

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

**MONITORING & ANALYSIS
REPORT OF LABORATORY ANALYSIS**

TO: Cher Snyder Assistant DEO Engineering and Compliance	LABORATORY NO: <u>1536522</u>
	REFERENCE NO: <u>GC6-3-69</u>
SAMPLE DESCRIPTION: Canisters 54045 54143 54188 54596	DATE SAMPLED: <u>12/30/15</u>
	DATE RECEIVED: <u>12/31/15</u>
	DATE ANALYZED: <u>01/05/16</u>
SAMPLE LOCATION: Highlands Community Pool Parking Lot	ANALYZED BY: <u>Yang Song</u>
	REQUESTED BY: <u>Sumner Wilson</u>

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Volatile Organic Compounds (VOC) by Gas Chromatography(GC)
and Flame Ionization Detection (FID)

Note: See attached for speciated results.

Date Approved: 1/14/16

Approved By: 

Rudy Eden, Sr. Manager
Laboratory Services Branch
(909) 396-2391

LAB NO: 1536522

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Quantitation of Organic Compounds by Gas Chromatography(GC) and
Flame Ionization Detection (FID)

Sample Date	12/30/15	12/30/15	
Canister	54045	54143	Ambient Air
Sampling Location	Highlands Pool	Highlands Pool	
Total NMOC, ppbC*	1620	2200	100-700 ppbC

<u>Compound</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>
ethylene	0.5	0.3	0.7-4.1
acetylene	0.6	0.4	
propane	45	59	0.4-5.0
propylene	<0.1	<0.1	0.2-0.7
isobutane	5.3	6.5	0.2-0.9
n-butane	5.9	7.2	0.3-1.7
1-butene	<0.1	<0.1	0.1-0.3
trans-2-butene	<0.1	<0.1	
cis-2-butene	<0.1	<0.1	
isopentane	2.5	3.0	
1-pentene	<0.1	<0.1	
n-pentane	11	12	0.1-0.6
isoprene	<0.1	<0.1	
trans-2-pentene	N.D.	N.D.	
cis-2-pentene	N.D.	<0.1	
2,2-dimethylbutane	<0.1	<0.1	
cyclopentane	0.1	0.1	
2,3-dimethylbutane	<0.1	0.1	
2-methylpentane	0.4	0.4	
3-methylpentane	0.2	0.3	
1-hexene	<0.1	<0.1	<0.1-0.1
n-hexane	0.4	0.5	0.1-0.2
methylcyclopentane	0.4	0.4	
2,4-dimethylpentane	<0.1	<0.1	
benzene	0.3	0.3	0.1-0.5
cyclohexane	0.4	0.4	
2-methylhexane	0.1	0.1	
2,3-dimethylpentane	<0.1	<0.1	
3-methylhexane	0.1	0.1	
2,2,4-trimethylpentane	0.1	0.1	

LAB NO: 1536522

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Quantitation of Organic Compounds by Gas Chromatography(GC) and
Flame Ionization Detection (FID)

Sample Date	12/30/15	12/30/15	
Canister	54045	54143	Ambient Air
Sampling Location	Highlands Pool	Highlands Pool	
Total NMOC, ppbC*	1620	2200	100-700 ppbC

<u>Compound</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>
n-heptane	0.2	0.2	0.1-0.2
methylcyclohexane	0.4	0.4	
2,3,4-trimethylpentane	<0.1	<0.1	
toluene	1.4	1.3	0.1-0.6
2-methylheptane	<0.1	<0.1	
3-methylheptane	<0.1	<0.1	
n-octane	<0.1	<0.1	<0.1-0.3
ethylbenzene	<0.1	<0.1	0.1-0.2
m+p-xylenes	0.1	0.1	0.1-0.2
styrene	<0.1	<0.1	<0.1-0.2
o-xylene	<0.1	<0.1	0.1-0.2
n-nonane	<0.1	<0.1	<0.1-0.1
isopropylbenzene	<0.1	<0.1	
n-propylbenzene	<0.1	<0.1	
m-ethyltoluene	<0.1	<0.1	
p-ethyltoluene	<0.1	<0.1	
1,3,5-trimethylbenzene	<0.1	<0.1	
o-ethyltoluene	<0.1	N.D.	
1,2,4-trimethylbenzene	<0.1	<0.1	
n-decane	<0.1	<0.1	<0.1-0.1
1,2,3-trimethylbenzene	<0.1	<0.1	
m-diethylbenzene	<0.1	<0.1	
p-diethylbenzene	<0.1	<0.1	
n-undecane	<0.1	<0.1	<0.1
n-dodecane	<0.1	<0.1	<0.1

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

* NMOC consists mostly of ethane.

