

## **DATA PACKAGE**

### **GC SEMI-VOLATILES**

**PROJECT NAME : CON EDISON NON-MGP - EAST RIVER 453648.60024.03**

**PARSONS ENGINEERING OF NEW YORK, INC.**

**301 Plainfield Road**

**Suite 350**

**Syracuse, NY - 13212**

**Phone No: 315-451-9560**

**ORDER ID : P5361**

**ATTENTION : Stephen Liberatore**



**Laboratory Certification ID # 20012**



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## Cover Page

**Order ID :** P5361

**Project ID :** Con Edison Non-MGP - East River 453648.60024.03

**Client :** PARSONS Engineering of New York, Inc.

**Lab Sample Number**

P5361-01  
P5361-02

**Client Sample Number**

SB-01-20241219-7.0-7.5  
SB-01-20241219-9.0-9.5

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

Date: 3/11/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## **CASE NARRATIVE**

**PARSONS Main of New York, Inc.**

**Project Name: Con Edison Non-MGP - East River 453648.60024.03**

**Project # N/A**

**Chemtech Project # P5361**

**Test Name: TPH GC**

### **A. Number of Samples and Date of Receipt:**

2 Solid samples were received on 12/19/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: PCB and TPH GC. This data package contains results for TPH GC.

### **C. Analytical Techniques:**

The analysis were performed on instrument FID\_G. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302. The analysis of TPH GC was based on method 8015D and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Retention Times were acceptable for all samples.

The MS {P5361-02MS} with File ID: FG015020.D recoveries met the requirements for all compounds except for Petroleum Hydrocarbons[18%] Due to matrix interference.

The MSD {P5361-02MSD} with File ID: FG015026.D recoveries met the acceptable requirements except for Petroleum Hydrocarbons[19%] Due to matrix interference.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

### **E. Additional Comments:**

The soil samples results are based on a dry weight basis.

### **F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.



284 Sheffield Street, Mountainside, NJ 07092  
Phone: 908 789 8900 Fax: 908 789 8922

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature\_\_\_\_\_

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## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value | If the result is a value greater than or equal to the detection limit, report the value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| U     | Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.                                                                                                                                                                                                                                                                                      |
| ND    | Indicates the analyte was analyzed for, but not detected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| J     | Indicates an estimated value. This flag is used: <ol style="list-style-type: none"> <li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li> <li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li> </ol> |
| B     | Indicates the analyte was found in the blank as well as the sample report as “12 B”.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| E     | Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| D     | This flag identifies all compounds identified in an analysis at a secondary dilution factor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| P     | This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.                                                                                                                                                                                                                                                                                                                                                                             |
| N     | This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.                                                                                                                                                                                                                                                                       |
| A     | This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Q     | Indicates the LCS did not meet the control limits requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



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**GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: P5361

MATRIX: Solid

METHOD: 8015D/3541

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | NA | NO | YES |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1. | Chromatograms Labeled/Compounds Identified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |    | ✓   |
| 2. | Standard Summary Submitted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |    | ✓   |
| 3. | Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD.<br><br>The Initial Calibration met the requirements .<br>The Continuous Calibration met the requirements .                                                                                                                                                                                                                                                                                               |    |    | ✓   |
| 4. | Blank Contamination - If yes, list compounds and concentrations in each blank:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    | ✓  |     |
| 5. | Surrogate Recoveries Meet Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable ranges.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |    | ✓   |
| 6. | Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable range.<br><br>The MS {P5361-02MS} with File ID: FG015020.D recoveries met the requirements for all compounds except for Petroleum Hydrocarbons[18%] Due to matrix interference.<br><br>The MSD {P5361-02MSD} with File ID: FG015026.D recoveries met the acceptable requirements except for Petroleum Hydrocarbons[19%] Due to matrix interference.<br><br>The Blank Spike met requirements for all samples .<br>The RPD met criteria . |    | ✓  |     |
| 7. | Retention Time Shift Meet Criteria (if applicable)<br><br>Comments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |    | ✓   |
| 8. | Extraction Holding Time Met<br><br>If not met, list number of days exceeded for each sample:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |    | ✓   |



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**GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)**

|                                                                                                | NA | NO | YES |
|------------------------------------------------------------------------------------------------|----|----|-----|
| 9. Analysis Holding Time Met                                                                   |    |    | ✓   |
| If not met, list those compounds and their recoveries which fall outside the acceptable range. |    |    |     |

**ADDITIONAL COMMENTS:**

The soil samples results are based on a dry weight basis.

\_\_\_\_\_  
QA REVIEW

\_\_\_\_\_  
Date

APPENDIX A

**QA REVIEW GENERAL DOCUMENTATION**

Project #: P5361

Completed

For thorough review, the report must have the following:

**GENERAL:**

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

**ANALYTICAL:**

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 03/11/2025

### LAB CHRONICLE

|                 |                                       |                   |                                                 |
|-----------------|---------------------------------------|-------------------|-------------------------------------------------|
| <b>OrderID:</b> | P5361                                 | <b>OrderDate:</b> | 12/20/2024 10:02:00 AM                          |
| <b>Client:</b>  | PARSONS Engineering of New York, Inc. | <b>Project:</b>   | Con Edison Non-MGP - East River 453648.60024.03 |
| <b>Contact:</b> | Stephen Liberatore                    | <b>Location:</b>  | N12                                             |

| LabID    | ClientID               | Matrix | Test   | Method | Sample Date | Prep Date | Anal Date | Received |
|----------|------------------------|--------|--------|--------|-------------|-----------|-----------|----------|
| P5361-01 | SB-01-20241219-7.0-7.5 | SOIL   |        |        | 12/19/24    |           |           | 12/19/24 |
|          |                        |        | PCB    | 8082A  |             | 12/20/24  | 12/20/24  |          |
|          |                        |        | TPH GC | 8015D  |             | 12/23/24  | 12/23/24  |          |
| P5361-02 | SB-01-20241219-9.0-9.5 | SOIL   |        |        | 12/19/24    |           |           | 12/19/24 |
|          |                        |        | PCB    | 8082A  |             | 12/20/24  | 12/20/24  |          |
|          |                        |        | TPH GC | 8015D  |             | 12/23/24  | 12/23/24  |          |



# QC SUMMARY

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**SOIL TPH GC SURROGATE RECOVERY**

Lab Name: Chemtech Client: PARSONS Engineering of New York, Inc.  
Lab Code: CHEM Case No.: P5361 SAS No.: P5361 SDG No.: P5361

| EPA<br>SAMPLE NO.         | S1<br>TETRACOSANE-d50 | S2 | S3 | S4 | TOT<br>OUT |
|---------------------------|-----------------------|----|----|----|------------|
| PIBLK-FG015014.D          | 95                    |    |    |    | 0          |
| PIBLK-FG015021.D          | 92                    |    |    |    | 0          |
| PIBLK-FG015028.D          | 92                    |    |    |    | 0          |
| SB-01-20241219-7.0-7.5    | 55                    |    |    |    | 0          |
| SB-01-20241219-9.0-9.5    | 62                    |    |    |    | 0          |
| SB-01-20241219-9.0-9.5MS  | 47                    |    |    |    | 0          |
| SB-01-20241219-9.0-9.5MSD | 47                    |    |    |    | 0          |
| PB165807BL                | 80                    |    |    |    | 0          |
| PB165807BS                | 74                    |    |    |    | 0          |

**QC LIMITS**

TETRACOSANE-d50

For Water : 29-130

For Soil : 37-130

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate Diluted Out

**SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**

**Lab Name:** Chemtech **Client:** PARSONS Engineering of New York, Inc.  
**Lab Code:** CHEM **Cas No:** P5361 **SAS No :** P5361 **SDG No:** P5361  
**Client SampleID :** SB-01-20241219-9.0-9.5MS **Datafile:** FG015020.D

| COMPOUND               | SPIKE<br>ADDED<br>ug/kg | SAMPLE<br>CONCENTRATION<br>ug/kg | MS/MSD<br>CONCENTRATION<br>ug/kg | % REC | Qual | QC LIMITS |
|------------------------|-------------------------|----------------------------------|----------------------------------|-------|------|-----------|
| Petroleum Hydrocarbons | 12999                   | 12800                            | 15226                            | 18%   | *    | 68-131    |

**SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**

**Lab Name:** Chemtech **Client:** PARSONS Engineering of New York, Inc.  
**Lab Code:** CHEM **Cas No:** P5361 **SAS No :** P5361 **SDG No:** P5361  
**Client SampleID :** SB-01-20241219-9.0-9.5MSD **Datafile:** FG015026.D

| COMPOUND               | SPIKE<br>ADDED<br>ug/kg | SAMPLE<br>CONCENTRATION<br>ug/kg | MS/MSD<br>CONCENTRATION<br>ug/kg | % REC | Qual | QC LIMITS |
|------------------------|-------------------------|----------------------------------|----------------------------------|-------|------|-----------|
| Petroleum Hydrocarbons | 12986                   | 12800                            | 15319                            | 19%   | *    | 68-131    |

**MS/MSD % Recovery RPD : 3.7**

**SOIL TPH GC LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

**Lab Name:** Chemtech **Client:** PARSONS Engineering of New York, Inc.  
**Lab Code:** CHEM **Cas No:** P5361 **SAS No :** P5361 **SDG No:** P5361  
**Matrix Spike - EPA Sample No :** PB165807BS **Datafile:** FG015025.D

| COMPOUND               | SPIKE<br>ADDED<br>ug/kg | CONCENTRATION<br>ug/kg | LCS/LCSD<br>CONCENTRATION<br>ug/kg | % REC | QC LIMITS |
|------------------------|-------------------------|------------------------|------------------------------------|-------|-----------|
| Petroleum Hydrocarbons | 11326                   | 0                      | 8193                               | 72    | 68-131    |

4B  
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165807BL

Lab Name: CHEMTECH

Contract: PARS02

Lab Code: CHEM Case No.: P5361

SAS No.: P5361 SDG NO.: P5361

Lab File ID: FG015024.D

Lab Sample ID: PB165807BL

Instrument ID: FG

Date Extracted: 12/23/2024

Matrix: (soil/water) Soil

Date Analyzed: 12/23/24

Level: (low/med) low

Time Analyzed: 15:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| EPA<br>SAMPLE NO.         | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|---------------------------|------------------|----------------|------------------|
| SB-01-20241219-7.0-7.5    | P5361-01         | FG015018.D     | 12/23/24         |
| SB-01-20241219-9.0-9.5    | P5361-02         | FG015019.D     | 12/23/24         |
| SB-01-20241219-9.0-9.5MS  | P5361-02MS       | FG015020.D     | 12/23/24         |
| PB165807BS                | PB165807BS       | FG015025.D     | 12/23/24         |
| SB-01-20241219-9.0-9.5MSD | P5361-02MSD      | FG015026.D     | 12/23/24         |

COMMENTS: \_\_\_\_\_



# SAMPLE DATA

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## Report of Analysis

|                    |                                                 |          |                    |          |           |
|--------------------|-------------------------------------------------|----------|--------------------|----------|-----------|
| Client:            | PARSONS Engineering of New York, Inc.           |          | Date Collected:    | 12/19/24 |           |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 |          | Date Received:     | 12/19/24 |           |
| Client Sample ID:  | SB-01-20241219-7.0-7.5                          |          | SDG No.:           | P5361    |           |
| Lab Sample ID:     | P5361-01                                        |          | Matrix:            | SOIL     |           |
| Analytical Method: | 8015D TPH                                       |          | % Solid:           | 91.7     | Decanted: |
| Sample Wt/Vol:     | 30.07                                           | Units: g | Final Vol:         | 1        | mL        |
| Soil Aliquot Vol:  |                                                 | uL       | Test:              | TPH GC   |           |
| Extraction Type:   |                                                 |          | Injection Volume : |          |           |
| GPC Factor :       |                                                 | PH :     |                    |          |           |
| Prep Method :      | SW3541                                          |          |                    |          |           |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| FG015018.D        | 1         | 12/23/24 08:35 | 12/23/24 12:26 | PB165807      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|-------------------|------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>    |                        |       |           |          |            |                   |
| PHC               | Petroleum Hydrocarbons | 19800 |           | 346      | 3080       | ug/kg             |
| <b>SURROGATES</b> |                        |       |           |          |            |                   |
| 16416-32-3        | TETRACOSANE-d50        | 11.1  |           | 37 - 130 | 55%        | SPK: 20           |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015018.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 12:26  
Operator : YP\AJ  
Sample : P5361-01  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-7.0-7.5

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:27:34 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units    |
|-------------------------------|--------|----------|---------------|
| -----                         |        |          |               |
| System Monitoring Compounds   |        |          |               |
| 9) S TETRACOSANE-d50 (SURR... | 15.059 | 1482373  | 11.091 ug/mlm |
| Target Compounds              |        |          |               |
| -----                         |        |          |               |

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015018.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 12:26  
Operator : YP\AJ  
Sample : P5361-01  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

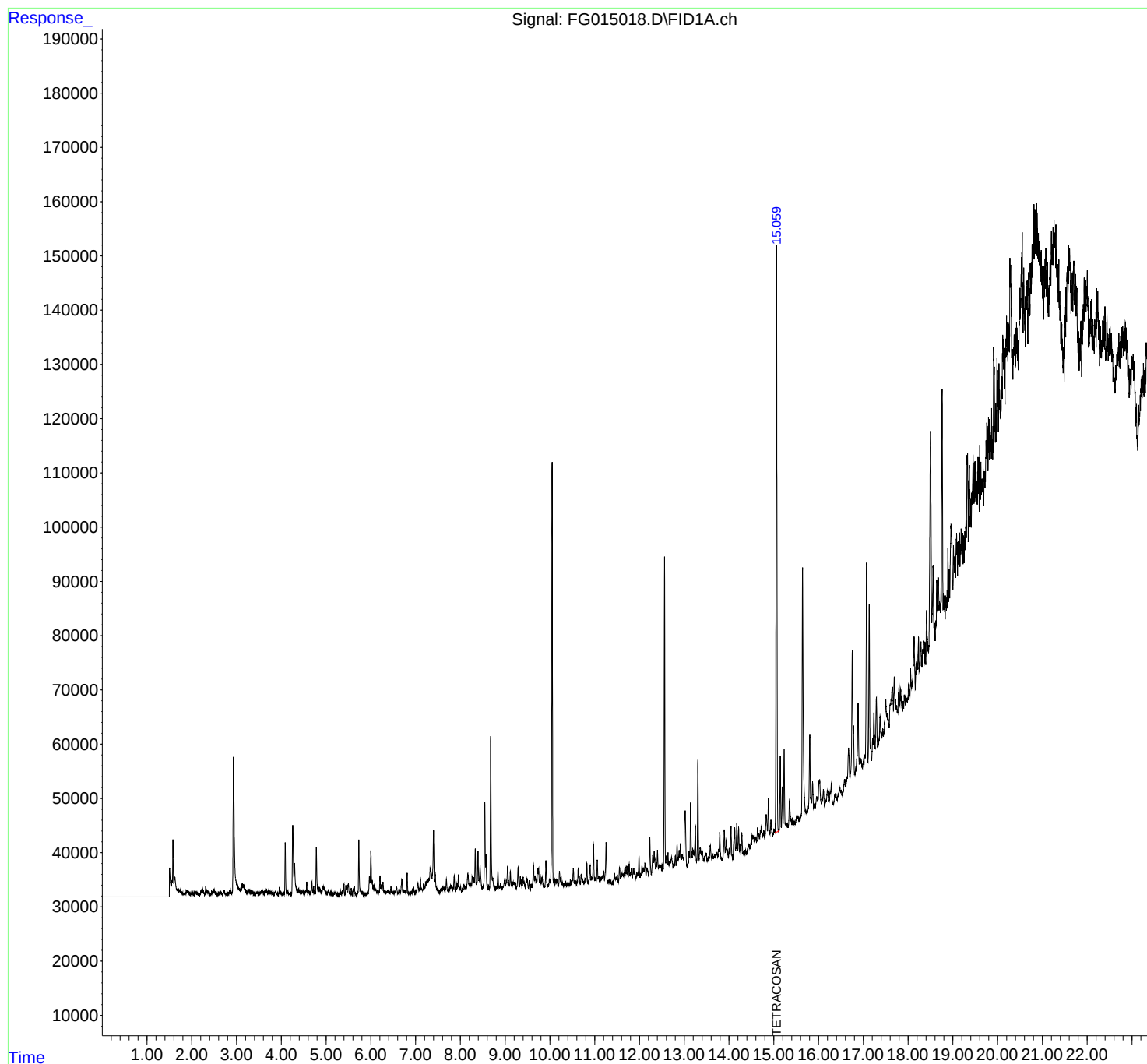
Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-7.0-7.5

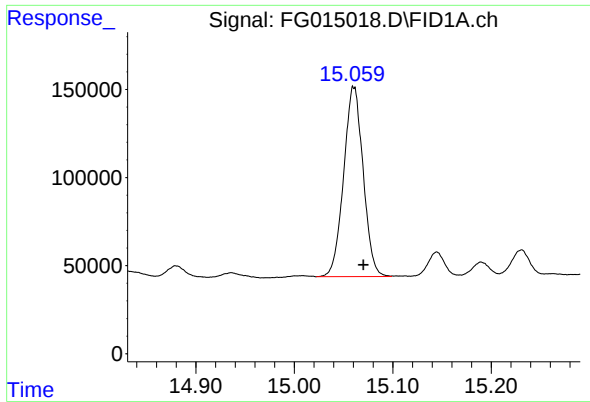
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:27:34 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.059 min  
Delta R.T.: -0.011 min  
Response: 1482373  
Conc: 11.09 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-7.0-7.5

