



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. 1726101-01
Requested By Casey Williams

Sampling Location

Offshore odors
718 Central Ave.
Seal Beach, CA 90740

Rule No. 402
ST No. NA
Report Created 09/21/2017

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:

09/21/17

Approved By:

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

Date Approved:

9/21/17



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Laboratory No. 1726101-01
Sample Description SUMMA Canister 54657
Sample Comments Offshore odors
Extraction Comments High concentration analytes exceed calibration curve; should be viewed as estimates.
Sample Date 09/18/2017 **Received Date 09/18/2017** **Analyzed Date 09/19/2017**

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	7700	0.1	0.3	100-700
Total Calibrated, ppbC	7600	0.1	0.3	
Ethane (FID), ppbv	280	0.05	0.2	
Ethylene (FID), ppbv	0.5	0.05	0.2	0.7-4.1
Acetylene (FID), ppbv	0.5	0.05	0.2	
Propane (FID), ppbv	710	0.03	0.1	0.4-5.0
Propylene (FID), ppbv	<i>J (0.1)</i>	0.03	0.1	0.2-0.7
Isobutane (FID), ppbv	150	0.02	0.08	0.2-0.9
n-Butane (FID), ppbv	450	0.02	0.08	0.3-1.7
1-Butene (FID), ppbv	ND	0.02	0.08	0.1-0.3
trans-2-Butene (FID), ppbv	ND	0.02	0.08	
cis-2-Butene (FID), ppbv	ND	0.02	0.08	
Isopentane (FID), ppbv	130	0.02	0.06	
1-Pentene (FID), ppbv	<i>J (0.02)</i>	0.02	0.06	
n-Pentane (FID), ppbv	160	0.02	0.06	0.1-0.6
Isoprene (FID), ppbv	0.2	0.02	0.06	
trans-2-Pentene (FID), ppbv	ND	0.02	0.06	
cis-2-Pentene (FID), ppbv	ND	0.02	0.06	
2,2-Dimethylbutane (FID), ppbv	1.2	0.02	0.05	
Cyclopentane (FID), ppbv	5.0	0.02	0.06	
2,3-Dimethylbutane (FID), ppbv	4.7	0.02	0.05	
2-Methylpentane (FID), ppbv	28	0.02	0.05	
3-Methylpentane (FID), ppbv	21	0.02	0.05	
1-Hexene (FID), ppbv	ND	0.02	0.05	<0.1-0.1
n-Hexane (FID), ppbv	46	0.02	0.05	0.1-0.2
Methylcyclopentane (FID), ppbv	6.9	0.02	0.05	
2,4-Dimethylpentane (FID), ppbv	0.9	0.01	0.04	
Benzene (FID), ppbv	1.8	0.02	0.05	0.1-0.5
Cyclohexane (FID), ppbv	3.6	0.02	0.05	
2-Methylhexane (FID), ppbv	2.0	0.01	0.04	



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Laboratory No. 1726101-01 - continued
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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 (FID), ppbv	5.1	0.01	0.04	
3-Methylhexane (FID), ppbv	6.2	0.01	0.04	
2,2,4-Trimethylpentane (FID), ppbv	1.2	0.01	0.04	
n-Heptane (FID), ppbv	13	0.01	0.04	0.1-0.2
Methylcyclohexane (FID), ppbv	3.1	0.01	0.04	
2,3,4-Trimethylpentane (FID), ppbv	0.1	0.01	0.04	
Toluene (FID), ppbv	2.1	0.01	0.04	0.1-0.6
2-Methylheptane (FID), ppbv	1.8	0.01	0.04	
3-Methylheptane (FID), ppbv	1.3	0.01	0.04	
n-Octane (FID), ppbv	3.1	0.01	0.04	<0.1-0.3
Ethylbenzene (FID), ppbv	0.5	0.01	0.04	0.1-0.2
m+p-Xylene (FID), ppbv	1.3	0.01	0.04	0.1-0.2
Styrene (FID), ppbv	<i>J (0.03)</i>	0.01	0.04	<0.1-0.2
o-Xylene (FID), ppbv	0.5	0.01	0.04	0.1-0.2
n-Nonane (FID), ppbv	0.9	0.01	0.03	<0.1-0.1
Isopropylbenzene (FID), ppbv	0.07	0.01	0.03	
n-Propylbenzene (FID), ppbv	0.05	0.01	0.03	
m-Ethyltoluene (FID), ppbv	0.1	0.01	0.03	
p-Ethyltoluene (FID), ppbv	0.06	0.01	0.03	
1,3,5-Trimethylbenzene (FID), ppbv	0.08	0.01	0.03	
o-Ethyltoluene (FID), ppbv	0.07	0.01	0.03	
1,2,4-Trimethylbenzene (FID), ppbv	0.1	0.01	0.03	
n-Decane (FID), ppbv	0.2	0.01	0.03	<0.1-0.1
1,2,3-Trimethylbenzene (FID), ppbv	<i>J (0.03)</i>	0.01	0.03	
m-Diethylbenzene (FID), ppbv	ND	0.01	0.03	
p-Diethylbenzene (FID), ppbv	<i>J (0.03)</i>	0.01	0.03	
n-Undecane (FID), ppbv	0.06	0.009	0.03	<0.1
n-Dodecane (FID), ppbv	<i>J (0.01)</i>	0.008	0.02	<0.1

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

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

DISTRICT
 INVOICE
 LABOR

WO #: 1726101



TO: AQMD LAB: _____ OTHER: _____
 SOURCE NAME: Unknown - offshore odors I.D. No. _____
 Source Address: _____ City: Seal Beach
 Mailing Address: _____ City: Seal Beach Zip: 90740
 Contact Person: _____ Title: _____ Tel: _____

Analysis Requested by: Casey Williams Date: 9/18/2017
 Approved by: Harold Rank Office: Long Beach Budget #: 50-375
 REASON REQUESTED: Court/Hearing Board Permit Pending Hazardous/Toxic Spill
 Suspected Violation Rule(s) 402 Other

Sample Collected by: Dan Mackay (Seal Beach Fire Department) Date: 9/18/2017 Time: 1:05 pm

Specify the description and location where the sample was collected:

1. ~~Summa~~ ^{Summa 388} Canaster #54657 – Alleged offshore odors collected at 1:05 pm. Sample collected near flagpole at 718 Central Ave., Seal Beach
2. 1 Lilter Tedlar Smaple bag #1 - Alleged offshore odors collected at 1:08 pm. Sample collected near flagpole at 718 Central Ave., Seal Beach Serial # NX3233 ³⁸⁸ _{9/18/17}
 Petrom chem/Sulfur odors

Relinquished by	Received by	Firm/Agency	Date	Time
<u>Dan Mackay (Seal Beach F.D.)</u>	<u>Casey Williams</u>	<u>SCAQMD</u>	<u>9/18/2017</u>	<u>2:00 pm</u>
<u>Casey Williams</u>	<u>Harold Rank</u>	<u>SCAQMD</u>	<u>9/18/2017</u>	<u>3:32 pm</u>
<u>Harold Rank</u>	<u>John B. [Signature]</u>	<u>Laboratory (AQMD)</u>	<u>9/18/2017</u>	<u>4:57 pm</u>

Remarks: Please send analysis results to Rafael Reynosa (rreynosa@aqmd.gov), and Casey Williams (cwilliams@aqmd.gov)