AtmAA Inc.
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environmental consultants
laboratory services

LABORATORY ANALYSIS REPORT

BTEX Analysis in Tedlar Bag Samples by Method EPA TO-14

Report Date: December 24, 2015
Client: SCEC
Project Location: SCG - Aliso Canyon
Project No.: 2045.1063
Date Received: December 24, 2015
Date Analyzed: December 24, 2015

ANALYSIS DESCRIPTION

Benzene, toluene, ethylbenzene, and xylenes were measured by gas chromatography/ mass spectrometry (GC/MS) by Method EPA TO-14.

AtmAA Lab No.:	13585-1	13585-2	13585-3	13585-4	13585-5
Sample I.D.:	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
	SS9	SS3H	R-1	SF2-5	SF-1
Components	*(Concentration in ppbv)*				
Benzene	3.57	2.50	<0.3	<0.3	<0.3
Toluene	4.03	2.94	0.34	0.30	<0.3
Ethylbenzene	0.37	0.33	<0.3	<0.3	<0.3
m + p-xylenes	1.90	1.60	<0.3	<0.3	<0.3
o-xylene	0.66	0.62	<0.3	<0.3	<0.3

Michael L. Porter
Laboratory Director

LABORATORY ANALYSIS REPORT

BTEX Analysis in Tedlar Bag Samples by Method EPA TO-14

Report Date: December 24, 2015
Client: SCEC
Project Location: SCG - Aliso Canyon
Project No.: 2045.1063
Date Received: December 24, 2015
Date Analyzed: December 24, 2015

ANALYSIS DESCRIPTION

Benzene, toluene, ethylbenzene, and xylenes were measured by gas chromatography/ mass spectrometry (GC/MS) by Method EPA TO-14.

AtmAA Lab No.:	13585-6	13585-7	13585-8	13585-9
Sample I.D.:	Sample 6	Sample 7	Sample 8	Sample 9
	P40	MA1A	T3 Road	T3 Road High
Components	*(Concentration in ppbv)*			
Benzene	<0.3	<0.3	<0.3	<0.3
Toluene	0.30	0.30	0.33	<0.3
Ethylbenzene	<0.3	<0.3	<0.3	<0.3
m + p-xylenes	<0.3	<0.3	<0.3	<0.3
o-xylene	<0.3	<0.3	<0.3	<0.3

Michael L. Porter
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analysis)

Project Location: SCG - Aliso Canyon
Date Received: December 24, 2015
Date Analyzed: December 24, 2015

Component	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% Diff. From Mean
		(Concentration in ppbv)			
Benzene	SS3H	2.57	2.43	2.50	2.8
	R-1	<0.3	<0.3	<0.3	---
	T3 Road High	<0.3	<0.3	<0.3	---
Toluene	SS3H	3.02	2.86	2.94	2.7
	R-1	0.34	0.35	0.34	1.4
	T3 Road High	<0.3	<0.3	<0.3	---
Ethylbenzene	SS3H	0.34	0.32	0.33	3.0
	R-1	<0.3	<0.3	<0.3	---
	T3 Road High	<0.3	<0.3	<0.3	---
m + p-xylenes	SS3H	1.63	1.58	1.60	1.6
	R-1	<0.3	<0.3	<0.3	---
	T3 Road High	<0.3	<0.3	<0.3	---
o-xylene	SS3H	0.63	0.62	0.62	0.80
	R-1	<0.3	<0.3	<0.3	---
	T3 Road High	<0.3	<0.3	<0.3	---

Nine Tedlar bag samples, laboratory numbers 13585-(1-9), were analyzed for BTEX. Agreement between repeat analyses is a measure of precision and is shown above in the column "% Difference from Mean". The average % difference from mean for 6 repeat measurements from 9 Tedlar bag samples is 2.0%.

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LABORATORY ANALYSIS REPORT

Speciated Hydrocarbons Analysis in Tedlar Bag Samples

Report Date: December 26, 2015
Client: SCEC
Site: So Cal Gas
Location: Aliso Canyon
Project No.: 2045.1063

Date Received: December 24, 2015
Date Analyzed: December 24, 2015

ANALYSIS DESCRIPTION

Hydrocarbon Speciation analysis was performed by flame ionization detection/gas chromatography (FID/GC), modified EPA-18.