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-7.0-7.5

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG015018.D  
Data File : FG015018.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 12:26  
Sample : P5361-01  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak # | R.T. min | Start min | End min | PK TY | peak height | peak area | peak % max. | % of total |
|--------|----------|-----------|---------|-------|-------------|-----------|-------------|------------|
| 1      | 1.907    | 1.900     | 1.933   | BV    | 133         | 715       | 0.05%       | 0.001%     |
| 2      | 1.941    | 1.933     | 1.954   | PV    | 95          | 836       | 0.05%       | 0.001%     |
| 3      | 1.957    | 1.954     | 1.979   | PV    | 155         | 1383      | 0.09%       | 0.002%     |
| 4      | 1.983    | 1.979     | 1.986   | PV    | 83          | 331       | 0.02%       | 0.000%     |
| 5      | 2.017    | 1.986     | 2.032   | VV    | 324         | 5731      | 0.37%       | 0.008%     |
| 6      | 2.036    | 2.032     | 2.041   | VV    | 193         | 706       | 0.05%       | 0.001%     |
| 7      | 2.064    | 2.041     | 2.074   | VV    | 240         | 3407      | 0.22%       | 0.005%     |
| 8      | 2.096    | 2.074     | 2.149   | VV    | 533         | 12422     | 0.81%       | 0.017%     |
| 9      | 2.157    | 2.149     | 2.175   | VV    | 136         | 1427      | 0.09%       | 0.002%     |
| 10     | 2.209    | 2.175     | 2.236   | PV    | 884         | 18230     | 1.19%       | 0.024%     |
| 11     | 2.244    | 2.236     | 2.292   | VV    | 1080        | 18453     | 1.20%       | 0.025%     |
| 12     | 2.312    | 2.292     | 2.421   | VV    | 1696        | 43709     | 2.85%       | 0.059%     |
| 13     | 2.450    | 2.421     | 2.471   | VV    | 673         | 13499     | 0.88%       | 0.018%     |
| 14     | 2.490    | 2.471     | 2.530   | VV    | 1049        | 23710     | 1.55%       | 0.032%     |
| 15     | 2.534    | 2.530     | 2.564   | VV    | 318         | 4162      | 0.27%       | 0.006%     |
| 16     | 2.568    | 2.564     | 2.582   | VV    | 134         | 1344      | 0.09%       | 0.002%     |
| 17     | 2.614    | 2.582     | 2.626   | VV    | 399         | 7492      | 0.49%       | 0.010%     |
| 18     | 2.643    | 2.626     | 2.687   | VV    | 606         | 13260     | 0.86%       | 0.018%     |
| 19     | 2.720    | 2.687     | 2.772   | VV    | 1027        | 21445     | 1.40%       | 0.029%     |
| 20     | 2.794    | 2.772     | 2.818   | VV    | 486         | 8350      | 0.54%       | 0.011%     |
| 21     | 2.854    | 2.818     | 2.889   | VV    | 857         | 23099     | 1.51%       | 0.031%     |
| 22     | 2.933    | 2.889     | 3.080   | VV    | 25507       | 558310    | 36.40%      | 0.748%     |
| 23     | 3.084    | 3.080     | 3.103   | VV    | 967         | 13236     | 0.86%       | 0.018%     |
| 24     | 3.128    | 3.103     | 3.142   | VV    | 2104        | 36200     | 2.36%       | 0.049%     |
| 25     | 3.155    | 3.142     | 3.175   | VV    | 2067        | 32881     | 2.14%       | 0.044%     |
| 26     | 3.178    | 3.175     | 3.244   | VV    | 1446        | 34768     | 2.27%       | 0.047%     |
| 27     | 3.274    | 3.244     | 3.338   | VV    | 886         | 36963     | 2.41%       | 0.050%     |
| 28     | 3.341    | 3.338     | 3.346   | VV    | 505         | 2362      | 0.15%       | 0.003%     |
| 29     | 3.350    | 3.346     | 3.397   | VV    | 553         | 11670     | 0.76%       | 0.016%     |
| 30     | 3.406    | 3.397     | 3.416   | VV    | 299         | 2801      | 0.18%       | 0.004%     |
| 31     | 3.440    | 3.416     | 3.447   | VV    | 478         | 6436      | 0.42%       | 0.009%     |

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|    |       |       |       |    |       |        |        |        |
|----|-------|-------|-------|----|-------|--------|--------|--------|
| 32 | 3.453 | 3.447 | 3.461 | VV | 434   | 3494   | 0.23%  | 0.005% |
| 33 | 3.468 | 3.461 | 3.495 | VV | 482   | 834    |        |        |
| 34 | 3.502 | 3.495 | 3.520 | VV | 425   | 525    |        |        |
| 35 | 3.541 | 3.520 | 3.563 | VV | 630   | 1271   |        |        |
| 36 | 3.580 | 3.563 | 3.606 | VV | 870   | 1576   |        |        |
| 37 | 3.612 | 3.606 | 3.617 | VV | 437   | 2706   | 0.18%  | 0.004% |
| 38 | 3.657 | 3.617 | 3.695 | VV | 1127  | 32252  | 2.10%  | 0.043% |
| 39 | 3.719 | 3.695 | 3.734 | VV | 729   | 13381  | 0.87%  | 0.018% |
| 40 | 3.745 | 3.734 | 3.761 | VV | 620   | 8017   | 0.52%  | 0.011% |
| 41 | 3.773 | 3.761 | 3.805 | VV | 636   | 11380  | 0.74%  | 0.015% |
| 42 | 3.817 | 3.805 | 3.834 | VV | 271   | 4289   | 0.28%  | 0.006% |
| 43 | 3.866 | 3.834 | 3.907 | VV | 704   | 19096  | 1.24%  | 0.026% |
| 44 | 3.911 | 3.907 | 3.921 | VV | 302   | 2158   | 0.14%  | 0.003% |
| 45 | 3.924 | 3.921 | 3.936 | VV | 260   | 2063   | 0.13%  | 0.003% |
| 46 | 3.958 | 3.936 | 3.995 | VV | 1396  | 23343  | 1.52%  | 0.031% |
| 47 | 4.006 | 3.995 | 4.030 | VV | 448   | 5871   | 0.38%  | 0.008% |
| 48 | 4.035 | 4.030 | 4.050 | VV | 223   | 2297   | 0.15%  | 0.003% |
| 49 | 4.056 | 4.050 | 4.061 | VV | 274   | 1455   | 0.09%  | 0.002% |
| 50 | 4.087 | 4.061 | 4.131 | VV | 9697  | 105043 | 6.85%  | 0.141% |
| 51 | 4.141 | 4.131 | 4.176 | VV | 747   | 11656  | 0.76%  | 0.016% |
| 52 | 4.184 | 4.176 | 4.200 | VV | 315   | 4103   | 0.27%  | 0.005% |
| 53 | 4.205 | 4.200 | 4.223 | VV | 319   | 3083   | 0.20%  | 0.004% |
| 54 | 4.255 | 4.223 | 4.281 | VV | 12850 | 205873 | 13.42% | 0.276% |
| 55 | 4.296 | 4.281 | 4.379 | VV | 5959  | 132643 | 8.65%  | 0.178% |
| 56 | 4.390 | 4.379 | 4.417 | VV | 990   | 18938  | 1.23%  | 0.025% |
| 57 | 4.419 | 4.417 | 4.438 | VV | 669   | 7572   | 0.49%  | 0.010% |
| 58 | 4.441 | 4.438 | 4.453 | VV | 651   | 5272   | 0.34%  | 0.007% |
| 59 | 4.462 | 4.453 | 4.487 | VV | 608   | 10146  | 0.66%  | 0.014% |
| 60 | 4.504 | 4.487 | 4.532 | VV | 646   | 13639  | 0.89%  | 0.018% |
| 61 | 4.568 | 4.532 | 4.589 | VV | 2535  | 31706  | 2.07%  | 0.043% |
| 62 | 4.598 | 4.589 | 4.606 | VV | 602   | 5632   | 0.37%  | 0.008% |
| 63 | 4.610 | 4.606 | 4.616 | VV | 478   | 2670   | 0.17%  | 0.004% |
| 64 | 4.624 | 4.616 | 4.641 | VV | 613   | 7355   | 0.48%  | 0.010% |
| 65 | 4.647 | 4.641 | 4.665 | VV | 428   | 5774   | 0.38%  | 0.008% |
| 66 | 4.683 | 4.665 | 4.706 | VV | 2539  | 33879  | 2.21%  | 0.045% |
| 67 | 4.723 | 4.706 | 4.760 | VV | 1741  | 25400  | 1.66%  | 0.034% |
| 68 | 4.783 | 4.760 | 4.830 | VV | 8967  | 128688 | 8.39%  | 0.173% |
| 69 | 4.835 | 4.830 | 4.846 | VV | 1155  | 11305  | 0.74%  | 0.015% |
| 70 | 4.854 | 4.846 | 4.860 | VV | 1209  | 8992   | 0.59%  | 0.012% |
| 71 | 4.867 | 4.860 | 4.908 | VV | 1166  | 24567  | 1.60%  | 0.033% |
| 72 | 4.944 | 4.908 | 4.989 | VV | 1739  | 56721  | 3.70%  | 0.076% |
| 73 | 4.993 | 4.989 | 5.033 | VV | 624   | 12864  | 0.84%  | 0.017% |
| 74 | 5.054 | 5.033 | 5.087 | VV | 1025  | 18610  | 1.21%  | 0.025% |
| 75 | 5.107 | 5.087 | 5.163 | VV | 716   | 15720  | 1.02%  | 0.021% |
| 76 | 5.203 | 5.163 | 5.231 | VV | 569   | 15147  | 0.99%  | 0.020% |
| 77 | 5.237 | 5.231 | 5.255 | VV | 269   | 2925   | 0.19%  | 0.004% |
| 78 | 5.260 | 5.255 | 5.280 | VV | 208   | 2165   | 0.14%  | 0.003% |
| 79 | 5.314 | 5.280 | 5.335 | PV | 1132  | 15659  | 1.02%  | 0.021% |

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Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-7.0-7.5

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

|     |       |       |       |    |       |                                                                     |                             |        |
|-----|-------|-------|-------|----|-------|---------------------------------------------------------------------|-----------------------------|--------|
|     |       |       |       |    |       | Instrument :<br>FID_G<br>ClientSampleId :<br>SB-01-20241219-7.0-7.5 |                             |        |
| 80  | 5.356 | 5.335 | 5.371 | VV | 638   | 9373                                                                | 0.61%                       | 0.013% |
| 81  | 5.376 | 5.371 | 5.383 | VV | 516   | 346                                                                 | Manual IntegrationsAPPROVED |        |
| 82  | 5.399 | 5.383 | 5.421 | VV | 2076  | 2334                                                                |                             |        |
| 83  | 5.442 | 5.421 | 5.453 | VV | 1845  | 2058                                                                |                             |        |
| 84  | 5.457 | 5.453 | 5.473 | VV | 1258  | 1166                                                                |                             |        |
| 85  | 5.498 | 5.473 | 5.530 | VV | 2147  | 40304                                                               |                             |        |
| 86  | 5.538 | 5.530 | 5.546 | VV | 364   | 2929                                                                | 0.19%                       | 0.004% |
| 87  | 5.563 | 5.546 | 5.581 | VV | 1313  | 14535                                                               | 0.95%                       | 0.019% |
| 88  | 5.604 | 5.581 | 5.616 | VV | 1103  | 13608                                                               | 0.89%                       | 0.018% |
| 89  | 5.631 | 5.616 | 5.673 | VV | 1722  | 23983                                                               | 1.56%                       | 0.032% |
| 90  | 5.678 | 5.673 | 5.683 | VV | 126   | 329                                                                 | 0.02%                       | 0.000% |
| 91  | 5.704 | 5.683 | 5.712 | VV | 683   | 7205                                                                | 0.47%                       | 0.010% |
| 92  | 5.732 | 5.712 | 5.789 | VV | 10277 | 127719                                                              | 8.33%                       | 0.171% |
| 93  | 5.806 | 5.789 | 5.841 | VV | 744   | 11825                                                               | 0.77%                       | 0.016% |
| 94  | 5.857 | 5.841 | 5.879 | VV | 296   | 3971                                                                | 0.26%                       | 0.005% |
| 95  | 5.890 | 5.879 | 5.896 | PV | 126   | 911                                                                 | 0.06%                       | 0.001% |
| 96  | 5.916 | 5.896 | 5.938 | VV | 502   | 7238                                                                | 0.47%                       | 0.010% |
| 97  | 5.969 | 5.938 | 5.982 | VV | 3354  | 47118                                                               | 3.07%                       | 0.063% |
| 98  | 6.001 | 5.982 | 6.023 | VV | 8216  | 117115                                                              | 7.63%                       | 0.157% |
| 99  | 6.031 | 6.023 | 6.051 | VV | 2642  | 32883                                                               | 2.14%                       | 0.044% |
| 100 | 6.066 | 6.051 | 6.098 | VV | 1896  | 37491                                                               | 2.44%                       | 0.050% |
| 101 | 6.110 | 6.098 | 6.134 | VV | 982   | 16519                                                               | 1.08%                       | 0.022% |
| 102 | 6.141 | 6.134 | 6.160 | VV | 588   | 8091                                                                | 0.53%                       | 0.011% |
| 103 | 6.171 | 6.160 | 6.183 | VV | 603   | 7429                                                                | 0.48%                       | 0.010% |
| 104 | 6.205 | 6.183 | 6.221 | VV | 3535  | 43162                                                               | 2.81%                       | 0.058% |
| 105 | 6.233 | 6.221 | 6.251 | VV | 1819  | 24006                                                               | 1.56%                       | 0.032% |
| 106 | 6.271 | 6.251 | 6.300 | VV | 2359  | 37737                                                               | 2.46%                       | 0.051% |
| 107 | 6.318 | 6.300 | 6.344 | VV | 842   | 14303                                                               | 0.93%                       | 0.019% |
| 108 | 6.367 | 6.344 | 6.371 | VV | 595   | 8434                                                                | 0.55%                       | 0.011% |
| 109 | 6.385 | 6.371 | 6.410 | VV | 644   | 11883                                                               | 0.77%                       | 0.016% |
| 110 | 6.419 | 6.410 | 6.431 | VV | 351   | 3802                                                                | 0.25%                       | 0.005% |
| 111 | 6.449 | 6.431 | 6.485 | VV | 1460  | 20142                                                               | 1.31%                       | 0.027% |
| 112 | 6.498 | 6.485 | 6.514 | VV | 441   | 5138                                                                | 0.33%                       | 0.007% |
| 113 | 6.541 | 6.514 | 6.550 | VV | 583   | 7457                                                                | 0.49%                       | 0.010% |
| 114 | 6.576 | 6.550 | 6.605 | VV | 1323  | 21749                                                               | 1.42%                       | 0.029% |
| 115 | 6.629 | 6.605 | 6.641 | VV | 873   | 12056                                                               | 0.79%                       | 0.016% |
| 116 | 6.644 | 6.641 | 6.665 | VV | 770   | 7319                                                                | 0.48%                       | 0.010% |
| 117 | 6.693 | 6.665 | 6.719 | VV | 2718  | 43666                                                               | 2.85%                       | 0.059% |
| 118 | 6.735 | 6.719 | 6.751 | VV | 764   | 10013                                                               | 0.65%                       | 0.013% |
| 119 | 6.765 | 6.751 | 6.783 | VV | 623   | 6993                                                                | 0.46%                       | 0.009% |
| 120 | 6.811 | 6.783 | 6.842 | VV | 3866  | 42069                                                               | 2.74%                       | 0.056% |
| 121 | 6.847 | 6.842 | 6.855 | VV | 140   | 760                                                                 | 0.05%                       | 0.001% |
| 122 | 6.868 | 6.855 | 6.884 | VV | 232   | 1894                                                                | 0.12%                       | 0.003% |
| 123 | 6.890 | 6.884 | 6.895 | VV | 79    | 262                                                                 | 0.02%                       | 0.000% |
| 124 | 6.915 | 6.895 | 6.921 | PV | 293   | 2865                                                                | 0.19%                       | 0.004% |
| 125 | 6.935 | 6.921 | 6.950 | VV | 976   | 11661                                                               | 0.76%                       | 0.016% |
| 126 | 6.960 | 6.950 | 6.987 | VV | 892   | 10960                                                               | 0.71%                       | 0.015% |

|     |       |       |       |    |       |        |        |        |
|-----|-------|-------|-------|----|-------|--------|--------|--------|
| 127 | 7.010 | 6.987 | 7.025 | VV | 442   | 6977   | 0.45%  | 0.009% |
| 128 | 7.051 | 7.025 | 7.087 | VV | 1933  | 3975   |        |        |
| 129 | 7.107 | 7.087 | 7.156 | VV | 2668  | 4819   |        |        |
| 130 | 7.177 | 7.156 | 7.205 | VV | 1448  | 3281   |        |        |
| 131 | 7.227 | 7.205 | 7.246 | VV | 2104  | 4085   |        |        |
| 132 | 7.268 | 7.246 | 7.286 | VV | 2449  | 54136  | 3.53%  | 0.073% |
| 133 | 7.333 | 7.286 | 7.363 | VV | 4741  | 154704 | 10.09% | 0.207% |
| 134 | 7.399 | 7.363 | 7.426 | VV | 11565 | 207120 | 13.50% | 0.278% |
| 135 | 7.439 | 7.426 | 7.487 | VV | 3455  | 58927  | 3.84%  | 0.079% |
| 136 | 7.495 | 7.487 | 7.535 | VV | 620   | 10099  | 0.66%  | 0.014% |
| 137 | 7.551 | 7.535 | 7.555 | VV | 308   | 2506   | 0.16%  | 0.003% |
| 138 | 7.572 | 7.555 | 7.589 | VV | 690   | 9270   | 0.60%  | 0.012% |
| 139 | 7.607 | 7.589 | 7.618 | VV | 1019  | 11741  | 0.77%  | 0.016% |
| 140 | 7.630 | 7.618 | 7.654 | VV | 961   | 15330  | 1.00%  | 0.021% |
| 141 | 7.687 | 7.654 | 7.719 | VV | 2519  | 42823  | 2.79%  | 0.057% |
| 142 | 7.725 | 7.719 | 7.729 | VV | 515   | 2866   | 0.19%  | 0.004% |
| 143 | 7.743 | 7.729 | 7.754 | VV | 664   | 8459   | 0.55%  | 0.011% |
| 144 | 7.783 | 7.754 | 7.794 | VV | 1289  | 22374  | 1.46%  | 0.030% |
| 145 | 7.809 | 7.794 | 7.827 | VV | 1374  | 20030  | 1.31%  | 0.027% |
| 146 | 7.861 | 7.827 | 7.885 | VV | 3133  | 49009  | 3.19%  | 0.066% |
| 147 | 7.895 | 7.885 | 7.906 | VV | 668   | 6428   | 0.42%  | 0.009% |
| 148 | 7.925 | 7.906 | 7.941 | VV | 1550  | 22566  | 1.47%  | 0.030% |
| 149 | 7.957 | 7.941 | 7.990 | VV | 3270  | 46875  | 3.06%  | 0.063% |
| 150 | 8.005 | 7.990 | 8.024 | VV | 1092  | 12903  | 0.84%  | 0.017% |
| 151 | 8.057 | 8.024 | 8.064 | VV | 580   | 8602   | 0.56%  | 0.012% |
| 152 | 8.078 | 8.064 | 8.099 | VV | 1340  | 20845  | 1.36%  | 0.028% |
| 153 | 8.119 | 8.099 | 8.136 | VV | 1085  | 21179  | 1.38%  | 0.028% |
| 154 | 8.165 | 8.136 | 8.199 | VV | 3186  | 77269  | 5.04%  | 0.104% |
| 155 | 8.208 | 8.199 | 8.224 | VV | 1419  | 19713  | 1.29%  | 0.026% |
| 156 | 8.235 | 8.224 | 8.246 | VV | 1363  | 16251  | 1.06%  | 0.022% |
| 157 | 8.263 | 8.246 | 8.279 | VV | 2739  | 40178  | 2.62%  | 0.054% |
| 158 | 8.297 | 8.279 | 8.312 | VV | 2605  | 39616  | 2.58%  | 0.053% |
| 159 | 8.332 | 8.312 | 8.356 | VV | 7916  | 102522 | 6.68%  | 0.137% |
| 160 | 8.365 | 8.356 | 8.372 | VV | 1700  | 15424  | 1.01%  | 0.021% |
| 161 | 8.394 | 8.372 | 8.422 | VV | 7466  | 112189 | 7.31%  | 0.150% |
| 162 | 8.440 | 8.422 | 8.486 | VV | 4677  | 93783  | 6.11%  | 0.126% |
| 163 | 8.504 | 8.486 | 8.515 | VV | 979   | 13143  | 0.86%  | 0.018% |
| 164 | 8.546 | 8.515 | 8.562 | VV | 16496 | 196545 | 12.81% | 0.263% |
| 165 | 8.572 | 8.562 | 8.614 | VV | 6827  | 89703  | 5.85%  | 0.120% |
| 166 | 8.629 | 8.614 | 8.646 | VV | 840   | 12756  | 0.83%  | 0.017% |
| 167 | 8.677 | 8.646 | 8.714 | VV | 28545 | 363919 | 23.72% | 0.488% |
| 168 | 8.723 | 8.714 | 8.758 | VV | 2416  | 38181  | 2.49%  | 0.051% |
| 169 | 8.773 | 8.758 | 8.785 | VV | 693   | 9231   | 0.60%  | 0.012% |
| 170 | 8.799 | 8.785 | 8.808 | VV | 621   | 7591   | 0.49%  | 0.010% |
| 171 | 8.840 | 8.808 | 8.881 | VV | 3683  | 63915  | 4.17%  | 0.086% |
| 172 | 8.899 | 8.881 | 8.921 | VV | 1363  | 20988  | 1.37%  | 0.028% |
| 173 | 8.990 | 8.921 | 9.008 | VV | 1924  | 54006  | 3.52%  | 0.072% |
| 174 | 9.025 | 9.008 | 9.035 | VV | 1907  | 24504  | 1.60%  | 0.033% |

