



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING AND ANALYSIS
REPORT OF LABORATORY ANALYSIS

(Page 1 of 13)

To: Rafael Reynosa
Sr. Enforcement Manager
Compliance & Enforcement

Laboratory No. 1929602-01 to -07

Requested By Thomas Lee

Rule No. Rule 402

Sampling Location

Southern California Gas Company
12801 Tampa Avenue
Porter Ranch, CA 91326

ST No. NA

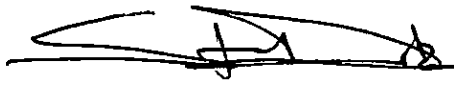
Report Created 10/25/2019

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS, AND RESULTS

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

See attached results and sample information.

Reviewed By:



Date Reviewed:

10/25/19

Stephen Dutz
Principal A.Q. Chemist
Laboratory Services

Approved By:



Date Approved:

10/25/2019

Aaron Katzenstein, Ph.D.
Senior Manager
Laboratory Services
(909) 396-2219



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING AND ANALYSIS
REPORT OF LABORATORY ANALYSIS

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Laboratory No. 1929602-01
Sample Description Tedlar Bag 1350 - SKC 0.7L: Produced gas sample from Sesnon Well #21 (Crimson Resources)
Sample Comments GC-FID results should be considered estimates due to uncertainty associated with large dilution.
Sample Date 10/22/2019 **Received Date** 10/23/2019 **Analyzed Date** 10/23/2019

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

<u>Analyte, Unit</u>	<u>Result</u>	<u>MDL</u>	<u>MRL</u>	<u>Ambient Avg</u>
Total NMOC, ppbC	17000000	3200	9600	100-700
Total Calibrated, ppbC	15000000	3200	9600	
Ethane, ppbv	2600000 (EH)	1600	4800	
Ethylene, ppbv	ND	1600	4800	0.7-4.1
Acetylene, ppbv	ND	1600	4800	
Propane, ppbv	910000 (EH)	1100	3200	0.4-5.0
Propylene, ppbv	ND	1100	3200	0.2-0.7
Isobutane, ppbv	290000 (EH)	800	2400	0.2-0.9
n-Butane, ppbv	320000 (EH)	800	2400	0.3-1.7
1-Butene, ppbv	BH	800	2400	0.1-0.3
trans-2-Butene, ppbv	ND	800	2400	
cis-2-Butene, ppbv	ND	800	2400	
Isopentane, ppbv	180000	640	1900	
1-Pentene, ppbv	ND	640	1900	
n-Pentane, ppbv	120000	640	1900	0.1-0.6
Isoprene, ppbv	740	640	1900	
trans-2-Pentene, ppbv	ND	640	1900	
cis-2-Pentene, ppbv	ND	640	1900	
2,2-Dimethylbutane, ppbv	5700	530	1600	
Cyclopentane, ppbv	29000	640	1900	
2,3-Dimethylbutane, ppbv	11000	530	1600	
2-Methylpentane, ppbv	49000	530	1600	
3-Methylpentane, ppbv	33000	530	1600	
1-Hexene, ppbv	ND	530	1600	<0.1-0.1
n-Hexane, ppbv	48000	530	1600	0.1-0.2
Methylcyclopentane, ppbv	93000	530	1600	
2,4-Dimethylpentane, ppbv	3500	460	1400	
Benzene, ppbv	25000	530	1600	0.1-0.5
Cyclohexane, ppbv	89000	530	1600	
2-Methylhexane, ppbv	12000	460	1400	



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Laboratory No. 1929602-01 - continued
Sample Description Tedlar Bag 1350 - SKC 0.7L: Produced gas sample from Sesnon Well #21 (Crimson Resources)
Sample Comments GC-FID results should be considered estimates due to uncertainty associated with large dilution.
Sample Date 10/22/2019 **Received Date 10/23/2019** **Analyzed Date 10/23/2019**

