

Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : SCEC
 PROJECT NO. : 151542
 MATRIX : AIR
 UNITS : ppbV

SAMPLING DATE : 11/12/2015
 RECEIVING DATE : 11/13/2015
 ANALYSIS DATE : 11/13-14/2015
 REPORT DATE : 11/16/2015

Total Reduced Sulfur Compounds Analysis by SCAQMD 307.91

Client ID	Porter Ridge Park	Starter Set PS	Castle Bay Lane	Highlands 2	Porter Ranch Com. Schl.	Holleigh Benson Park
AAC ID	151542-84504	151542-84505	151542-84506	151542-84507	151542-84508	151542-84509
Canister Dil. Fac.	2.1	2.1	2.0	2.3	2.0	1.9
Analyte	Result	Result	Result	Result	Result	Result
Hydrogen Sulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Carbonyl Sulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Sulfur Dioxide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Methyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Ethyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Dimethyl Sulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Carbon Disulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Isopropyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
tert-Butyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
n-Propyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Methylethylsulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
sec-Butyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Thiophene	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
iso-Butyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Diethyl Sulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
n-Butyl Mercaptan	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Dimethyl Disulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
2-Methylthiophene	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
3-Methylthiophene	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Tetrahydrothiophene	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Bromothiophene	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Thiophenol	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Diethyl disulfide	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Total Unidentified Sulfur	< 3.32	< 3.35	< 3.15	< 3.63	< 3.08	< 3.07
Total Reduced Sulfurs as H ₂ S	< 3.32	< 3.35	< 3.15	< 3.631	< 3.08	< 3.07

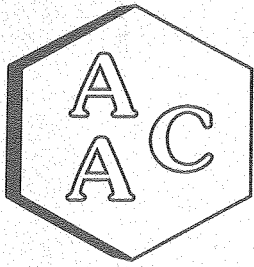
All compound's concentrations expressed in terms of H₂S (TRS does not include COS and SO₂)

Sample Detection Limit (SDL) is equal to Detection Limit (1.58 ppbV) x Canister Dil. Fac. x Analysis Dil. Fac.

Marcus Hueppe

Laboratory Director





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : SCEC
 PROJECT NO. : 151542
 MATRIX : AIR
 UNITS : ppbV


SAMPLING DATE : 11/12/2015
 RECEIVING DATE : 11/13/2015
 ANALYSIS DATE : 11/13-14/2015
 REPORT DATE : 11/16/2015

Total Reduced Sulfur Compounds Analysis by SCAQMD 307.91

Client ID	Porter Ranch Estates	Highlands-1	SS3H	SS5	SF2-5	R-1
AAC ID	151542-84510	151542-84511	151542-84512	151542-84513	151542-84514	151542-84515
Canister Dil. Fac.	1.9	2.0	1.9	2.1	2.1	1.9
Analyte	Result	Result	Result	Result	Result	Result
Hydrogen Sulfide	183	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Carbonyl Sulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Sulfur Dioxide	53.6	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Methyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Ethyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Dimethyl Sulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Carbon Disulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Isopropyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
tert-Butyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
n-Propyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Methylethylsulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
sec-Butyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Thiophene	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
iso-Butyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Diethyl Sulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
n-Butyl Mercaptan	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Dimethyl Disulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
2-Methylthiophene	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
3-Methylthiophene	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Tetrahydrothiophene	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Bromothiophene	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Thiophenol	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Diethyl disulfide	< 2.95	< 3.182	< 3.00	< 3.27	< 3.34	< 3.07
Total Unidentified Sulfur	< 2.95	< 3.18	< 3.00	< 3.27	< 3.34	< 3.07
Total Reduced Sulfurs as H ₂ S	183	< 3.18	< 3.00	< 3.27	< 3.34	< 3.07

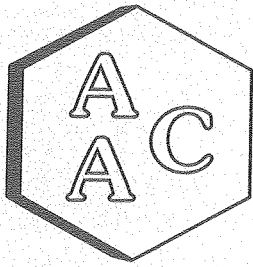
All compound's concentrations expressed in terms of H₂S (TRS does not include COS and SO₂)

Sample Detection Limit (SDL) is equal to Detection Limit (1.58 ppbV) x Canister Dil. Fac. x Analysis Dil. Fac.