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Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-7.0-7.5

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 175 | 9.056  | 9.035  | 9.099  | VV | 4431  | 89598  | 5.84%  | 0.120% |
| 176 | 9.117  | 9.099  | 9.138  | VV | 3557  | 4772   |        |        |
| 177 | 9.150  | 9.138  | 9.163  | VV | 1224  | 1643   |        |        |
| 178 | 9.178  | 9.163  | 9.189  | VV | 1640  | 2009   |        |        |
| 179 | 9.204  | 9.189  | 9.226  | VV | 1549  | 2843   |        |        |
| 180 | 9.228  | 9.226  | 9.250  | VV | 1125  | 10286  | 0.67%  | 0.014% |
| 181 | 9.290  | 9.250  | 9.317  | VV | 4262  | 70992  | 4.63%  | 0.095% |
| 182 | 9.339  | 9.317  | 9.379  | VV | 2522  | 52203  | 3.40%  | 0.070% |
| 183 | 9.402  | 9.379  | 9.415  | VV | 2409  | 33972  | 2.21%  | 0.046% |
| 184 | 9.423  | 9.415  | 9.440  | VV | 1570  | 17687  | 1.15%  | 0.024% |
| 185 | 9.472  | 9.440  | 9.482  | VV | 2235  | 34062  | 2.22%  | 0.046% |
| 186 | 9.492  | 9.482  | 9.519  | VV | 1822  | 27599  | 1.80%  | 0.037% |
| 187 | 9.536  | 9.519  | 9.559  | VV | 1711  | 19011  | 1.24%  | 0.025% |
| 188 | 9.579  | 9.559  | 9.595  | PV | 1065  | 12787  | 0.83%  | 0.017% |
| 189 | 9.633  | 9.595  | 9.652  | VV | 4557  | 74061  | 4.83%  | 0.099% |
| 190 | 9.665  | 9.652  | 9.691  | VV | 2337  | 46851  | 3.05%  | 0.063% |
| 191 | 9.696  | 9.691  | 9.702  | VV | 1738  | 10860  | 0.71%  | 0.015% |
| 192 | 9.727  | 9.702  | 9.738  | VV | 3950  | 58768  | 3.83%  | 0.079% |
| 193 | 9.748  | 9.738  | 9.768  | VV | 3863  | 49338  | 3.22%  | 0.066% |
| 194 | 9.785  | 9.768  | 9.802  | VV | 2484  | 35808  | 2.33%  | 0.048% |
| 195 | 9.826  | 9.802  | 9.850  | VV | 2124  | 40994  | 2.67%  | 0.055% |
| 196 | 9.857  | 9.850  | 9.886  | VV | 809   | 11721  | 0.76%  | 0.016% |
| 197 | 9.911  | 9.886  | 9.942  | VV | 5189  | 72032  | 4.70%  | 0.097% |
| 198 | 9.946  | 9.942  | 9.966  | VV | 642   | 7768   | 0.51%  | 0.010% |
| 199 | 9.990  | 9.966  | 10.010 | VV | 1735  | 29952  | 1.95%  | 0.040% |
| 200 | 10.050 | 10.010 | 10.074 | VV | 78494 | 868230 | 56.60% | 1.164% |
| 201 | 10.081 | 10.074 | 10.096 | VV | 1541  | 15970  | 1.04%  | 0.021% |
| 202 | 10.119 | 10.096 | 10.138 | VV | 1458  | 29035  | 1.89%  | 0.039% |
| 203 | 10.153 | 10.138 | 10.161 | VV | 1385  | 17635  | 1.15%  | 0.024% |
| 204 | 10.164 | 10.161 | 10.195 | VV | 1341  | 17263  | 1.13%  | 0.023% |
| 205 | 10.213 | 10.195 | 10.233 | VV | 3000  | 40527  | 2.64%  | 0.054% |
| 206 | 10.250 | 10.233 | 10.269 | VV | 2091  | 31569  | 2.06%  | 0.042% |
| 207 | 10.281 | 10.269 | 10.308 | VV | 907   | 14077  | 0.92%  | 0.019% |
| 208 | 10.351 | 10.308 | 10.370 | VV | 1014  | 23686  | 1.54%  | 0.032% |
| 209 | 10.375 | 10.370 | 10.384 | VV | 420   | 2896   | 0.19%  | 0.004% |
| 210 | 10.395 | 10.384 | 10.410 | VV | 386   | 4737   | 0.31%  | 0.006% |
| 211 | 10.424 | 10.410 | 10.444 | VV | 633   | 8292   | 0.54%  | 0.011% |
| 212 | 10.461 | 10.444 | 10.477 | VV | 1173  | 14664  | 0.96%  | 0.020% |
| 213 | 10.524 | 10.477 | 10.546 | VV | 3346  | 64587  | 4.21%  | 0.087% |
| 214 | 10.562 | 10.546 | 10.572 | VV | 1036  | 13559  | 0.88%  | 0.018% |
| 215 | 10.577 | 10.572 | 10.597 | VV | 957   | 11039  | 0.72%  | 0.015% |
| 216 | 10.632 | 10.597 | 10.645 | VV | 3220  | 46798  | 3.05%  | 0.063% |
| 217 | 10.653 | 10.645 | 10.680 | VV | 1876  | 24521  | 1.60%  | 0.033% |
| 218 | 10.698 | 10.680 | 10.712 | VV | 2135  | 26865  | 1.75%  | 0.036% |
| 219 | 10.716 | 10.712 | 10.762 | VV | 1401  | 26551  | 1.73%  | 0.036% |
| 220 | 10.784 | 10.762 | 10.800 | VV | 1375  | 19890  | 1.30%  | 0.027% |
| 221 | 10.825 | 10.800 | 10.846 | VV | 4098  | 50982  | 3.32%  | 0.068% |

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|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 222 | 10.856 | 10.846 | 10.864 | VV | 739   | 6568   | 0.43%  | 0.009% |
| 223 | 10.896 | 10.864 | 10.918 | VV | 3597  | 6153   |        |        |
| 224 | 10.935 | 10.918 | 10.946 | VV | 1367  | 2043   |        |        |
| 225 | 10.972 | 10.946 | 10.995 | VV | 7487  | 10276  |        |        |
| 226 | 11.011 | 10.995 | 11.033 | VV | 1174  | 2272   |        |        |
| 227 | 11.057 | 11.033 | 11.076 | VV | 4548  | 60951  | 3.97%  | 0.082% |
| 228 | 11.093 | 11.076 | 11.111 | VV | 1474  | 24439  | 1.59%  | 0.033% |
| 229 | 11.124 | 11.111 | 11.132 | VV | 1011  | 10962  | 0.71%  | 0.015% |
| 230 | 11.161 | 11.132 | 11.167 | VV | 1154  | 21154  | 1.38%  | 0.028% |
| 231 | 11.200 | 11.167 | 11.219 | VV | 2322  | 50401  | 3.29%  | 0.068% |
| 232 | 11.254 | 11.219 | 11.290 | VV | 7690  | 122231 | 7.97%  | 0.164% |
| 233 | 11.301 | 11.290 | 11.311 | VV | 561   | 5839   | 0.38%  | 0.008% |
| 234 | 11.327 | 11.311 | 11.348 | VV | 727   | 9232   | 0.60%  | 0.012% |
| 235 | 11.363 | 11.348 | 11.386 | VV | 420   | 4611   | 0.30%  | 0.006% |
| 236 | 11.390 | 11.386 | 11.397 | VV | 120   | 494    | 0.03%  | 0.001% |
| 237 | 11.439 | 11.397 | 11.456 | PV | 1813  | 26388  | 1.72%  | 0.035% |
| 238 | 11.462 | 11.456 | 11.472 | VV | 796   | 6573   | 0.43%  | 0.009% |
| 239 | 11.506 | 11.472 | 11.530 | VV | 1391  | 28201  | 1.84%  | 0.038% |
| 240 | 11.554 | 11.530 | 11.582 | VV | 2599  | 42325  | 2.76%  | 0.057% |
| 241 | 11.608 | 11.582 | 11.618 | VV | 1553  | 25634  | 1.67%  | 0.034% |
| 242 | 11.625 | 11.618 | 11.630 | VV | 1329  | 8425   | 0.55%  | 0.011% |
| 243 | 11.637 | 11.630 | 11.652 | VV | 1308  | 16253  | 1.06%  | 0.022% |
| 244 | 11.683 | 11.652 | 11.701 | VV | 2597  | 57441  | 3.74%  | 0.077% |
| 245 | 11.718 | 11.701 | 11.751 | VV | 2642  | 49522  | 3.23%  | 0.066% |
| 246 | 11.769 | 11.751 | 11.787 | VV | 3048  | 39106  | 2.55%  | 0.052% |
| 247 | 11.798 | 11.787 | 11.805 | VV | 1073  | 10569  | 0.69%  | 0.014% |
| 248 | 11.821 | 11.805 | 11.844 | VV | 2023  | 30021  | 1.96%  | 0.040% |
| 249 | 11.861 | 11.844 | 11.877 | VV | 1988  | 26268  | 1.71%  | 0.035% |
| 250 | 11.893 | 11.877 | 11.918 | VV | 1997  | 25656  | 1.67%  | 0.034% |
| 251 | 11.941 | 11.918 | 11.966 | VV | 922   | 19959  | 1.30%  | 0.027% |
| 252 | 11.989 | 11.966 | 12.012 | VV | 4061  | 51982  | 3.39%  | 0.070% |
| 253 | 12.027 | 12.012 | 12.035 | VV | 704   | 6417   | 0.42%  | 0.009% |
| 254 | 12.056 | 12.035 | 12.074 | VV | 2209  | 31726  | 2.07%  | 0.043% |
| 255 | 12.086 | 12.074 | 12.104 | VV | 1742  | 25297  | 1.65%  | 0.034% |
| 256 | 12.122 | 12.104 | 12.147 | VV | 2591  | 40158  | 2.62%  | 0.054% |
| 257 | 12.166 | 12.147 | 12.208 | VV | 1561  | 33372  | 2.18%  | 0.045% |
| 258 | 12.231 | 12.208 | 12.264 | VV | 7076  | 93611  | 6.10%  | 0.125% |
| 259 | 12.298 | 12.264 | 12.313 | VV | 3777  | 64952  | 4.23%  | 0.087% |
| 260 | 12.329 | 12.313 | 12.361 | VV | 4391  | 81766  | 5.33%  | 0.110% |
| 261 | 12.377 | 12.361 | 12.388 | VV | 2134  | 27290  | 1.78%  | 0.037% |
| 262 | 12.402 | 12.388 | 12.421 | VV | 4516  | 55361  | 3.61%  | 0.074% |
| 263 | 12.445 | 12.421 | 12.454 | VV | 1695  | 27494  | 1.79%  | 0.037% |
| 264 | 12.463 | 12.454 | 12.476 | VV | 1760  | 20300  | 1.32%  | 0.027% |
| 265 | 12.482 | 12.476 | 12.498 | VV | 1456  | 15316  | 1.00%  | 0.021% |
| 266 | 12.515 | 12.498 | 12.532 | VV | 1732  | 25246  | 1.65%  | 0.034% |
| 267 | 12.560 | 12.532 | 12.588 | VV | 58286 | 650189 | 42.39% | 0.872% |
| 268 | 12.604 | 12.588 | 12.622 | VV | 2996  | 50302  | 3.28%  | 0.067% |
| 269 | 12.637 | 12.622 | 12.657 | VV | 3711  | 50613  | 3.30%  | 0.068% |

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|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 270 | 12.668 | 12.657 | 12.676 | VV | 1639  | 18152  | 1.18%  | 0.024% |
| 271 | 12.690 | 12.676 | 12.699 | VV | 2309  | 2726   |        |        |
| 272 | 12.717 | 12.699 | 12.754 | VV | 2773  | 6036   |        |        |
| 273 | 12.763 | 12.754 | 12.767 | VV | 1069  | 745    |        |        |
| 274 | 12.773 | 12.767 | 12.779 | VV | 1075  | 714    |        |        |
| 275 | 12.801 | 12.779 | 12.815 | VV | 2809  | 41248  | 2.69%  | 0.055% |
| 276 | 12.840 | 12.815 | 12.863 | VV | 4829  | 81671  | 5.32%  | 0.109% |
| 277 | 12.887 | 12.863 | 12.900 | VV | 3688  | 60878  | 3.97%  | 0.082% |
| 278 | 12.917 | 12.900 | 12.934 | VV | 4871  | 72516  | 4.73%  | 0.097% |
| 279 | 12.952 | 12.934 | 12.969 | VV | 2721  | 48918  | 3.19%  | 0.066% |
| 280 | 12.976 | 12.969 | 12.987 | VV | 2228  | 23139  | 1.51%  | 0.031% |
| 281 | 13.022 | 12.987 | 13.066 | VV | 10756 | 241638 | 15.75% | 0.324% |
| 282 | 13.110 | 13.066 | 13.123 | VV | 3126  | 57059  | 3.72%  | 0.076% |
| 283 | 13.144 | 13.123 | 13.178 | VV | 11933 | 175445 | 11.44% | 0.235% |
| 284 | 13.196 | 13.178 | 13.214 | VV | 3266  | 56875  | 3.71%  | 0.076% |
| 285 | 13.248 | 13.214 | 13.276 | VV | 7481  | 136486 | 8.90%  | 0.183% |
| 286 | 13.305 | 13.276 | 13.329 | VV | 19744 | 236767 | 15.44% | 0.317% |
| 287 | 13.359 | 13.329 | 13.382 | VV | 3389  | 80170  | 5.23%  | 0.107% |
| 288 | 13.396 | 13.382 | 13.429 | VV | 2848  | 59402  | 3.87%  | 0.080% |
| 289 | 13.488 | 13.429 | 13.525 | VV | 2173  | 79848  | 5.21%  | 0.107% |
| 290 | 13.546 | 13.525 | 13.556 | VV | 1465  | 21373  | 1.39%  | 0.029% |
| 291 | 13.583 | 13.556 | 13.614 | VV | 3426  | 69066  | 4.50%  | 0.093% |
| 292 | 13.635 | 13.614 | 13.656 | VV | 1808  | 33232  | 2.17%  | 0.045% |
| 293 | 13.672 | 13.656 | 13.681 | VV | 1349  | 16886  | 1.10%  | 0.023% |
| 294 | 13.716 | 13.681 | 13.748 | VV | 1781  | 57409  | 3.74%  | 0.077% |
| 295 | 13.766 | 13.748 | 13.776 | VV | 2488  | 33258  | 2.17%  | 0.045% |
| 296 | 13.793 | 13.776 | 13.828 | VV | 5506  | 79107  | 5.16%  | 0.106% |
| 297 | 13.831 | 13.828 | 13.856 | VV | 661   | 7737   | 0.50%  | 0.010% |
| 298 | 13.894 | 13.856 | 13.918 | VV | 5806  | 97758  | 6.37%  | 0.131% |
| 299 | 13.936 | 13.918 | 13.987 | VV | 3775  | 86175  | 5.62%  | 0.116% |
| 300 | 14.006 | 13.987 | 14.025 | VV | 2139  | 33918  | 2.21%  | 0.045% |
| 301 | 14.045 | 14.025 | 14.083 | VV | 6058  | 81556  | 5.32%  | 0.109% |
| 302 | 14.128 | 14.083 | 14.150 | PV | 5760  | 110202 | 7.18%  | 0.148% |
| 303 | 14.174 | 14.150 | 14.192 | VV | 6430  | 88550  | 5.77%  | 0.119% |
| 304 | 14.214 | 14.192 | 14.233 | VV | 5645  | 76446  | 4.98%  | 0.102% |
| 305 | 14.246 | 14.233 | 14.265 | VV | 2287  | 29510  | 1.92%  | 0.040% |
| 306 | 14.286 | 14.265 | 14.317 | VV | 4339  | 59489  | 3.88%  | 0.080% |
| 307 | 14.329 | 14.317 | 14.349 | VV | 813   | 10589  | 0.69%  | 0.014% |
| 308 | 14.367 | 14.349 | 14.391 | VV | 936   | 13418  | 0.87%  | 0.018% |
| 309 | 14.434 | 14.391 | 14.445 | PV | 1581  | 28170  | 1.84%  | 0.038% |
| 310 | 14.449 | 14.445 | 14.467 | VV | 1407  | 14691  | 0.96%  | 0.020% |
| 311 | 14.490 | 14.467 | 14.504 | VV | 1784  | 28372  | 1.85%  | 0.038% |
| 312 | 14.519 | 14.504 | 14.530 | VV | 2981  | 38403  | 2.50%  | 0.051% |
| 313 | 14.541 | 14.530 | 14.563 | VV | 2680  | 44841  | 2.92%  | 0.060% |
| 314 | 14.599 | 14.563 | 14.618 | VV | 2235  | 63173  | 4.12%  | 0.085% |
| 315 | 14.639 | 14.618 | 14.654 | VV | 3752  | 58102  | 3.79%  | 0.078% |
| 316 | 14.666 | 14.654 | 14.682 | VV | 2604  | 37157  | 2.42%  | 0.050% |

