

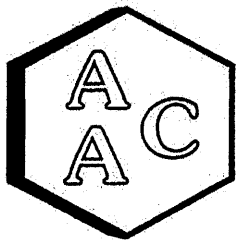
Volatile Organic Compound Analysis Results for Samples Collected in Nuiqsut, Alaska

Sample Location: Nuiqsut Ambient Air Quality Monitoring Station

Date Sample Collected: 4/11/2022

Analysis Conducted by: Atmospheric Analysis & Consulting, Inc.

Analysis Method: EPA Method TO-12/PAMS Protocol by GC/MS/FID



Atmospheric Analysis & Consulting, Inc.

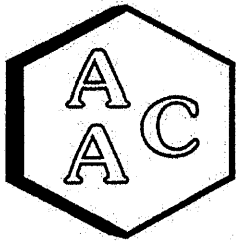
Laboratory Analysis Report

CLIENT : SLR International Corporation
PROJECT NO : 220801 A
MATRIX : AIR
UNITS : ppb (v/v)

DATE RECEIVED : 04/14/2022
DATE REPORTED : 04/15/2022

HYDROCARBONS (C2-C12) SPECIATED

| <i>Client ID</i> | NUI | | | Sample Reporting Limit (SRL) (MRL \times DFs) | Method Reporting Limit (MRL) |
|-----------------------------|--------------|-----------|-------------|--|------------------------------|
| <i>AAC ID</i> | 220801-30191 | | | | |
| <i>Date Sampled</i> | 04/11/2022 | | | | |
| <i>Date Analyzed</i> | 04/14/2022 | | | | |
| <i>Con. Dilution Factor</i> | 1.61 | | | | |
| | Result | Qualifier | Analysis DF | | |
| Ethylene | <SRL | U | 1 | 0.80 | 0.50 |
| Acetylene | <SRL | U | 1 | 0.80 | 0.50 |
| Ethane | 2.51 | | 1 | 0.80 | 0.50 |
| Propylene | 1.18 | | 1 | 0.54 | 0.33 |
| Propane | 0.98 | | 1 | 0.54 | 0.33 |
| Isobutane | <SRL | U | 1 | 0.40 | 0.25 |
| 1-Butene | <SRL | U | 1 | 0.40 | 0.25 |
| n-Butane | <SRL | U | 1 | 0.40 | 0.25 |
| trans-2-Butene | <SRL | U | 1 | 0.40 | 0.25 |
| cis-2-Butene | <SRL | U | 1 | 0.40 | 0.25 |
| Isopentane | <SRL | U | 1 | 0.32 | 0.20 |
| 1-Pentene | <SRL | U | 1 | 0.32 | 0.20 |
| n-Pentane | <SRL | U | 1 | 0.32 | 0.20 |
| Isoprene | <SRL | U | 1 | 0.32 | 0.20 |
| trans-2-Pentene | <SRL | U | 1 | 0.32 | 0.20 |
| cis-2-Pentene | <SRL | U | 1 | 0.32 | 0.20 |
| 2,2-Dimethylbutane | <SRL | U | 1 | 0.27 | 0.17 |
| Cyclopentane | <SRL | U | 1 | 0.32 | 0.20 |
| 2,3-Dimethylbutane | <SRL | U | 1 | 0.27 | 0.17 |
| 2-Methylpentane | <SRL | U | 1 | 0.27 | 0.17 |
| 3-Methylpentane | 0.34 | | 1 | 0.27 | 0.17 |
| 1-Hexene | <SRL | U | 1 | 0.27 | 0.17 |
| n-Hexane | 1.38 | | 1 | 0.27 | 0.17 |
| Methylcyclopentane | <SRL | U | 1 | 0.27 | 0.17 |
| 2,4-Dimethylpentane | <SRL | U | 1 | 0.23 | 0.14 |
| Benzene | <SRL | U | 1 | 0.27 | 0.17 |
| Cyclohexane | <SRL | U | 1 | 0.27 | 0.17 |
| 2-Methylhexane | <SRL | U | 1 | 0.23 | 0.14 |
| 2,3-Dimethylpentane | <SRL | U | 1 | 0.23 | 0.14 |
| 3-Methylhexane | <SRL | U | 1 | 0.23 | 0.14 |
| 2,2,4-Trimethylpentane | <SRL | U | 1 | 0.20 | 0.13 |
| n-Heptane | <SRL | U | 1 | 0.23 | 0.14 |
| Methylcyclohexane | <SRL | U | 1 | 0.23 | 0.14 |
| 2,3,4-Trimethylpentane | <SRL | U | 1 | 0.20 | 0.13 |



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Laboratory Analysis Report

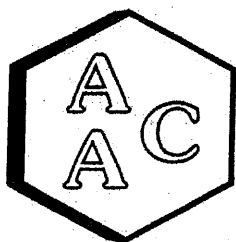
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PROJECT NO : 220801 A
MATRIX : AIR
UNITS : ppb (v/v)

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HYDROCARBONS (C2-C12) SPECIATED

| <i>Client ID</i> | NUI | | | Sample Reporting Limit (SRL) (MRLxDFs) | Method Reporting Limit (MRL) |
|-----------------------------|--------------|-----------|-------------|--|------------------------------|
| <i>AAC ID</i> | 220801-30191 | | | | |
| <i>Date Sampled</i> | 04/11/2022 | | | | |
| <i>Date Analyzed</i> | 04/14/2022 | | | | |
| <i>Con. Dilution Factor</i> | 1.61 | | | | |
| | Result | Qualifier | Analysis DF | | |
| Toluene | <SRL | U | 1 | 0.23 | 0.14 |
| 2-Methylheptane | <SRL | U | 1 | 0.20 | 0.13 |
| 3-Methylheptane | <SRL | U | 1 | 0.20 | 0.13 |
| n-Octane | <SRL | U | 1 | 0.20 | 0.13 |
| Ethylbenzene | <SRL | U | 1 | 0.20 | 0.13 |
| m/p-Xylenes | <SRL | U | 1 | 0.20 | 0.13 |
| Styrene | <SRL | U | 1 | 0.20 | 0.13 |
| o-Xylene | <SRL | U | 1 | 0.20 | 0.13 |
| Nonane | <SRL | U | 1 | 0.18 | 0.11 |
| Isopropylbenzene | <SRL | U | 1 | 0.18 | 0.11 |
| n-Propylbenzene | <SRL | U | 1 | 0.18 | 0.11 |
| m-Ethyltoluene | <SRL | U | 1 | 0.18 | 0.11 |
| p-Ethyltoluene | <SRL | U | 1 | 0.18 | 0.11 |
| 1,3,5-Trimethylbenzene | <SRL | U | 1 | 0.18 | 0.11 |
| o-Ethyltoluene | <SRL | U | 1 | 0.18 | 0.11 |
| 1,2,4-Trimethylbenzene | <SRL | U | 1 | 0.18 | 0.11 |
| n-Decane | <SRL | U | 1 | 0.16 | 0.10 |
| 1,2,3-Trimethylbenzene | <SRL | U | 1 | 0.18 | 0.11 |
| m-Diethylbenzene | <SRL | U | 1 | 0.16 | 0.10 |
| p-Diethylbenzene | <SRL | U | 1 | 0.16 | 0.10 |
| n-Undecane | <SRL | U | 1 | 0.15 | 0.09 |
| n-Dodecane | <SRL | U | 1 | 0.13 | 0.08 |

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



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Quality Control/Quality Assurance Report PAMS Calibration Verification Analysis

Initial Calibration Date : 02/11/2022
Standard ID : MS1-020922-01

Instrument ID : MS01
Analysis Date : 04/11/2022
Analyst : RB

Continuing Calibration Verification

| Propane | xRF | Daily RF | RPD* |
|---------|-----|----------|------|
| | 698 | 718 | 2.85 |

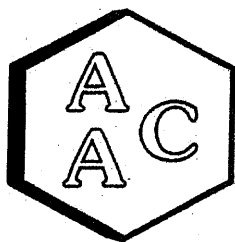
* Must be <10%

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

| Propane | Sample Conc. (ppbC) | Spike Added (ppbC) | Recovery (ppbC) | | % Recovery** | | RPD*** |
|---------|---------------------|--------------------|-----------------|------|--------------|-------|--------|
| | | | LCS | LCSD | LCS | LCSD | |
| | 0.00 | 4.24 | 4.36 | 4.40 | 102.8 | 103.8 | 0.91 |

** Must be 80-120%

*** Must be <25%



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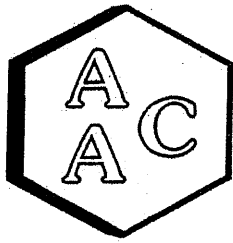
Quality Control/Quality Assurance Report PAMS Method Blank Analysis

Matrix : Air
Units : ppbC

Instrument ID : MS01
Analysis Date : 04/11/2022
Analyst : RB

| Analyte | Result | PQL |
|------------------------|--------|-----|
| Ethylene | <PQL | 1.0 |
| Acetylene | <PQL | 1.0 |
| Ethane | <PQL | 1.0 |
| Propylene | <PQL | 2.0 |
| 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 |
| 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 |

| Analyte | Result | PQL |
|------------------------|--------|-----|
| 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 |



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report PAMS Duplicate Analysis

AAC ID : 220696-29731
 Matrix : Air
 Units : ppbC

Instrument ID : MS01
 Analysis Date : 04/11/2022
 Analyst : RB

| Analyte | Sample Analysis | Sample Duplicate | RPD |
|------------------------|-----------------|------------------|-----|
| Ethylene | 3.57 | 3.59 | 0.6 |
| Acetylene | 13.3 | 13.6 | 2.2 |
| Ethane | 5.31 | 5.31 | 0.0 |
| Propylene | 4.92 | 4.96 | 0.8 |
| Propane | 16.7 | 16.7 | 0.0 |
| Isobutane | 3.39 | 3.43 | 1.2 |
| 1-Butene | <PQL | <PQL | NA |
| n-Butane | 9.58 | 9.62 | 0.4 |
| trans-2-Butene | <PQL | <PQL | NA |
| cis-2-Butene | <PQL | <PQL | NA |
| Isopentane | 2.97 | 2.92 | 1.7 |
| 1-Pentene | <PQL | <PQL | NA |
| n-Pentane | <PQL | <PQL | NA |
| Isoprene | <PQL | <PQL | NA |
| trans-2-Pentene | <PQL | <PQL | NA |
| cis-2-Pentene | <PQL | <PQL | NA |
| 2,2-Dimethylbutane | <PQL | <PQL | NA |
| Cyclopentane | <PQL | <PQL | NA |
| 2,3-Dimethylbutane | <PQL | <PQL | NA |
| 2-Methylpentane | <PQL | <PQL | NA |
| 3-Methylpentane | <PQL | <PQL | NA |
| 1-Hexene | <PQL | <PQL | NA |
| n-Hexane | 2.90 | 2.69 | 7.5 |
| Methylcyclopentane | <PQL | <PQL | NA |
| 2,4-Dimethylpentane | <PQL | <PQL | NA |
| Benzene | <PQL | <PQL | NA |
| Cyclohexane | <PQL | <PQL | NA |
| 2-Methylhexane | <PQL | <PQL | NA |
| 2,3-Dimethylpentane | <PQL | <PQL | NA |
| 3-Methylhexane | <PQL | <PQL | NA |
| 2,2,4-Trimethylpentane | <PQL | <PQL | NA |
| n-Heptane | <PQL | <PQL | NA |
| Methylcyclohexane | <PQL | <PQL | NA |
| 2,3,4-Trimethylpentane | <PQL | <PQL | NA |
| Toluene | 1.99 | 1.93 | 3.1 |
| 2-Methylheptane | <PQL | <PQL | NA |
| 3-Methylheptane | <PQL | <PQL | NA |
| n-Octane | <PQL | <PQL | NA |
| Ethylbenzene | <PQL | <PQL | NA |
| m/p-Xylenes | <PQL | <PQL | NA |
| Styrene | <PQL | <PQL | NA |
| o-Xylene | <PQL | <PQL | NA |
| Nonane | 3.29 | 3.27 | 0.6 |
| Isopropylbenzene | <PQL | <PQL | NA |
| n-Propylbenzene | <PQL | <PQL | NA |
| m-Ethyltoluene | <PQL | <PQL | NA |
| p-Ethyltoluene | <PQL | <PQL | NA |

| Analyte | Sample Analysis | Sample Duplicate | RPD |
|------------------------|-----------------|------------------|-----|
| 1,3,5-Trimethylbenzene | <PQL | <PQL | NA |
| o-Ethyltoluene | <PQL | <PQL | NA |
| 1,2,4-Trimethylbenzene | <PQL | <PQL | NA |
| n-Decane | <PQL | <PQL | NA |
| 1,2,3-Trimethylbenzene | <PQL | <PQL | NA |
| m-Diethylbenzene | <PQL | <PQL | NA |
| p-Diethylbenzene | <PQL | <PQL | NA |
| n-Undecane | <PQL | <PQL | NA |
| n-Dodecane | <PQL | <PQL | NA |
| Total PAMS (ppbC) | 68.0 | 68.0 | 0.0 |
| TNMHC (ppbC) | 681 | 758 | 11 |