 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT


CLIENT : SCEC
PROJECT NO. : 151542
MATRIX : AIR
UNITS : ppbV

SAMPLING DATE : 11/12/2015
RECEIVING DATE : 11/13/2015
ANALYSIS DATE : 11/13-14/2015
REPORT DATE : 11/16/2015

Total Reduced Sulfur Compounds Analysis by SCAQMD 307.91

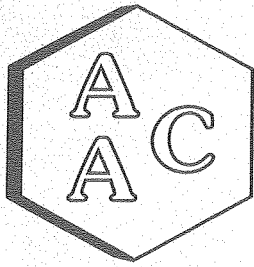
Client ID	SF-1	P40	T3 Road
AAC ID	151542-84516	151542-84517	151542-84518
Canister Dil. Fac.	2.2	2.0	2.1
Analyte	Result	Result	Result
Hydrogen Sulfide	< 3.49	< 3.23	< 3.32
Carbonyl Sulfide	< 3.49	< 3.23	< 3.32
Sulfur Dioxide	< 3.49	< 3.23	< 3.32
Methyl Mercaptan	< 3.49	< 3.23	< 3.32
Ethyl Mercaptan	< 3.49	< 3.23	< 3.32
Dimethyl Sulfide	< 3.49	< 3.23	< 3.32
Carbon Disulfide	< 3.49	< 3.23	< 3.32
Isopropyl Mercaptan	< 3.49	< 3.23	< 3.32
tert-Butyl Mercaptan	< 3.49	< 3.23	< 3.32
n-Propyl Mercaptan	< 3.49	< 3.23	< 3.32
Methylethylsulfide	< 3.49	< 3.23	< 3.32
sec-Butyl Mercaptan	< 3.49	< 3.23	< 3.32
Thiophene	< 3.49	< 3.23	< 3.32
iso-Butyl Mercaptan	< 3.49	< 3.23	< 3.32
Diethyl Sulfide	< 3.49	< 3.23	< 3.32
n-Butyl Mercaptan	< 3.49	< 3.23	< 3.32
Dimethyl Disulfide	< 3.49	< 3.23	< 3.32
2-Methylthiophene	< 3.49	< 3.23	< 3.32
3-Methylthiophene	< 3.49	< 3.23	< 3.32
Tetrahydrothiophene	< 3.49	< 3.23	< 3.32
Bromothiophene	< 3.49	< 3.23	< 3.32
Thiophenol	< 3.49	< 3.23	< 3.32
Diethyl disulfide	< 3.49	< 3.23	< 3.32
Total Unidentified Sulfur	< 3.49	< 3.23	< 3.32
Total Reduced Sulfurs as H ₂ S	< 3.49	< 3.23	< 3.32

All compound's concentrations expressed in terms of H₂S (TRS does not include COS and SO₂)
 Sample Detection Limit (SDL) is equal to Detection Limit (1.58 ppbV) x Canister Dil. Fac. x Analysis Dil. Fac.



 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : SCEC
PROJECT NO. : 151542
MATRIX : AIR
UNITS : ppbV


SAMPLING DATE : 11/12/2015
RECEIVING DATE : 11/13/2015
ANALYSIS DATE : 11/13-14/2015
REPORT DATE : 11/16/2015

Total Reduced Sulfur Compounds Analysis by SCAQMD 307.91

Client ID	T3 Road High Bag	T3 Road High Bag	Berma Rd Bag	Berma Rd Bag
AAC ID	151542-84519	151542-84520	151542-84521	151542-84522
Canister Dil. Fac.	NA	NA	NA	NA
Analyte	Result	Result	Result	Result
Hydrogen Sulfide	< 1.58	< 1.58	< 1.58	< 1.58
Carbonyl Sulfide	< 1.58	< 1.58	< 1.58	< 1.58
Sulfur Dioxide	< 1.58	< 1.58	< 1.58	< 1.58
Methyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
Ethyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
Dimethyl Sulfide	< 1.58	< 1.58	< 1.58	< 1.58
Carbon Disulfide	< 1.58	< 1.58	< 1.58	< 1.58
Isopropyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
tert-Butyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
n-Propyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
Methylethylsulfide	< 1.58	< 1.58	< 1.58	< 1.58
sec-Butyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
Thiophene	< 1.58	< 1.58	< 1.58	< 1.58
iso-Butyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
Diethyl Sulfide	< 1.58	< 1.58	< 1.58	< 1.58
n-Butyl Mercaptan	< 1.58	< 1.58	< 1.58	< 1.58
Dimethyl Disulfide	< 1.58	< 1.58	< 1.58	< 1.58
2-Methylthiophene	< 1.58	< 1.58	< 1.58	< 1.58
3-Methylthiophene	< 1.58	< 1.58	< 1.58	< 1.58
Tetrahydrothiophene	< 1.58	< 1.58	< 1.58	< 1.58
Bromothiophene	< 1.58	< 1.58	< 1.58	< 1.58
Thiophenol	< 1.58	< 1.58	< 1.58	< 1.58
Diethyl disulfide	< 1.58	< 1.58	< 1.58	< 1.58
Total Unidentified Sulfur	< 1.58	< 1.58	< 1.58	< 1.58
Total Reduced Sulfurs as H ₂ S	< 1.58	< 1.58	< 1.58	< 1.58

