



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. 1929404-01

Requested By Larry Israel

Rule No. NA

Sampling Location

Aliso Canyon
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:

Stephen Dutz
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



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MONITORING AND ANALYSIS
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Laboratory No. 1929404-01
Sample Description Grab, 6 L Stainless Steel Canister 51026, Aliso Canyon
Sample Comments Collected near source emissions by Socal Gas staff
Sample Date 10/19/2019 **Received Date 10/21/2019** **Analyzed Date 10/22/2019**

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	5100	1.6	4.8	100-700
Total Calibrated, ppbC	4600	1.6	4.8	
Ethane, ppbv	1500 (EH)	0.8	2.4	
Ethylene, ppbv	2.3	0.8	2.4	0.7-4.1
Acetylene, ppbv	ND	0.8	2.4	
Propane, ppbv	250 (EH)	0.5	1.6	0.4-5.0
Propylene, ppbv	2.5	0.5	1.6	0.2-0.7
Isobutane, ppbv	84	0.4	1.2	0.2-0.9
n-Butane, ppbv	38	0.4	1.2	0.3-1.7
1-Butene, ppbv	1.2 (LJ)	0.4	1.2	0.1-0.3
trans-2-Butene, ppbv	ND	0.4	1.2	
cis-2-Butene, ppbv	ND	0.4	1.2	
Isopentane, ppbv	30	0.3	1.0	
1-Pentene, ppbv	ND	0.3	1.0	
n-Pentane, ppbv	3.3	0.3	1.0	0.1-0.6
Isoprene, ppbv	0.4	0.3	1.0	
trans-2-Pentene, ppbv	ND	0.3	1.0	
cis-2-Pentene, ppbv	ND	0.3	1.0	
2,2-Dimethylbutane, ppbv	3.0	0.3	0.8	
Cyclopentane, ppbv	0.6	0.3	1.0	
2,3-Dimethylbutane, ppbv	4.5	0.3	0.8	
2-Methylpentane, ppbv	1.5	0.3	0.8	
3-Methylpentane, ppbv	4.4	0.3	0.8	
1-Hexene, ppbv	ND	0.3	0.8	<0.1-0.1
n-Hexane, ppbv	0.7	0.3	0.8	0.1-0.2
Methylcyclopentane, ppbv	1.1	0.3	0.8	
2,4-Dimethylpentane, ppbv	1.2	0.2	0.7	
Benzene, ppbv	1.3	0.3	0.8	0.1-0.5
Cyclohexane, ppbv	2.0	0.3	0.8	
2-Methylhexane, ppbv	0.4	0.2	0.7	
2,3-Dimethylpentane, ppbv	1.9	0.2	0.7	



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Laboratory No. 1929404-01 - continued
 Sample Description Grab, 6 L Stainless Steel Canister 51026, Aliso Canyon
 Sample Comments Collected near source emissions by Socal Gas staff
 Sample Date 10/19/2019 Received Date 10/21/2019 Analyzed Date 10/22/2019

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>
3-Methylhexane, ppbv	0.6	0.2	0.7	
2,2,4-Trimethylpentane, ppbv	0.5	0.2	0.6	
n-Heptane, ppbv	0.3	0.2	0.7	0.1-0.2
Methylcyclohexane, ppbv	1.2	0.2	0.7	
2,3,4-Trimethylpentane, ppbv	0.3	0.2	0.6	
Toluene, ppbv	1.1	0.2	0.7	0.1-0.6
2-Methylheptane, ppbv	0.3	0.2	0.6	
3-Methylheptane, ppbv	ND	0.2	0.6	
n-Octane, ppbv	0.5	0.2	0.6	<0.1-0.3
Ethylbenzene, ppbv	0.2	0.2	0.6	0.1-0.2
m+p-Xylene, ppbv	0.5	0.2	0.6	0.1-0.2
Styrene, ppbv	ND	0.2	0.6	<0.1-0.2
o-Xylene, ppbv	0.2	0.2	0.6	0.1-0.2
n-Nonane, ppbv	0.5	0.2	0.5	<0.1-0.1
Isopropylbenzene, ppbv	0.3	0.2	0.5	
n-Propylbenzene, ppbv	0.2	0.2	0.5	
m-Ethyltoluene, ppbv	0.7	0.2	0.5	
p-Ethyltoluene, ppbv	ND	0.2	0.5	
1,3,5-Trimethylbenzene, ppbv	0.5	0.2	0.5	
o-Ethyltoluene, ppbv	0.4	0.2	0.5	
1,2,4-Trimethylbenzene, ppbv	1.0	0.2	0.5	
n-Decane, ppbv	1.5	0.2	0.5	<0.1-0.1
1,2,3-Trimethylbenzene, ppbv	1.0	0.2	0.5	
m-Diethylbenzene, ppbv	0.3	0.2	0.5	
p-Diethylbenzene, ppbv	0.3	0.2	0.5	
n-Undecane, ppbv	1.2	0.1	0.4	<0.1
n-Dodecane, ppbv	0.8	0.1	0.4	<0.1

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

EH = Estimated; Exceeds Upper Range, LJ = Identification of Analyte is Acceptable; Reported Value is an Estimate

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

DISTRICT INFORMATION
 INVOICE SOURCE
 LABORATORY NO. 1929404-01

TO: SCAQMD LAB: OTHER:

SOURCE NAME: Aliso Canyon I.D. No. _____

Source Address: _____ City: _____

Mailing Address: _____ City: _____ Zip: _____

Contact Person: _____ Title: _____ Tel: 0=

Analysis Requested by: _____ Date: _____

Approved by: _____ Office: Compliance Budget #: 50-375

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

Suspected Violation: _____ Rule(s) _____ Other

Sample Collected by: SoCal gas staff Date: 10/19/19 Time: 11:33

Specify the description and location where the sample was collected:

Analysis Requested:

Relinquished by	Received by (#51326)	Firm/Agency	Date	Time
	<u>Louise Judd</u>	<u>SCAQMD</u>	<u>10-23-19</u>	<u>11:37</u>
<u>Louise Judd</u>	<u>Steve Boddie</u>	<u>SCAQMD</u>	<u>10-29-19</u>	<u>11:46</u>
<u>Steve Boddie</u>	<u>SCAQMD Lab Table</u>	<u>SCAQMD</u>	<u>10-19-19</u>	<u>20:55pt</u>
<u>SCAQMD Lab Table</u>	<u>Ningning Pan</u>	<u>SCAQMD</u>	<u>10-21-19</u>	<u>13:22</u>

Remarks: Please expedite immediately violation pending



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To: Rafael Reynosa
Sr. Enforcement Manager
Compliance & Enforcement

Laboratory No. 1929404-01

Requested By Larry Israel

Rule No. NA

ST No. NA

Report Created 10/25/2019

Sampling Location

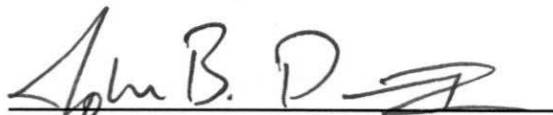
Aliso Canyon
12801 Tampa Avenue
Porter Ranch, CA 91326

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



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Laboratory No. 1929404-01
Sample Description Grab, 6 L Stainless Steel Canister - 51026, Aliso Canyon
Sample Comments Collected near source emissions by Socal Gas staff
Analysis Comments TCA analysis performed but not reported due to baseline rise during analysis,.

Sample Date 10/19/2019 **Received Date 10/21/2019** **Analyzed Date 10/21/2019**

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	1	-	2
O ₂ , %	20.9	1	-	2
N ₂ , %	78.2	1	-	2
CH ₄ , %	ND	1	-	2



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Laboratory No. 1929404-01

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%
1.01	0.944	0.07	PASS
1.05	1.03	0.02	PASS
1.05	0.959	0.09	PASS
0.99	1.01	0.02	PASS

CCV2 (CC73109)

Analyte, Unit

H₂, %

O₂, %

N₂, %

CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
NA	NA	NA	NA
24.93	24.63	0.30	PASS
5.15	4.93	0.22	PASS
NA	NA	NA	NA

CCV3 (FF130)

Analyte, Unit

H₂, %

O₂, %

N₂, %

CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
NA	NA	NA	NA
1.10	0.997	0.10	PASS
94.36	93.9	0.46	PASS
NA	NA	NA	NA

CCV4 (CC122586)

Analyte, Unit

H₂, %

O₂, %

N₂, %

CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
1.01	0.944	0.07	PASS
1.01	1.03	0.02	PASS
1.02	0.959	0.06	PASS
0.99	1.01	0.02	PASS

CCV5 (CC73109)

Analyte, Unit

H₂, %

O₂, %

N₂, %

CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
NA	NA	NA	NA
24.89	24.63	0.26	PASS
5.10	4.93	0.17	PASS
NA	NA	NA	NA



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Laboratory No. 1929404-01

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

QUALITY CONTROL SUMMARY

CCV6 (CA03593)

Analyte, Unit

H₂, %

O₂, %

N₂, %

CH₄, %

Measured	Theoretical	Absolute Difference	QC Limit ±0.5%
25.51	25.34	0.17	PASS
NA	NA	NA	NA
0.20	NA	0.20	PASS
49.13	49.00	0.13	PASS

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

DISTRICT INFORMATION
 INVOICE SOURCE
 LABORATORY NO. 1929404-01

TO: SCAQMD LAB: OTHER: _____
 SOURCE NAME: Aliso Canyon I.D. No. _____
 Source Address: _____ City: _____
 Mailing Address: _____ City: _____ Zip: _____
 Contact Person: _____ Title: _____ Tel: 0-

Analysis Requested by: _____ Date: _____
 Approved by: _____ Office: Compliance Budget #: 50-375
 REASON REQUESTED: Court/Hearing Board Permit Pending Hazardous/Toxic Spill
 Suspected Violation Rule(s) _____ Other

Sample Collected by: SoCal gas staff Date: 10/19/19 Time: 11:33

Specify the description and location where the sample was collected:

Analysis Requested:

Relinquished by	Received by (#51026)	Firm/Agency	Date	Time
	<u>Louise Joral</u>	SCAQMD	<u>10-20-19</u>	<u>11:37</u>
<u>Louise Joral</u>	<u>Steve Boddie</u>	SCAQMD	<u>10-21-19</u>	<u>11:46</u>
<u>Steve Boddie</u>	SCAQMD Lab Table	SCAQMD	<u>10-19-19</u>	<u>20:55pt</u>
SCAQMD Lab Table	<u>Ningqing Ran</u>	SCAQMD	<u>10-21-19</u>	<u>13:22</u>

Remarks: Please expedite immediately violation pending