AtmAA Lab No.:	13585-1	(repeat)	13285-2	13285-3	13285-4	13285-5	13285-6
Sample ID:	1 SS9	1 SS9	2 SS3H	3 R-1	4 SF2-5	5 SF-1	6 P40
	(Concentration in ppmv, component)						
Methane	457.0	458.0	226.9	2.08	5.56	2.63	2.54
non-methane hydrocarbons analysis by carbon number grouping							
Ethene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetylene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethane	17.18	17.35	8.67	<0.05	0.16	<0.05	<0.05
C3	1.02	1.03	0.52	<0.03	<0.03	<0.03	<0.03
Iso-Butane	0.10	0.10	0.05	<0.02	<0.02	<0.02	<0.02
N-Butane	0.10	0.10	0.06	<0.02	<0.02	<0.02	<0.02
C4	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02
Iso-Pentane	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Pentane	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
C5	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
C6	0.04	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
C7	0.03	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
TNMNE	4.61	4.35	2.00	<0.4	<0.4	0.08	<0.4
TNMHC	38.97	39.05	19.34	<0.4	0.32	<0.4	<0.4

TNMNE - total non-methane, non-ethane, hydrocarbons as ppmvC.
TNMHC - total non-methane hydrocarbons as ppmvC.

Michael L. Porter
Laboratory Director

LABORATORY ANALYSIS REPORT

Speciated Hydrocarbons Analysis in Tedlar Bag Samples

Report Date: December 26, 2015
Client: SCEC
Site: So Cal Gas
Location: Aliso Canyon
Project No.: 2045.1063

Date Received: December 24, 2015
Date Analyzed: December 24, 2015

ANALYSIS DESCRIPTION

Hydrocarbon Speciation analysis was performed by flame ionization detection/gas chromatography (FID/GC), modified EPA-18.

AtmAA Lab No.:	13585-7	13585-8	13585-9
Sample ID:	7 MA1A	8 T3 Road	9 T3 Road High
	(Concentration in ppmv, component)		
Methane	1.87	1.71	1.96
non-methane hydrocarbons analysis by carbon number grouping			
Ethene	<0.05	<0.05	<0.05
Acetylene	<0.05	<0.05	<0.05
Ethane	<0.05	<0.05	<0.05
C3	<0.03	<0.03	<0.03
Iso-Butane	<0.02	<0.02	<0.02
N-Butane	<0.02	<0.02	<0.02
C4	<0.02	<0.02	<0.02
Iso-Pentane	<0.02	<0.02	<0.02
N-Pentane	<0.02	<0.02	<0.02
C5	<0.02	<0.02	<0.02
C6	<0.02	<0.02	<0.02
C7	<0.02	<0.02	<0.02
TNMNE	<0.4	<0.4	<0.4
TNMHC	<0.4	<0.4	<0.4

TNMNE - total non-methane, non-ethane, hydrocarbons as ppmvC.
TNMHC - total non-methane hydrocarbons as ppmvC.

Michael L. Porter
Laboratory Director

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LABORATORY ANALYSIS REPORT

Hydrogen Sulfide and Reduced Sulfur Compounds
Analysis in Tedlar Bag Samples by Method SCAQMD 307.91

Report Date: December 24, 2015
Client: SCEC
Project Location: SCG - Aliso Canyon
Project No.: 2045.1063
Date Received: December 24, 2015
Date Analyzed: December 24, 2015

ANALYSIS DESCRIPTION

Hydrogen sulfide was analyzed by gas chromatography with a Hall electrolytic conductivity detector operated in the oxidative sulfur mode. All other components were measured by GC/ Mass Spec.

AtmAA Lab No.:	13585-1	13585-2	13585-3	13585-4	13585-5
Sample I.D.:	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
	SS9	SS3H	R-1	SF2-5	SF-1
Components	(Concentration in ppbv)				
Hydrogen sulfide	<5	<5	<5	<5	<5
Carbonyl sulfide	<5	<5	<5	<5	<5
Methyl mercaptan	<5	<5	<5	<5	<5
Ethyl mercaptan	<5	<5	<5	<5	<5
Dimethyl sulfide	<5	<5	<5	<5	<5
Carbon disulfide	<5	<5	<5	<5	<5
isopropyl mercaptan	<5	<5	<5	<5	<5
t-butyl mercaptan	<5	<5	<5	<5	<5
n-propyl mercaptan	<5	<5	<5	<5	<5
Dimethyl disulfide	<5	<5	<5	<5	<5
Tetrahydrothiophene	<5	<5	<5	<5	<5
TRS	<65	<65	<65	<65	<65