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

<u>Analyte, Unit</u>	<u>Result</u>	<u>MDL</u>	<u>MRL</u>	<u>Ambient Avg</u>
2,3-Dimethylpentane, ppbv	6200	460	1400	
3-Methylhexane, ppbv	15000	460	1400	
2,2,4-Trimethylpentane, ppbv	24000	400	1200	
n-Heptane, ppbv	18000	460	1400	0.1-0.2
Methylcyclohexane, ppbv	97000	460	1400	
2,3,4-Trimethylpentane, ppbv	650	400	1200	
Toluene, ppbv	34000	460	1400	0.1-0.6
2-Methylheptane, ppbv	6300	400	1200	
3-Methylheptane, ppbv	3500	400	1200	
n-Octane, ppbv	3700 (LJ)	400	1200	<0.1-0.3
Ethylbenzene, ppbv	1700	400	1200	0.1-0.2
m+p-Xylene, ppbv	4700	400	1200	0.1-0.2
Styrene, ppbv	ND	400	1200	<0.1-0.2
o-Xylene, ppbv	480	400	1200	0.1-0.2
n-Nonane, ppbv	ND	360	1100	<0.1-0.1
Isopropylbenzene, ppbv	ND	360	1100	
n-Propylbenzene, ppbv	ND	360	1100	
m-Ethyltoluene, ppbv	ND	360	1100	
p-Ethyltoluene, ppbv	ND	360	1100	
1,3,5-Trimethylbenzene, ppbv	ND	360	1100	
o-Ethyltoluene, ppbv	ND	360	1100	
1,2,4-Trimethylbenzene, ppbv	ND	360	1100	
n-Decane, ppbv	ND	320	960	<0.1-0.1
1,2,3-Trimethylbenzene, ppbv	ND	360	1100	
m-Diethylbenzene, ppbv	ND	320	960	
p-Diethylbenzene, ppbv	ND	320	960	
n-Undecane, ppbv	ND	290	870	<0.1
n-Dodecane, ppbv	ND	270	800	<0.1

* J = Value is between method detection and reporting limits.



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Laboratory No.	1929602-01 - continued	
Sample Description	Tedlar Bag 1350 - SKC 0.7L: Produced gas sample from Sesnon Well #21 (Crimson Resources)	
Sample Comments	GC-FID results should be considered estimates due to uncertainty associated with large dilution.	
Sample Date 10/22/2019	Received Date 10/23/2019	Analyzed Date 10/23/2019

BH = Interference/co-elution/misidentification, EH = Estimated; Exceeds Upper Range, LJ = Identification of Analyte is Acceptable; Reported Value is an Estimate



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Laboratory No. 1929602-03
Sample Description Tedlar Bag 1443 - SKC 0.7L: Produced gas sample from FF-11 Well (Fernando Fee-1 1) (So Cal Gas);
Sample Comments GC-FID results should be considered estimates due to uncertainty associated with large dilution.
Sample Date 10/22/2019 **Received Date** 10/23/2019 **Analyzed Date** 10/23/2019