LAB NO: 1536522

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Quantitation of Organic Compounds by Gas Chromatography(GC) and
Flame Ionization Detection (FID)

Sample Date	12/30/15	12/30/15	
Canister	54188	54596	Ambient Air
Sampling Location	Highlands Pool	Highlands Pool	
Total NMOC, ppbC*	3940	4810	100-700 ppbC

<u>Compound</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>
ethylene	0.2	<0.1	0.7-4.1
acetylene	0.4	0.4	
propane	107	132	0.4-5.0
propylene	<0.1	<0.1	0.2-0.7
isobutane	11	14	0.2-0.9
n-butane	13	16	0.3-1.7
1-butene	0.2	0.2	0.1-0.3
trans-2-butene	<0.1	N.D.	
cis-2-butene	<0.1	<0.1	
isopentane	4.7	5.3	
1-pentene	<0.1	<0.1	
n-pentane	16	17	0.1-0.6
isoprene	<0.1	0.1	
trans-2-pentene	N.D.	N.D.	
cis-2-pentene	N.D.	N.D.	
2,2-dimethylbutane	0.1	0.1	
cyclopentane	0.2	0.3	
2,3-dimethylbutane	0.2	0.2	
2-methylpentane	0.7	0.9	
3-methylpentane	0.4	0.5	
1-hexene	<0.1	N.D.	<0.1-0.1
n-hexane	0.8	1.0	0.1-0.2
methylcyclopentane	0.7	0.9	
2,4-dimethylpentane	<0.1	<0.1	
benzene	0.4	0.5	0.1-0.5
cyclohexane	0.7	0.8	
2-methylhexane	0.2	0.2	
2,3-dimethylpentane	<0.1	<0.1	
3-methylhexane	0.2	0.3	
2,2,4-trimethylpentane	0.2	0.2	

LAB NO: 1536522

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Quantitation of Organic Compounds by Gas Chromatography(GC) and
Flame Ionization Detection (FID)

Sample Date	12/30/15	12/30/15	
Canister	54188	54596	Ambient Air
Sampling Location	Highlands Pool	Highlands Pool	
Total NMOC, ppbC*	3940	4810	100-700 ppbC

<u>Compound</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>
n-heptane	0.3	0.4	0.1-0.2
methylcyclohexane	0.8	1.0	
2,3,4-trimethylpentane	<0.1	<0.1	
toluene	1.6	1.8	0.1-0.6
2-methylheptane	<0.1	0.1	
3-methylheptane	<0.1	<0.1	
n-octane	0.1	0.2	<0.1-0.3
ethylbenzene	<0.1	<0.1	0.1-0.2
m+p-xylenes	0.2	0.3	0.1-0.2
styrene	<0.1	<0.1	<0.1-0.2
o-xylene	<0.1	<0.1	0.1-0.2
n-nonane	<0.1	<0.1	<0.1-0.1
isopropylbenzene	<0.1	<0.1	
n-propylbenzene	<0.1	<0.1	
m-ethyltoluene	<0.1	<0.1	
p-ethyltoluene	<0.1	<0.1	
1,3,5-trimethylbenzene	<0.1	<0.1	
o-ethyltoluene	<0.1	<0.1	
1,2,4-trimethylbenzene	<0.1	<0.1	
n-decane	<0.1	<0.1	<0.1-0.1
1,2,3-trimethylbenzene	<0.1	<0.1	
m-diethylbenzene	<0.1	<0.1	
p-diethylbenzene	<0.1	<0.1	
n-undecane	<0.1	<0.1	<0.1
n-dodecane	N.D.	<0.1	<0.1

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

* NMOC consists mostly of ethane.

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

DISTR
 INVOI
 LAP A
 LABORA

WO #: 1536522

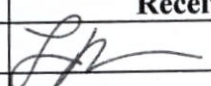

TO: SCAQMD LAB: OTHER: _____
 SOURCE NAME: _____ Southern California Gas Co. _____ I.D. No. _____
 Source Address: _____ 12801 Tampa Ave _____ City: _____ Porter Ranch _____
 Mailing Address: _____ City: _____ Zip: _____ 91326 _____
 Contact Person: _____ Title: _____ Tel: _____

Analysis Requested by: _____ Sumner Wilson _____ Date: _____ 12/31/15 _____
 Approved by: _____ Jason Low _____ Office: _____ Budget #: _____ 44716 _____
 REASON REQUESTED: Court/Hearing Board Permit Pending Hazardous/Toxic Spill
 Suspected Violation Rule(s) _____ Other _____

Sample Collected by: _____ Mike Koch _____ Date: _____ 12/31/15 _____ Time: _____ 12:30 _____

REQUESTED ANALYSIS: PAMS analysis

City/Location	Can#	Start day / time/ duration	Start vac	End vac
Highlands Community	54045	12-30-15/18:31/5 min	-30	-1
Highlands Community	54143 51443-um	12-30-15/19:26/5 min	-30	0
Highlands Community	54188	12-30-15/20:40/5 min	-30	0
Highlands Community	54596	12-30-15/21:24/5 min	-30	-2

Relinquished by	Received by	Firm/Agency	Date	Time
Mike Koch		SCAQMD Lab	12/31/15	15:26

Remarks: Samples collected by passive sampling via the XonTech 912 triggered by the Thermo 55i NMHC.
 Trigger is set to 20ppm
 Highlands community pool parking lot. Address: 12378 High Glen Way, Northridge CA 91326 (across from 12377)