

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**21865 Copley Drive, Diamond Bar CA 91765-1482**

**MONITORING & ANALYSIS**  
**REPORT OF LABORATORY ANALYSIS**

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<b>TO</b> Jason Low Atmospheric Measurements Manager Science and Technology Advancement	<b>LABORATORY NO</b>	<u>1616019</u>
<b>SAMPLE DESCRIBED AS</b> Oil well samples Canister 54553, 54612, 54603	<b>DATE RECEIVED</b>	<u>06/08/2016</u>
<b>SAMPLING LOCATION</b> Orphan Well Project 323 Firmin St. Los Angeles, CA 90004	<b>FACILITY ID NO</b>	<u>NA</u>
	<b>REQUESTED BY</b>	<u>Jason Low</u>
	<b>ST NO / PROJECT</b>	<u>NA</u>

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**Hydrocarbon speciation, excluding aromatic compounds, by cryo GC FID**  
**(normalized to NM/NEOC)**

Type	Canister	Canister	Canister
Number	<u>54553</u>	<u>54612</u>	<u>54603</u>
Pressure (Torr)	720	720	720
C <sub>3</sub> , ppmv	20.6	19.8	0.1
C <sub>4</sub> , ppmv	3.5	3.2	< 0.1
C <sub>5</sub> , ppmv	5.6	5.1	< 0.1
C <sub>6</sub> , ppmv	12.7	11.6	0.1
C <sub>7</sub> , ppmv	9.9	9.2	< 0.1
C <sub>8</sub> , ppmv	6.8	6.0	< 0.1
C <sub>9</sub> -C <sub>12</sub> , ppmv	5.5	5.1	< 0.1

Note: The reported values include BTEX (benzene, toluene, ethylbenzene and xylenes).

Date Approved: 6/29/16

Approved By: \_\_\_\_\_

*Solomon Teffera*  
Solomon Teffera, Acting Senior Manager  
Laboratory Services  
909-396-2199

9/16  
6-28-16



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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**MONITORING & ANALYSIS**  
**QUALITY CONTROL SUMMARY**

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<b>SAMPLE DESCRIBED AS</b>	<b>LABORATORY NO</b>	<u>1616019</u>
Oil well samples Canister 54553, 54612, 54603	<b>REQUESTED BY</b>	<u>Jason Low</u>

**Hydrocarbon speciation and benzene, toluene and xylenes by cryo GC FID,  
normalized to NM/NEOC.**

**QUALITY CONTROL -- End of run control recovery**

ALM056907	MDL	Theoretical	Measured	Percent Difference	QC Limit ±7.5%
Methane, ppmv	0.5	NA	NA	NA	NA
Ethylene, ppmv	0.2	4.97	5.11	2.76	PASS
Ethane, ppmv	0.2	NA	NA	NA	NA
Propane, ppmv	0.1	3.06	2.93	-4.22	PASS
Isobutane, ppmv	0.1	3.09	3.11	0.65	PASS
n-Butane, ppmv	0.1	3.05	3.02	-0.92	PASS
Isopentane, ppmv	0.1	1.87	2.00	6.74	PASS
n-Pentane, ppmv	0.1	2.1	2.09	-0.57	PASS
Hexane, ppmv	0.1	2.08	2.10	0.87	PASS
Heptane, ppmv	0.1	1.03	1.08	4.85	PASS
Octane, ppmv	0.1	1.04	1.07	2.50	PASS

*Note: QC limit for heptane and octane is 15%*

ALM056907		Theoretical	Measured	Percent Difference	QC Limit ±7.5%
Benzene, ppmv	0.2	5.27	5.42	2.92	PASS
Toluene, ppmv	0.0	1.03	1.03	-0.10	PASS
Ethylbenzene, ppmv	0.1	1.04	1.00	-4.23	PASS
m+p-Xylene, ppmv	0.1	1.04	0.99	-4.90	PASS
o-Xylene, ppmv	0.1	1.04	1.01	-3.08	PASS

**DATE ANALYZED** 6/9/2016  
**REFERENCE NO:** 16FI4AB  
FI4-62-128

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**21865 Copley Drive, Diamond Bar CA 91765-1482**

**MONITORING & ANALYSIS**  
**QUALITY CONTROL SUMMARY**

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<b>SAMPLE DESCRIBED AS</b>	<b>LABORATORY NO</b>	<u>1616019</u>
Oil well samples Canister 54553, 54612, 54603	<b>REQUESTED BY</b>	<u>Jason Low</u>

**Hydrocarbon speciation and benzene, toluene and xylenes by cryo GC FID,  
normalized to NM/NEOC.**

**QUALITY CONTROL -- End of run control recovery**

CA02738	MDL	Theoretical	Measured	Percent Difference	QC Limit ±7.5%
Methane, ppmv	0.5	NA	NA	NA	NA
Ethylene, ppmv	0.2	516	511	-0.91	PASS
Ethane, ppmv	0.2	NA	NA	NA	NA
Propane, ppmv	0.1	364	358	-1.67	PASS
Isobutane, ppmv	0.1	281.5	274	-2.50	PASS
n-Butane, ppmv	0.1	267.2	265	-0.70	PASS
Isopentane, ppmv	0.1	194.1	193	-0.34	PASS
n-Pentane, ppmv	0.1	200	196	-2.10	PASS
Hexane, ppmv	0.1	199.3	194	-2.44	PASS
Heptane, ppmv	0.1	112.5	111	-1.51	PASS
Octane, ppmv	0.1	26.9	26.1	-3.16	PASS

*Note: QC limit for heptane and octane is 15%*

CLM007749		Theoretical	Measured	Percent Difference	QC Limit ±7.5%
Benzene, ppmv	0.2	31.7	32	0.83	PASS
Toluene, ppmv	0.0	10	9.7	-2.98	PASS
Ethylbenzene, ppmv	0.1	10	9.5	-4.74	PASS
m+p-Xylene, ppmv	0.1	10	9.6	-4.49	PASS
o-Xylene, ppmv	0.1	10	9.6	-4.50	PASS

**DATE ANALYZED** 6/9/2016  
**REFERENCE NO:** 16FI4AB  
FI4-62-128

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

DISTRICT INFORMATION  
 IN  
 L  
 LAB

WO #: 1616019



TO: SCAQMD LAB:  OTHER:   
 SOURCE NAME: Orphan Well Project Dobuz I.D. No. \_\_\_\_\_  
 Source Address: 323 Firmin St., City: Los Angeles  
 Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Contact Person: Jason Low Title: Atmos. Meas. Manager Tel: 909-396-2269

Analysis Requested by: Jason Low Date: 06-08-16  
 Approved by: Jason Low Office: M&A Budget #: \_\_\_\_\_  
 REASON REQUESTED: Court/Hearing Board  Permit Pending  Hazardous/Toxic Spill   
 Suspected Violation Rule(s) \_\_\_\_\_ Other

Sample Collected by: Jason Low Date: 06-08-16 Time: 9:35am

SAMPLE DESCRIPTION: CEL Can. Aer  
54553 - Inside Foghorn 10 well - 30+ prob  
54612 - " " " "  
54554 - Surface of well 10:05  
54603 - Surface well  
used for Battelle well  
May be higher level

REQUESTED ANALYSIS: ± Methane  
± TO-15

Relinquished by	Received by	Firm/Agency	Date	Time
<u>[Signature]</u>	<u>[Signature]</u>	SCAQMD LAB	6/8/16	12:30

Remarks: