

Atmospheric Analysis & Consulting, Inc.

CLIENT : Sacramento Metropolitan AQMD
PROJECT SITE : AB617 VOC Analysis
PROJECT NO. : Contract 2019-00000079
AAC PROJECT NO. : 201561
REPORT DATE : 09/21/2020

On September 26, 2020, Atmospheric Analysis & Consulting, Inc. received four (4) Six-Liter Silonite Canisters for hydrocarbons analysis (C₂-C₁₂) PAMS Protocol by GC/MS/FID. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

This section provides information about the sample such as where the sample was collected, the number assigned by the lab, and the canister pressure as received by the lab.

Sampling Interval	Lab No.	Receipt Pressure (mmHg)
1229-ImpactCh	201561-11854	757.6
1279-VFW	201561-11855	758.3
1236-Station56	201561-11856	202.5
1190-Sump50	201561-11857	228.6

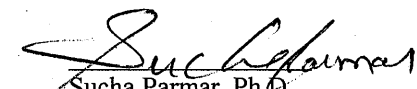
An initial reading of the canisters' pressures were taken and recorded. Holding times for preparation and analysis were complied with.

Hydrocarbons analysis by GC/MS/FID – Up to a 500mL aliquot of sample is concentrated, put through a water and CO₂ management system, cryofocused and injected into the GC/MS/FID for analysis following EPA Method TO-14A while additionally adhering to the EPA PAMS Technical Assistance Document protocol as specified in the SOW.

No problems were encountered during receiving, preparation and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# PAMS.09.

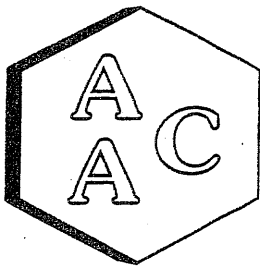
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Technical Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.


Sucha Parmar, Ph.D.
Technical Director

This report consists of 19 pages.





Atmospheric Analysis & Consulting, Inc.

This section shows the project number assigned by the lab and the units the data is reported in.

This section shows the date the sample was received and the date the data was reported.

CLIENT : Sacramento Metropolitan AQMD
 PROJECT NO : 201561
 MATRIX : AIR
 UNITS : PPB (v/v)

Laboratory Analysis Report

These sections show the sample dates, site, and the canister dilution factor applied to all data as calculated by the lab.

DATE RECEIVED : 08/26/2020
 DATE REPORTED : 09/21/2020

This column shows the unitless method reporting limit as calculated by the lab

HYDROCARBONS (C2-C12) SPECIATED

Client ID	1229-ImpactCh			Sample Reporting Limit (SRL) (MRLxDF's)	1279-VFW			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	201561-11854				201561-11855				
Date Sampled	08/19/2020				08/19/2020				
Date Analyzed	09/15/2020				09/15/2020				
Can Dilution Factor	1.34				1.34				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Ethylene	2.23		1.0	0.67	2.20		1.0	0.67	0.50
Acetylene	0.97		1.0	0.67	<SRL	U	1.0	0.67	0.50
Ethane	4.30		1.0	0.67	2.86		1.0	0.67	0.50
Propylene	0.71		1.0	0.45	0.69		1.0	0.45	0.33
Propane	3.29		1.0	0.45	1.86		1.0	0.45	0.33
Isobutane	<SRL	U	1.0	0.34	<SRL	U	1.0	0.34	0.25
1-Butene	<SRL	U	1.0	0.34	<SRL	U	1.0	0.34	0.25
n-Butane	0.77		1.0	0.34	0.88		1.0	0.34	0.25
trans-2-Butene	<SRL	U	1.0				1.0	0.34	0.25
cis-2-Isoprene	<SRL	U	1.0				1.0	0.34	0.25
1-Pentene	1.19		1.0				1.0	0.27	0.20
n-Pentane	<SRL	U	1.0				1.0	0.27	0.20
Isoprene	278		20	5.36	0.76		1.0	0.27	0.20
trans-2-Pentene	0.79		1.0	0.27	0.76		1.0	0.27	0.20
cis-2-Pentene	<SRL	U	1.0				1.0	0.27	0.20
2,2-Dimethylpropane	<SRL	U	1.0				1.0	0.22	0.17
Cyclopentane	<SRL	U	1.0				1.0	0.27	0.20
2,3-Dimethylbutane			1.0				1.0	0.22	0.17
2-Methylpentane			1.0	0.22	0.68		1.0	0.22	0.17
3-Methylpentane			1.0	0.22	0.27		1.0	0.22	0.17
1-Hexene			1.0	0.22	<SRL	U	1.0	0.22	0.17
n-Hexane			1.0	0.22	0.24		1.0	0.22	0.17
Methylcyclopentane			1.0	0.22	0.26		1.0	0.22	0.17
2,4-Dimethylpentane			1.0	0.19	<SRL	U	1.0	0.19	0.14
Benzene	0.54		1.0	0.22	0.37		1.0	0.22	0.17
Cyclohexane	0.78		1.0	0.22	<SRL	U	1.0	0.22	0.17
2-Methylhexane	0.37		1.0	0.19	<SRL	U	1.0	0.19	0.14
2,3-Dimethylpentane	0.20		1.0	0.19	<SRL	U	1.0	0.19	0.14
3-Methylhexane	0.58		1.0	0.19	0.47		1.0	0.19	0.14
2,2,4-Trimethylpentane	0.20		1.0	0.17	0.80		1.0	0.17	0.13
n-Heptane	0.48		1.0	0.19	<SRL	U	1.0	0.19	0.14
Methylcyclohexane	<SRL	U	1.0	0.19	<SRL	U	1.0	0.19	0.14
2,3,4-Trimethylpentane	0.29		1.0	0.17	1.62		1.0	0.17	0.13

