0	ND	131	39-160%	---	---	
Acrylonitrile	21.6	1.00	2.00	ug/L	1	20.0	ND	108	63-135%	---	---	
Benzene	68.2	0.100	0.200	ug/L	1	20.0	46.8	107	79-120%	---	---	
Bromobenzene	19.1	0.250	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
Bromochloromethane	24.9	0.500	1.00	ug/L	1	20.0	ND	125	78-123%	---	---	Q-01
Bromodichloromethane	22.6	0.500	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
Bromoform	22.8	0.500	1.00	ug/L	1	20.0	ND	114	66-130%	---	---	
Bromomethane	26.2	5.00	5.00	ug/L	1	20.0	ND	131	53-141%	---	---	Q-54a
2-Butanone (MEK)	48.1	5.00	10.0	ug/L	1	40.0	ND	120	56-143%	---	---	
n-Butylbenzene	25.1	0.500	1.00	ug/L	1	20.0	ND	126	75-128%	---	---	
sec-Butylbenzene	24.5	0.500	1.00	ug/L	1	20.0	ND	123	77-126%	---	---	
tert-Butylbenzene	24.1	0.500	1.00	ug/L	1	20.0	ND	121	78-124%	---	---	
Carbon disulfide	23.0	5.00	10.0	ug/L	1	20.0	ND	115	64-133%	---	---	
Carbon tetrachloride	25.5	0.500	1.00	ug/L	1	20.0	ND	127	72-136%	---	---	
Chlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	28.4	5.00	5.00	ug/L	1	20.0	ND	142	60-138%	---	---	Q-01
Chloroform	21.4	0.500	1.00	ug/L	1	20.0	ND	107	79-124%	---	---	
Chloromethane	24.4	2.50	5.00	ug/L	1	20.0	ND	122	50-139%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
Matrix Spike (23C1116-MS1)			Prepared: 03/28/23 15:28		Analyzed: 03/29/23 05:49							
QC Source Sample: GS-032323-58 (A3C0869-04)												
2-Chlorotoluene	21.0	0.500	1.00	ug/L	1	20.0	ND	105	79-122%	---	---	
4-Chlorotoluene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	78-122%	---	---	
Dibromochloromethane	22.3	0.500	1.00	ug/L	1	20.0	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	20.9	2.50	5.00	ug/L	1	20.0	ND	104	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.6	0.250	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	
Dibromomethane	20.8	0.500	1.00	ug/L	1	20.0	ND	104	79-123%	---	---	
1,2-Dichlorobenzene	21.0	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
1,3-Dichlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,4-Dichlorobenzene	19.5	0.250	0.500	ug/L	1	20.0	ND	97	79-120%	---	---	
Dichlorodifluoromethane	25.1	0.500	1.00	ug/L	1	20.0	ND	126	32-152%	---	---	
1,1-Dichloroethane	22.7	0.200	0.400	ug/L	1	20.0	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	23.7	0.200	0.400	ug/L	1	20.0	ND	118	73-128%	---	---	
1,1-Dichloroethene	24.4	0.200	0.400	ug/L	1	20.0	ND	122	71-131%	---	---	
cis-1,2-Dichloroethene	25.8	0.200	0.400	ug/L	1	20.0	3.25	113	78-123%	---	---	
trans-1,2-Dichloroethene	22.1	0.200	0.400	ug/L	1	20.0	ND	110	75-124%	---	---	
1,2-Dichloropropane	20.7	0.250	0.500	ug/L	1	20.0	ND	104	78-122%	---	---	
1,3-Dichloropropane	21.8	0.500	1.00	ug/L	1	20.0	ND	109	80-120%	---	---	
2,2-Dichloropropane	21.7	0.500	1.00	ug/L	1	20.0	ND	108	60-139%	---	---	
1,1-Dichloropropene	23.2	0.500	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
cis-1,3-Dichloropropene	20.0	0.500	1.00	ug/L	1	20.0	ND	100	75-124%	---	---	
trans-1,3-Dichloropropene	25.0	0.500	1.00	ug/L	1	20.0	ND	125	73-127%	---	---	
Ethylbenzene	28.7	0.250	0.500	ug/L	1	20.0	5.06	118	79-121%	---	---	
Hexachlorobutadiene	23.2	2.50	5.00	ug/L	1	20.0	ND	116	66-134%	---	---	
2-Hexanone	47.8	5.00	10.0	ug/L	1	40.0	ND	120	57-139%	---	---	
Isopropylbenzene	24.7	0.500	1.00	ug/L	1	20.0	ND	124	72-131%	---	---	
4-Isopropyltoluene	24.1	0.500	1.00	ug/L	1	20.0	ND	120	77-127%	---	---	
Methylene chloride	19.8	5.00	10.0	ug/L	1	20.0	ND	99	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	54.0	5.00	10.0	ug/L	1	40.0	ND	135	67-130%	---	---	Q-01
Methyl tert-butyl ether (MTBE)	22.0	0.500	1.00	ug/L	1	20.0	ND	110	71-124%	---	---	
Naphthalene	102	2.00	2.00	ug/L	1	20.0	79.9	112	61-128%	---	---	Q-54c
n-Propylbenzene	22.4	0.250	0.500	ug/L	1	20.0	ND	112	76-126%	---	---	
Styrene	23.5	0.500	1.00	ug/L	1	20.0	ND	118	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.1	0.200	0.400	ug/L	1	20.0	ND	105	78-124%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 49 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1116 - EPA 5030C						Water						
Matrix Spike (23C1116-MS1)			Prepared: 03/28/23 15:28		Analyzed: 03/29/23 05:49							
QC Source Sample: GS-032323-58 (A3C0869-04)												
1,1,2,2-Tetrachloroethane	22.4	0.250	0.500	ug/L	1	20.0	ND	112	71-121%	---	---	
Tetrachloroethene (PCE)	22.4	0.200	0.400	ug/L	1	20.0	ND	112	74-129%	---	---	
Toluene	22.0	0.500	1.00	ug/L	1	20.0	1.11	104	80-121%	---	---	
1,2,3-Trichlorobenzene	24.7	1.00	2.00	ug/L	1	20.0	ND	124	69-129%	---	---	
1,2,4-Trichlorobenzene	22.5	1.00	2.00	ug/L	1	20.0	ND	112	69-130%	---	---	
1,1,1-Trichloroethane	23.3	0.200	0.400	ug/L	1	20.0	ND	117	74-131%	---	---	
1,1,2-Trichloroethane	21.3	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Trichloroethene (TCE)	19.2	0.200	0.400	ug/L	1	20.0	ND	96	79-123%	---	---	
Trichlorofluoromethane	25.8	1.00	2.00	ug/L	1	20.0	ND	129	65-141%	---	---	
1,2,3-Trichloropropane	21.9	0.500	1.00	ug/L	1	20.0	ND	109	73-122%	---	---	
1,2,4-Trimethylbenzene	26.7	0.500	1.00	ug/L	1	20.0	1.71	125	76-124%	---	---	Q-01
1,3,5-Trimethylbenzene	24.1	0.500	1.00	ug/L	1	20.0	ND	121	75-124%	---	---	
Vinyl chloride	41.1	0.200	0.400	ug/L	1	20.0	18.3	114	58-137%	---	---	
m,p-Xylene	52.0	0.500	1.00	ug/L	1	40.0	1.73	126	80-121%	---	---	Q-01
o-Xylene	27.3	0.250	0.500	ug/L	1	20.0	2.89	122	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 92 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 50 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1086 - EPA 3511 (Bottle Extraction)						Water						
Blank (23C1086-BLK1)			Prepared: 03/28/23 09:47 Analyzed: 03/28/23 15:10									
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	---	---	---	---	---	---	
Carbazole	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 121 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		128 %		80-132 %		"						

LCS (23C1086-BS1)

Prepared: 03/28/23 09:47 Analyzed: 03/28/23 15:43

EPA 8270E LVI												
Acenaphthene	1.59	0.0160	0.0320	ug/L	1	1.60	---	99	80-120%	---	---	
Acenaphthylene	1.78	0.0160	0.0320	ug/L	1	1.60	---	111	80-124%	---	---	
Anthracene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	80-123%	---	---	
Benz(a)anthracene	1.86	0.00800	0.0160	ug/L	1	1.60	---	116	80-122%	---	---	
Benzo(a)pyrene	2.07	0.00800	0.0160	ug/L	1	1.60	---	129	80-129%	---	---	
Benzo(b)fluoranthene	1.94	0.00800	0.0160	ug/L	1	1.60	---	121	80-124%	---	---	
Benzo(k)fluoranthene	1.97	0.00800	0.0160	ug/L	1	1.60	---	123	80-125%	---	---	
Benzo(g,h,i)perylene	1.57	0.0160	0.0320	ug/L	1	1.60	---	98	80-120%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1086 - EPA 3511 (Bottle Extraction)						Water						
LCS (23C1086-BS1)			Prepared: 03/28/23 09:47		Analyzed: 03/28/23 15:43							
Chrysene	1.70	0.00800	0.0160	ug/L	1	1.60	---	106	80-120%	---	---	
Dibenz(a,h)anthracene	1.65	0.00800	0.0160	ug/L	1	1.60	---	103	80-120%	---	---	
Fluoranthene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	80-126%	---	---	
Fluorene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.53	0.00800	0.0160	ug/L	1	1.60	---	96	80-121%	---	---	
1-Methylnaphthalene	1.76	0.0320	0.0640	ug/L	1	1.60	---	110	53-148%	---	---	
2-Methylnaphthalene	1.76	0.0320	0.0640	ug/L	1	1.60	---	110	48-150%	---	---	
Naphthalene	1.64	0.0320	0.0640	ug/L	1	1.60	---	102	78-120%	---	---	
Phenanthrene	1.55	0.0320	0.0640	ug/L	1	1.60	---	97	80-120%	---	---	
Pyrene	1.72	0.0160	0.0320	ug/L	1	1.60	---	108	80-125%	---	---	
Carbazole	1.98	0.0160	0.0320	ug/L	1	1.60	---	124	65-141%	---	---	
Dibenzofuran	1.68	0.0160	0.0320	ug/L	1	1.60	---	105	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 123 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		129 %		80-132 %		"						
LCS Dup (23C1086-BSD1)			Prepared: 03/28/23 09:47		Analyzed: 03/28/23 16:17							Q-19
EPA 8270E LVI												
Acenaphthene	1.67	0.0160	0.0320	ug/L	1	1.60	---	104	80-120%	5	30%	
Acenaphthylene	1.85	0.0160	0.0320	ug/L	1	1.60	---	116	80-124%	4	30%	
Anthracene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-123%	2	30%	
Benz(a)anthracene	1.85	0.00800	0.0160	ug/L	1	1.60	---	116	80-122%	0.3	30%	
Benzo(a)pyrene	2.12	0.00800	0.0160	ug/L	1	1.60	---	133	80-129%	2	30%	Q-29
Benzo(b)fluoranthene	2.00	0.00800	0.0160	ug/L	1	1.60	---	125	80-124%	3	30%	Q-29
Benzo(k)fluoranthene	2.03	0.00800	0.0160	ug/L	1	1.60	---	127	80-125%	3	30%	Q-29
Benzo(g,h,i)perylene	1.59	0.0160	0.0320	ug/L	1	1.60	---	100	80-120%	1	30%	
Chrysene	1.73	0.00800	0.0160	ug/L	1	1.60	---	108	80-120%	1	30%	
Dibenz(a,h)anthracene	1.64	0.00800	0.0160	ug/L	1	1.60	---	102	80-120%	0.6	30%	
Fluoranthene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-126%	2	30%	
Fluorene	1.77	0.0160	0.0320	ug/L	1	1.60	---	111	77-127%	4	30%	
Indeno(1,2,3-cd)pyrene	1.55	0.00800	0.0160	ug/L	1	1.60	---	97	80-121%	1	30%	
1-Methylnaphthalene	1.72	0.0320	0.0640	ug/L	1	1.60	---	107	53-148%	2	30%	
2-Methylnaphthalene	1.69	0.0320	0.0640	ug/L	1	1.60	---	105	48-150%	4	30%	
Naphthalene	1.69	0.0320	0.0640	ug/L	1	1.60	---	106	78-120%	3	30%	
Phenanthrene	1.61	0.0320	0.0640	ug/L	1	1.60	---	101	80-120%	4	30%	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1086 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (23C1086-BSD1)			Prepared: 03/28/23 09:47 Analyzed: 03/28/23 16:17								Q-19	
Pyrene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-125%	2	30%	
Carbazole	2.04	0.0160	0.0320	ug/L	1	1.60	---	127	65-141%	3	30%	
Dibenzofuran	1.73	0.0160	0.0320	ug/L	1	1.60	---	108	76-121%	3	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 123 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		129 %		80-132 %		"						

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1227 - EPA 3015A						Water						
Blank (23C1227-BLK1)			Prepared: 03/30/23 15:17 Analyzed: 04/01/23 00:46									
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	---	---	---	---	---	---	
Calcium	ND	300	600	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	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Potassium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Sodium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	

LCS (23C1227-BS1)

Prepared: 03/30/23 15:17 Analyzed: 04/01/23 00:51

EPA 6020B												
Aluminum	2920	25.0	50.0	ug/L	1	2780	---	105	80-120%	---	---	
Antimony	27.1	0.500	1.00	ug/L	1	27.8	---	98	80-120%	---	---	
Arsenic	54.6	0.500	1.00	ug/L	1	55.6	---	98	80-120%	---	---	
Barium	57.8	1.00	2.00	ug/L	1	55.6	---	104	80-120%	---	---	
Beryllium	27.3	0.100	0.200	ug/L	1	27.8	---	98	80-120%	---	---	
Cadmium	54.5	0.100	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Calcium	2880	300	600	ug/L	1	2780	---	104	80-120%	---	---	
Chromium	55.2	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