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

<u>Analyte, Unit</u>	<u>Result</u>	<u>MDL</u>	<u>MRL</u>	<u>Ambient Avg</u>
Total NMOC, ppbC	55000000	6400	19000	100-700
Total Calibrated, ppbC	49000000	6400	19000	
Ethane, ppbv	10000000 (EH)	3200	9600	
Ethylene, ppbv	ND	3200	9600	0.7-4.1
Acetylene, ppbv	ND	3200	9600	
Propane, ppbv	2000000 (EH)	2100	6400	0.4-5.0
Propylene, ppbv	ND	2100	6400	0.2-0.7
Isobutane, ppbv	1600000 (EH)	1600	4800	0.2-0.9
n-Butane, ppbv	900000 (EH)	1600	4800	0.3-1.7
1-Butene, ppbv	BH	1600	4800	0.1-0.3
trans-2-Butene, ppbv	ND	1600	4800	
cis-2-Butene, ppbv	ND	1600	4800	
Isopentane, ppbv	750000	1300	3800	
1-Pentene, ppbv	ND	1300	3800	
n-Pentane, ppbv	73000	1300	3800	0.1-0.6
Isoprene, ppbv	ND	1300	3800	
trans-2-Pentene, ppbv	ND	1300	3800	
cis-2-Pentene, ppbv	ND	1300	3800	
2,2-Dimethylbutane, ppbv	180000 (V)	1100	3200	
Cyclopentane, ppbv	20000	1300	3800	
2,3-Dimethylbutane, ppbv	310000 (V)	1100	3200	
2-Methylpentane, ppbv	73000	1100	3200	
3-Methylpentane, ppbv	130000	1100	3200	
1-Hexene, ppbv	ND	1100	3200	<0.1-0.1
n-Hexane, ppbv	32000	1100	3200	0.1-0.2
Methylcyclopentane, ppbv	22000	1100	3200	
2,4-Dimethylpentane, ppbv	52000	910	2700	
Benzene, ppbv	74000	1100	3200	0.1-0.5
Cyclohexane, ppbv	62000	1100	3200	
2-Methylhexane, ppbv	41000	910	2700	



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Laboratory No. 1929602-03 - continued
Sample Description Tedlar Bag 1443 - SKC 0.7L: Produced gas sample from FF-11 Well (Fernando Fee-1 1) (So Cal Gas);
Sample Comments GC-FID results should be considered estimates due to uncertainty associated with large dilution.
Sample Date 10/22/2019 **Received Date** 10/23/2019 **Analyzed Date** 10/23/2019

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

<u>Analyte, Unit</u>	<u>Result</u>	<u>MDL</u>	<u>MRL</u>	<u>Ambient Avg</u>
2,3-Dimethylpentane, ppbv	72000	910	2700	
3-Methylhexane, ppbv	47000	910	2700	
2,2,4-Trimethylpentane, ppbv	7200	800	2400	
n-Heptane, ppbv	11000	910	2700	0.1-0.2
Methylcyclohexane, ppbv	20000	910	2700	
2,3,4-Trimethylpentane, ppbv	7200 (V)	800	2400	
Toluene, ppbv	33000	910	2700	0.1-0.6
2-Methylheptane, ppbv	14000	800	2400	
3-Methylheptane, ppbv	6000	800	2400	
n-Octane, ppbv	BH	800	2400	<0.1-0.3
Ethylbenzene, ppbv	11000	800	2400	0.1-0.2
m+p-Xylene, ppbv	19000	800	2400	0.1-0.2
Styrene, ppbv	4200	800	2400	<0.1-0.2
o-Xylene, ppbv	5800	800	2400	0.1-0.2
n-Nonane, ppbv	1100	710	2100	<0.1-0.1
Isopropylbenzene, ppbv	970	710	2100	
n-Propylbenzene, ppbv	1600	710	2100	
m-Ethyltoluene, ppbv	ND	710	2100	
p-Ethyltoluene, ppbv	1100	710	2100	
1,3,5-Trimethylbenzene, ppbv	ND	710	2100	
o-Ethyltoluene, ppbv	ND	710	2100	
1,2,4-Trimethylbenzene, ppbv	ND	710	2100	
n-Decane, ppbv	940	640	1900	<0.1-0.1
1,2,3-Trimethylbenzene, ppbv	ND	710	2100	
m-Diethylbenzene, ppbv	ND	640	1900	
p-Diethylbenzene, ppbv	ND	640	1900	
n-Undecane, ppbv	ND	580	1700	<0.1
n-Dodecane, ppbv	ND	530	1600	<0.1

* J = Value is between method detection and reporting limits.