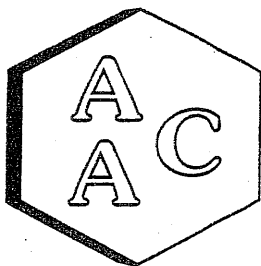
This column shows the 24-hr concentrations, in the units given above, that were sampled in the community.

This column includes codes applied by the lab if there any additional information necessary for the data user. The description of the code is at the end of the table.

Sample reporting limits are the method reporting limit multiplied by the dilution factor.

This column is the unitless analysis dilution factor calculated by the lab during the analysis, separate from the can dilution factor.





Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report


CLIENT : Sacramento Metropolitan AQMD
 PROJECT NO : 201561
 MATRIX : AIR
 UNITS : PPB (v/v)

DATE RECEIVED : 08/26/2020
 DATE REPORTED : 09/21/2020

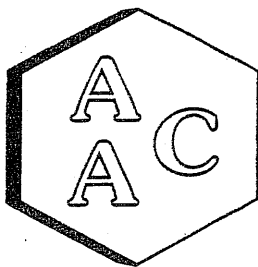
HYDROCARBONS (C2-C12) SPECIATED

Client ID	1229-ImpactCh			Sample Reporting Limit (SRL) (MRLxDF's)	1279-VFW			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	AAC ID	Result	Qualifier		Analysis DF	Result	Qualifier		
	201561-11854				201561-11855				
Date Sampled	08/19/2020				08/19/2020				
Date Analyzed	09/15/2020				09/15/2020				
Can Dilution Factor	1.34				1.34				
Toluene	7.05		1.0	0.19	2.31		1.0	0.19	0.14
2-Methylheptane	<SRL	U	1.0	0.17	<SRL	U	1.0	0.17	0.13
3-Methylheptane	<SRL	U	1.0	0.17	<SRL	U	1.0	0.17	0.13
n-Octane	<SRL	U	1.0	0.17	<SRL	U	1.0	0.17	0.13
Ethylbenzene	0.26		1.0	0.17	0.28		1.0	0.17	0.13
m/p-Xylenes	0.60		1.0	0.17	0.73		1.0	0.17	0.13
Styrene	<SRL	U	1.0	0.17	<SRL	U	1.0	0.17	0.13
o-Xylene	0.25		1.0	0.17	0.23		1.0	0.17	0.13
Nonane	<SRL	U	1.0	0.15	<SRL	U	1.0	0.15	0.11
Isopropylbenzene	<SRL	U	1.0	0.15	<SRL	U	1.0	0.15	0.11
n-Propylbenzene	<SRL	U	1.0	0.15	<SRL	U	1.0	0.15	0.11
m-Ethyltoluene	<SRL	U	1.0	0.15	<SRL	U	1.0	0.15	0.11
p-Ethyltoluene	<SRL	U	1.0	0.15	<SRL	U	1.0	0.15	0.11
1,3,5-Trimethylbenzene	0.16		1.0	0.15	0.62		1.0	0.15	0.11
o-Ethyltoluene	<SRL	U	1.0	0.15	<SRL	U	1.0	0.15	0.11
1,2,4-Trimethylbenzene	<SRL	U	1.0	0.15	0.17		1.0	0.15	0.11
n-Decane	<SRL	U	1.0	0.13	<SRL	U	1.0	0.13	0.10
1,2,3-Trimethylbenzene	<SRL	U	1.0	0.15	0.32		1.0	0.15	0.11
m-Diethylbenzene	<SRL	U	1.0	0.13	0.19		1.0	0.13	0.10
p-Diethylbenzene	<SRL	U	1.0	0.13	<SRL	U	1.0	0.13	0.10
n-Undecane	<SRL	U	1.0	0.12	<SRL	U	1.0	0.12	0.09
n-Dodecane	<SRL	U	1.0	0.11	<SRL	U	1.0	0.11	0.08

U - Compound was analyzed for, but was not detected at or above the SRL.


 Sucha Parmar, Ph.D.
 Technical Director





Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Sacramento Metropolitan AQMD
 PROJECT NO : 201561
 MATRIX : AIR
 UNITS : ug/m3

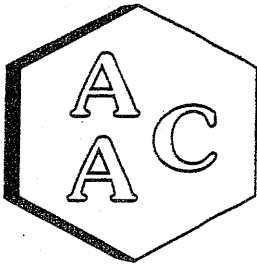
DATE RECEIVED : 08/26/2020
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This part of the report is in different units than above.