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 23C1227 - EPA 3015A						Water						
LCS (23C1227-BS1)						Prepared: 03/30/23 15:17 Analyzed: 04/01/23 00:51						
Copper	57.4	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Iron	2890	25.0	50.0	ug/L	1	2780	---	104	80-120%	---	---	
Lead	53.8	0.110	0.200	ug/L	1	55.6	---	97	80-120%	---	---	
Magnesium	2830	75.0	150	ug/L	1	2780	---	102	80-120%	---	---	
Manganese	57.5	0.500	1.00	ug/L	1	55.6	---	103	80-120%	---	---	
Mercury	1.04	0.0400	0.0800	ug/L	1	1.11	---	94	80-120%	---	---	
Nickel	56.9	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Potassium	2960	50.0	100	ug/L	1	2780	---	107	80-120%	---	---	
Selenium	26.8	0.500	1.00	ug/L	1	27.8	---	96	80-120%	---	---	
Silver	26.9	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Sodium	2960	50.0	100	ug/L	1	2780	---	106	80-120%	---	---	
Thallium	27.0	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Vanadium	54.3	1.00	2.00	ug/L	1	55.6	---	98	80-120%	---	---	
Zinc	58.5	2.00	4.00	ug/L	1	55.6	---	105	80-120%	---	---	

Matrix Spike (23C1227-MS1)

Prepared: 03/30/23 15:17 Analyzed: 04/01/23 01:40

QC Source Sample: Non-SDG (A3C0788-07)**EPA 6020B**

Aluminum	2980	25.0	50.0	ug/L	1	2780	178	101	75-125%	---	---	
Antimony	27.1	0.500	1.00	ug/L	1	27.8	ND	98	75-125%	---	---	
Arsenic	55.9	0.500	1.00	ug/L	1	55.6	1.76	97	75-125%	---	---	
Barium	94.2	1.00	2.00	ug/L	1	55.6	37.9	101	75-125%	---	---	
Beryllium	27.3	0.100	0.200	ug/L	1	27.8	ND	98	75-125%	---	---	
Cadmium	54.8	0.100	0.200	ug/L	1	55.6	ND	99	75-125%	---	---	
Calcium	35500	300	600	ug/L	1	2780	33900	58	75-125%	---	---	Q-65
Chromium	53.7	1.00	2.00	ug/L	1	55.6	ND	97	75-125%	---	---	
Copper	55.5	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	---	---	
Iron	9810	25.0	50.0	ug/L	1	2780	7300	90	75-125%	---	---	
Lead	52.3	0.110	0.200	ug/L	1	55.6	0.110	94	75-125%	---	---	
Magnesium	21000	75.0	150	ug/L	1	2780	19100	67	75-125%	---	---	E, Q-65
Manganese	4430	0.500	1.00	ug/L	1	55.6	4510	-161	75-125%	---	---	E, Q-65
Mercury	0.998	0.0400	0.0800	ug/L	1	1.11	ND	90	75-125%	---	---	
Nickel	54.5	1.00	2.00	ug/L	1	55.6	ND	98	75-125%	---	---	
Potassium	5550	50.0	100	ug/L	1	2780	2800	99	75-125%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1227 - EPA 3015A						Water						
Matrix Spike (23C1227-MS1)				Prepared: 03/30/23 15:17		Analyzed: 04/01/23 01:40						
QC Source Sample: Non-SDG (A3C0788-07)												
Selenium	26.8	0.500	1.00	ug/L	1	27.8	ND	97	75-125%	---	---	
Silver	26.4	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	
Sodium	11900	50.0	100	ug/L	1	2780	9610	84	75-125%	---	---	
Thallium	26.5	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	
Vanadium	54.8	1.00	2.00	ug/L	1	55.6	1.57	96	75-125%	---	---	
Zinc	58.4	2.00	4.00	ug/L	1	55.6	3.48	99	75-125%	---	---	
Matrix Spike Dup (23C1227-MSD1)				Prepared: 03/30/23 15:17		Analyzed: 04/01/23 01:45						
QC Source Sample: Non-SDG (A3C0788-07)												
Aluminum	3040	25.0	50.0	ug/L	1	2780	178	103	75-125%	2	20%	
Antimony	27.3	0.500	1.00	ug/L	1	27.8	ND	98	75-125%	0.6	20%	
Arsenic	56.8	0.500	1.00	ug/L	1	55.6	1.76	99	75-125%	2	20%	
Barium	95.0	1.00	2.00	ug/L	1	55.6	37.9	103	75-125%	0.9	20%	
Beryllium	26.9	0.100	0.200	ug/L	1	27.8	ND	97	75-125%	1	20%	
Cadmium	55.3	0.100	0.200	ug/L	1	55.6	ND	100	75-125%	1	20%	
Calcium	35400	300	600	ug/L	1	2780	33900	56	75-125%	0.1	20%	Q-65
Chromium	54.8	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	2	20%	
Copper	55.7	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	0.4	20%	
Iron	9970	25.0	50.0	ug/L	1	2780	7300	96	75-125%	2	20%	
Lead	52.7	0.110	0.200	ug/L	1	55.6	0.110	95	75-125%	0.8	20%	
Magnesium	21200	75.0	150	ug/L	1	2780	19100	76	75-125%	1	20%	E
Manganese	4480	0.500	1.00	ug/L	1	55.6	4510	-54	75-125%	1	20%	E, Q-65
Mercury	1.01	0.0400	0.0800	ug/L	1	1.11	ND	91	75-125%	1	20%	
Nickel	55.6	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	2	20%	
Potassium	5600	50.0	100	ug/L	1	2780	2800	101	75-125%	0.9	20%	
Selenium	26.9	0.500	1.00	ug/L	1	27.8	ND	97	75-125%	0.2	20%	
Silver	26.4	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	0.06	20%	
Sodium	12100	50.0	100	ug/L	1	2780	9610	88	75-125%	1	20%	
Thallium	26.5	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	0.02	20%	
Vanadium	56.0	1.00	2.00	ug/L	1	55.6	1.57	98	75-125%	2	20%	
Zinc	60.6	2.00	4.00	ug/L	1	55.6	3.48	103	75-125%	4	20%	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved 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 23C1274 - Matrix Matched Direct Inject						Water						
Blank (23C1274-BLK1)			Prepared: 03/31/23 12:38 Analyzed: 04/01/23 18:55									
EPA 6020B (Diss)												
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	