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Laboratory No.	1929602-03 - continued	
Sample Description	Tedlar Bag 1443 - SKC 0.7L: Produced gas sample from FF-11 Well (Fernando Fee-1 1) (So Cal Gas);	
Sample Comments	GC-FID results should be considered estimates due to uncertainty associated with large dilution.	
Sample Date 10/22/2019	Received Date 10/23/2019	Analyzed Date 10/23/2019



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Laboratory No. 1929602-05
Sample Description Tedlar Bag 1501 - SKC 0.7L: Gas sample from Porter Gathering Plant Tank 15 (So Cal Gas);
Sample Comments GC-FID results should be considered estimates due to uncertainty associated with large dilution.

Sample Date 10/22/2019

Received Date 10/23/2019

Analyzed Date 10/23/2019

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

Analyte, Unit	Result	MDL	MRL	Ambient Avg
Total NMOC, ppbC	280000000	13000	38000	100-700
Total Calibrated, ppbC	260000000	13000	38000	
Ethane, ppbv	45000000 (EH)	6400	19000	
Ethylene, ppbv	ND	6400	19000	0.7-4.1
Acetylene, ppbv	ND	6400	19000	
Propane, ppbv	3800000 (EH)	4300	13000	0.4-5.0
Propylene, ppbv	ND	4300	13000	0.2-0.7
Isobutane, ppbv	760000 (EH)	3200	9600	0.2-0.9
n-Butane, ppbv	1200000 (EH)	3200	9600	0.3-1.7
1-Butene, ppbv	BH	3200	9600	0.1-0.3
trans-2-Butene, ppbv	ND	3200	9600	
cis-2-Butene, ppbv	ND	3200	9600	
Isopentane, ppbv	1400000	2600	7700	
1-Pentene, ppbv	ND	2600	7700	
n-Pentane, ppbv	1300000	2600	7700	0.1-0.6
Isoprene, ppbv	4600	2600	7700	
trans-2-Pentene, ppbv	ND	2600	7700	
cis-2-Pentene, ppbv	ND	2600	7700	
2,2-Dimethylbutane, ppbv	120000	2100	6400	
Cyclopentane, ppbv	910000	2600	7700	
2,3-Dimethylbutane, ppbv	300000	2100	6400	
2-Methylpentane, ppbv	960000	2100	6400	
3-Methylpentane, ppbv	750000	2100	6400	
1-Hexene, ppbv	ND	2100	6400	<0.1-0.1
n-Hexane, ppbv	1300000	2100	6400	0.1-0.2
Methylcyclopentane, ppbv	3100000 (EH)	2100	6400	
2,4-Dimethylpentane, ppbv	100000	1800	5500	
Benzene, ppbv	4700000 (EH)	2100	6400	0.1-0.5
Cyclohexane, ppbv	3500000 (EH)	2100	6400	
2-Methylhexane, ppbv	370000	1800	5500	



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Laboratory No. 1929602-05 - continued
Sample Description Tedlar Bag 1501 - SKC 0.7L: Gas sample from Porter Gathering Plant Tank 15 (So Cal Gas);
Sample Comments GC-FID results should be considered estimates due to uncertainty associated with large dilution.
Sample Date 10/22/2019 **Received Date** 10/23/2019 **Analyzed Date** 10/23/2019