HYDROCARBONS (C2-C12) SPECIATED

Client ID	1229-ImpactCh			Sample Reporting Limit (SRL) (MRLxDF's)	1279-VFW			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	AAC ID	Result	Qualifier		Analysis DF	Result	Qualifier		
	201561-11854				201561-11855				
Date Sampled	08/19/2020				08/19/2020				
Date Analyzed	09/15/2020				09/15/2020				
Can Dilution Factor	1.34				1.34				
Ethylene	2.55		1.0	0.77	2.53		1.0	0.77	0.57
Acetylene	1.03		1.0	0.71	<SRL	U	1.0	0.72	0.53
Ethane	5.28		1.0	0.82	3.51		1.0	0.83	0.61
Propylene	1.21		1.0	0.77	1.19		1.0	0.77	0.57
Propane	5.93		1.0	0.81	3.36		1.0	0.81	0.60
Isobutane	<SRL	U	1.0	0.80	<SRL	U	1.0	0.80	0.59
1-Butene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
n-Butane	1.83		1.0	0.80	2.09		1.0	0.80	0.59
trans-2-Butene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
cis-2-Butene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
Isopentane	3.50		1.0	0.79	7.11		1.0	0.79	0.59
1-Pentene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
n-Pentane	820		20	15.8	2.24		1.0	0.79	0.59
Isoprene	2.2		1.0	0.75	2.11		1.0	0.75	0.56
trans-2-Pentene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
cis-2-Pentene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
2,2-Dimethylbutane	<SRL	U	1.0	0.79	<SRL	U	1.0	0.79	0.59
Cyclopentane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
2,3-Dimethylbutane	<SRL	U	1.0	0.79	<SRL	U	1.0	0.79	0.59
2-Methylpentane	1.95		1.0	0.79	2.41		1.0	0.79	0.59
3-Methylpentane	0.81		1.0	0.79	0.95		1.0	0.79	0.59
1-Hexene	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
n-Hexane	0.81		1.0	0.79	0.83		1.0	0.79	0.59
Methylcyclopentane	0.81		1.0	0.77	0.89		1.0	0.77	0.57
2,4-Dimethylpentane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.79	0.59
Benzene	1.73		1.0	0.71	1.17		1.0	0.72	0.53
Cyclohexane	2.69		1.0	0.77	<SRL	U	1.0	0.77	0.57
2-Methylhexane	1.51		1.0	0.78	<SRL	U	1.0	0.79	0.59
2,3-Dimethylpentane	0.80		1.0	0.78	<SRL	U	1.0	0.79	0.59
3-Methylhexane	2.39		1.0	0.78	1.91		1.0	0.79	0.59
2,2,4-Trimethylpentane	0.95		1.0	0.78	3.74		1.0	0.78	0.58
n-Heptane	1.97		1.0	0.78	<SRL	U	1.0	0.79	0.59
Methylcyclohexane	<SRL	U	1.0	0.77	<SRL	U	1.0	0.77	0.57
2,3,4-Trimethylpentane	1.36		1.0	0.78	7.56		1.0	0.78	0.58





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Laboratory Analysis Report

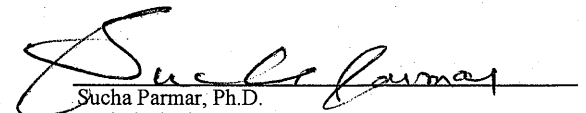
CLIENT : Sacramento Metropolitan AQMD
PROJECT NO : 201561
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 08/26/2020
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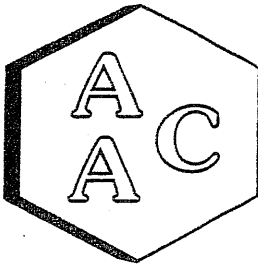
HYDROCARBONS (C2-C12) SPECIATED

Client ID	1229-ImpactCh			Sample Reporting Limit (SRL) (MRLxDF's)	1279-VFW			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	201561-11854				201561-11855				
Date Sampled	08/19/2020				08/19/2020				
Date Analyzed	09/15/2020				09/15/2020				
Can Dilution Factor	1.34			1.34					
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Toluene	26.6		1.0	0.72	8.69		1.0	0.72	0.54
2-Methylheptane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58
3-Methylheptane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58
n-Octane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58
Ethylbenzene	1.14		1.0	0.73	1.21		1.0	0.73	0.54
m/p-Xylenes	2.58		1.0	0.73	3.19		1.0	0.73	0.54
Styrene	<SRL	U	1.0	0.71	<SRL	U	1.0	0.72	0.53
o-Xylene	1.11		1.0	0.73	1.00		1.0	0.73	0.54
Nonane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58
Isopropylbenzene	<SRL	U	1.0	0.73	<SRL	U	1.0	0.73	0.55
n-Propylbenzene	<SRL	U	1.0	0.73	<SRL	U	1.0	0.73	0.55
m-Ethyltoluene	<SRL	U	1.0	0.73	<SRL	U	1.0	0.73	0.55
p-Ethyltoluene	<SRL	U	1.0	0.73	<SRL	U	1.0	0.73	0.55
1,3,5-Trimethylbenzene	0.78		1.0	0.73	3.05		1.0	0.73	0.55
o-Ethyltoluene	<SRL	U	1.0	0.73	<SRL	U	1.0	0.73	0.55
1,2,4-Trimethylbenzene	<SRL	U	1.0	0.73	0.86		1.0	0.73	0.55
n-Decane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58
1,2,3-Trimethylbenzene	<SRL	U	1.0	0.73	1.56		1.0	0.73	0.55
m-Diethylbenzene	<SRL	U	1.0	0.74	1.04		1.0	0.74	0.55
p-Diethylbenzene	<SRL	U	1.0	0.74	<SRL	U	1.0	0.74	0.55
n-Undecane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58
n-Dodecane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.78	0.58