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|     |        |        |        |    |        |         |         |        |
|-----|--------|--------|--------|----|--------|---------|---------|--------|
| 317 | 14.704 | 14.682 | 14.708 | VV | 2899   | 37878   | 2.47%   | 0.051% |
| 318 | 14.723 | 14.708 | 14.749 | VV | 3713   | 6712    |         |        |
| 319 | 14.775 | 14.749 | 14.801 | VV | 2513   | 5855    |         |        |
| 320 | 14.831 | 14.801 | 14.859 | VV | 5204   | 11448   |         |        |
| 321 | 14.880 | 14.859 | 14.912 | VV | 7900   | 12805   |         |        |
| 322 | 14.936 | 14.912 | 14.970 | VV | 3788   | 71177   | 4.64%   | 0.095% |
| 323 | 15.008 | 14.970 | 15.023 | VV | 1746   | 38717   | 2.52%   | 0.052% |
| 324 | 15.060 | 15.023 | 15.111 | VV | 107850 | 1533961 | 100.00% | 2.056% |
| 325 | 15.112 | 15.111 | 15.119 | VV | 1118   | 4461    | 0.29%   | 0.006% |
| 326 | 15.145 | 15.119 | 15.170 | VV | 14573  | 183174  | 11.94%  | 0.246% |
| 327 | 15.190 | 15.170 | 15.209 | VV | 8591   | 111677  | 7.28%   | 0.150% |
| 328 | 15.231 | 15.209 | 15.254 | VV | 15455  | 205642  | 13.41%  | 0.276% |
| 329 | 15.262 | 15.254 | 15.284 | VV | 1639   | 23806   | 1.55%   | 0.032% |
| 330 | 15.301 | 15.284 | 15.321 | VV | 1442   | 23762   | 1.55%   | 0.032% |
| 331 | 15.350 | 15.321 | 15.386 | VV | 5322   | 106916  | 6.97%   | 0.143% |
| 332 | 15.387 | 15.386 | 15.409 | VV | 1743   | 15572   | 1.02%   | 0.021% |
| 333 | 15.426 | 15.409 | 15.457 | VV | 1911   | 34583   | 2.25%   | 0.046% |
| 334 | 15.461 | 15.457 | 15.474 | VV | 842    | 6306    | 0.41%   | 0.008% |
| 335 | 15.514 | 15.474 | 15.526 | VV | 1532   | 32864   | 2.14%   | 0.044% |
| 336 | 15.537 | 15.526 | 15.580 | VV | 1472   | 34907   | 2.28%   | 0.047% |
| 337 | 15.642 | 15.580 | 15.741 | VV | 46878  | 854189  | 55.69%  | 1.145% |
| 338 | 15.803 | 15.741 | 15.844 | VV | 15269  | 301679  | 19.67%  | 0.404% |
| 339 | 15.867 | 15.844 | 15.890 | VV | 6240   | 109378  | 7.13%   | 0.147% |
| 340 | 15.906 | 15.890 | 15.929 | VV | 2078   | 42335   | 2.76%   | 0.057% |
| 341 | 15.960 | 15.929 | 15.986 | VV | 3036   | 85185   | 5.55%   | 0.114% |
| 342 | 16.013 | 15.986 | 16.020 | VV | 5823   | 86011   | 5.61%   | 0.115% |
| 343 | 16.024 | 16.020 | 16.065 | VV | 5942   | 90944   | 5.93%   | 0.122% |
| 344 | 16.083 | 16.065 | 16.092 | VV | 2126   | 30139   | 1.96%   | 0.040% |
| 345 | 16.109 | 16.092 | 16.139 | VV | 3795   | 64050   | 4.18%   | 0.086% |
| 346 | 16.163 | 16.139 | 16.170 | VV | 1502   | 22692   | 1.48%   | 0.030% |
| 347 | 16.195 | 16.170 | 16.200 | VV | 3186   | 39505   | 2.58%   | 0.053% |
| 348 | 16.205 | 16.200 | 16.224 | VV | 3003   | 31434   | 2.05%   | 0.042% |
| 349 | 16.286 | 16.224 | 16.310 | VV | 4067   | 106114  | 6.92%   | 0.142% |
| 350 | 16.319 | 16.310 | 16.325 | VV | 310    | 1524    | 0.10%   | 0.002% |
| 351 | 16.367 | 16.325 | 16.387 | PV | 1453   | 25273   | 1.65%   | 0.034% |
| 352 | 16.393 | 16.387 | 16.412 | VV | 784    | 7612    | 0.50%   | 0.010% |
| 353 | 16.440 | 16.412 | 16.454 | VV | 946    | 15116   | 0.99%   | 0.020% |
| 354 | 16.474 | 16.454 | 16.494 | VV | 1829   | 31351   | 2.04%   | 0.042% |
| 355 | 16.505 | 16.494 | 16.521 | VV | 1100   | 12768   | 0.83%   | 0.017% |
| 356 | 16.583 | 16.521 | 16.602 | PV | 2342   | 50640   | 3.30%   | 0.068% |
| 357 | 16.638 | 16.602 | 16.644 | VV | 2242   | 38624   | 2.52%   | 0.052% |
| 358 | 16.670 | 16.644 | 16.703 | VV | 7313   | 152061  | 9.91%   | 0.204% |
| 359 | 16.753 | 16.703 | 16.773 | VV | 24334  | 400661  | 26.12%  | 0.537% |
| 360 | 16.780 | 16.773 | 16.804 | VV | 10387  | 115294  | 7.52%   | 0.155% |
| 361 | 16.812 | 16.804 | 16.816 | VV | 1261   | 8814    | 0.57%   | 0.012% |
| 362 | 16.884 | 16.816 | 16.908 | VV | 13458  | 272078  | 17.74%  | 0.365% |
| 363 | 16.922 | 16.908 | 16.937 | VV | 3075   | 46311   | 3.02%   | 0.062% |
| 364 | 16.946 | 16.937 | 16.977 | VV | 2656   | 43031   | 2.81%   | 0.058% |

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|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 365 | 17.002 | 16.977 | 17.009 | VV | 1683  | 22703  | 1.48%  | 0.030% |
| 366 | 17.027 | 17.009 | 17.043 | VV | 2594  | 3982   |        |        |
| 367 | 17.076 | 17.043 | 17.101 | VV | 37349 | 54147  |        |        |
| 368 | 17.133 | 17.101 | 17.155 | VV | 29252 | 37613  |        |        |
| 369 | 17.160 | 17.155 | 17.187 | VV | 2752  | 3114   |        |        |
| 370 | 17.208 | 17.187 | 17.218 | PV | 3737  | 40569  | 2.64%  | 0.054% |
| 371 | 17.237 | 17.218 | 17.261 | VV | 8109  | 125558 | 8.19%  | 0.168% |
| 372 | 17.293 | 17.261 | 17.320 | VV | 10174 | 171105 | 11.15% | 0.229% |
| 373 | 17.332 | 17.320 | 17.340 | VV | 1372  | 12751  | 0.83%  | 0.017% |
| 374 | 17.375 | 17.340 | 17.400 | VV | 5653  | 107833 | 7.03%  | 0.145% |
| 375 | 17.417 | 17.400 | 17.422 | VV | 2061  | 22185  | 1.45%  | 0.030% |
| 376 | 17.434 | 17.422 | 17.449 | VV | 2783  | 33431  | 2.18%  | 0.045% |
| 377 | 17.457 | 17.449 | 17.461 | VV | 1638  | 10975  | 0.72%  | 0.015% |
| 378 | 17.502 | 17.461 | 17.521 | VV | 7181  | 157805 | 10.29% | 0.212% |
| 379 | 17.530 | 17.521 | 17.542 | VV | 4124  | 45446  | 2.96%  | 0.061% |
| 380 | 17.548 | 17.542 | 17.578 | VV | 3013  | 48398  | 3.16%  | 0.065% |
| 381 | 17.622 | 17.578 | 17.628 | VV | 5720  | 128276 | 8.36%  | 0.172% |
| 382 | 17.643 | 17.628 | 17.673 | VV | 7626  | 166581 | 10.86% | 0.223% |
| 383 | 17.692 | 17.673 | 17.710 | VV | 8709  | 133724 | 8.72%  | 0.179% |
| 384 | 17.719 | 17.710 | 17.730 | VV | 4274  | 41899  | 2.73%  | 0.056% |
| 385 | 17.736 | 17.730 | 17.741 | VV | 3047  | 18557  | 1.21%  | 0.025% |
| 386 | 17.747 | 17.741 | 17.760 | VV | 2798  | 25375  | 1.65%  | 0.034% |
| 387 | 17.764 | 17.760 | 17.769 | VV | 1895  | 8514   | 0.56%  | 0.011% |
| 388 | 17.799 | 17.769 | 17.816 | VV | 5921  | 109240 | 7.12%  | 0.146% |
| 389 | 17.833 | 17.816 | 17.847 | VV | 4823  | 64454  | 4.20%  | 0.086% |
| 390 | 17.851 | 17.847 | 17.860 | VV | 2928  | 18149  | 1.18%  | 0.024% |
| 391 | 17.865 | 17.860 | 17.880 | VV | 2095  | 13964  | 0.91%  | 0.019% |
| 392 | 17.892 | 17.880 | 17.902 | VV | 1807  | 15100  | 0.98%  | 0.020% |
| 393 | 17.915 | 17.902 | 17.921 | VV | 2584  | 17925  | 1.17%  | 0.024% |
| 394 | 17.926 | 17.921 | 17.938 | VV | 2307  | 16497  | 1.08%  | 0.022% |
| 395 | 17.950 | 17.938 | 17.959 | VV | 2189  | 19434  | 1.27%  | 0.026% |
| 396 | 17.965 | 17.959 | 17.983 | VV | 1454  | 14554  | 0.95%  | 0.020% |
| 397 | 18.010 | 17.983 | 18.025 | VV | 3316  | 40949  | 2.67%  | 0.055% |
| 398 | 18.032 | 18.025 | 18.039 | VV | 1736  | 10588  | 0.69%  | 0.014% |
| 399 | 18.057 | 18.039 | 18.085 | PV | 5671  | 76462  | 4.98%  | 0.103% |
| 400 | 18.091 | 18.085 | 18.102 | VV | 2586  | 22768  | 1.48%  | 0.031% |
| 401 | 18.113 | 18.102 | 18.117 | VV | 5509  | 39690  | 2.59%  | 0.053% |
| 402 | 18.135 | 18.117 | 18.160 | VV | 10395 | 154848 | 10.09% | 0.208% |
| 403 | 18.179 | 18.160 | 18.190 | VV | 4699  | 59410  | 3.87%  | 0.080% |
| 404 | 18.200 | 18.190 | 18.219 | VV | 6257  | 75624  | 4.93%  | 0.101% |
| 405 | 18.233 | 18.219 | 18.247 | VV | 8861  | 97297  | 6.34%  | 0.130% |
| 406 | 18.253 | 18.247 | 18.259 | VV | 3693  | 21199  | 1.38%  | 0.028% |
| 407 | 18.265 | 18.259 | 18.270 | VV | 3820  | 23868  | 1.56%  | 0.032% |
| 408 | 18.286 | 18.270 | 18.309 | VV | 7261  | 120211 | 7.84%  | 0.161% |
| 409 | 18.325 | 18.309 | 18.336 | VV | 5287  | 69936  | 4.56%  | 0.094% |
| 410 | 18.346 | 18.336 | 18.366 | VV | 6537  | 98736  | 6.44%  | 0.132% |
| 411 | 18.378 | 18.366 | 18.394 | VV | 5936  | 73544  | 4.79%  | 0.099% |

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Manual IntegrationsAPPROVED

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|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 412 | 18.414 | 18.394 | 18.458 | VV | 11088 | 218806 | 14.26% | 0.293% |
| 413 | 18.502 | 18.458 | 18.529 | VV | 42918 | 92055  |        |        |
| 414 | 18.558 | 18.529 | 18.576 | VV | 17188 | 31542  |        |        |
| 415 | 18.584 | 18.576 | 18.589 | VV | 6366  | 4584   |        |        |
| 416 | 18.595 | 18.589 | 18.604 | VV | 5968  | 4376   |        |        |
| 417 | 18.622 | 18.604 | 18.627 | VV | 6221  | 71931  | 4.69%  | 0.096% |
| 418 | 18.641 | 18.627 | 18.653 | VV | 13345 | 162792 | 10.61% | 0.218% |
| 419 | 18.665 | 18.653 | 18.674 | VV | 12977 | 137474 | 8.96%  | 0.184% |
| 420 | 18.678 | 18.674 | 18.698 | VV | 13336 | 145629 | 9.49%  | 0.195% |
| 421 | 18.703 | 18.698 | 18.710 | VV | 8415  | 61038  | 3.98%  | 0.082% |
| 422 | 18.714 | 18.710 | 18.725 | VV | 8041  | 67160  | 4.38%  | 0.090% |
| 423 | 18.734 | 18.725 | 18.739 | VV | 10605 | 71128  | 4.64%  | 0.095% |
| 424 | 18.760 | 18.739 | 18.782 | VV | 46736 | 650032 | 42.38% | 0.871% |
| 425 | 18.787 | 18.782 | 18.799 | VV | 8853  | 76909  | 5.01%  | 0.103% |
| 426 | 18.807 | 18.799 | 18.828 | VV | 8030  | 108290 | 7.06%  | 0.145% |
| 427 | 18.836 | 18.828 | 18.854 | VV | 7696  | 94027  | 6.13%  | 0.126% |
| 428 | 18.871 | 18.854 | 18.877 | VV | 8266  | 86148  | 5.62%  | 0.115% |
| 429 | 18.888 | 18.877 | 18.903 | VV | 15772 | 158192 | 10.31% | 0.212% |
| 430 | 18.915 | 18.903 | 18.929 | VV | 11334 | 141384 | 9.22%  | 0.190% |
| 431 | 18.963 | 18.929 | 19.000 | VV | 19004 | 564296 | 36.79% | 0.756% |
| 432 | 19.014 | 19.000 | 19.034 | VV | 14198 | 208293 | 13.58% | 0.279% |
| 433 | 19.040 | 19.034 | 19.063 | VV | 11957 | 172471 | 11.24% | 0.231% |
| 434 | 19.084 | 19.063 | 19.089 | VV | 15720 | 211336 | 13.78% | 0.283% |
| 435 | 19.094 | 19.089 | 19.104 | VV | 13836 | 95216  | 6.21%  | 0.128% |
| 436 | 19.118 | 19.104 | 19.128 | VV | 13511 | 175556 | 11.44% | 0.235% |
| 437 | 19.137 | 19.128 | 19.143 | VV | 13280 | 96780  | 6.31%  | 0.130% |
| 438 | 19.151 | 19.143 | 19.159 | VV | 14710 | 114752 | 7.48%  | 0.154% |
| 439 | 19.169 | 19.159 | 19.176 | VV | 12386 | 113533 | 7.40%  | 0.152% |
| 440 | 19.185 | 19.176 | 19.192 | VV | 14932 | 125571 | 8.19%  | 0.168% |
| 441 | 19.198 | 19.192 | 19.205 | VV | 13847 | 88094  | 5.74%  | 0.118% |
| 442 | 19.220 | 19.205 | 19.228 | VV | 13518 | 158539 | 10.34% | 0.213% |
| 443 | 19.236 | 19.228 | 19.253 | VV | 12879 | 167369 | 10.91% | 0.224% |
| 444 | 19.267 | 19.253 | 19.275 | VV | 13311 | 152002 | 9.91%  | 0.204% |
| 445 | 19.293 | 19.275 | 19.300 | VV | 15162 | 188881 | 12.31% | 0.253% |
| 446 | 19.317 | 19.300 | 19.323 | VV | 26711 | 278915 | 18.18% | 0.374% |
| 447 | 19.327 | 19.323 | 19.344 | VV | 26798 | 258611 | 16.86% | 0.347% |
| 448 | 19.368 | 19.344 | 19.388 | VV | 23723 | 506424 | 33.01% | 0.679% |
| 449 | 19.403 | 19.388 | 19.411 | VV | 17433 | 204350 | 13.32% | 0.274% |
| 450 | 19.422 | 19.411 | 19.426 | VV | 18115 | 146709 | 9.56%  | 0.197% |
| 451 | 19.451 | 19.426 | 19.458 | VV | 24785 | 377684 | 24.62% | 0.506% |
| 452 | 19.464 | 19.458 | 19.471 | VV | 20067 | 144833 | 9.44%  | 0.194% |
| 453 | 19.478 | 19.471 | 19.490 | VV | 22887 | 209474 | 13.66% | 0.281% |
| 454 | 19.496 | 19.490 | 19.506 | VV | 22293 | 185572 | 12.10% | 0.249% |
| 455 | 19.518 | 19.506 | 19.523 | VV | 18668 | 182103 | 11.87% | 0.244% |
| 456 | 19.529 | 19.523 | 19.536 | VV | 18794 | 131072 | 8.54%  | 0.176% |
| 457 | 19.541 | 19.536 | 19.546 | VV | 17915 | 91919  | 5.99%  | 0.123% |
| 458 | 19.552 | 19.546 | 19.557 | VV | 20009 | 118730 | 7.74%  | 0.159% |
| 459 | 19.562 | 19.557 | 19.569 | VV | 22768 | 137548 | 8.97%  | 0.184% |

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|     |        |        |        |    |       |         |        |        |
|-----|--------|--------|--------|----|-------|---------|--------|--------|
| 460 | 19.580 | 19.569 | 19.589 | VV | 22386 | 213811  | 13.94% | 0.287% |
| 461 | 19.601 | 19.589 | 19.614 | VV | 24477 | 26598   |        |        |
| 462 | 19.625 | 19.614 | 19.640 | VV | 20895 | 27452   |        |        |
| 463 | 19.646 | 19.640 | 19.652 | VV | 17437 | 11206   |        |        |
| 464 | 19.665 | 19.652 | 19.671 | VV | 17072 | 18209   |        |        |
| 465 | 19.677 | 19.671 | 19.690 | VV | 18889 | 178274  | 11.62% | 0.239% |
| 466 | 19.699 | 19.690 | 19.704 | VV | 18038 | 132627  | 8.65%  | 0.178% |
| 467 | 19.709 | 19.704 | 19.717 | VV | 17777 | 133392  | 8.70%  | 0.179% |
| 468 | 19.722 | 19.717 | 19.728 | VV | 17439 | 105981  | 6.91%  | 0.142% |
| 469 | 19.741 | 19.728 | 19.745 | VV | 23140 | 211840  | 13.81% | 0.284% |
| 470 | 19.758 | 19.745 | 19.764 | VV | 26235 | 265249  | 17.29% | 0.356% |
| 471 | 19.769 | 19.764 | 19.775 | VV | 25409 | 146890  | 9.58%  | 0.197% |
| 472 | 19.779 | 19.775 | 19.785 | VV | 23518 | 125105  | 8.16%  | 0.168% |
| 473 | 19.796 | 19.785 | 19.803 | VV | 26593 | 240967  | 15.71% | 0.323% |
| 474 | 19.809 | 19.803 | 19.818 | VV | 26009 | 206588  | 13.47% | 0.277% |
| 475 | 19.834 | 19.818 | 19.841 | VV | 23304 | 300638  | 19.60% | 0.403% |
| 476 | 19.854 | 19.841 | 19.859 | VV | 22485 | 223262  | 14.55% | 0.299% |
| 477 | 19.866 | 19.859 | 19.890 | VV | 27251 | 397351  | 25.90% | 0.533% |
| 478 | 19.896 | 19.890 | 19.901 | VV | 23525 | 132051  | 8.61%  | 0.177% |
| 479 | 19.911 | 19.901 | 19.949 | VV | 37780 | 824409  | 53.74% | 1.105% |
| 480 | 19.960 | 19.949 | 19.967 | VV | 26768 | 247793  | 16.15% | 0.332% |
| 481 | 19.986 | 19.967 | 20.000 | VV | 34701 | 567364  | 36.99% | 0.761% |
| 482 | 20.006 | 20.000 | 20.016 | VV | 30255 | 243078  | 15.85% | 0.326% |
| 483 | 20.030 | 20.016 | 20.040 | VV | 33041 | 383723  | 25.02% | 0.514% |
| 484 | 20.044 | 20.040 | 20.058 | VV | 27998 | 266070  | 17.35% | 0.357% |
| 485 | 20.063 | 20.058 | 20.069 | VV | 25919 | 172035  | 11.22% | 0.231% |
| 486 | 20.097 | 20.069 | 20.100 | VV | 29551 | 486781  | 31.73% | 0.653% |
| 487 | 20.116 | 20.100 | 20.120 | VV | 36916 | 389534  | 25.39% | 0.522% |
| 488 | 20.123 | 20.120 | 20.135 | VV | 36200 | 315249  | 20.55% | 0.423% |
| 489 | 20.141 | 20.135 | 20.149 | VV | 34381 | 269673  | 17.58% | 0.362% |
| 490 | 20.154 | 20.149 | 20.164 | VV | 32539 | 259326  | 16.91% | 0.348% |
| 491 | 20.178 | 20.164 | 20.184 | VV | 35374 | 362187  | 23.61% | 0.486% |
| 492 | 20.199 | 20.184 | 20.204 | VV | 39440 | 417324  | 27.21% | 0.559% |
| 493 | 20.212 | 20.204 | 20.228 | VV | 37543 | 500737  | 32.64% | 0.671% |
| 494 | 20.238 | 20.228 | 20.244 | VV | 37431 | 338896  | 22.09% | 0.454% |
| 495 | 20.250 | 20.244 | 20.262 | VV | 37199 | 378648  | 24.68% | 0.508% |
| 496 | 20.274 | 20.262 | 20.284 | VV | 48861 | 533123  | 34.75% | 0.715% |
| 497 | 20.290 | 20.284 | 20.328 | VV | 47349 | 1000558 | 65.23% | 1.341% |
| 498 | 20.334 | 20.328 | 20.341 | VV | 31239 | 217648  | 14.19% | 0.292% |
| 499 | 20.368 | 20.341 | 20.375 | VV | 33532 | 622662  | 40.59% | 0.835% |
| 500 | 20.389 | 20.375 | 20.400 | VV | 33687 | 478000  | 31.16% | 0.641% |
| 501 | 20.409 | 20.400 | 20.418 | VV | 33851 | 336027  | 21.91% | 0.450% |
| 502 | 20.423 | 20.418 | 20.427 | VV | 35066 | 162639  | 10.60% | 0.218% |
| 503 | 20.431 | 20.427 | 20.447 | VV | 33566 | 367848  | 23.98% | 0.493% |
| 504 | 20.452 | 20.447 | 20.458 | VV | 30035 | 180601  | 11.77% | 0.242% |
| 505 | 20.496 | 20.458 | 20.500 | VV | 40246 | 847160  | 55.23% | 1.136% |
| 506 | 20.504 | 20.500 | 20.508 | VV | 38093 | 164627  | 10.73% | 0.221% |

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|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 507 | 20.532 | 20.508 | 20.536 | VV | 45307 | 672819 | 43.86% | 0.902% |
| 508 | 20.549 | 20.536 | 20.569 | VV | 49802 | 79817  |        |        |
| 509 | 20.584 | 20.569 | 20.609 | VV | 42516 | 85112  |        |        |
| 510 | 20.612 | 20.609 | 20.617 | VV | 34964 | 15221  |        |        |
| 511 | 20.622 | 20.617 | 20.629 | VV | 36432 | 24258  |        |        |
| 512 | 20.640 | 20.629 | 20.652 | VV | 38297 | 500114 | 32.60% | 0.670% |
| 513 | 20.660 | 20.652 | 20.675 | VV | 39152 | 495126 | 32.28% | 0.664% |
| 514 | 20.693 | 20.675 | 20.705 | VV | 39745 | 620970 | 40.48% | 0.832% |
| 515 | 20.711 | 20.705 | 20.724 | VV | 36820 | 375320 | 24.47% | 0.503% |
| 516 | 20.741 | 20.724 | 20.747 | VV | 40895 | 543164 | 35.41% | 0.728% |
| 517 | 20.769 | 20.747 | 20.776 | VV | 44280 | 702797 | 45.82% | 0.942% |
| 518 | 20.781 | 20.776 | 20.787 | VV | 42266 | 272368 | 17.76% | 0.365% |
| 519 | 20.795 | 20.787 | 20.807 | VV | 49190 | 532955 | 34.74% | 0.714% |
| 520 | 20.811 | 20.807 | 20.818 | VV | 50633 | 303902 | 19.81% | 0.407% |
| 521 | 20.834 | 20.818 | 20.839 | VV | 49852 | 575344 | 37.51% | 0.771% |
| 522 | 20.861 | 20.839 | 20.867 | VV | 50686 | 795205 | 51.84% | 1.066% |
| 523 | 20.873 | 20.867 | 20.878 | VV | 50266 | 308978 | 20.14% | 0.414% |
| 524 | 20.882 | 20.878 | 20.888 | VV | 48328 | 264698 | 17.26% | 0.355% |
| 525 | 20.892 | 20.888 | 20.897 | VV | 45354 | 238142 | 15.52% | 0.319% |
| 526 | 20.902 | 20.897 | 20.907 | VV | 43738 | 249665 | 16.28% | 0.335% |
| 527 | 20.911 | 20.907 | 20.921 | VV | 44199 | 357925 | 23.33% | 0.480% |
| 528 | 20.926 | 20.921 | 20.936 | VV | 42449 | 348814 | 22.74% | 0.468% |
| 529 | 20.941 | 20.936 | 20.954 | VV | 41887 | 406364 | 26.49% | 0.545% |
| 530 | 20.964 | 20.954 | 20.970 | VV | 39919 | 373295 | 24.34% | 0.500% |
| 531 | 20.975 | 20.970 | 20.984 | VV | 40144 | 323163 | 21.07% | 0.433% |
| 532 | 20.997 | 20.984 | 21.024 | VV | 36850 | 788638 | 51.41% | 1.057% |
| 533 | 21.038 | 21.024 | 21.042 | VV | 36279 | 328785 | 21.43% | 0.441% |
| 534 | 21.046 | 21.042 | 21.050 | VV | 35102 | 167408 | 10.91% | 0.224% |
| 535 | 21.060 | 21.050 | 21.065 | VV | 37456 | 299183 | 19.50% | 0.401% |
| 536 | 21.077 | 21.065 | 21.089 | VV | 39139 | 513911 | 33.50% | 0.689% |
| 537 | 21.101 | 21.089 | 21.107 | VV | 34410 | 334346 | 21.80% | 0.448% |
| 538 | 21.112 | 21.107 | 21.118 | VV | 36035 | 225326 | 14.69% | 0.302% |
| 539 | 21.123 | 21.118 | 21.133 | VV | 30819 | 250828 | 16.35% | 0.336% |
| 540 | 21.148 | 21.133 | 21.158 | VV | 31073 | 437987 | 28.55% | 0.587% |
| 541 | 21.169 | 21.158 | 21.178 | VV | 35224 | 372860 | 24.31% | 0.500% |
| 542 | 21.183 | 21.178 | 21.191 | VV | 35379 | 257677 | 16.80% | 0.345% |
| 543 | 21.201 | 21.191 | 21.223 | VV | 40563 | 698110 | 45.51% | 0.936% |
| 544 | 21.238 | 21.223 | 21.247 | VV | 40204 | 521804 | 34.02% | 0.700% |
| 545 | 21.260 | 21.247 | 21.264 | VV | 41629 | 386669 | 25.21% | 0.518% |
| 546 | 21.271 | 21.264 | 21.283 | VV | 39122 | 431156 | 28.11% | 0.578% |
| 547 | 21.290 | 21.283 | 21.296 | VV | 38584 | 300198 | 19.57% | 0.402% |
| 548 | 21.301 | 21.296 | 21.311 | VV | 40144 | 324770 | 21.17% | 0.435% |
| 549 | 21.315 | 21.311 | 21.321 | VV | 34735 | 188382 | 12.28% | 0.253% |
| 550 | 21.325 | 21.321 | 21.336 | VV | 34192 | 285798 | 18.63% | 0.383% |
| 551 | 21.340 | 21.336 | 21.345 | VV | 32118 | 150628 | 9.82%  | 0.202% |
| 552 | 21.349 | 21.345 | 21.355 | VV | 32137 | 186232 | 12.14% | 0.250% |
| 553 | 21.368 | 21.355 | 21.382 | VV | 32791 | 434963 | 28.36% | 0.583% |
| 554 | 21.387 | 21.382 | 21.392 | VV | 26733 | 146539 | 9.55%  | 0.196% |

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|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 555 | 21.400 | 21.392 | 21.411 | VV | 23814 | 247929 | 16.16% | 0.332% |
| 556 | 21.415 | 21.411 | 21.422 | VV | 21152 | 12487  |        |        |
| 557 | 21.428 | 21.422 | 21.462 | VV | 20306 | 38664  |        |        |
| 558 | 21.476 | 21.462 | 21.486 | VV | 15129 | 18312  |        |        |
| 559 | 21.494 | 21.486 | 21.499 | VV | 15912 | 10394  |        |        |
| 560 | 21.506 | 21.499 | 21.510 | VV | 20582 | 124999 | 8.15%  | 0.168% |
| 561 | 21.516 | 21.510 | 21.520 | VV | 22005 | 118589 | 7.73%  | 0.159% |
| 562 | 21.527 | 21.520 | 21.531 | VV | 25201 | 145571 | 9.49%  | 0.195% |
| 563 | 21.535 | 21.531 | 21.540 | VV | 24182 | 118017 | 7.69%  | 0.158% |
| 564 | 21.560 | 21.540 | 21.573 | VV | 28716 | 515019 | 33.57% | 0.690% |
| 565 | 21.582 | 21.573 | 21.588 | VV | 32281 | 241149 | 15.72% | 0.323% |
| 566 | 21.595 | 21.588 | 21.605 | VV | 30810 | 302917 | 19.75% | 0.406% |
| 567 | 21.609 | 21.605 | 21.614 | VV | 31113 | 162331 | 10.58% | 0.218% |
| 568 | 21.619 | 21.614 | 21.639 | VV | 28450 | 371321 | 24.21% | 0.498% |
| 569 | 21.659 | 21.639 | 21.663 | VV | 23423 | 308283 | 20.10% | 0.413% |
| 570 | 21.668 | 21.663 | 21.680 | VV | 25794 | 236337 | 15.41% | 0.317% |
| 571 | 21.700 | 21.680 | 21.719 | VV | 27248 | 548032 | 35.73% | 0.735% |
| 572 | 21.729 | 21.719 | 21.735 | VV | 25042 | 211319 | 13.78% | 0.283% |
| 573 | 21.742 | 21.735 | 21.752 | VV | 24660 | 214458 | 13.98% | 0.287% |
| 574 | 21.757 | 21.752 | 21.763 | VV | 22236 | 141603 | 9.23%  | 0.190% |
| 575 | 21.770 | 21.763 | 21.784 | VV | 21384 | 217777 | 14.20% | 0.292% |
| 576 | 21.790 | 21.784 | 21.801 | VV | 13801 | 110422 | 7.20%  | 0.148% |
| 577 | 21.806 | 21.801 | 21.812 | VV | 13213 | 71869  | 4.69%  | 0.096% |
| 578 | 21.817 | 21.812 | 21.822 | VV | 10764 | 53953  | 3.52%  | 0.072% |
| 579 | 21.831 | 21.822 | 21.842 | VV | 11484 | 107628 | 7.02%  | 0.144% |
| 580 | 21.862 | 21.842 | 21.868 | VV | 14343 | 173920 | 11.34% | 0.233% |
| 581 | 21.872 | 21.868 | 21.878 | VV | 12333 | 56003  | 3.65%  | 0.075% |
| 582 | 21.886 | 21.878 | 21.893 | VV | 13592 | 90897  | 5.93%  | 0.122% |
| 583 | 21.903 | 21.893 | 21.908 | VV | 15763 | 118549 | 7.73%  | 0.159% |
| 584 | 21.914 | 21.908 | 21.923 | VV | 16616 | 135974 | 8.86%  | 0.182% |
| 585 | 21.932 | 21.923 | 21.947 | VV | 21240 | 237409 | 15.48% | 0.318% |
| 586 | 21.953 | 21.947 | 21.959 | VV | 18633 | 133783 | 8.72%  | 0.179% |
| 587 | 21.964 | 21.959 | 21.975 | VV | 20182 | 172079 | 11.22% | 0.231% |
| 588 | 21.986 | 21.975 | 21.995 | VV | 18778 | 204936 | 13.36% | 0.275% |
| 589 | 22.002 | 21.995 | 22.028 | VV | 21580 | 309015 | 20.14% | 0.414% |
| 590 | 22.034 | 22.028 | 22.046 | VV | 12930 | 102537 | 6.68%  | 0.137% |
| 591 | 22.055 | 22.046 | 22.061 | VV | 11676 | 88154  | 5.75%  | 0.118% |
| 592 | 22.067 | 22.061 | 22.072 | VV | 11691 | 67607  | 4.41%  | 0.091% |
| 593 | 22.084 | 22.072 | 22.089 | VV | 14539 | 117861 | 7.68%  | 0.158% |
| 594 | 22.095 | 22.089 | 22.111 | VV | 14652 | 138023 | 9.00%  | 0.185% |
| 595 | 22.115 | 22.111 | 22.119 | VV | 9268  | 34544  | 2.25%  | 0.046% |
| 596 | 22.128 | 22.119 | 22.138 | VV | 10577 | 95699  | 6.24%  | 0.128% |
| 597 | 22.142 | 22.138 | 22.157 | VV | 7354  | 63510  | 4.14%  | 0.085% |
| 598 | 22.170 | 22.157 | 22.180 | VV | 10047 | 106078 | 6.92%  | 0.142% |
| 599 | 22.186 | 22.180 | 22.190 | VV | 8330  | 48006  | 3.13%  | 0.064% |
| 600 | 22.195 | 22.190 | 22.200 | VV | 11145 | 46827  | 3.05%  | 0.063% |
| 601 | 22.207 | 22.200 | 22.214 | VV | 15174 | 92593  | 6.04%  | 0.124% |

Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-7.0-7.5

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

|     |        |        |        |    |       |       |       |        |
|-----|--------|--------|--------|----|-------|-------|-------|--------|
| 602 | 22.223 | 22.214 | 22.228 | VV | 12439 | 88996 | 5.80% | 0.119% |
| 603 | 22.236 | 22.228 | 22.254 | VV | 14339 | 15886 |       |        |
| 604 | 22.264 | 22.254 | 22.277 | VV | 8577  | 7514  |       |        |
| 605 | 22.295 | 22.277 | 22.308 | PV | 6845  | 6583  |       |        |
| 606 | 22.314 | 22.308 | 22.320 | VV | 3698  | 1335  |       |        |
| 607 | 22.332 | 22.320 | 22.337 | VV | 3008  | 20668 | 1.35% | 0.028% |
| 608 | 22.345 | 22.337 | 22.354 | VV | 6423  | 29672 | 1.93% | 0.040% |
| 609 | 22.360 | 22.354 | 22.374 | VV | 6644  | 44990 | 2.93% | 0.060% |
| 610 | 22.380 | 22.374 | 22.385 | VV | 5233  | 15668 | 1.02% | 0.021% |

Sum of corrected areas: 74596474

FG121924.M Tue Dec 24 01:08:20 2024

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-7.0-7.5

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

## Report of Analysis

|                    |                                                 |                    |          |
|--------------------|-------------------------------------------------|--------------------|----------|
| Client:            | PARSONS Engineering of New York, Inc.           | Date Collected:    | 12/19/24 |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 | Date Received:     | 12/19/24 |
| Client Sample ID:  | SB-01-20241219-9.0-9.5                          | SDG No.:           | P5361    |
| Lab Sample ID:     | P5361-02                                        | Matrix:            | SOIL     |
| Analytical Method: | 8015D TPH                                       | % Solid:           | 87.1     |
| Sample Wt/Vol:     | 30.05 Units: g                                  | Final Vol:         | 1 mL     |
| Soil Aliquot Vol:  | uL                                              | Test:              | TPH GC   |
| Extraction Type:   |                                                 | Injection Volume : |          |
| GPC Factor :       | PH :                                            |                    |          |
| Prep Method :      | SW3541                                          |                    |          |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| FG015019.D        | 1         | 12/23/24 08:35 | 12/23/24 12:54 | PB165807      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|-------------------|------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>    |                        |       |           |          |            |                   |
| PHC               | Petroleum Hydrocarbons | 12800 |           | 365      | 3250       | ug/kg             |
| <b>SURROGATES</b> |                        |       |           |          |            |                   |
| 16416-32-3        | TETRACOSANE-d50        | 12.5  |           | 37 - 130 | 62%        | SPK: 20           |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015019.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 12:54  
Operator : YP\AJ  
Sample : P5361-02  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5

Integration File: autoint1.e  
Quant Time: Dec 24 00:27:52 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.060 | 1670729  | 12.500 ug/ml |
| Target Compounds              |        |          |              |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

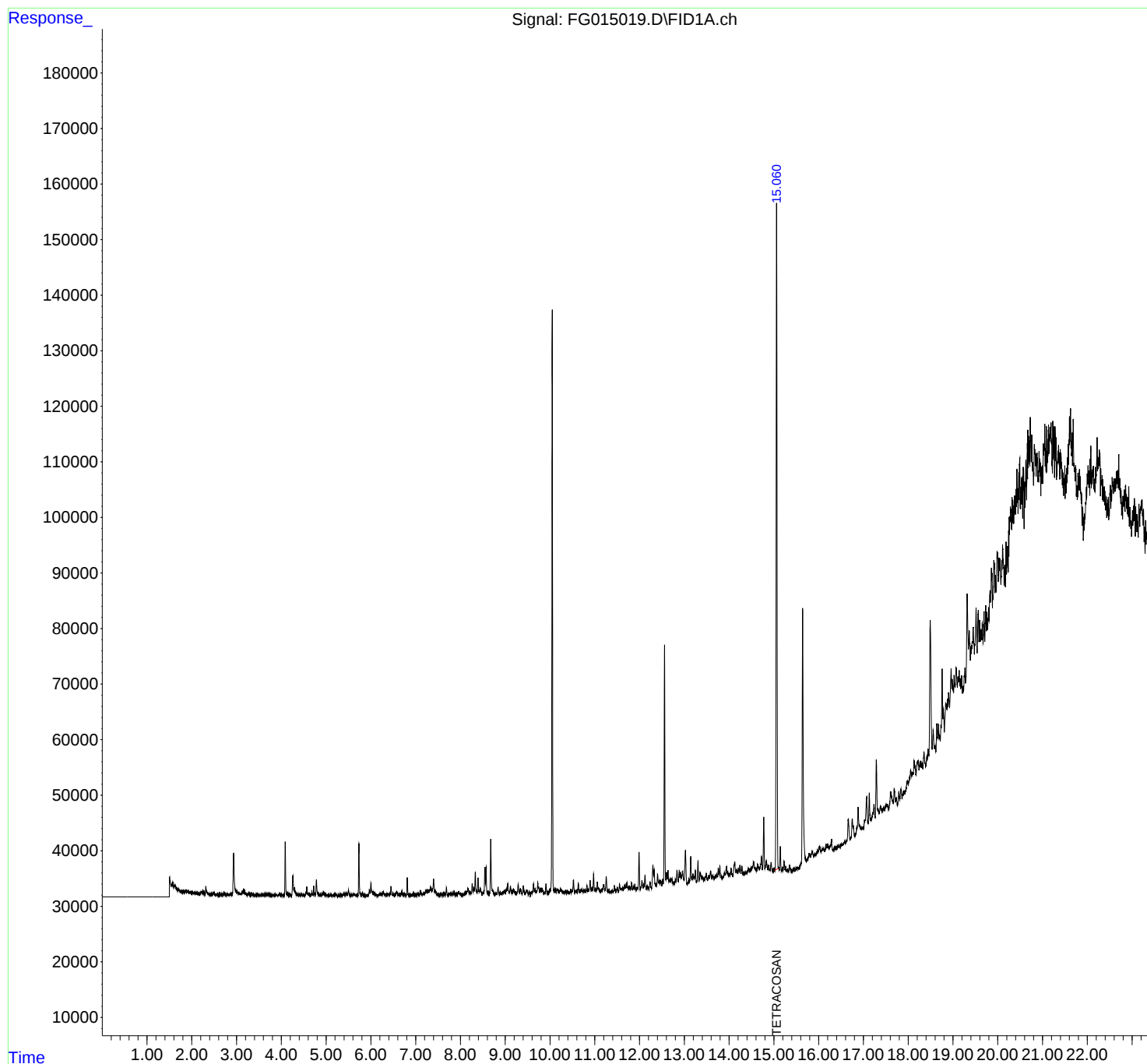
(m)=manual int.

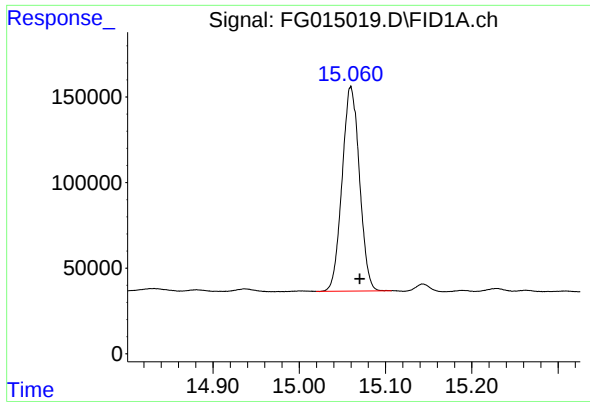
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015019.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 12:54  
Operator : YP\AJ  
Sample : P5361-02  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5

Integration File: autoint1.e  
Quant Time: Dec 24 00:27:52 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.060 min  
Delta R.T.: -0.010 min  
Response: 1670729  
Conc: 12.50 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015019.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 12:54  
Sample : P5361-02  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br># | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-----------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1         | 1.910       | 1.900        | 1.929      | BV       | 197            | 1364         | 0.08%          | 0.003%        |
| 2         | 1.931       | 1.929        | 1.935      | PV       | 46             | 166          | 0.01%          | 0.000%        |
| 3         | 1.942       | 1.935        | 1.967      | VV       | 143            | 1538         | 0.09%          | 0.003%        |
| 4         | 1.972       | 1.967        | 1.981      | PV       | 100            | 606          | 0.04%          | 0.001%        |
| 5         | 2.003       | 1.981        | 2.007      | PV       | 183            | 1665         | 0.10%          | 0.004%        |
| 6         | 2.010       | 2.007        | 2.048      | VV       | 260            | 3330         | 0.19%          | 0.007%        |
| 7         | 2.056       | 2.048        | 2.065      | VV       | 125            | 1112         | 0.06%          | 0.002%        |
| 8         | 2.071       | 2.065        | 2.079      | VV       | 195            | 1289         | 0.08%          | 0.003%        |
| 9         | 2.081       | 2.079        | 2.085      | VV       | 177            | 456          | 0.03%          | 0.001%        |
| 10        | 2.102       | 2.085        | 2.115      | VV       | 197            | 2654         | 0.16%          | 0.006%        |
| 11        | 2.119       | 2.115        | 2.129      | VV       | 215            | 943          | 0.06%          | 0.002%        |
| 12        | 2.136       | 2.129        | 2.148      | VV       | 109            | 843          | 0.05%          | 0.002%        |
| 13        | 2.151       | 2.148        | 2.159      | VV       | 90             | 365          | 0.02%          | 0.001%        |
| 14        | 2.165       | 2.159        | 2.184      | PV       | 108            | 774          | 0.05%          | 0.002%        |
| 15        | 2.210       | 2.184        | 2.238      | PV       | 471            | 7890         | 0.46%          | 0.017%        |
| 16        | 2.245       | 2.238        | 2.298      | VV       | 762            | 11651        | 0.68%          | 0.025%        |
| 17        | 2.312       | 2.298        | 2.392      | VV       | 1429           | 24049        | 1.40%          | 0.052%        |
| 18        | 2.397       | 2.392        | 2.426      | VV       | 138            | 1203         | 0.07%          | 0.003%        |
| 19        | 2.434       | 2.426        | 2.440      | VV       | 159            | 1029         | 0.06%          | 0.002%        |
| 20        | 2.444       | 2.440        | 2.471      | VV       | 249            | 2920         | 0.17%          | 0.006%        |
| 21        | 2.488       | 2.471        | 2.536      | VV       | 357            | 7683         | 0.45%          | 0.016%        |
| 22        | 2.539       | 2.536        | 2.555      | VV       | 161            | 1006         | 0.06%          | 0.002%        |
| 23        | 2.558       | 2.555        | 2.575      | VV       | 114            | 799          | 0.05%          | 0.002%        |
| 24        | 2.580       | 2.575        | 2.585      | PV       | 128            | 396          | 0.02%          | 0.001%        |
| 25        | 2.592       | 2.585        | 2.615      | VV       | 156            | 1619         | 0.09%          | 0.003%        |
| 26        | 2.648       | 2.615        | 2.699      | VV       | 210            | 5697         | 0.33%          | 0.012%        |
| 27        | 2.720       | 2.699        | 2.770      | VV       | 436            | 6955         | 0.41%          | 0.015%        |
| 28        | 2.774       | 2.770        | 2.778      | VV       | 71             | 337          | 0.02%          | 0.001%        |
| 29        | 2.788       | 2.778        | 2.814      | PV       | 255            | 3090         | 0.18%          | 0.007%        |
| 30        | 2.818       | 2.814        | 2.822      | VV       | 125            | 423          | 0.02%          | 0.001%        |
| 31        | 2.854       | 2.822        | 2.881      | VV       | 266            | 6606         | 0.39%          | 0.014%        |

|    |       |       |       |    |        |        |       |        |
|----|-------|-------|-------|----|--------|--------|-------|--------|
|    |       |       |       |    | rteres |        |       |        |
| 32 | 2.933 | 2.881 | 2.996 | VV | 7571   | 141905 | 8.29% | 0.305% |
| 33 | 3.005 | 2.996 | 3.048 | VV | 808    | 17738  | 1.04% | 0.038% |
| 34 | 3.053 | 3.048 | 3.083 | VV | 381    | 6569   | 0.38% | 0.014% |
| 35 | 3.126 | 3.083 | 3.145 | VV | 665    | 16108  | 0.94% | 0.035% |
| 36 | 3.158 | 3.145 | 3.206 | VV | 1149   | 23365  | 1.36% | 0.050% |
| 37 | 3.207 | 3.206 | 3.227 | VV | 349    | 3115   | 0.18% | 0.007% |
| 38 | 3.230 | 3.227 | 3.247 | VV | 247    | 2213   | 0.13% | 0.005% |
| 39 | 3.272 | 3.247 | 3.285 | VV | 354    | 6044   | 0.35% | 0.013% |
| 40 | 3.290 | 3.285 | 3.301 | VV | 313    | 2631   | 0.15% | 0.006% |
| 41 | 3.308 | 3.301 | 3.319 | VV | 257    | 2429   | 0.14% | 0.005% |
| 42 | 3.324 | 3.319 | 3.349 | VV | 208    | 2846   | 0.17% | 0.006% |
| 43 | 3.353 | 3.349 | 3.361 | VV | 177    | 981    | 0.06% | 0.002% |
| 44 | 3.366 | 3.361 | 3.372 | VV | 165    | 875    | 0.05% | 0.002% |
| 45 | 3.374 | 3.372 | 3.393 | VV | 168    | 1313   | 0.08% | 0.003% |
| 46 | 3.397 | 3.393 | 3.410 | VV | 112    | 942    | 0.06% | 0.002% |
| 47 | 3.417 | 3.410 | 3.427 | VV | 134    | 847    | 0.05% | 0.002% |
| 48 | 3.448 | 3.427 | 3.456 | VV | 170    | 1978   | 0.12% | 0.004% |
| 49 | 3.476 | 3.456 | 3.500 | VV | 225    | 4358   | 0.25% | 0.009% |
| 50 | 3.505 | 3.500 | 3.530 | VV | 165    | 2904   | 0.17% | 0.006% |
| 51 | 3.548 | 3.530 | 3.552 | VV | 190    | 2287   | 0.13% | 0.005% |
| 52 | 3.571 | 3.552 | 3.587 | VV | 285    | 4792   | 0.28% | 0.010% |
| 53 | 3.589 | 3.587 | 3.628 | VV | 267    | 4048   | 0.24% | 0.009% |
| 54 | 3.644 | 3.628 | 3.679 | VV | 325    | 6869   | 0.40% | 0.015% |
| 55 | 3.684 | 3.679 | 3.691 | VV | 157    | 860    | 0.05% | 0.002% |
| 56 | 3.719 | 3.691 | 3.762 | VV | 321    | 8042   | 0.47% | 0.017% |
| 57 | 3.771 | 3.762 | 3.776 | VV | 207    | 1275   | 0.07% | 0.003% |
| 58 | 3.781 | 3.776 | 3.797 | VV | 219    | 1688   | 0.10% | 0.004% |
| 59 | 3.805 | 3.797 | 3.824 | VV | 135    | 1089   | 0.06% | 0.002% |
| 60 | 3.828 | 3.824 | 3.842 | VV | 89     | 812    | 0.05% | 0.002% |
| 61 | 3.863 | 3.842 | 3.869 | VV | 163    | 1775   | 0.10% | 0.004% |
| 62 | 3.874 | 3.869 | 3.941 | VV | 221    | 4131   | 0.24% | 0.009% |
| 63 | 3.959 | 3.941 | 3.992 | VV | 449    | 6983   | 0.41% | 0.015% |
| 64 | 4.006 | 3.992 | 4.024 | VV | 300    | 3622   | 0.21% | 0.008% |
| 65 | 4.029 | 4.024 | 4.041 | VV | 186    | 957    | 0.06% | 0.002% |
| 66 | 4.046 | 4.041 | 4.059 | VV | 116    | 685    | 0.04% | 0.001% |
| 67 | 4.087 | 4.059 | 4.129 | VV | 9667   | 99140  | 5.79% | 0.213% |
| 68 | 4.145 | 4.129 | 4.176 | VV | 479    | 7980   | 0.47% | 0.017% |
| 69 | 4.181 | 4.176 | 4.187 | VV | 206    | 994    | 0.06% | 0.002% |
| 70 | 4.201 | 4.187 | 4.212 | VV | 173    | 2045   | 0.12% | 0.004% |
| 71 | 4.215 | 4.212 | 4.229 | VV | 109    | 796    | 0.05% | 0.002% |
| 72 | 4.256 | 4.229 | 4.282 | PV | 3638   | 58599  | 3.42% | 0.126% |
| 73 | 4.296 | 4.282 | 4.349 | VV | 1585   | 31101  | 1.82% | 0.067% |
| 74 | 4.352 | 4.349 | 4.361 | VV | 305    | 1961   | 0.11% | 0.004% |
| 75 | 4.364 | 4.361 | 4.377 | VV | 263    | 2222   | 0.13% | 0.005% |
| 76 | 4.391 | 4.377 | 4.449 | VV | 365    | 9990   | 0.58% | 0.021% |
| 77 | 4.464 | 4.449 | 4.484 | VV | 212    | 3590   | 0.21% | 0.008% |
| 78 | 4.496 | 4.484 | 4.532 | VV | 243    | 4512   | 0.26% | 0.010% |
| 79 | 4.569 | 4.532 | 4.592 | VV | 1665   | 23658  | 1.38% | 0.051% |

|     |       |       |       |    |      |        |       |        |
|-----|-------|-------|-------|----|------|--------|-------|--------|
| 80  | 4.598 | 4.592 | 4.636 | VV | 346  | 6135   | 0.36% | 0.013% |
| 81  | 4.654 | 4.636 | 4.666 | VV | 252  | 3142   | 0.18% | 0.007% |
| 82  | 4.682 | 4.666 | 4.704 | VV | 683  | 8595   | 0.50% | 0.018% |
| 83  | 4.724 | 4.704 | 4.747 | VV | 1792 | 19857  | 1.16% | 0.043% |
| 84  | 4.783 | 4.747 | 4.834 | VV | 2962 | 47023  | 2.75% | 0.101% |
| 85  | 4.839 | 4.834 | 4.863 | VV | 262  | 3925   | 0.23% | 0.008% |
| 86  | 4.881 | 4.863 | 4.893 | VV | 268  | 3896   | 0.23% | 0.008% |
| 87  | 4.899 | 4.893 | 4.914 | VV | 304  | 3091   | 0.18% | 0.007% |
| 88  | 4.929 | 4.914 | 4.936 | VV | 606  | 5889   | 0.34% | 0.013% |
| 89  | 4.941 | 4.936 | 4.959 | VV | 551  | 6625   | 0.39% | 0.014% |
| 90  | 4.970 | 4.959 | 5.012 | VV | 510  | 8739   | 0.51% | 0.019% |
| 91  | 5.018 | 5.012 | 5.023 | VV | 173  | 998    | 0.06% | 0.002% |
| 92  | 5.057 | 5.023 | 5.071 | VV | 241  | 4695   | 0.27% | 0.010% |
| 93  | 5.095 | 5.071 | 5.099 | VV | 177  | 1917   | 0.11% | 0.004% |
| 94  | 5.106 | 5.099 | 5.152 | VV | 167  | 3603   | 0.21% | 0.008% |
| 95  | 5.157 | 5.152 | 5.166 | VV | 143  | 858    | 0.05% | 0.002% |
| 96  | 5.172 | 5.166 | 5.179 | VV | 125  | 725    | 0.04% | 0.002% |
| 97  | 5.215 | 5.179 | 5.230 | VV | 451  | 9058   | 0.53% | 0.019% |
| 98  | 5.234 | 5.230 | 5.254 | VV | 171  | 1763   | 0.10% | 0.004% |
| 99  | 5.260 | 5.254 | 5.288 | VV | 115  | 1927   | 0.11% | 0.004% |
| 100 | 5.316 | 5.288 | 5.337 | VV | 351  | 4844   | 0.28% | 0.010% |
| 101 | 5.342 | 5.337 | 5.349 | VV | 109  | 529    | 0.03% | 0.001% |
| 102 | 5.378 | 5.349 | 5.383 | VV | 262  | 3225   | 0.19% | 0.007% |
| 103 | 5.399 | 5.383 | 5.420 | VV | 600  | 7361   | 0.43% | 0.016% |
| 104 | 5.442 | 5.420 | 5.474 | VV | 568  | 10101  | 0.59% | 0.022% |
| 105 | 5.500 | 5.474 | 5.532 | VV | 1153 | 18658  | 1.09% | 0.040% |
| 106 | 5.539 | 5.532 | 5.546 | VV | 240  | 1584   | 0.09% | 0.003% |
| 107 | 5.563 | 5.546 | 5.584 | VV | 382  | 4765   | 0.28% | 0.010% |
| 108 | 5.603 | 5.584 | 5.618 | VV | 412  | 5550   | 0.32% | 0.012% |
| 109 | 5.631 | 5.618 | 5.687 | VV | 487  | 7387   | 0.43% | 0.016% |
| 110 | 5.701 | 5.687 | 5.712 | PV | 204  | 2085   | 0.12% | 0.004% |
| 111 | 5.733 | 5.712 | 5.789 | VV | 9502 | 102719 | 6.00% | 0.220% |
| 112 | 5.806 | 5.789 | 5.850 | VV | 491  | 8662   | 0.51% | 0.019% |
| 113 | 5.859 | 5.850 | 5.874 | VV | 134  | 1334   | 0.08% | 0.003% |
| 114 | 5.892 | 5.874 | 5.912 | VV | 127  | 1354   | 0.08% | 0.003% |
| 115 | 5.921 | 5.912 | 5.932 | VV | 111  | 721    | 0.04% | 0.002% |
| 116 | 5.969 | 5.932 | 5.979 | VV | 931  | 13791  | 0.81% | 0.030% |
| 117 | 6.001 | 5.979 | 6.022 | VV | 2402 | 34514  | 2.02% | 0.074% |
| 118 | 6.029 | 6.022 | 6.052 | VV | 845  | 10450  | 0.61% | 0.022% |
| 119 | 6.068 | 6.052 | 6.132 | VV | 688  | 15750  | 0.92% | 0.034% |
| 120 | 6.167 | 6.132 | 6.182 | VV | 253  | 4890   | 0.29% | 0.010% |
| 121 | 6.184 | 6.182 | 6.190 | VV | 203  | 758    | 0.04% | 0.002% |
| 122 | 6.207 | 6.190 | 6.218 | VV | 564  | 5866   | 0.34% | 0.013% |
| 123 | 6.236 | 6.218 | 6.251 | VV | 485  | 6954   | 0.41% | 0.015% |
| 124 | 6.275 | 6.251 | 6.302 | VV | 847  | 15373  | 0.90% | 0.033% |
| 125 | 6.314 | 6.302 | 6.346 | VV | 407  | 6814   | 0.40% | 0.015% |
| 126 | 6.353 | 6.346 | 6.377 | VV | 337  | 5060   | 0.30% | 0.011% |