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

<u>Analyte, Unit</u>	<u>Result</u>	<u>MDL</u>	<u>MRL</u>	<u>Ambient Avg</u>
2,3-Dimethylpentane, ppbv	200000	1800	5500	
3-Methylhexane, ppbv	430000	1800	5500	
2,2,4-Trimethylpentane, ppbv	590000	1600	4800	
n-Heptane, ppbv	560000	1800	5500	0.1-0.2
Methylcyclohexane, ppbv	2500000 (EH)	1800	5500	
2,3,4-Trimethylpentane, ppbv	10000	1600	4800	
Toluene, ppbv	1200000 (EH)	1800	5500	0.1-0.6
2-Methylheptane, ppbv	95000	1600	4800	
3-Methylheptane, ppbv	45000	1600	4800	
n-Octane, ppbv	36000	1600	4800	<0.1-0.3
Ethylbenzene, ppbv	8200	1600	4800	0.1-0.2
m+p-Xylene, ppbv	29000	1600	4800	0.1-0.2
Styrene, ppbv	3000	1600	4800	<0.1-0.2
o-Xylene, ppbv	3800	1600	4800	0.1-0.2
n-Nonane, ppbv	1400	1400	4300	<0.1-0.1
Isopropylbenzene, ppbv	ND	1400	4300	
n-Propylbenzene, ppbv	ND	1400	4300	
m-Ethyltoluene, ppbv	ND	1400	4300	
p-Ethyltoluene, ppbv	ND	1400	4300	
1,3,5-Trimethylbenzene, ppbv	ND	1400	4300	
o-Ethyltoluene, ppbv	ND	1400	4300	
1,2,4-Trimethylbenzene, ppbv	ND	1400	4300	
n-Decane, ppbv	ND	1300	3800	<0.1-0.1
1,2,3-Trimethylbenzene, ppbv	ND	1400	4300	
m-Diethylbenzene, ppbv	ND	1300	3800	
p-Diethylbenzene, ppbv	ND	1300	3800	
n-Undecane, ppbv	ND	1200	3500	<0.1
n-Dodecane, ppbv	ND	1100	3200	<0.1

* J = Value is between method detection and reporting limits.



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Laboratory No.	1929602-05 - continued	
Sample Description	Tedlar Bag 1501 - SKC 0.7L: Gas sample from Porter Gathering Plant Tank 15 (So Cal Gas);	
Sample Comments	GC-FID results should be considered estimates due to uncertainty associated with large dilution.	
Sample Date 10/22/2019	Received Date 10/23/2019	Analyzed Date 10/23/2019



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Laboratory No. **1929602-07**
 Sample Description **Tedlar Bag 1520 - SKC 0. 7L: Ambient air sample near the source of leak**
 Sample Date **10/22/2019** Received Date **10/23/2019** Analyzed Date **10/23/2019**

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

<u>Analyte, Unit</u>	<u>Result</u>	<u>MDL</u>	<u>MRL</u>	<u>Ambient Avg</u>
Total NMOC, ppbC	7000	0.8	2.4	100-700
Total Calibrated, ppbC	5600	0.8	2.4	
Ethane, ppbv	980 (EH)	0.4	1.2	
Ethylene, ppbv	0.6	0.4	1.2	0.7-4.1
Acetylene, ppbv	ND	0.4	1.2	
Propane, ppbv	180 (EH)	0.3	0.8	0.4-5.0
Propylene, ppbv	0.3	0.3	0.8	0.2-0.7
Isobutane, ppbv	59	0.2	0.6	0.2-0.9
n-Butane, ppbv	30	0.2	0.6	0.3-1.7
1-Butene, ppbv	BH	0.2	0.6	0.1-0.3
trans-2-Butene, ppbv	ND	0.2	0.6	
cis-2-Butene, ppbv	ND	0.2	0.6	
Isopentane, ppbv	28	0.2	0.5	
1-Pentene, ppbv	ND	0.2	0.5	
n-Pentane, ppbv	5.2	0.2	0.5	0.1-0.6
Isoprene, ppbv	0.3	0.2	0.5	
trans-2-Pentene, ppbv	ND	0.2	0.5	
cis-2-Pentene, ppbv	ND	0.2	0.5	
2,2-Dimethylbutane, ppbv	2.0	0.1	0.4	
Cyclopentane, ppbv	3.9	0.2	0.5	
2,3-Dimethylbutane, ppbv	4.6	0.1	0.4	
2-Methylpentane, ppbv	20	0.1	0.4	
3-Methylpentane, ppbv	6.4	0.1	0.4	
1-Hexene, ppbv	0.1	0.1	0.4	<0.1-0.1
n-Hexane, ppbv	8.5	0.1	0.4	0.1-0.2
Methylcyclopentane, ppbv	24	0.1	0.4	
2,4-Dimethylpentane, ppbv	1.5	0.1	0.3	
Benzene, ppbv	58	0.1	0.4	0.1-0.5
Cyclohexane, ppbv	38	0.1	0.4	
2-Methylhexane, ppbv	4.9	0.1	0.3	
2,3-Dimethylpentane, ppbv	3.4	0.1	0.3	
3-Methylhexane, ppbv	6.2	0.1	0.3	