LCS (23C1274-BS1)			Prepared: 03/31/23 12:38 Analyzed: 04/01/23 19:01									
EPA 6020B (Diss)												
Iron	2900	25.0	50.0	ug/L	1	2780	---	105	80-120%	---	---	
Magnesium	2620	75.0	150	ug/L	1	2780	---	94	80-120%	---	---	
Duplicate (23C1274-DUP1)			Prepared: 03/31/23 12:38 Analyzed: 04/01/23 19:11									
QC Source Sample: Non-SDG (A3C0797-01)												
Iron	12900	25.0	50.0	ug/L	1	---	13500	---	---	4	20%	
Magnesium	28000	75.0	150	ug/L	1	---	28300	---	---	1	20%	
Matrix Spike (23C1274-MS1)			Prepared: 03/31/23 12:38 Analyzed: 04/01/23 19:17									
QC Source Sample: Non-SDG (A3C0797-01)												
EPA 6020B (Diss)												
Iron	15700	25.0	50.0	ug/L	1	2780	13500	80	75-125%	---	---	
Magnesium	30600	75.0	150	ug/L	1	2780	28300	83	75-125%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 57 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0995 - Method Prep: Aq						Water						
Blank (23C0995-BLK1)			Prepared: 03/24/23 15:24 Analyzed: 03/24/23 17:56									
EPA 300.0												
Chloride	ND	0.500	1.00	mg/L	1	---	---	---	---	---	---	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	---	---	---	---	---	---	
Sulfate	ND	0.500	1.00	mg/L	1	---	---	---	---	---	---	
LCS (23C0995-BS1)			Prepared: 03/24/23 15:24 Analyzed: 03/24/23 18:18									
EPA 300.0												
Chloride	7.79	0.500	1.00	mg/L	1	8.00	---	97	90-110%	---	---	
Nitrate-Nitrogen	2.06	0.125	0.250	mg/L	1	2.00	---	103	90-110%	---	---	
Sulfate	8.00	0.500	1.00	mg/L	1	8.00	---	100	90-110%	---	---	
Duplicate (23C0995-DUP1)			Prepared: 03/24/23 15:24 Analyzed: 03/24/23 19:01									
QC Source Sample: GS-032323-53 (A3C0869-01)												
EPA 300.0												
Chloride	37.3	0.500	1.00	mg/L	1	---	37.3	---	---	0.009	3%	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	---	ND	---	---	---	3%	
Sulfate	2.93	0.500	1.00	mg/L	1	---	3.21	---	---	9	4%	Q-05
Matrix Spike (23C0995-MS1)			Prepared: 03/24/23 15:24 Analyzed: 03/24/23 19:22									
QC Source Sample: GS-032323-53 (A3C0869-01)												
EPA 300.0												
Chloride	47.3	0.625	1.25	mg/L	1	10.0	37.3	100	90-113%	---	---	
Nitrate-Nitrogen	2.57	0.156	0.312	mg/L	1	2.50	ND	103	87-112%	---	---	
Sulfate	13.0	0.625	1.25	mg/L	1	10.0	3.21	98	88-115%	---	---	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23D0035 - Lachat Micro Dist - aqueous						Water						
Blank (23D0035-BLK1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 13:59									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0035-BS1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:01									
EPA 335.4												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	---	96	90-110%	---	---	
Duplicate (23D0035-DUP2)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:23									
QC Source Sample: Non-SDG (A3C0826-01)												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	ND	---	---	---	10%	
Matrix Spike (23D0035-MS1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:09									
QC Source Sample: Non-SDG (A3C0788-07)												
EPA 335.4												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	ND	96	90-110%	---	---	
Matrix Spike (23D0035-MS2)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:25									
QC Source Sample: Non-SDG (A3C0826-01)												
EPA 335.4												
Total Cyanide	0.252	0.00500	0.00500	mg/L	1	0.250	ND	101	90-110%	---	---	
Matrix Spike Dup (23D0035-MSD1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:11									
QC Source Sample: Non-SDG (A3C0788-07)												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	ND	96	90-110%	0.08	10%	