|     |       |       |       |    |        |       |       |        |
|-----|-------|-------|-------|----|--------|-------|-------|--------|
|     |       |       |       |    | rteres |       |       |        |
| 127 | 6.383 | 6.377 | 6.387 | VV | 352    | 1856  | 0.11% | 0.004% |
| 128 | 6.391 | 6.387 | 6.404 | VV | 349    | 2902  | 0.17% | 0.006% |
| 129 | 6.422 | 6.404 | 6.431 | VV | 364    | 4246  | 0.25% | 0.009% |
| 130 | 6.449 | 6.431 | 6.480 | VV | 1723   | 21847 | 1.28% | 0.047% |
| 131 | 6.499 | 6.480 | 6.518 | VV | 437    | 5885  | 0.34% | 0.013% |
| 132 | 6.543 | 6.518 | 6.551 | VV | 287    | 3691  | 0.22% | 0.008% |
| 133 | 6.572 | 6.551 | 6.608 | VV | 819    | 14956 | 0.87% | 0.032% |
| 134 | 6.637 | 6.608 | 6.657 | VV | 311    | 6602  | 0.39% | 0.014% |
| 135 | 6.663 | 6.657 | 6.665 | VV | 228    | 994   | 0.06% | 0.002% |
| 136 | 6.692 | 6.665 | 6.717 | VV | 1003   | 15404 | 0.90% | 0.033% |
| 137 | 6.732 | 6.717 | 6.749 | VV | 290    | 4075  | 0.24% | 0.009% |
| 138 | 6.763 | 6.749 | 6.787 | VV | 242    | 3456  | 0.20% | 0.007% |
| 139 | 6.811 | 6.787 | 6.881 | VV | 3289   | 37468 | 2.19% | 0.080% |
| 140 | 6.888 | 6.881 | 6.904 | VV | 172    | 1602  | 0.09% | 0.003% |
| 141 | 6.910 | 6.904 | 6.916 | VV | 148    | 880   | 0.05% | 0.002% |
| 142 | 6.920 | 6.916 | 6.923 | VV | 159    | 687   | 0.04% | 0.001% |
| 143 | 6.937 | 6.923 | 6.949 | VV | 443    | 4625  | 0.27% | 0.010% |
| 144 | 6.952 | 6.949 | 6.985 | VV | 284    | 4717  | 0.28% | 0.010% |
| 145 | 7.011 | 6.985 | 7.031 | VV | 314    | 4965  | 0.29% | 0.011% |
| 146 | 7.050 | 7.031 | 7.083 | VV | 366    | 7473  | 0.44% | 0.016% |
| 147 | 7.109 | 7.083 | 7.137 | VV | 927    | 14841 | 0.87% | 0.032% |
| 148 | 7.141 | 7.137 | 7.158 | VV | 300    | 2998  | 0.18% | 0.006% |
| 149 | 7.178 | 7.158 | 7.204 | VV | 472    | 10666 | 0.62% | 0.023% |
| 150 | 7.229 | 7.204 | 7.247 | VV | 838    | 17075 | 1.00% | 0.037% |
| 151 | 7.269 | 7.247 | 7.289 | VV | 939    | 19774 | 1.15% | 0.042% |
| 152 | 7.292 | 7.289 | 7.301 | VV | 805    | 5215  | 0.30% | 0.011% |
| 153 | 7.336 | 7.301 | 7.367 | VV | 1481   | 44395 | 2.59% | 0.095% |
| 154 | 7.400 | 7.367 | 7.426 | VV | 3050   | 56298 | 3.29% | 0.121% |
| 155 | 7.438 | 7.426 | 7.484 | VV | 902    | 19425 | 1.13% | 0.042% |
| 156 | 7.488 | 7.484 | 7.491 | VV | 185    | 640   | 0.04% | 0.001% |
| 157 | 7.499 | 7.491 | 7.510 | VV | 174    | 1865  | 0.11% | 0.004% |
| 158 | 7.517 | 7.510 | 7.540 | VV | 192    | 1766  | 0.10% | 0.004% |
| 159 | 7.575 | 7.540 | 7.590 | VV | 313    | 5346  | 0.31% | 0.011% |
| 160 | 7.605 | 7.590 | 7.616 | VV | 336    | 3559  | 0.21% | 0.008% |
| 161 | 7.631 | 7.616 | 7.659 | VV | 418    | 6873  | 0.40% | 0.015% |
| 162 | 7.687 | 7.659 | 7.719 | VV | 1458   | 19748 | 1.15% | 0.042% |
| 163 | 7.721 | 7.719 | 7.728 | VV | 200    | 847   | 0.05% | 0.002% |
| 164 | 7.733 | 7.728 | 7.737 | VV | 184    | 909   | 0.05% | 0.002% |
| 165 | 7.744 | 7.737 | 7.772 | VV | 241    | 4495  | 0.26% | 0.010% |
| 166 | 7.779 | 7.772 | 7.784 | VV | 307    | 1824  | 0.11% | 0.004% |
| 167 | 7.805 | 7.784 | 7.834 | VV | 471    | 9623  | 0.56% | 0.021% |
| 168 | 7.859 | 7.834 | 7.884 | VV | 822    | 12401 | 0.72% | 0.027% |
| 169 | 7.896 | 7.884 | 7.916 | VV | 239    | 2994  | 0.17% | 0.006% |
| 170 | 7.958 | 7.916 | 7.991 | VV | 737    | 16847 | 0.98% | 0.036% |
| 171 | 8.004 | 7.991 | 8.019 | VV | 336    | 4224  | 0.25% | 0.009% |
| 172 | 8.024 | 8.019 | 8.043 | VV | 121    | 1294  | 0.08% | 0.003% |
| 173 | 8.062 | 8.043 | 8.067 | VV | 229    | 2309  | 0.13% | 0.005% |
| 174 | 8.089 | 8.067 | 8.098 | VV | 350    | 4684  | 0.27% | 0.010% |

|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 175 | 8.117  | 8.098  | 8.132  | VV | 555    | 9462    | 0.55%  | 0.020% |
| 176 | 8.171  | 8.132  | 8.196  | VV | 1239   | 30681   | 1.79%  | 0.066% |
| 177 | 8.216  | 8.196  | 8.242  | VV | 620    | 13213   | 0.77%  | 0.028% |
| 178 | 8.262  | 8.242  | 8.281  | VV | 2176   | 28213   | 1.65%  | 0.061% |
| 179 | 8.299  | 8.281  | 8.310  | VV | 1339   | 18239   | 1.07%  | 0.039% |
| 180 | 8.332  | 8.310  | 8.354  | VV | 4309   | 54705   | 3.20%  | 0.117% |
| 181 | 8.362  | 8.354  | 8.374  | VV | 768    | 8473    | 0.49%  | 0.018% |
| 182 | 8.394  | 8.374  | 8.423  | VV | 3191   | 45332   | 2.65%  | 0.097% |
| 183 | 8.441  | 8.423  | 8.487  | VV | 1393   | 29379   | 1.72%  | 0.063% |
| 184 | 8.505  | 8.487  | 8.521  | VV | 605    | 8288    | 0.48%  | 0.018% |
| 185 | 8.545  | 8.521  | 8.558  | VV | 5118   | 58107   | 3.39%  | 0.125% |
| 186 | 8.572  | 8.558  | 8.616  | VV | 5188   | 64456   | 3.76%  | 0.138% |
| 187 | 8.623  | 8.616  | 8.647  | VV | 495    | 6878    | 0.40%  | 0.015% |
| 188 | 8.677  | 8.647  | 8.714  | VV | 10160  | 131364  | 7.67%  | 0.282% |
| 189 | 8.720  | 8.714  | 8.753  | VV | 866    | 12324   | 0.72%  | 0.026% |
| 190 | 8.770  | 8.753  | 8.790  | VV | 360    | 6202    | 0.36%  | 0.013% |
| 191 | 8.799  | 8.790  | 8.805  | VV | 295    | 2374    | 0.14%  | 0.005% |
| 192 | 8.810  | 8.805  | 8.815  | VV | 277    | 1671    | 0.10%  | 0.004% |
| 193 | 8.841  | 8.815  | 8.882  | VV | 1490   | 24597   | 1.44%  | 0.053% |
| 194 | 8.900  | 8.882  | 8.920  | VV | 489    | 7302    | 0.43%  | 0.016% |
| 195 | 8.935  | 8.920  | 8.954  | VV | 510    | 6887    | 0.40%  | 0.015% |
| 196 | 8.972  | 8.954  | 8.986  | VV | 852    | 11785   | 0.69%  | 0.025% |
| 197 | 8.992  | 8.986  | 9.008  | VV | 742    | 8633    | 0.50%  | 0.019% |
| 198 | 9.025  | 9.008  | 9.036  | VV | 1209   | 14161   | 0.83%  | 0.030% |
| 199 | 9.057  | 9.036  | 9.092  | VV | 2134   | 39465   | 2.30%  | 0.085% |
| 200 | 9.117  | 9.092  | 9.142  | VV | 1664   | 26776   | 1.56%  | 0.057% |
| 201 | 9.178  | 9.142  | 9.191  | VV | 1013   | 19999   | 1.17%  | 0.043% |
| 202 | 9.195  | 9.191  | 9.217  | VV | 884    | 10915   | 0.64%  | 0.023% |
| 203 | 9.232  | 9.217  | 9.249  | VV | 708    | 9606    | 0.56%  | 0.021% |
| 204 | 9.291  | 9.249  | 9.323  | VV | 1960   | 37820   | 2.21%  | 0.081% |
| 205 | 9.342  | 9.323  | 9.379  | VV | 1231   | 23354   | 1.36%  | 0.050% |
| 206 | 9.402  | 9.379  | 9.446  | VV | 1732   | 30045   | 1.75%  | 0.064% |
| 207 | 9.476  | 9.446  | 9.482  | VV | 817    | 12652   | 0.74%  | 0.027% |
| 208 | 9.490  | 9.482  | 9.521  | VV | 896    | 12273   | 0.72%  | 0.026% |
| 209 | 9.535  | 9.521  | 9.558  | VV | 723    | 8588    | 0.50%  | 0.018% |
| 210 | 9.581  | 9.558  | 9.596  | PV | 576    | 7478    | 0.44%  | 0.016% |
| 211 | 9.632  | 9.596  | 9.651  | VV | 2003   | 33227   | 1.94%  | 0.071% |
| 212 | 9.665  | 9.651  | 9.689  | VV | 1164   | 18326   | 1.07%  | 0.039% |
| 213 | 9.697  | 9.689  | 9.704  | VV | 648    | 5425    | 0.32%  | 0.012% |
| 214 | 9.727  | 9.704  | 9.740  | VV | 2048   | 29181   | 1.70%  | 0.063% |
| 215 | 9.747  | 9.740  | 9.766  | VV | 1339   | 15795   | 0.92%  | 0.034% |
| 216 | 9.786  | 9.766  | 9.803  | VV | 1204   | 19050   | 1.11%  | 0.041% |
| 217 | 9.825  | 9.803  | 9.850  | VV | 1129   | 23267   | 1.36%  | 0.050% |
| 218 | 9.855  | 9.850  | 9.889  | VV | 435    | 7821    | 0.46%  | 0.017% |
| 219 | 9.911  | 9.889  | 9.960  | VV | 1940   | 30167   | 1.76%  | 0.065% |
| 220 | 9.990  | 9.960  | 10.008 | VV | 988    | 16968   | 0.99%  | 0.036% |
| 221 | 10.050 | 10.008 | 10.094 | VV | 104025 | 1104262 | 64.50% | 2.370% |

|     |        |        |        |    |        |       |       |        |
|-----|--------|--------|--------|----|--------|-------|-------|--------|
|     |        |        |        |    | rteres |       |       |        |
| 222 | 10.111 | 10.094 | 10.136 | VV | 1193   | 18457 | 1.08% | 0.040% |
| 223 | 10.167 | 10.136 | 10.179 | VV | 951    | 18979 | 1.11% | 0.041% |
| 224 | 10.184 | 10.179 | 10.204 | VV | 626    | 6855  | 0.40% | 0.015% |
| 225 | 10.219 | 10.204 | 10.223 | VV | 578    | 5329  | 0.31% | 0.011% |
|     |        |        |        |    |        |       |       |        |
| 226 | 10.238 | 10.223 | 10.269 | VV | 865    | 17996 | 1.05% | 0.039% |
| 227 | 10.282 | 10.269 | 10.307 | VV | 508    | 8488  | 0.50% | 0.018% |
| 228 | 10.323 | 10.307 | 10.341 | VV | 387    | 6263  | 0.37% | 0.013% |
| 229 | 10.354 | 10.341 | 10.374 | VV | 450    | 6454  | 0.38% | 0.014% |
| 230 | 10.383 | 10.374 | 10.387 | VV | 335    | 2145  | 0.13% | 0.005% |
|     |        |        |        |    |        |       |       |        |
| 231 | 10.391 | 10.387 | 10.408 | VV | 315    | 3116  | 0.18% | 0.007% |
| 232 | 10.423 | 10.408 | 10.442 | VV | 290    | 4606  | 0.27% | 0.010% |
| 233 | 10.460 | 10.442 | 10.475 | VV | 803    | 9526  | 0.56% | 0.020% |
| 234 | 10.495 | 10.475 | 10.500 | VV | 483    | 5953  | 0.35% | 0.013% |
| 235 | 10.524 | 10.500 | 10.548 | VV | 2526   | 34523 | 2.02% | 0.074% |
|     |        |        |        |    |        |       |       |        |
| 236 | 10.567 | 10.548 | 10.594 | VV | 512    | 10723 | 0.63% | 0.023% |
| 237 | 10.632 | 10.594 | 10.682 | VV | 1802   | 35071 | 2.05% | 0.075% |
| 238 | 10.700 | 10.682 | 10.734 | VV | 720    | 15054 | 0.88% | 0.032% |
| 239 | 10.748 | 10.734 | 10.761 | VV | 546    | 7011  | 0.41% | 0.015% |
| 240 | 10.779 | 10.761 | 10.797 | VV | 544    | 8689  | 0.51% | 0.019% |
|     |        |        |        |    |        |       |       |        |
| 241 | 10.824 | 10.797 | 10.841 | VV | 1226   | 17343 | 1.01% | 0.037% |
| 242 | 10.854 | 10.841 | 10.866 | VV | 570    | 7132  | 0.42% | 0.015% |
| 243 | 10.895 | 10.866 | 10.916 | VV | 2195   | 37120 | 2.17% | 0.080% |
| 244 | 10.930 | 10.916 | 10.951 | VV | 849    | 14148 | 0.83% | 0.030% |
| 245 | 10.972 | 10.951 | 10.997 | VV | 3415   | 44411 | 2.59% | 0.095% |
|     |        |        |        |    |        |       |       |        |
| 246 | 11.005 | 10.997 | 11.035 | VV | 619    | 10454 | 0.61% | 0.022% |
| 247 | 11.057 | 11.035 | 11.077 | VV | 1920   | 27489 | 1.61% | 0.059% |
| 248 | 11.085 | 11.077 | 11.112 | VV | 814    | 11297 | 0.66% | 0.024% |
| 249 | 11.125 | 11.112 | 11.137 | VV | 391    | 4661  | 0.27% | 0.010% |
| 250 | 11.157 | 11.137 | 11.171 | VV | 464    | 7753  | 0.45% | 0.017% |
|     |        |        |        |    |        |       |       |        |
| 251 | 11.201 | 11.171 | 11.227 | VV | 1486   | 29027 | 1.70% | 0.062% |
| 252 | 11.256 | 11.227 | 11.289 | VV | 2801   | 42826 | 2.50% | 0.092% |
| 253 | 11.300 | 11.289 | 11.314 | VV | 290    | 3078  | 0.18% | 0.007% |
| 254 | 11.324 | 11.314 | 11.346 | VV | 235    | 2500  | 0.15% | 0.005% |
| 255 | 11.360 | 11.346 | 11.379 | PV | 226    | 2214  | 0.13% | 0.005% |
|     |        |        |        |    |        |       |       |        |
| 256 | 11.394 | 11.379 | 11.421 | VV | 235    | 3615  | 0.21% | 0.008% |
| 257 | 11.440 | 11.421 | 11.472 | VV | 1171   | 15993 | 0.93% | 0.034% |
| 258 | 11.508 | 11.472 | 11.532 | VV | 731    | 12027 | 0.70% | 0.026% |
| 259 | 11.553 | 11.532 | 11.575 | PV | 1396   | 18350 | 1.07% | 0.039% |
| 260 | 11.589 | 11.575 | 11.594 | VV | 484    | 4782  | 0.28% | 0.010% |
|     |        |        |        |    |        |       |       |        |
| 261 | 11.609 | 11.594 | 11.629 | VV | 604    | 10949 | 0.64% | 0.023% |
| 262 | 11.635 | 11.629 | 11.643 | VV | 649    | 5029  | 0.29% | 0.011% |
| 263 | 11.665 | 11.643 | 11.673 | VV | 817    | 12467 | 0.73% | 0.027% |
| 264 | 11.684 | 11.673 | 11.699 | VV | 1015   | 13202 | 0.77% | 0.028% |
| 265 | 11.717 | 11.699 | 11.755 | VV | 1452   | 28715 | 1.68% | 0.062% |
|     |        |        |        |    |        |       |       |        |
| 266 | 11.772 | 11.755 | 11.784 | VV | 843    | 11172 | 0.65% | 0.024% |
| 267 | 11.794 | 11.784 | 11.803 | VV | 509    | 5159  | 0.30% | 0.011% |
| 268 | 11.823 | 11.803 | 11.847 | VV | 1373   | 18615 | 1.09% | 0.040% |
| 269 | 11.861 | 11.847 | 11.877 | VV | 710    | 8936  | 0.52% | 0.019% |

|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 270 | 11.894 | 11.877 | 11.920 | VV | 1168  | 14445  | 0.84%  | 0.031% |
| 271 | 11.943 | 11.920 | 11.964 | VV | 353   | 7098   | 0.41%  | 0.015% |
| 272 | 11.989 | 11.964 | 12.014 | VV | 6719  | 80775  | 4.72%  | 0.173% |
| 273 | 12.054 | 12.014 | 12.075 | VV | 1705  | 28711  | 1.68%  | 0.062% |
| 274 | 12.087 | 12.075 | 12.097 | VV | 807   | 8592   | 0.50%  | 0.018% |
| 275 | 12.121 | 12.097 | 12.147 | VV | 2568  | 34921  | 2.04%  | 0.075% |
| 276 | 12.165 | 12.147 | 12.211 | PV | 647   | 10739  | 0.63%  | 0.023% |
| 277 | 12.232 | 12.211 | 12.264 | VV | 1263  | 19438  | 1.14%  | 0.042% |
| 278 | 12.298 | 12.264 | 12.315 | VV | 4312  | 64894  | 3.79%  | 0.139% |
| 279 | 12.327 | 12.315 | 12.363 | VV | 3369  | 48132  | 2.81%  | 0.103% |
| 280 | 12.374 | 12.363 | 12.384 | VV | 681   | 7466   | 0.44%  | 0.016% |
| 281 | 12.403 | 12.384 | 12.424 | VV | 2449  | 35579  | 2.08%  | 0.076% |
| 282 | 12.443 | 12.424 | 12.457 | VV | 1142  | 19880  | 1.16%  | 0.043% |
| 283 | 12.468 | 12.457 | 12.498 | VV | 1303  | 22435  | 1.31%  | 0.048% |
| 284 | 12.518 | 12.498 | 12.531 | VV | 1477  | 18225  | 1.06%  | 0.039% |
| 285 | 12.559 | 12.531 | 12.585 | VV | 43648 | 484606 | 28.30% | 1.040% |
| 286 | 12.604 | 12.585 | 12.622 | VV | 2662  | 45286  | 2.64%  | 0.097% |
| 287 | 12.637 | 12.622 | 12.655 | VV | 2999  | 38877  | 2.27%  | 0.083% |
| 288 | 12.665 | 12.655 | 12.675 | VV | 1294  | 13778  | 0.80%  | 0.030% |
| 289 | 12.690 | 12.675 | 12.704 | VV | 1274  | 20008  | 1.17%  | 0.043% |
| 290 | 12.719 | 12.704 | 12.751 | VV | 1386  | 27431  | 1.60%  | 0.059% |
| 291 | 12.758 | 12.751 | 12.782 | VV | 615   | 10092  | 0.59%  | 0.022% |
| 292 | 12.800 | 12.782 | 12.813 | VV | 1247  | 16334  | 0.95%  | 0.035% |
| 293 | 12.836 | 12.813 | 12.864 | VV | 2687  | 46418  | 2.71%  | 0.100% |
| 294 | 12.887 | 12.864 | 12.901 | VV | 2638  | 38783  | 2.27%  | 0.083% |
| 295 | 12.916 | 12.901 | 12.933 | VV | 2306  | 34424  | 2.01%  | 0.074% |
| 296 | 12.964 | 12.933 | 12.993 | VV | 2480  | 58375  | 3.41%  | 0.125% |
| 297 | 13.024 | 12.993 | 13.062 | VV | 6184  | 107935 | 6.30%  | 0.232% |
| 298 | 13.084 | 13.062 | 13.089 | PV | 363   | 3615   | 0.21%  | 0.008% |
| 299 | 13.105 | 13.089 | 13.120 | VV | 815   | 11614  | 0.68%  | 0.025% |
| 300 | 13.143 | 13.120 | 13.176 | VV | 4951  | 70981  | 4.15%  | 0.152% |
| 301 | 13.193 | 13.176 | 13.219 | VV | 1755  | 32305  | 1.89%  | 0.069% |
| 302 | 13.248 | 13.219 | 13.272 | VV | 2345  | 40244  | 2.35%  | 0.086% |
| 303 | 13.306 | 13.272 | 13.327 | VV | 3935  | 50483  | 2.95%  | 0.108% |
| 304 | 13.358 | 13.327 | 13.379 | VV | 1775  | 38573  | 2.25%  | 0.083% |
| 305 | 13.395 | 13.379 | 13.431 | VV | 1068  | 25412  | 1.48%  | 0.055% |
| 306 | 13.491 | 13.431 | 13.517 | VV | 1509  | 39832  | 2.33%  | 0.085% |
| 307 | 13.543 | 13.517 | 13.559 | VV | 1137  | 18770  | 1.10%  | 0.040% |
| 308 | 13.587 | 13.559 | 13.622 | VV | 1855  | 41096  | 2.40%  | 0.088% |
| 309 | 13.634 | 13.622 | 13.656 | VV | 948   | 14702  | 0.86%  | 0.032% |
| 310 | 13.664 | 13.656 | 13.672 | VV | 535   | 4842   | 0.28%  | 0.010% |
| 311 | 13.678 | 13.672 | 13.681 | VV | 613   | 3203   | 0.19%  | 0.007% |
| 312 | 13.695 | 13.681 | 13.702 | VV | 843   | 9188   | 0.54%  | 0.020% |
| 313 | 13.716 | 13.702 | 13.737 | VV | 1010  | 17549  | 1.02%  | 0.038% |
| 314 | 13.758 | 13.737 | 13.776 | VV | 2211  | 33198  | 1.94%  | 0.071% |
| 315 | 13.792 | 13.776 | 13.826 | VV | 2591  | 39261  | 2.29%  | 0.084% |
| 316 | 13.836 | 13.826 | 13.857 | VV | 650   | 9481   | 0.55%  | 0.020% |