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Laboratory No. 1929602-07 - continued
Sample Description Tedlar Bag 1520 - SKC 0. 7L: Ambient air sample near the source of leak
Sample Date 10/22/2019 Received Date 10/23/2019 Analyzed Date 10/23/2019

Volatile Organic Compounds (VOCs) in Ambient Air by GC/FID

Analyte, Unit	Result	MDL	MRL	Ambient Avg
2,2,4-Trimethylpentane, ppbv	9.1	0.1	0.3	
n-Heptane, ppbv	12	0.1	0.3	0.1-0.2
Methylcyclohexane, ppbv	57	0.1	0.3	
2,3,4-Trimethylpentane, ppbv	0.5	0.1	0.3	
Toluene, ppbv	67	0.1	0.3	0.1-0.6
2-Methylheptane, ppbv	4.4	0.1	0.3	
3-Methylheptane, ppbv	2.5	0.1	0.3	
n-Octane, ppbv	4.0	0.1	0.3	<0.1-0.3
Ethylbenzene, ppbv	2.9	0.1	0.3	0.1-0.2
m+p-Xylene, ppbv	31 (LK)	0.1	0.3	0.1-0.2
Styrene, ppbv	0.7	0.1	0.3	<0.1-0.2
o-Xylene, ppbv	2.0	0.1	0.3	0.1-0.2
n-Nonane, ppbv	0.7	0.09	0.3	<0.1-0.1
Isopropylbenzene, ppbv	0.7	0.09	0.3	
n-Propylbenzene, ppbv	0.5	0.09	0.3	
m-Ethyltoluene, ppbv	0.6	0.09	0.3	
p-Ethyltoluene, ppbv	ND	0.09	0.3	
1,3,5-Trimethylbenzene, ppbv	0.3	0.09	0.3	
o-Ethyltoluene, ppbv	0.1	0.09	0.3	
1,2,4-Trimethylbenzene, ppbv	1.5 (LK)	0.09	0.3	
n-Decane, ppbv	0.2	0.08	0.2	<0.1-0.1
1,2,3-Trimethylbenzene, ppbv	0.3	0.09	0.3	
m-Diethylbenzene, ppbv	ND	0.08	0.2	
p-Diethylbenzene, ppbv	ND	0.08	0.2	
n-Undecane, ppbv	1.3	0.07	0.2	<0.1
n-Dodecane, ppbv	0.1	0.07	0.2	<0.1

* J = Value is between method detection and reporting limits.

BH = Interference/co-elution/misidentification, EH = Estimated; Exceeds Upper Range, LK = Analyte Identified; Reported Value May Be Biased High

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
SAMPLE ANALYSIS REQUEST**

DISTRICT INFORMATION
 INVOICE SOURCE 1929602
 LABORATORY NO. 1929602-IG

TO: SCAQMD LAB: X OTHER:

SOURCE NAME: So Cal Gas (Saddle Ridge Fire Investigation) I.D. No. _____

Source Address: 12801 Tampa Ave City: Northridge

Mailing Address: 12801 Tampa Ave City: Northridge Zip: 91326

Contact Person: Uliana Micovic Title: Prin. Env. Specialist Tel: 818-701-3499

Analysis Requested by: Thomas Lee Date: 10/22/2019

Approved by: Rafael Reynosa Office: Compliance Budget # _____

REASON REQUESTED: Court/Hearing Board Permit Pending Hazardous/Toxic Spill

Suspected Violation Rule(s) Other

Sample Collected by: Thomas Lee Date: 10/22/2019 Time: 1350-1520 hours

Specify the description and location where the sample was collected:

- 01 ID: 1350191022TL05 - SKC 0.7L: Produced gas sample from Sesnon Well #21 (Crimson Resources); 1 of 2 @ 1350 hours
- 02 ID: 1352191022TL05 - SKC 0.7L: Produced gas sample from Sesnon Well #21 (Crimson Resources); 2 of 2 @ 1352 hours
- 03 ID: 1443191022TL05 - SKC 0.7L: Produced gas sample from FF-11 Well (Fernando Fee-11) (So. Cal Gas); 1 of 2 @ 1443 hours
- 04 ID: 1450191022TL05 - SKC 0.7L: Produced gas sample from FF-11 Well (Fernando Fee-11)(So Cal Gas); 2 of 2 @ 1450 hours
- 05 ID: 1501191022TL05 - SKC 0.7L: Gas sample from Porter Gathering Plant Tank 15 (So Cal Gas); 1 of 2 @ 1501 hours
- 06 ID: 1505191022TL05 - SKC 0.7L: Gas sample from Porter Gathering Plant Tank 15 (So Cal Gas); 2 of 2 @ 1505 hours
- 07 ID: 1520191022TL05 - SKC 0.7L: Ambient air sample near the source of leak; 1 of 1 @ 1520 hours

Analysis Requested: TO-15 - TICs

Relinquished by	Received by	Firm/Agency	Date	Time
Thomas Lee	Uliana Garcia	South Coast AQMD	10/23/2019	0728

Remarks:

Four unique sources. Three samples were collected in duplicates, one sample was collected in singlet, totaling 7 sample bags. CC Results to: Rafael Reynosa, Jack Cheng, Joseph Liaw, Thomas Lee



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING AND ANALYSIS
REPORT OF LABORATORY ANALYSIS

(Page 1 of 4)

To: Rafael Reynosa
Sr. Enforcement Manager
Compliance & Enforcement

Laboratory No. 1929602-02, -04, -06

Requested By Thomas Lee

Rule No. NA

ST No. NA

Report Created 10/25/2019

Sampling Location

Southern California Gas Company
12801 Tampa Avenue
Porter Ranch, CA 91326

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS, AND RESULTS

Percent hydrogen (H₂), nitrogen (N₂), oxygen (O₂), and methane (CH₄) by SCAQMD Method 10.1 (GC-TCD)

See attached results and sample information.

Reviewed By:

Brad Parrack
Principal A.Q. Chemist
Laboratory Services

Date Reviewed:

10/25/19

Approved By:

Aaron Katzenstein, Ph.D.
Senior Manager
Laboratory Services
(909) 396-2219

Date Approved:

10/25/2019



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING AND ANALYSIS
REPORT OF LABORATORY ANALYSIS

(Page 2 of 4)

Laboratory No. 1929602-02
Sample Description Tedlar Bag - 1352 - SKC 0.7L: Produced gas sample from Sesnon Well #21 (Crimson Resources)
Analysis Comments No helium or hydrogen detected based on Run #242.

Sample Date 10/22/2019 **Received Date 10/23/2019** **Analyzed Date 10/23/2019**

Percent hydrogen (H2), nitrogen (N2), oxygen (O2), and methane (CH4) by SCAQMD Method 10.1 (GC-TCD)

Analyte, Unit	Result	Dilution	MDL	MRL
H2, %	ND	1	-	2
O2, %	17.5	1	-	2
N2, %	65.1	1	-	2
CH4, %	12.0	1	-	2

Laboratory No. 1929602-04
Sample Description Tedlar Bag - 1450 - SKC 0.7L: Produced gas sample from FF-11 Well (Fernando Fee-11)(So Cal Gas);
Analysis Comments Helium and hydrogen well below detection limit. Trace helium detected. Area count ratio of helium to hydrogen estimated to be roughly 1:4.