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23C1246 - Method Prep: Aq						Water						
Blank (23C1246-BLK1)			Prepared: 03/31/23 13:48		Analyzed: 03/31/23 16:54							
<u>D6888-09</u>												
Available Cyanide	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
LCS (23C1246-BS1)			Prepared: 03/31/23 13:48		Analyzed: 03/31/23 16:56							
<u>D6888-09</u>												
Available Cyanide	0.0235	0.00100	0.00200	mg/L	1	0.0250	---	94	90-117%	---	---	
Matrix Spike (23C1246-MS1)			Prepared: 03/31/23 13:48		Analyzed: 03/31/23 17:00							
<u>QC Source Sample: Non-SDG (A3C0830-12)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0430	0.00101	0.00201	mg/L	1	0.0251	0.0160	107	82-130%	---	---	
Matrix Spike Dup (23C1246-MSD1)			Prepared: 03/31/23 13:48		Analyzed: 03/31/23 17:02							
<u>QC Source Sample: Non-SDG (A3C0830-12)</u>												
Available Cyanide	0.0428	0.00101	0.00201	mg/L	1	0.0251	0.0160	107	82-130%	0.3	11%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 60 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

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 23D0024 - Microdiffusion						Water						
Blank (23D0024-BLK1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 17:08									
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0024-BS1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 17:08									
<u>D4282-02</u>												
Free Cyanide	0.0692	0.00250	0.00500	mg/L	1	0.0667	---	104	74-120%	---	---	
LCS Dup (23D0024-BSD1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 17:13									
<u>D4282-02</u>												
Free Cyanide	0.0695	0.00250	0.00500	mg/L	1	0.0667	---	104	74-120%	0.4	20%	
Duplicate (23D0024-DUP1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 17:13									
<u>QC Source Sample: Non-SDG (A3C0826-01)</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	ND	---	---	---	20%	
Matrix Spike (23D0024-MS1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 17:13									
<u>QC Source Sample: Non-SDG (A3C0826-01)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0610	0.00250	0.00500	mg/L	1	0.0667	ND	91	74-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 61 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1252 - Method Prep: Aq						Water						
Blank (23C1252-BLK1)				Prepared: 03/31/23 08:52		Analyzed: 03/31/23 09:43						
SM 2320 B												
Total Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Bicarbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
LCS (23C1252-BS1)				Prepared: 03/31/23 08:52		Analyzed: 03/31/23 09:53						
SM 2320 B												
Total Alkalinity	101	20.0	20.0	mg CaCO3/L	1	100	---	101	90-115%	---	---	
Duplicate (23C1252-DUP1)				Prepared: 03/31/23 08:52		Analyzed: 03/31/23 11:46						
QC Source Sample: Non-SDG (A3C1053-01)												
Total Alkalinity	113	20.0	20.0	mg CaCO3/L	1	---	107	---	---	6	5%	Q-17
Bicarbonate Alkalinity	113	20.0	20.0	mg CaCO3/L	1	---	107	---	---	6	5%	Q-17
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 62 of 72



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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

SAMPLE PREPARATION INFORMATION

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: 23C1073							
A3C0869-05	WG	EPA 8260D	03/23/23 13:40	03/28/23 13:31	5mL/5mL	5mL/5mL	1.00
Batch: 23C1116							
A3C0869-01	WG	EPA 8260D	03/23/23 10:15	03/28/23 15:28	5mL/5mL	5mL/5mL	1.00
A3C0869-02	WG	EPA 8260D	03/23/23 11:00	03/28/23 15:28	5mL/5mL	5mL/5mL	1.00
A3C0869-03	WG	EPA 8260D	03/23/23 11:45	03/28/23 15:28	5mL/5mL	5mL/5mL	1.00
A3C0869-04	WG	EPA 8260D	03/23/23 13:00	03/28/23 15:28	5mL/5mL	5mL/5mL	1.00
A3C0869-06	W	EPA 8260D	03/23/23 15:30	03/28/23 15:28	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: 23C1086							
A3C0869-01RE1	WG	EPA 8270E LVI	03/23/23 10:15	03/28/23 09:47	101.75mL/5mL	125mL/5mL	1.23
A3C0869-02	WG	EPA 8270E LVI	03/23/23 11:00	03/28/23 09:47	95.07mL/5mL	125mL/5mL	1.31
A3C0869-03	WG	EPA 8270E LVI	03/23/23 11:45	03/28/23 09:47	97.23mL/5mL	125mL/5mL	1.29
A3C0869-04	WG	EPA 8270E LVI	03/23/23 13:00	03/28/23 09:47	96.53mL/5mL	125mL/5mL	1.29
A3C0869-04RE1	WG	EPA 8270E LVI	03/23/23 13:00	03/28/23 09:47	96.53mL/5mL	125mL/5mL	1.29
A3C0869-05	WG	EPA 8270E LVI	03/23/23 13:40	03/28/23 09:47	86.82mL/5mL	125mL/5mL	1.44
A3C0869-05RE1	WG	EPA 8270E LVI	03/23/23 13:40	03/28/23 09:47	86.82mL/5mL	125mL/5mL	1.44

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: 23C1227							
A3C0869-01	WG	EPA 6020B	03/23/23 10:15	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-01RE1	WG	EPA 6020B	03/23/23 10:15	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-02	WG	EPA 6020B	03/23/23 11:00	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-02RE1	WG	EPA 6020B	03/23/23 11:00	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-03	WG	EPA 6020B	03/23/23 11:45	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-03RE1	WG	EPA 6020B	03/23/23 11:45	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-04	WG	EPA 6020B	03/23/23 13:00	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-04RE1	WG	EPA 6020B	03/23/23 13:00	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-05	WG	EPA 6020B	03/23/23 13:40	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0869-05RE1	WG	EPA 6020B	03/23/23 13:40	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629**

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
------------	--------	--------	---------	----------	-------------------------	--------------------------	-------------------

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
------------	--------	--------	---------	----------	-------------------------	--------------------------	-------------------

Batch: 23C1274

A3C0869-01	WG	EPA 6020B (Diss)	03/23/23 10:15	03/31/23 12:38	45mL/50mL	45mL/50mL	1.00
A3C0869-02	WG	EPA 6020B (Diss)	03/23/23 11:00	03/31/23 12:38	45mL/50mL	45mL/50mL	1.00
A3C0869-03	WG	EPA 6020B (Diss)	03/23/23 11:45	03/31/23 12:38	45mL/50mL	45mL/50mL	1.00
A3C0869-04	WG	EPA 6020B (Diss)	03/23/23 13:00	03/31/23 12:38	45mL/50mL	45mL/50mL	1.00
A3C0869-05	WG	EPA 6020B (Diss)	03/23/23 13:40	03/31/23 12:38	45mL/50mL	45mL/50mL	1.00

Anions by Ion Chromatography

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
------------	--------	--------	---------	----------	-------------------------	--------------------------	-------------------

Batch: 23C0995

A3C0869-01	WG	EPA 300.0	03/23/23 10:15	03/24/23 15:24	5mL/5mL	5mL/5mL	1.00
A3C0869-02	WG	EPA 300.0	03/23/23 11:00	03/24/23 15:24	5mL/5mL	5mL/5mL	1.00
A3C0869-03	WG	EPA 300.0	03/23/23 11:45	03/24/23 15:24	5mL/5mL	5mL/5mL	1.00
A3C0869-04	WG	EPA 300.0	03/23/23 13:00	03/24/23 15:24	5mL/5mL	5mL/5mL	1.00
A3C0869-05	WG	EPA 300.0	03/23/23 13:40	03/24/23 15:24	5mL/5mL	5mL/5mL	1.00
A3C0869-05RE1	WG	EPA 300.0	03/23/23 13:40	03/24/23 15:24	5mL/5mL	5mL/5mL	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
------------	--------	--------	---------	----------	-------------------------	--------------------------	-------------------