U - Compound was analyzed for, but was not detected at or above the SRL.


 Sucha Parmar, Ph.D.
 Technical Director





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Laboratory Analysis Report

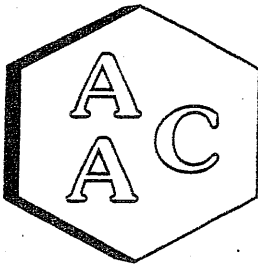
CLIENT : Sacramento Metropolitan AQMD
PROJECT NO : 201561
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 08/26/2020
DATE REPORTED : 09/21/2020

HYDROCARBONS (C2-C12) SPECIATED

<i>Client ID</i>		1236-Station56			1190-Sump50			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
<i>AAC ID</i>		201561-11856			201561-11857				
<i>Date Sampled</i>		08/19/2020			08/19/2020				
<i>Date Analyzed</i>		09/15/2020			09/15/2020				
<i>Can Dilution Factor</i>		8.32			4.45				
	Result	Qualifier	Analysis DF	Limit (SRL) (MRLxDF's)	Result	Qualifier	Analysis DF		
Ethylene	3.15		1.0	2.52	3.54		1.0	2.22	0.50
Acetylene	<SRL	U	1.0	2.52	<SRL	U	1.0	2.22	0.50
Ethane	4.53		1.0	2.52	5.67		1.0	2.22	0.50
Propylene	<SRL	U	1.0	1.68	<SRL	U	1.0	1.48	0.33
Propane	5.94		1.0	1.68	5.32		1.0	1.48	0.33
Isobutane	<SRL	U	1.0	1.26	<SRL	U	1.0	1.11	0.25
1-Butene	<SRL	U	1.0	1.26	<SRL	U	1.0	1.11	0.25
n-Butane	<SRL	U	1.0	1.26	<SRL	U	1.0	1.11	0.25
trans-2-Butene	<SRL	U	1.0	1.26	<SRL	U	1.0	1.11	0.25
cis-2-Butene	<SRL	U	1.0	1.26	<SRL	U	1.0	1.11	0.25
Isopentane	1.52		1.0	1.01	2.52		1.0	0.89	0.20
1-Pentene	<SRL	U	1.0	1.01	<SRL	U	1.0	0.89	0.20
n-Pentane	<SRL	U	1.0	1.01	1.55		1.0	0.89	0.20
Isoprene	<SRL	U	1.0	1.01	<SRL	U	1.0	0.89	0.20
trans-2-Pentene	<SRL	U	1.0	1.01	<SRL	U	1.0	0.89	0.20
cis-2-Pentene	<SRL	U	1.0	1.01	<SRL	U	1.0	0.89	0.20
2,2-Dimethylbutane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
Cyclopentane	<SRL	U	1.0	1.01	<SRL	U	1.0	0.89	0.20
2,3-Dimethylbutane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
2-Methylpentane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
3-Methylpentane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
1-Hexene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
n-Hexane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
Methylcyclopentane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
2,4-Dimethylpentane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.64	0.14
Benzene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
Cyclohexane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.74	0.17
2-Methylhexane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.64	0.14
2,3-Dimethylpentane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.64	0.14
3-Methylhexane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.64	0.14
2,2,4-Trimethylpentane	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
n-Heptane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.64	0.14
Methylcyclohexane	<SRL	U	1.0	0.72	<SRL	U	1.0	0.64	0.14
2,3,4-Trimethylpentane	1.35		1.0	0.63	2.20		1.0	0.56	0.13





Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

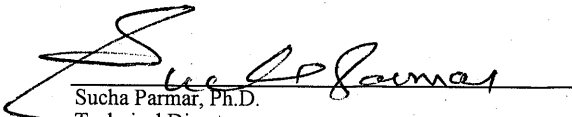
CLIENT : Sacramento Metropolitan AQMD
PROJECT NO : 201561
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 08/26/2020
DATE REPORTED : 09/21/2020