Sample Date 10/22/2019 **Received Date 10/23/2019** **Analyzed Date 10/23/2019**

Percent hydrogen (H2), nitrogen (N2), oxygen (O2), and methane (CH4) by SCAQMD Method 10.1 (GC-TCD)

Analyte, Unit	Result	Dilution	MDL	MRL
H2, %	< 0.02	2	-	4
O2, %	4.5	2	-	4
N2, %	11.1	2	-	4
CH4, %	81.9	2	-	4



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING AND ANALYSIS
REPORT OF LABORATORY ANALYSIS

(Page 3 of 4)

Laboratory No. 1929602-06
Sample Description Tedlar Bag - 1505 - SKC 0.7L: Gas sample from Porter Gathering Plant Tank 15 (So Cal Gas)
Analysis Comments Helium and hydrogen well below detection limit. Trace helium detected. Area count ratio of helium to hydrogen estimated to be roughly 1:1.

Sample Date 10/22/2019 **Received Date** 10/23/2019 **Analyzed Date** 10/23/2019

Percent hydrogen (H₂), nitrogen (N₂), oxygen (O₂), and methane (CH₄) by SCAQMD Method 10.1 (GC-TCD)

Analyte, Unit	Result	Dilution	MDL	MRL
H ₂ , %	ND	2	-	4
O ₂ , %	1.6	2	-	4
N ₂ , %	6.2	2	-	4
CH ₄ , %	84.9	2	-	4



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING AND ANALYSIS
REPORT OF LABORATORY ANALYSIS

(Page 4 of 4)

Laboratory No. 1929602-02, -04, -06

Percent hydrogen (H₂), nitrogen (N₂), oxygen (O₂), and methane (CH₄) by SCAQMD Method 10.1 (GC-TCD)

QUALITY CONTROL SUMMARY

CCV1 (CC122586)

Analyte, Unit

H₂, %
O₂, %
N₂, %
CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
0.98	0.944	0.04	PASS
1.07	1.03	0.04	PASS
1.19	0.959	0.23	PASS
0.83	1.01	0.18	PASS

CCV2 (CA03593)

Analyte, Unit

H₂, %
O₂, %
N₂, %
CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
25.23	25.34	0.11	PASS
NA	NA	NA	NA
NA	NA	NA	NA
49.10	49.00	0.10	PASS

CCV3 (CC122586)

Analyte, Unit

H₂, %
O₂, %
N₂, %
CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
0.98	0.944	0.04	PASS
1.01	1.03	0.02	PASS
1.01	0.959	0.05	PASS
0.92	1.01	0.09	PASS

CCV4 (CA03593)

Analyte, Unit

H₂, %
O₂, %
N₂, %
CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
25.19	25.34	0.15	PASS
NA	NA	NA	NA
NA	NA	NA	NA
48.56	49.00	0.44	PASS

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
SAMPLE ANALYSIS REQUEST**

DISTRICT INFORMATION
 INVOICE SOURCE 1929602
 LABORATORY NO. ~~1929602~~ IG

TO: SCAQMD LAB: X OTHER:

SOURCE NAME: So Cal Gas (Saddle Ridge Fire Investigation) I.D. No. _____

Source Address: 12801 Tampa Ave City: Northridge

Mailing Address: 12801 Tampa Ave City: Northridge Zip: 91326

Contact Person: Uliana Micovic Title: Prin. Env. Specialist Tel: 818-701-3499

Analysis Requested by: Thomas Lee Date: 10/22/2019

Approved by: Rafael Reynosa Office: Compliance Budget # _____

REASON REQUESTED: Court/Hearing Board Permit Pending Hazardous/Toxic Spill
 Suspected Violation Rule(s) Other

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Analysis Requested: TO-15 - TICs

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Thomas Lee	Uliana Garcia	South Coast AQMD ^{LAB}	10/23/2019	0728

Remarks:
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