All compound's concentrations expressed in terms of H₂S (TRS does not include COS and SO₂)

Sample Detection Limit (SDL) is equal to Detection Limit (1.58 ppbV) x Canister Dil. Fac. x Analysis Dil. Fac.


 Marcus Hueppe
 Laboratory Director





SCEC
 1631 E. Saint Andrew Place Santa Ana, CA 92705
 (714) 282-8240 phone, (714) 282-8247 fax

Chain of Custody Record
Analytical Services Request

AAAC# 151542

Client/Project Name: So Cal Gas Company		Client Project No.: 2045.1063		ANALYSES REQUESTED		Laboratory Name: Atmospheric Analysis and Consulting, Inc.	
Project Location: Aliso Canyon		Contact: Rudy Nunez				Lab Contact: Marcus Hueppe	
Sampler/Signature) <i>[Signature]</i>		Time		SCAQMD 307.91 (Hydrogen Sulfide and Reduced Sulfur Compounds)		Modified Method 18/ PAMS	
SAMPLE		Date		Type		Time	
Sample #	Description	Date	Time				
1	Porter Ridge Park	11-12-15	1945	Canister	X	X	84504
2	Starter Set PS	11	2001	Canister	X	X	84505
3	Castle Bay Lane	11	2016	Canister	X	X	84506
4	Highlands 2	11	2034	Canister	X	X	84507
5	Porter Ranch Com. Schl.	11	2052	Canister	X	X	84508
6	Holleigh Benson Park	11	2110	Canister	X	X	84509
7	Porter Ranch Estates	11	2127	Canister	X	X	84510
8	Highlands-1	11	2146	Canister	X	X	84511
9	SS3H	11	1815	Canister	X	X	84512
10	SS5	11	1759	Canister	X	X	84513
11	SF2-5	11	1725	Canister	X	X	84514
12	R-1	11	1700	Canister	X	X	84515
13	SF-1	11	1744	Canister	X	X	84516
14	P40	11	1832	Canister	X	X	84517
15	T3 Road	11	1910	Canister	X	X	84518
Relinquished by (Signature): <i>[Signature]</i>		Company: Montrose AQS		Date: 11-12-15		Time: 2200	
Relinquished by (Signature): <i>[Signature]</i>		Company: ANE		Date: 11/13		Time: 830	
Relinquished by (Signature): <i>[Signature]</i>		Company: ANE		Date: 11/13		Time: 0830	