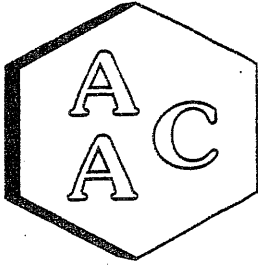
HYDROCARBONS (C2-C12) SPECIATED

Client ID		1236-Station56			1190-Sump50			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID		201561-11856			201561-11857				
Date Sampled		08/19/2020			08/19/2020				
Date Analyzed		09/15/2020			09/15/2020				
Can Dilution Factor		8.32			4.45				
	Result	Qualifier	Analysis DF	Sample Reporting Limit (SRL) (MRLxDF's)	Result	Qualifier	Analysis DF		
Toluene	<SRL	U	1.0	0.72	3.11		1.0	0.64	0.14
2-Methylheptane	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
3-Methylheptane	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
n-Octane	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
Ethylbenzene	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
m/p-Xylenes	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
Styrene	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
o-Xylene	<SRL	U	1.0	0.63	<SRL	U	1.0	0.56	0.13
Nonane	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
Isopropylbenzene	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
n-Propylbenzene	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
m-Ethyltoluene	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
p-Ethyltoluene	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
1,3,5-Trimethylbenzene	<SRL	U	1.0	0.56	0.80		1.0	0.49	0.11
o-Ethyltoluene	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
1,2,4-Trimethylbenzene	<SRL	U	1.0	0.56	<SRL	U	1.0	0.49	0.11
n-Decane	<SRL	U	1.0	0.50	<SRL	U	1.0	0.44	0.10
1,2,3-Trimethylbenzene	<SRL	U	1.0	0.56	0.53		1.0	0.49	0.11
m-Diethylbenzene	<SRL	U	1.0	0.50	<SRL	U	1.0	0.44	0.10
p-Diethylbenzene	<SRL	U	1.0	0.50	<SRL	U	1.0	0.44	0.10
n-Undecane	<SRL	U	1.0	0.46	<SRL	U	1.0	0.40	0.09
n-Dodecane	<SRL	U	1.0	0.42	<SRL	U	1.0	0.37	0.08

U - Compound was analyzed for, but was not detected at or above the SRL.


 Sucha Parmar, Ph.D.
 Technical Director





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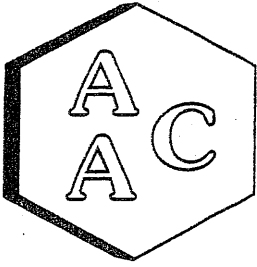
Laboratory Analysis Report

CLIENT : Sacramento Metropolitan AQMD
 PROJECT NO : 201561
 MATRIX : AIR
 UNITS : ug/m3

DATE RECEIVED : 08/26/2020
 DATE REPORTED : 09/21/2020

HYDROCARBONS (C2-C12) SPECIATED

Client ID	1236-Station56			Sample Reporting Limit (SRL) (MRLxDF's)	1190-Sump50			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	AAC ID	Result	Qualifier		Analysis DF	Result	Qualifier		
Date Sampled	08/19/2020			2.88	08/19/2020			2.55	0.57
Date Analyzed	09/15/2020			2.68	09/15/2020			2.37	0.53
Can Dilution Factor	8.32			3.09	4.45			2.73	0.61
Ethylene	3.61		1.0	2.88	4.06		1.0	2.55	0.57
Acetylene	<SRL	U	1.0	2.68	<SRL	U	1.0	2.37	0.53
Ethane	5.57		1.0	3.09	6.97		1.0	2.73	0.61
Propylene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
Propane	10.7		1.0	3.02	9.60		1.0	2.67	0.60
Isobutane	<SRL	U	1.0	2.99	<SRL	U	1.0	2.64	0.59
1-Butene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
n-Butane	<SRL	U	1.0	2.99	<SRL	U	1.0	2.64	0.59
trans-2-Butene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
cis-2-Butene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
Isopentane	4.48		1.0	2.97	7.43		1.0	2.62	0.59
1-Pentene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
n-Pentane	<SRL	U	1.0	2.97	4.57		1.0	2.62	0.59
Isoprene	<SRL	U	1.0	2.80	<SRL	U	1.0	2.48	0.56
trans-2-Pentene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
cis-2-Pentene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
2,2-Dimethylbutane	<SRL	U	1.0	2.95	<SRL	U	1.0	2.61	0.59
Cyclopentane	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
2,3-Dimethylbutane	<SRL	U	1.0	2.95	<SRL	U	1.0	2.61	0.59
2-Methylpentane	<SRL	U	1.0	2.95	<SRL	U	1.0	2.61	0.59
3-Methylpentane	<SRL	U	1.0	2.95	<SRL	U	1.0	2.61	0.59
1-Hexene	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
n-Hexane	<SRL	U	1.0	2.95	<SRL	U	1.0	2.61	0.59
Methylcyclopentane	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
2,4-Dimethylpentane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.59
Benzene	<SRL	U	1.0	2.68	<SRL	U	1.0	2.37	0.53
Cyclohexane	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
2-Methylhexane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.59
2,3-Dimethylpentane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.59
3-Methylhexane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.59
2,2,4-Trimethylpentane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.58
n-Heptane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.59
Methylcyclohexane	<SRL	U	1.0	2.88	<SRL	U	1.0	2.55	0.57
2,3,4-Trimethylpentane	6.31		1.0	2.94	10.3		1.0	2.60	0.58



Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

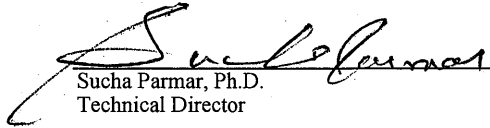
CLIENT : Sacramento Metropolitan AQMD
PROJECT NO : 201561
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 08/26/2020
DATE REPORTED : 09/21/2020

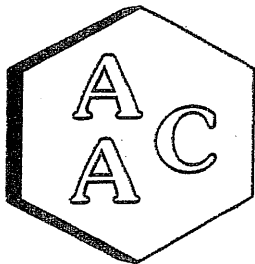
HYDROCARBONS (C2-C12) SPECIATED

Client ID	1236-Station56			Sample Reporting Limit (SRL) (MRLxDF's)	1190-Sump50			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
	AAC ID	Result	Qualifier		Analysis DF	AAC ID	Result		
Date Sampled	08/19/2020				08/19/2020				
Date Analyzed	09/15/2020				09/15/2020				
Can Dilution Factor	8.32				4.45				
Toluene	<SRL	U	1.0	2.71	11.7	U	1.0	2.39	0.54
2-Methylheptane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.58
3-Methylheptane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.58
n-Octane	<SRL	U	1.0	2.94	<SRL	U	1.0	2.60	0.58
Ethylbenzene	<SRL	U	1.0	2.73	<SRL	U	1.0	2.41	0.54
m/p-Xylenes	<SRL	U	1.0	2.73	<SRL	U	1.0	2.41	0.54
Styrene	<SRL	U	1.0	2.68	<SRL	U	1.0	2.37	0.53
o-Xylene	<SRL	U	1.0	2.73	<SRL	U	1.0	2.41	0.54
Nonane	<SRL	U	1.0	2.93	<SRL	U	1.0	2.59	0.58
Isopropylbenzene	<SRL	U	1.0	2.75	<SRL	U	1.0	2.43	0.55
n-Propylbenzene	<SRL	U	1.0	2.75	<SRL	U	1.0	2.43	0.55
m-Ethyltoluene	<SRL	U	1.0	2.75	<SRL	U	1.0	2.43	0.55
p-Ethyltoluene	<SRL	U	1.0	2.75	<SRL	U	1.0	2.43	0.55
1,3,5-Trimethylbenzene	<SRL	U	1.0	2.75	3.93	U	1.0	2.43	0.55
o-Ethyltoluene	<SRL	U	1.0	2.75	<SRL	U	1.0	2.43	0.55
1,2,4-Trimethylbenzene	<SRL	U	1.0	2.75	<SRL	U	1.0	2.43	0.55
n-Decane	<SRL	U	1.0	2.93	<SRL	U	1.0	2.59	0.58
1,2,3-Trimethylbenzene	<SRL	U	1.0	2.75	2.62	U	1.0	2.43	0.55
m-Diethylbenzene	<SRL	U	1.0	2.76	<SRL	U	1.0	2.44	0.55
p-Diethylbenzene	<SRL	U	1.0	2.76	<SRL	U	1.0	2.44	0.55
n-Undecane	<SRL	U	1.0	2.92	<SRL	U	1.0	2.58	0.58
n-Dodecane	<SRL	U	1.0	2.92	<SRL	U	1.0	2.58	0.58

U - Compound was analyzed for, but was not detected at or above the SRL.


 Sucha Parmar, Ph.D.
 Technical Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report PAMS Calibration Verification Analysis

Analysis Date : 09/15/2020
Analyst : RB

Instrument ID : MS-01
Standard ID : PS022020-01
Calibration Date : 06/01/2020

Continuing Calibration Verification

Analyte	xRF	daily RF	%RPD*
Propane	708	728	2.8

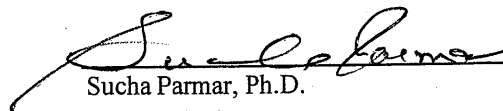
* %RPD must be < 10%

Laboratory Control Spike Recovery

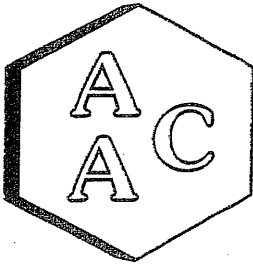
Analyte	Sample Conc.	Spike Added	Spike Res	Spike Dup Res	Spike % Rec **	Spike Dup % Rec **	RPD*** %
Propane	0.0	4.20	4.32	4.24	102.9	101.0	1.9

** Must be 80-120%

*** Must be < 25%


Sucha Parmar, Ph.D.
Technical Director





Atmospheric Analysis & Consulting, Inc.