Batch: 23D0035

A3C0869-01RE1	WG	EPA 335.4	03/23/23 10:15	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00
A3C0869-02	WG	EPA 335.4	03/23/23 11:00	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00
A3C0869-03	WG	EPA 335.4	03/23/23 11:45	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00
A3C0869-04	WG	EPA 335.4	03/23/23 13:00	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00
A3C0869-05	WG	EPA 335.4	03/23/23 13:40	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001 H**Project Manager: **John Renda****Report ID:****A3C0869 - 05 19 23 0629****SAMPLE PREPARATION INFORMATION****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
Batch: 23C1246							
A3C0869-01	WG	D6888-09	03/23/23 10:15	03/31/23 13:48	5mL/5mL	5mL/5mL	1.00
A3C0869-02	WG	D6888-09	03/23/23 11:00	03/31/23 13:48	5mL/5mL	5mL/5mL	1.00
A3C0869-03	WG	D6888-09	03/23/23 11:45	03/31/23 13:48	5mL/5mL	5mL/5mL	1.00
A3C0869-04	WG	D6888-09	03/23/23 13:00	03/31/23 13:48	5mL/5mL	5mL/5mL	1.00
A3C0869-05	WG	D6888-09	03/23/23 13:40	03/31/23 13:48	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
Batch: 23D0024							
A3C0869-01	WG	D4282-02	03/23/23 10:15	04/03/23 10:10	3mL/3mL	3mL/3mL	1.00
A3C0869-02	WG	D4282-02	03/23/23 11:00	04/03/23 10:10	3mL/3mL	3mL/3mL	1.00
A3C0869-03	WG	D4282-02	03/23/23 11:45	04/03/23 10:10	3mL/3mL	3mL/3mL	1.00
A3C0869-04	WG	D4282-02	03/23/23 13:00	04/03/23 10:10	3mL/3mL	3mL/3mL	1.00
A3C0869-05	WG	D4282-02	03/23/23 13:40	04/03/23 10:10	3mL/3mL	3mL/3mL	1.00

Conventional Chemistry Parameters**Prep: Method Prep: Ag**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23C1252							
A3C0869-01	WG	SM 2320 B	03/23/23 10:15	03/31/23 08:52	60mL/60mL	60mL/60mL	NA
A3C0869-02	WG	SM 2320 B	03/23/23 11:00	03/31/23 08:52	60mL/60mL	60mL/60mL	NA
A3C0869-03	WG	SM 2320 B	03/23/23 11:45	03/31/23 08:52	60mL/60mL	60mL/60mL	NA
A3C0869-04	WG	SM 2320 B	03/23/23 13:00	03/31/23 08:52	60mL/60mL	60mL/60mL	NA
A3C0869-05	WG	SM 2320 B	03/23/23 13:40	03/31/23 08:52	60mL/60mL	60mL/60mL	NA

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

QUALIFIER DEFINITIONS

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

Apex Laboratories

- E** Estimated Value. The result is above the calibration range of the instrument.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- PRES** Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-17** RPD between original and duplicate sample is outside of established control limits.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. 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 +4%. 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 -10%. 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 -11%. 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 -12%. 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 -18%. 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 -20%. 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 -28%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
- Q-54i** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -33%. The results are reported as Estimated Values.

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

- Q-54j** 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-54k** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -40%. 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
- Q-65** Spike recovery is estimated due to the high analyte concentration of the source sample.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- V-25** SIM Analysis was not performed due to the high analyte concentration in this sample.

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

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).

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

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.

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

Report ID:

A3C0869 - 05 19 23 0629

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
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

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.

Apex Laboratories

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

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-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001 H

Project Manager: John Renda

Report ID:

A3C0869 - 05 19 23 0629

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A3 C0869Project/Project #: Gasco-CMMA/TCE Prod. Wells 1Q 2023 Perf. Mon.
000029-02.84 T-01.001 H

Delivery Info:

Date/time received: 3/24/23 @ 8:41 By: JSDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐Cooler Inspection Date/time inspected: 3/24/23 @ 9:40 By: JSChain 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)	<u>1.3</u>	<u>1.7</u>					
Custody seals? (Y/N)	<u>N</u>	<u>N</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>					
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>					
Condition (In/Out):	<u>In</u>	<u>In</u>					

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: 3/24/23 @ 10:30 By: JSAll 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: 05-03223-53 ± 54 pH ~7Additional information: TB #3155Labeled by: JS Witness: JS Cooler Inspected by: JS

Form Y-003 R-00

Apex Laboratories

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

Darwin Thomas, Business Development Director

Page 72 of 72