SCEC

1631 E. Saint Andrew Place Santa Ana, CA 92705
(714) 282-8240 phone, (714) 282-8247 fax

AN#151542

Chain of Custody Record
Analytical Services Request

Client/Project Name: So Cal Gas Company		Client Project No.: 2045.1063		ANALYSES REQUESTED		Laboratory Name: Atmospheric Analysis and Consulting, Inc.	
Project Location: Aliso Canyon		Sampler (Signature): <i>[Signature]</i>		SCAQMD 307.91 (Hydrogen Sulfide and Reduced Sulfur Compounds)		Lab Contact: Marcus Hueppe	
Contact: Rudy Nunez		Date: 11-12-11		Modified Method 18/ PAMS		Lab Phone No.: 805-650-1642	
Sample #		Description		Type		Turnaround time 24 Hour	
16		T3 Road High		Tedar Bag		Remarks: QA/QC DATA PACKAGE ON ALL SAMPLES	
17		T3 Road High		Tedar Bag		Email data to: munez@montrose-env.com	
18		Berma Rd		Tedar Bag			
19		Berma Rd		Tedar Bag			
20		Berma Rd		Tedar Bag			
21		Berma Rd		Tedar Bag			
22		Berma Rd		Tedar Bag			
23		Berma Rd		Tedar Bag			
24		Berma Rd		Tedar Bag			
25		Berma Rd		Tedar Bag			
26		Berma Rd		Tedar Bag			
27		Berma Rd		Tedar Bag			
28		Berma Rd		Tedar Bag			
29		Berma Rd		Tedar Bag			
30		Berma Rd		Tedar Bag			
31		Berma Rd		Tedar Bag			
32		Berma Rd		Tedar Bag			
33		Berma Rd		Tedar Bag			
34		Berma Rd		Tedar Bag			
35		Berma Rd		Tedar Bag			
36		Berma Rd		Tedar Bag			
37		Berma Rd		Tedar Bag			
38		Berma Rd		Tedar Bag			
39		Berma Rd		Tedar Bag			
40		Berma Rd		Tedar Bag			
41		Berma Rd		Tedar Bag			
42		Berma Rd		Tedar Bag			
43		Berma Rd		Tedar Bag			
44		Berma Rd		Tedar Bag			
45		Berma Rd		Tedar Bag			
46		Berma Rd		Tedar Bag			
47		Berma Rd		Tedar Bag			
48		Berma Rd		Tedar Bag			
49		Berma Rd		Tedar Bag			
50		Berma Rd		Tedar Bag			
51		Berma Rd		Tedar Bag			
52		Berma Rd		Tedar Bag			
53		Berma Rd		Tedar Bag			
54		Berma Rd		Tedar Bag			
55		Berma Rd		Tedar Bag			
56		Berma Rd		Tedar Bag			
57		Berma Rd		Tedar Bag			
58		Berma Rd		Tedar Bag			
59		Berma Rd		Tedar Bag			
60		Berma Rd		Tedar Bag			
61		Berma Rd		Tedar Bag			
62		Berma Rd		Tedar Bag			
63		Berma Rd		Tedar Bag			
64		Berma Rd		Tedar Bag			
65		Berma Rd		Tedar Bag			
66		Berma Rd		Tedar Bag			
67		Berma Rd		Tedar Bag			
68		Berma Rd		Tedar Bag			
69		Berma Rd		Tedar Bag			
70		Berma Rd		Tedar Bag			
71		Berma Rd		Tedar Bag			
72		Berma Rd		Tedar Bag			
73		Berma Rd		Tedar Bag			
74		Berma Rd		Tedar Bag			
75		Berma Rd		Tedar Bag			
76		Berma Rd		Tedar Bag			
77		Berma Rd		Tedar Bag			
78		Berma Rd		Tedar Bag			
79		Berma Rd		Tedar Bag			
80		Berma Rd		Tedar Bag			
81		Berma Rd		Tedar Bag			
82		Berma Rd		Tedar Bag			
83		Berma Rd		Tedar Bag			
84		Berma Rd		Tedar Bag			
85		Berma Rd		Tedar Bag			
86		Berma Rd		Tedar Bag			
87		Berma Rd		Tedar Bag			
88		Berma Rd		Tedar Bag			
89		Berma Rd		Tedar Bag			
90		Berma Rd		Tedar Bag			
91		Berma Rd		Tedar Bag			
92		Berma Rd		Tedar Bag			
93		Berma Rd		Tedar Bag			
94		Berma Rd		Tedar Bag			
95		Berma Rd		Tedar Bag			
96		Berma Rd		Tedar Bag			
97		Berma Rd		Tedar Bag			
98		Berma Rd		Tedar Bag			
99		Berma Rd		Tedar Bag			
100		Berma Rd		Tedar Bag			
Relinquished by (Signature): <i>[Signature]</i>		Company: Montrose AES		Date: 11/21/15		Time: 2200	
Relinquished by (Signature): <i>[Signature]</i>		Company: MHC		Date: 11/13/15		Time: 6:58	
Relinquished by (Signature): <i>[Signature]</i>		Company: MHC		Date: 11/13/15		Time: 0830	