TRS - total reduced sulfur

Michael L. Porter
Laboratory Director

LABORATORY ANALYSIS REPORT

Hydrogen Sulfide and Reduced Sulfur Compounds
Analysis in Tedlar Bag Samples by Method SCAQMD 307.91

Report Date: December 24, 2015
Client: SCEC
Project Location: SCG - Aliso Canyon
Project No.: 2045.1063
Date Received: December 24, 2015
Date Analyzed: December 24, 2015

ANALYSIS DESCRIPTION

Hydrogen sulfide was analyzed by gas chromatography with a Hall electrolytic conductivity detector operated in the oxidative sulfur mode. All other components were measured by GC/ Mass Spec.

AtmAA Lab No.:	13585-6	13585-7	13585-8	13585-9
Sample I.D.:	Sample 6	Sample 7	Sample 8	Sample 9
	P40	MA1A	T3 Road	T3 Road High
Components	*(Concentration in ppbv)*			
Hydrogen sulfide	<5	<5	<5	<5
Carbonyl sulfide	<5	<5	<5	<5
Methyl mercaptan	<5	<5	<5	<5
Ethyl mercaptan	<5	<5	<5	<5
Dimethyl sulfide	<5	<5	<5	<5
Carbon disulfide	<5	<5	<5	<5
isopropyl mercaptan	<5	<5	<5	<5
t-butyl mercaptan	<5	<5	<5	<5
n-propyl mercaptan	<5	<5	<5	<5
Dimethyl disulfide	<5	<5	<5	<5
Tetrahydrothiophene	<5	<5	<5	<5
TRS	<65	<65	<65	<65

TRS - total reduced sulfur

Michael L. Porter
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: SCG - Aliso Canyon
Date Received: December 24, 2015
Date Analyzed: December 24, 2015

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% Diff. From Mean
		(Concentration in ppbv)			
Hydrogen sulfide	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Carbonyl sulfide	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Methyl mercaptan	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Ethyl mercaptan	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Dimethyl sulfide	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Carbon disulfide	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
isopropyl mercaptan	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
t-butyl mercaptan	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
n-propyl mercaptan	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Dimethyl disulfide	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---
Tetrahydrothiophene	SF-1	<5	<5	<5	---
	T3 Road High	<5	<5	<5	---

Nine Tedlar bag samples, laboratory numbers 13585-(1-9), were analyzed for total reduced sulfur compounds. Agreement between repeat analyses is a measure of precision and is shown above in the column "% Difference from Mean". No % difference from mean can be calculated from 9 Tedlar bag samples.

Chain of Custody Record
Analytical Services Request

SCEC
1631 E. Saint Andrew Place Santa Ana, CA 92705
(714) 282-8240 phone, (714) 282-8247 fax

Client/Project Name: So Cal Gas Company	Client Project No.: 2045.1063	ANALYSES REQUESTED	Laboratory Name: ATMAA
Project Location: Aliso Canyon			Lab Contact: Mike Porter
Contact: Rudy Nunez	Sampler (Signature):		Lab Phone No.: 818-223-3277
			Turnaround Time 24 Hour

Sample #	Description	SAMPLE Date	Start Time	End Time	Type	SCAQMD 307.91 (Hydrogen Sulfide and Reduced Sulfur Compounds)	EPA Method 18 C1-C6, BETEX				Remarks:
13585-1	1 SS9	12-23-15	1650	1652	Tedlar Bag	x	x				QA/QC DATA PACKAGE ON ALL SAMPLES
-2	2 SS3H		1657	1659	Tedlar Bag	x	x				
-3	3 R-1		1721	1723	Tedlar Bag	x	x				Email data to: rnunez@montrose-env.com
-4	4 SF2-5		1735	1737	Tedlar Bag	x	x				
-5	5 SF-1		1743	1745	Tedlar Bag	x	x				
-6	6 P40		1750	1752	Tedlar Bag	x	x				
-7	7 MA1A		1805	1807	Tedlar Bag	x	x				
-8	8 T3 Road		1817	1819	Tedlar Bag	x	x				
-9	9 T3 Road High		1825	1827	Tedlar Bag	x	x				

Relinquished by (Signature):	Company:	Date	Time	Received by (Signature):	Company:	Date:	Time:
	MONTROSE - ENV	12-23-15	2230				
Relinquished by (Signature):	Company:	Date	Time	Received by (Signature):	Company:	Date:	Time:
		12/23	1155				
Relinquished by (Signature):	Company:	Date	Time	Received by (Signature):	Company:	Date:	Time:
					ATMAA	12/24/15	8:00

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : SCEC
PROJECT NO : 151754
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 12/24/2015
DATE REPORTED : 01/05/2016

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Porter Ridge Park			Sample Reporting Limit (SRL) (MRLxDF's)	Starter Set PS			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	151754-86168				151754-86169				
Date Sampled	12/23/2015				12/23/2015				
Date Analyzed	01/03/2016				01/03/2016				
Can Dilution Factor	1.56				1.47				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Methane*	1980		1.0	778	2190		1.0	737	500
Benzene**	0.25	J	1.0	0.16	0.21	J	1.0	0.15	0.1
Toluene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.74	0.5
Ethylbenzene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.74	0.5
m & p-Xylenes	<SRL	U	1.0	1.56	<SRL	U	1.0	1.47	1.0
o-Xylene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.74	0.5
BFB-Surrogate Std. % Recovery	101%				103%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value.
** - Benzene is being reported down to MDL reporting limits.
* - Results from EPA Method 18 modified analysis on 12/24/2015.

Marcus Hueppe
Laboratory Director

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : SCEC
PROJECT NO : 151754
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 12/24/2015
DATE REPORTED : 01/05/2016

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Castle Bay Lane			Sample Reporting Limit (SRL) (MRLxDF's)	Highlands 2			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	151754-86170				151754-86171				
Date Sampled	12/23/2015				12/23/2015				
Date Analyzed	01/03/2016				01/03/2016				
Can Dilution Factor	1.53				1.55				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Methane*	2240		1.0	767	2520		1.0	776	500
Benzene**	0.17	J	1.0	0.15	0.17	J	1.0	0.16	0.1
Toluene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.78	0.5
Ethylbenzene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.78	0.5
m & p-Xylenes	<SRL	U	1.0	1.53	<SRL	U	1.0	1.55	1.0
o-Xylene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.78	0.5
BFB-Surrogate Std. % Recovery	101%				102%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value.
** - Benzene is being reported down to MDL reporting limits.
* - Results from EPA Method 18 modified analysis on 12/24/2015.

Marcus Hueppe
Laboratory Director

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Laboratory Analysis Report

CLIENT : SCEC
PROJECT NO : 151754
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 12/24/2015
DATE REPORTED : 01/05/2016

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Porter Ranch Com. Schl.			Sample Reporting Limit (SRL) (MRLxDF's)	Holleigh Bernson Park			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	151754-86172				151754-86173				
Date Sampled	12/23/2015				12/23/2015				
Date Analyzed	01/03/2016				01/03/2016				
Can Dilution Factor	1.51				1.53				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Methane*	2200		1.0	755	2300		1.0	766	500
Benzene**	0.15	J	1.0	0.15	0.17	J	1.0	0.15	0.1
Toluene	<SRL	U	1.0	0.75	<SRL	U	1.0	0.77	0.5
Ethylbenzene	<SRL	U	1.0	0.75	<SRL	U	1.0	0.77	0.5
m & p-Xylenes	<SRL	U	1.0	1.51	<SRL	U	1.0	1.53	1.0
o-Xylene	<SRL	U	1.0	0.75	<SRL	U	1.0	0.77	0.5
BFB-Surrogate Std. % Recovery	101%				101%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value.
** - Benzene is being reported down to MDL reporting limits.
* - Results from EPA Method 18 modified analysis on 12/24/2015.

Marcus Hueppe
Laboratory Director

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : SCEC
PROJECT NO : 151754
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 12/24/2015
DATE REPORTED : 01/05/2016

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Porter Ranch Estates			Sample Reporting Limit (SRL) (MRLxDF's)	Highlands-1			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	151754-86174				151754-86175				
Date Sampled	12/23/2015				12/23/2015				
Date Analyzed	01/03/2016				01/03/2016				
Can Dilution Factor	1.53				1.52				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Methane*	3240		1.0	763	3530		1.0	759	500
Benzene**	0.15	J	1.0	0.15	0.20	J	1.0	0.15	0.1
Toluene	<SRL	U	1.0	0.76	<SRL	U	1.0	0.76	0.5
Ethylbenzene	<SRL	U	1.0	0.76	<SRL	U	1.0	0.76	0.5
m & p-Xylenes	<SRL	U	1.0	1.53	<SRL	U	1.0	1.52	1.0
o-Xylene	<SRL	U	1.0	0.76	<SRL	U	1.0	0.76	0.5
BFB-Surrogate Std. % Recovery	100%				101%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value.
** - Benzene is being reported down to MDL reporting limits.
* - Results from EPA Method 18 modified analysis on 12/24/2015.

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : SCEC
PROJECT NO : 151754
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 12/24/2015
DATE REPORTED : 01/05/2016

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Porter Ranch Estates 2			Sample Reporting Limit (SRL) (MRLxDF's)	Highlands-3			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	151754-86176				151754-86177				
Date Sampled	12/23/2015				12/23/2015				
Date Analyzed	01/03/2016				01/03/2016				
Can Dilution Factor	1.53				1.49				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Methane*	13900		1.0	763	17100		1.0	745	500
Benzene**	0.37	J	1.0	0.15	0.37	J	1.0	0.15	0.1
Toluene	<SRL	U	1.0	0.76	<SRL	U	1.0	0.74	0.5
Ethylbenzene	<SRL	U	1.0	0.76	<SRL	U	1.0	0.74	0.5
m & p-Xylenes	<SRL	U	1.0	1.53	<SRL	U	1.0	1.49	1.0
o-Xylene	<SRL	U	1.0	0.76	<SRL	U	1.0	0.74	0.5
BFB-Surrogate Std. % Recovery	102%				101%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value.
** - Benzene is being reported down to MDL reporting limits.
* - Results from EPA Method 18 modified analysis on 12/24/2015.

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Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : SCEC
PROJECT NO. : 151754
MATRIX : AIR
UNITS : ppbV

SAMPLING DATE : 12/23/2015
RECEIVING DATE : 12/24/2015
ANALYSIS DATE : 12/24/2015
REPORT DATE : 12/24/2015

Total Reduced Sulfur Compounds Analysis by SCAQMD 307.91

Client ID	Porter Ridge Park	Starter Set PS	Castle Bay Lane	Highlands 2	Porter Ranch Com. Schl.	Holleigh Bernson Park
AAC ID	151754-86168	151754-86169	151754-86170	151754-86171	151754-86172	151754-86173
Canister Dil. Fac.	1.6	1.5	1.5	1.6	1.5	1.5
Analyte	Result	Result	Result	Result	Result	Result
Hydrogen Sulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Carbonyl Sulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Sulfur Dioxide	< 2.46	**3.83**	< 2.42	< 2.45	< 2.38	< 2.42
Methyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Ethyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Dimethyl Sulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Carbon Disulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Isopropyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
tert-Butyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
n-Propyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Methylethylsulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
sec-Butyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Thiophene	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
iso-Butyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Diethyl Sulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
n-Butyl Mercaptan	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Dimethyl Disulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
2-Methylthiophene	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
3-Methylthiophene	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Tetrahydrothiophene	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Bromothiophene	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Thiophenol	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Diethyl disulfide	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Total Unidentified Sulfur	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42
Total Reduced Sulfurs as H_2S	< 2.46	< 2.33	< 2.42	< 2.45	< 2.38	< 2.42

All compound's concentrations expressed in terms of H_2S (TRS does not include COS and SO_2)
Sample Detection Limit (SDL) is equal to Detection Limit (1.58 ppbV) x Canister Dil. Fac. x Analysis Dil. Fac.