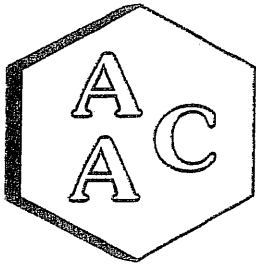
Quality Control/Quality Assurance Report PAMS Method Blank Analysis

Matrix : Air
Units : ppbC

Analysis Date : 09/15/2020
Report Date : 09/15/2020

<i>Client ID</i>	Method Blank	PQL
<i>AAC ID</i>	PAMS BLANK	
Ethylene	<PQL	1.0
Acetylene	<PQL	1.0
Ethane	<PQL	1.0
Propylene	<PQL	1.0
Propane	<PQL	1.0
Isobutane	<PQL	1.0
1-Butene	<PQL	1.0
n-Butane	<PQL	1.0
trans-2-Butene	<PQL	1.0
cis-2-Butene	<PQL	1.0
Isopentane	<PQL	1.0
1-Pentene	<PQL	1.0
n-Pentane	<PQL	1.0
Isoprene	<PQL	1.0
trans-2-Pentene	<PQL	1.0
cis-2-Pentene	<PQL	1.0
2,2-Dimethylbutane	<PQL	1.0
Cyclopentane	<PQL	1.0
2,3-Dimethylbutane	<PQL	1.0
2-Methylpentane	<PQL	1.0
3-Methylpentane	<PQL	1.0
1-Hexene	<PQL	1.0
n-Hexane	<PQL	1.0
Methylcyclopentane	<PQL	1.0
2,4-Dimethylpentane	<PQL	1.0
Benzene	<PQL	1.0
Cyclohexane	<PQL	1.0
2-Methylhexane	<PQL	1.0





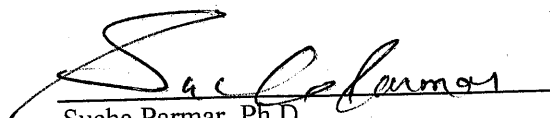
Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report PAMS Method Blank Analysis

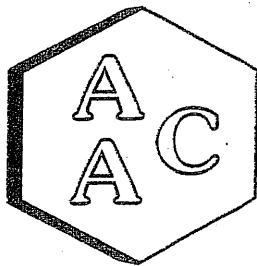
Matrix : Air
Units : ppbC

Analysis Date : 09/15/2020
Report Date : 09/15/2020

<i>Client ID</i>	Method Blank	PQL
<i>AAC ID</i>	PAMS BLANK	
2,3-Dimethylpentane	<PQL	1.0
3-Methylhexane	<PQL	1.0
2,2,4-Trimethylpentane	<PQL	1.0
n-Heptane	<PQL	1.0
Methylcyclohexane	<PQL	1.0
2,3,4-Trimethylpentane	<PQL	1.0
Toluene	<PQL	1.0
2-Methylheptane	<PQL	1.0
3-Methylheptane	<PQL	1.0
n-Octane	<PQL	1.0
Ethylbenzene	<PQL	1.0
m/p-Xylenes	<PQL	1.0
Styrene	<PQL	1.0
o-Xylene	<PQL	1.0
Nonane	<PQL	1.0
Isopropylbenzene	<PQL	1.0
n-Propylbenzene	<PQL	1.0
m-Ethyltoluene	<PQL	1.0
p-Ethyltoluene	<PQL	1.0
1,3,5-Trimethylbenzene	<PQL	1.0
o-Ethyltoluene	<PQL	1.0
1,2,4-Trimethylbenzene	<PQL	1.0
n-Decane	<PQL	1.0
1,2,3-Trimethylbenzene	<PQL	1.0
m-Diethylbenzene	<PQL	1.0
p-Diethylbenzene	<PQL	1.0
n-Undecane	<PQL	1.0
n-Dodecane	<PQL	1.0
TNMHC (ppbC)	<PQL	20


 Sucha Parmar, Ph.D.
 Technical Director





Atmospheric Analysis & Consulting, Inc.

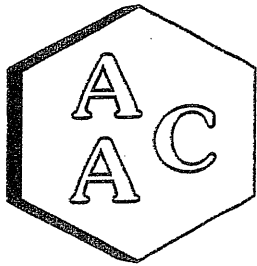
Quality Control/Quality Assurance Report PAMS Duplicate Analysis

AAC ID : 201575-11939
Matrix : Air

Analysis Date : 09/15/2020
Report Date : 09/15/2020
Units : ppbC

Analyte	Sample Analysis	Sample Duplicate Analysis	%RPD
Ethylene	5.80	5.80	0.0
Acetylene	3.13	3.17	1.3
Ethane	9.44	9.42	0.2
Propylene	<PQL	1.00	0.0
Propane	4.12	4.10	0.5
Isobutane	<PQL	<PQL	0.0
1-Butene	<PQL	<PQL	0.0
n-Butane	2.50	2.49	0.4
trans-2-Butene	<PQL	<PQL	0.0
cis-2-Butene	<PQL	<PQL	0.0
Isopentane	3.55	3.59	1.1
1-Pentene	<PQL	<PQL	0.0
n-Pentane	1.90	1.91	0.5
Isoprene	2.25	2.21	1.8
trans-2-Pentene	<PQL	<PQL	0.0
cis-2-Pentene	<PQL	<PQL	0.0
2,2-Dimethylbutane	<PQL	<PQL	0.0
Cyclopentane	<PQL	<PQL	0.0
2,3-Dimethylbutane	<PQL	<PQL	0.0
2-Methylpentane	1.66	1.70	2.4
3-Methylpentane	<PQL	<PQL	0.0
1-Hexene	<PQL	<PQL	0.0
n-Hexane	<PQL	<PQL	0.0
Methylcyclopentane	<PQL	<PQL	0.0
2,4-Dimethylpentane	<PQL	<PQL	0.0
Benzene	3.86	3.89	0.8
Cyclohexane	<PQL	<PQL	0.0
2-Methylhexane	<PQL	<PQL	0.0





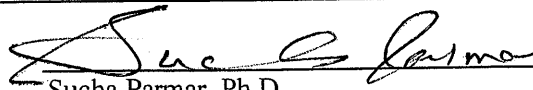
Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report PAMS Duplicate Analysis

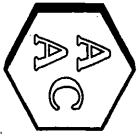
AAC ID : 201575-11939
Matrix : Air

Analysis Date : 09/15/2020
Report Date : 09/15/2020
Units : ppbC

Analyte	Sample Analysis	Sample Duplicate Analysis	%RPD
2,3-Dimethylpentane	<PQL	<PQL	0.0
3-Methylhexane	<PQL	<PQL	0.0
2,2,4-Trimethylpentane	<PQL	<PQL	0.0
n-Heptane	<PQL	<PQL	0.0
Methylcyclohexane	<PQL	<PQL	0.0
2,3,4-Trimethylpentane	<PQL	<PQL	0.0
Toluene	2.20	2.20	0.0
2-Methylheptane	<PQL	<PQL	0.0
3-Methylheptane	<PQL	<PQL	0.0
n-Octane	<PQL	<PQL	0.0
Ethylbenzene	<PQL	<PQL	0.0
m/p-Xylenes	<PQL	<PQL	0.0
Styrene	<PQL	<PQL	0.0
o-Xylene	<PQL	<PQL	0.0
Nonane	<PQL	<PQL	0.0
Isopropylbenzene	<PQL	<PQL	0.0
n-Propylbenzene	<PQL	<PQL	0.0
m-Ethyltoluene	<PQL	<PQL	0.0
p-Ethyltoluene	<PQL	<PQL	0.0
1,3,5-Trimethylbenzene	<PQL	<PQL	0.0
o-Ethyltoluene	<PQL	<PQL	0.0
1,2,4-Trimethylbenzene	<PQL	<PQL	0.0
n-Decane	<PQL	<PQL	0.0
1,2,3-Trimethylbenzene	<PQL	<PQL	0.0
m-Diethylbenzene	<PQL	<PQL	0.0
p-Diethylbenzene	<PQL	<PQL	0.0
n-Undecane	<PQL	<PQL	0.0
n-Dodecane	<PQL	<PQL	0.0
Total PAMS (ppbC)	50.6	50.4	0.4
TNMHC (ppbc)	190	195	2.6


 Sucha Parmar, Ph.D.
 Technical Director





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 Ventura, California 93003
 Phone (805) 650-1642 Fax (805) 650-1644
 E-mail: info@aacclab.com

AAC Project No. 201561 Page of

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name Sacramento Metropolitan AQMD		Project Name AB617 VOC Analysis		Analysis Requested				Send report:	
Project Mgr (Print Name) Levi Ford		Project Number Contract 2019-00000079						Attn: <u>Levi Ford</u>	
Sampler's Name (Print Name) Frank Wulf		Sampler's Signature <i>[Signature]</i>						Phone#: <u>916-874-4868</u>	
AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of Containers	TO-15 Protocol		Fax#: <u> </u>	
11854	8/19/20	00:00-24:00		1229-ImpactCh	Silonite 1	X		Send Invoice to: <u> </u>	
11855	8/19/20	00:00-24:00		1279-VFW	Silonite 1	X		Attn: <u> </u> Acct Payable <u> </u>	
11856	8/19/20	00:00-24:00		1236-Station56	Silonite 1	X		P.O. # <u> </u> Cite contract # <u> </u>	
11857	8/19/20	00:00-24:00		1190-Sump50	Silonite 1	X		Turnaround Time 24 - 48 Hr <u> </u> 72 Hr <u> </u>	
					Silonite 1	X		5 Day <u> </u> Normal <u> </u>	
					Silonite 1	X		Special Instructions/remarks: <u> </u>	
					Silonite 1	X			
					Silonite 1	X			
					Silonite 1	X			
Relinquished by (Signature): <i>[Signature]</i>		Print Name: Frank Wulf		Date/Time: <u>8/20/20 12:00</u>		Received by (signature): <i>[Signature]</i>		Print Name: <u> </u>	
Relinquished by (Signature): <u> </u>		Print Name: <u> </u>		Date/Time: <u>8/26/20 12:35</u>		Received by (signature): <i>[Signature]</i>		Print Name: <u> </u>	

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