Marcus Hueppe
Laboratory Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

LABORATORY ANALYSIS REPORT

CLIENT : SCEC
PROJECT NO. : 151754
MATRIX : AIR
UNITS : ppbV

SAMPLING DATE : 12/23/2015
RECEIVING DATE : 12/24/2015
ANALYSIS DATE : 12/24/2015
REPORT DATE : 12/24/2015

Total Reduced Sulfur Compounds Analysis by SCAQMD 307.91

Client ID	Porter Ranch Estates	Highlands-1	Porter Ranch Estates 2	Highlands-3
AAC ID	151754-86174	151754-86175	151754-86176	151754-86177
Canister Dil. Fac.	1.5	1.5	1.5	1.5
Analyte	Result	Result	Result	Result
Hydrogen Sulfide	< 2.41	< 2.40	< 2.41	< 2.35
Carbonyl Sulfide	< 2.41	< 2.40	< 2.41	< 2.35
Sulfur Dioxide	< 2.41	< 2.40	< 2.41	< 2.35
Methyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
Ethyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
Dimethyl Sulfide	< 2.41	< 2.40	< 2.41	< 2.35
Carbon Disulfide	< 2.41	< 2.40	< 2.41	< 2.35
Isopropyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
tert-Butyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
n-Propyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
Methylethylsulfide	< 2.41	< 2.40	< 2.41	< 2.35
sec-Butyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
Thiophene	< 2.41	< 2.40	< 2.41	< 2.35
iso-Butyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
Diethyl Sulfide	< 2.41	< 2.40	< 2.41	< 2.35
n-Butyl Mercaptan	< 2.41	< 2.40	< 2.41	< 2.35
Dimethyl Disulfide	< 2.41	< 2.40	< 2.41	< 2.35
2-Methylthiophene	< 2.41	< 2.40	< 2.41	< 2.35
3-Methylthiophene	< 2.41	< 2.40	< 2.41	< 2.35
Tetrahydrothiophene	< 2.41	< 2.40	< 2.41	< 2.35
Bromothiophene	< 2.41	< 2.40	< 2.41	< 2.35
Thiophenol	< 2.41	< 2.40	< 2.41	< 2.35
Diethyl disulfide	< 2.41	< 2.40	< 2.41	< 2.35
Total Unidentified Sulfur	< 2.41	< 2.40	< 2.41	< 2.35
Total Reduced Sulfurs as H_2S	< 2.41	< 2.40	< 2.41	< 2.35

All compound's concentrations expressed in terms of H_2S (TRS does not include COS and SO_2)
Sample Detection Limit (SDL) is equal to Detection Limit (1.58 ppbV) x Canister Dil. Fac. x Analysis Dil. Fac.

Marcus Hueppe
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SCEC
1631 E. Saint Andrew Place Santa Ana, CA 92705
(714) 282-8240 phone, (714) 282-8247 fax

AAC # 151754

Chain of Custody Record
Analytical Services Request

Client/Project Name: So Cal Gas Company	Client Project No.: 2045.1063	ANALYSES REQUESTED					Laboratory Name: Atmospheric Analysis and Consulting, Inc.
Project Location: Aliso Canyon							Lab Contact: Marcus Hueppe
Contact: Rudy Nunez	Sampler (Signature):						Lab Phone No.: 805-650-1642
							Turnaround Time 24 Hour

Sample #	Description	SAMPLE Date	Start Time	End Time	Type	SCAQMD 307.91 (Hydrogen Sulfide and Reduced Sulfur Compounds)	EPA TO-15 Modified Method 18/ ~~NMHC~~ PAMS 12/24/15				Remarks:
1	Porter Ridge Park	12-23-15	1850	1907	Canister	x	x	86168			QA/QC DATA PACKAGE ON ALL SAMPLES
2	Starter Set PS		1912	1929	Canister	x	x	86169			
3	Castle Bay Lane		1934	1951	Canister	x	x	86170			Email data to: rnunez@montrose-env.com
4	Highlands 2		1957	2014	Canister	x	x	86171			
5	Porter Ranch Com. Schl.		2020	2037	Canister	x	x	86172			
6	Holleigh Bernson Park		2042	2059	Canister	x	x	86173			
7	Porter Ranch Estates		2103	2120	Canister	x	x	86174			
8	Highlands-1		2124	2141	Canister	x	x	86175			
9	Porter Ranch Estates 2		2145	2202	Canister	x	x	86176			
10	Highlands-3		2206	2223	Canister	x	x	86177			

Relinquished by (Signature):	Company:	Date	Time	Received by (Signature):	Company:	Date:	Time:
	MONTROSE-ENV	12-23-15	2230				
Relinquished by (Signature):	Company:	Date	Time	Received by (Signature):	Company:	Date:	Time:
		12/24	5:5		AAC	12/24/15	5:55 AM
Relinquished by (Signature):	Company:	Date	Time	Received by (Signature):	Company:	Date:	Time:

10 L CANS + 1 L ENTECH FLOW