|     |        |        |        |    |        |         |         |        |
|-----|--------|--------|--------|----|--------|---------|---------|--------|
|     |        |        |        |    | rtres  |         |         |        |
| 317 | 13.898 | 13.857 | 13.914 | VV | 1222   | 26392   | 1.54%   | 0.057% |
| 318 | 13.938 | 13.914 | 13.987 | VV | 2341   | 59300   | 3.46%   | 0.127% |
| 319 | 14.001 | 13.987 | 14.024 | VV | 1010   | 19388   | 1.13%   | 0.042% |
| 320 | 14.044 | 14.024 | 14.086 | VV | 1905   | 39329   | 2.30%   | 0.084% |
| 321 | 14.127 | 14.086 | 14.149 | VV | 2968   | 71000   | 4.15%   | 0.152% |
| 322 | 14.154 | 14.149 | 14.157 | VV | 1325   | 6378    | 0.37%   | 0.014% |
| 323 | 14.173 | 14.157 | 14.192 | VV | 1598   | 26071   | 1.52%   | 0.056% |
| 324 | 14.214 | 14.192 | 14.228 | VV | 1766   | 28762   | 1.68%   | 0.062% |
| 325 | 14.245 | 14.228 | 14.266 | VV | 2189   | 34606   | 2.02%   | 0.074% |
| 326 | 14.287 | 14.266 | 14.312 | VV | 2015   | 35531   | 2.08%   | 0.076% |
| 327 | 14.326 | 14.312 | 14.347 | VV | 900    | 15352   | 0.90%   | 0.033% |
| 328 | 14.377 | 14.347 | 14.389 | VV | 884    | 18337   | 1.07%   | 0.039% |
| 329 | 14.433 | 14.389 | 14.471 | VV | 1521   | 54738   | 3.20%   | 0.117% |
| 330 | 14.488 | 14.471 | 14.502 | VV | 1536   | 24079   | 1.41%   | 0.052% |
| 331 | 14.549 | 14.502 | 14.615 | VV | 2634   | 105858  | 6.18%   | 0.227% |
| 332 | 14.640 | 14.615 | 14.656 | VV | 2036   | 37102   | 2.17%   | 0.080% |
| 333 | 14.666 | 14.656 | 14.683 | VV | 1471   | 21098   | 1.23%   | 0.045% |
| 334 | 14.722 | 14.683 | 14.745 | VV | 3323   | 74634   | 4.36%   | 0.160% |
| 335 | 14.773 | 14.745 | 14.798 | VV | 10324  | 145715  | 8.51%   | 0.313% |
| 336 | 14.832 | 14.798 | 14.861 | VV | 2396   | 62484   | 3.65%   | 0.134% |
| 337 | 14.881 | 14.861 | 14.912 | VV | 1631   | 32764   | 1.91%   | 0.070% |
| 338 | 14.937 | 14.912 | 14.971 | VV | 2077   | 39622   | 2.31%   | 0.085% |
| 339 | 15.001 | 14.971 | 15.023 | VV | 835    | 18797   | 1.10%   | 0.040% |
| 340 | 15.060 | 15.023 | 15.122 | VV | 119979 | 1712164 | 100.00% | 3.675% |
| 341 | 15.143 | 15.122 | 15.171 | VV | 4744   | 58346   | 3.41%   | 0.125% |
| 342 | 15.189 | 15.171 | 15.204 | VV | 948    | 11833   | 0.69%   | 0.025% |
| 343 | 15.229 | 15.204 | 15.248 | VV | 2000   | 29904   | 1.75%   | 0.064% |
| 344 | 15.262 | 15.248 | 15.282 | VV | 956    | 11662   | 0.68%   | 0.025% |
| 345 | 15.309 | 15.282 | 15.325 | VV | 467    | 6128    | 0.36%   | 0.013% |
| 346 | 15.349 | 15.325 | 15.399 | PV | 1179   | 19506   | 1.14%   | 0.042% |
| 347 | 15.401 | 15.399 | 15.404 | VV | 54     | 96      | 0.01%   | 0.000% |
| 348 | 15.446 | 15.404 | 15.450 | PV | 278    | 4837    | 0.28%   | 0.010% |
| 349 | 15.456 | 15.450 | 15.478 | VV | 313    | 2616    | 0.15%   | 0.006% |
| 350 | 15.500 | 15.478 | 15.517 | PV | 422    | 5623    | 0.33%   | 0.012% |
| 351 | 15.536 | 15.517 | 15.559 | VV | 396    | 5494    | 0.32%   | 0.012% |
| 352 | 15.600 | 15.559 | 15.606 | VV | 756    | 10306   | 0.60%   | 0.022% |
| 353 | 15.643 | 15.606 | 15.721 | VV | 46556  | 743083  | 43.40%  | 1.595% |
| 354 | 15.725 | 15.721 | 15.746 | VV | 798    | 11436   | 0.67%   | 0.025% |
| 355 | 15.789 | 15.746 | 15.817 | VV | 1795   | 52105   | 3.04%   | 0.112% |
| 356 | 15.860 | 15.817 | 15.887 | VV | 1908   | 59358   | 3.47%   | 0.127% |
| 357 | 15.911 | 15.887 | 15.934 | VV | 1127   | 27021   | 1.58%   | 0.058% |
| 358 | 15.974 | 15.934 | 15.979 | VV | 1523   | 32968   | 1.93%   | 0.071% |
| 359 | 15.982 | 15.979 | 15.989 | VV | 1453   | 7903    | 0.46%   | 0.017% |
| 360 | 16.016 | 15.989 | 16.044 | VV | 1970   | 54561   | 3.19%   | 0.117% |
| 361 | 16.051 | 16.044 | 16.056 | VV | 1192   | 7938    | 0.46%   | 0.017% |
| 362 | 16.077 | 16.056 | 16.090 | VV | 1369   | 25317   | 1.48%   | 0.054% |
| 363 | 16.106 | 16.090 | 16.135 | VV | 1258   | 27652   | 1.62%   | 0.059% |
| 364 | 16.164 | 16.135 | 16.189 | VV | 1876   | 41692   | 2.44%   | 0.089% |

|     |        |        |        |    |       |        |        |        |
|-----|--------|--------|--------|----|-------|--------|--------|--------|
| 365 | 16.208 | 16.189 | 16.229 | VV | 1699  | 30622  | 1.79%  | 0.066% |
| 366 | 16.249 | 16.229 | 16.264 | VV | 1167  | 21620  | 1.26%  | 0.046% |
| 367 | 16.286 | 16.264 | 16.332 | VV | 2185  | 37241  | 2.18%  | 0.080% |
| 368 | 16.362 | 16.332 | 16.370 | VV | 337   | 5250   | 0.31%  | 0.011% |
| 369 | 16.375 | 16.370 | 16.400 | VV | 302   | 3531   | 0.21%  | 0.008% |
| 370 | 16.435 | 16.400 | 16.451 | VV | 308   | 6431   | 0.38%  | 0.014% |
| 371 | 16.465 | 16.451 | 16.476 | VV | 287   | 2135   | 0.12%  | 0.005% |
| 372 | 16.504 | 16.476 | 16.522 | PV | 372   | 5378   | 0.31%  | 0.012% |
| 373 | 16.582 | 16.522 | 16.597 | VV | 501   | 8130   | 0.47%  | 0.017% |
| 374 | 16.618 | 16.597 | 16.624 | PV | 276   | 1938   | 0.11%  | 0.004% |
| 375 | 16.663 | 16.624 | 16.701 | VV | 4046  | 74113  | 4.33%  | 0.159% |
| 376 | 16.750 | 16.701 | 16.771 | VV | 3486  | 59604  | 3.48%  | 0.128% |
| 377 | 16.775 | 16.771 | 16.804 | VV | 2020  | 20174  | 1.18%  | 0.043% |
| 378 | 16.854 | 16.804 | 16.859 | VV | 1375  | 17884  | 1.04%  | 0.038% |
| 379 | 16.883 | 16.859 | 16.940 | VV | 4768  | 96450  | 5.63%  | 0.207% |
| 380 | 16.949 | 16.940 | 16.957 | VV | 678   | 6555   | 0.38%  | 0.014% |
| 381 | 16.964 | 16.957 | 16.969 | VV | 599   | 3887   | 0.23%  | 0.008% |
| 382 | 16.976 | 16.969 | 16.991 | VV | 587   | 5959   | 0.35%  | 0.013% |
| 383 | 17.028 | 16.991 | 17.040 | VV | 1744  | 29577  | 1.73%  | 0.063% |
| 384 | 17.072 | 17.040 | 17.100 | VV | 5669  | 107741 | 6.29%  | 0.231% |
| 385 | 17.131 | 17.100 | 17.156 | VV | 5904  | 86606  | 5.06%  | 0.186% |
| 386 | 17.163 | 17.156 | 17.172 | VV | 955   | 8362   | 0.49%  | 0.018% |
| 387 | 17.207 | 17.172 | 17.216 | VV | 2020  | 36966  | 2.16%  | 0.079% |
| 388 | 17.235 | 17.216 | 17.259 | VV | 3256  | 55916  | 3.27%  | 0.120% |
| 389 | 17.288 | 17.259 | 17.346 | VV | 11009 | 202187 | 11.81% | 0.434% |
| 390 | 17.381 | 17.346 | 17.407 | VV | 2090  | 57021  | 3.33%  | 0.122% |
| 391 | 17.418 | 17.407 | 17.428 | VV | 1219  | 13875  | 0.81%  | 0.030% |
| 392 | 17.444 | 17.428 | 17.466 | VV | 1468  | 26942  | 1.57%  | 0.058% |
| 393 | 17.503 | 17.466 | 17.526 | VV | 1610  | 49382  | 2.88%  | 0.106% |
| 394 | 17.535 | 17.526 | 17.566 | VV | 1535  | 24419  | 1.43%  | 0.052% |
| 395 | 17.609 | 17.566 | 17.661 | VV | 3414  | 108486 | 6.34%  | 0.233% |
| 396 | 17.689 | 17.661 | 17.714 | VV | 3320  | 65834  | 3.85%  | 0.141% |
| 397 | 17.737 | 17.714 | 17.762 | VV | 1549  | 28297  | 1.65%  | 0.061% |
| 398 | 17.792 | 17.762 | 17.812 | PV | 2137  | 31850  | 1.86%  | 0.068% |
| 399 | 17.836 | 17.812 | 17.862 | VV | 2170  | 39009  | 2.28%  | 0.084% |
| 400 | 17.892 | 17.862 | 17.915 | VV | 985   | 20716  | 1.21%  | 0.044% |
| 401 | 17.923 | 17.915 | 17.929 | VV | 617   | 4467   | 0.26%  | 0.010% |
| 402 | 17.976 | 17.929 | 17.998 | VV | 1799  | 48058  | 2.81%  | 0.103% |
| 403 | 18.007 | 17.998 | 18.012 | VV | 1446  | 11644  | 0.68%  | 0.025% |
| 404 | 18.031 | 18.012 | 18.037 | VV | 2073  | 26685  | 1.56%  | 0.057% |
| 405 | 18.053 | 18.037 | 18.076 | VV | 2925  | 55585  | 3.25%  | 0.119% |
| 406 | 18.103 | 18.076 | 18.110 | VV | 2084  | 41442  | 2.42%  | 0.089% |
| 407 | 18.132 | 18.110 | 18.147 | VV | 3913  | 64194  | 3.75%  | 0.138% |
| 408 | 18.153 | 18.147 | 18.171 | VV | 2666  | 28438  | 1.66%  | 0.061% |
| 409 | 18.211 | 18.171 | 18.216 | VV | 2975  | 59769  | 3.49%  | 0.128% |
| 410 | 18.224 | 18.216 | 18.241 | VV | 2825  | 32680  | 1.91%  | 0.070% |
| 411 | 18.272 | 18.241 | 18.293 | VV | 2273  | 49606  | 2.90%  | 0.106% |

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|-----|--------|--------|--------|----|--------|--------|--------|--------|
|     |        |        |        |    | rteres |        |        |        |
| 412 | 18.306 | 18.293 | 18.327 | VV | 1470   | 20779  | 1.21%  | 0.045% |
| 413 | 18.353 | 18.327 | 18.393 | VV | 2935   | 56638  | 3.31%  | 0.122% |
| 414 | 18.417 | 18.393 | 18.426 | PV | 1539   | 18077  | 1.06%  | 0.039% |
| 415 | 18.441 | 18.426 | 18.457 | VV | 2419   | 31049  | 1.81%  | 0.067% |
| 416 | 18.491 | 18.457 | 18.532 | VV | 25071  | 501568 | 29.29% | 1.076% |
| 417 | 18.558 | 18.532 | 18.587 | VV | 4461   | 84534  | 4.94%  | 0.181% |
| 418 | 18.601 | 18.587 | 18.617 | VV | 1219   | 15476  | 0.90%  | 0.033% |
| 419 | 18.638 | 18.617 | 18.659 | VV | 4794   | 69029  | 4.03%  | 0.148% |
| 420 | 18.676 | 18.659 | 18.692 | VV | 4306   | 55991  | 3.27%  | 0.120% |
| 421 | 18.702 | 18.692 | 18.716 | VV | 1956   | 21199  | 1.24%  | 0.045% |
| 422 | 18.731 | 18.716 | 18.738 | VV | 3412   | 32924  | 1.92%  | 0.071% |
| 423 | 18.757 | 18.738 | 18.774 | VV | 13303  | 174192 | 10.17% | 0.374% |
| 424 | 18.783 | 18.774 | 18.806 | VV | 5756   | 83550  | 4.88%  | 0.179% |
| 425 | 18.836 | 18.806 | 18.841 | VV | 6214   | 84826  | 4.95%  | 0.182% |
| 426 | 18.846 | 18.841 | 18.862 | VV | 6004   | 68908  | 4.02%  | 0.148% |
| 427 | 18.866 | 18.862 | 18.871 | VV | 5302   | 26686  | 1.56%  | 0.057% |
| 428 | 18.881 | 18.871 | 18.890 | VV | 6486   | 62740  | 3.66%  | 0.135% |
| 429 | 18.901 | 18.890 | 18.923 | VV | 7319   | 120580 | 7.04%  | 0.259% |
| 430 | 18.958 | 18.923 | 18.974 | VV | 10976  | 240518 | 14.05% | 0.516% |
| 431 | 18.984 | 18.974 | 18.994 | VV | 8789   | 95506  | 5.58%  | 0.205% |
| 432 | 18.999 | 18.994 | 19.013 | VV | 7215   | 75539  | 4.41%  | 0.162% |
| 433 | 19.024 | 19.013 | 19.046 | VV | 9043   | 149562 | 8.74%  | 0.321% |
| 434 | 19.070 | 19.046 | 19.097 | VV | 9853   | 247011 | 14.43% | 0.530% |
| 435 | 19.110 | 19.097 | 19.128 | VV | 7769   | 128949 | 7.53%  | 0.277% |
| 436 | 19.139 | 19.128 | 19.155 | VV | 8622   | 119683 | 6.99%  | 0.257% |
| 437 | 19.164 | 19.155 | 19.173 | VV | 6847   | 63758  | 3.72%  | 0.137% |
| 438 | 19.193 | 19.173 | 19.210 | VV | 7039   | 122052 | 7.13%  | 0.262% |
| 439 | 19.227 | 19.210 | 19.235 | VV | 4768   | 64843  | 3.79%  | 0.139% |
| 440 | 19.250 | 19.235 | 19.254 | VV | 6324   | 57912  | 3.38%  | 0.124% |
| 441 | 19.268 | 19.254 | 19.279 | VV | 7503   | 97793  | 5.71%  | 0.210% |
| 442 | 19.316 | 19.279 | 19.346 | VV | 20362  | 484212 | 28.28% | 1.039% |
| 443 | 19.364 | 19.346 | 19.387 | VV | 13165  | 269072 | 15.72% | 0.577% |
| 444 | 19.398 | 19.387 | 19.407 | VV | 9852   | 107138 | 6.26%  | 0.230% |
| 445 | 19.417 | 19.407 | 19.421 | VV | 9886   | 77450  | 4.52%  | 0.166% |
| 446 | 19.429 | 19.421 | 19.438 | VV | 10463  | 103800 | 6.06%  | 0.223% |
| 447 | 19.451 | 19.438 | 19.478 | VV | 12733  | 255579 | 14.93% | 0.549% |
| 448 | 19.516 | 19.478 | 19.540 | VV | 15466  | 401140 | 23.43% | 0.861% |
| 449 | 19.565 | 19.540 | 19.580 | VV | 14476  | 282461 | 16.50% | 0.606% |
| 450 | 19.599 | 19.580 | 19.611 | VV | 12333  | 189536 | 11.07% | 0.407% |
| 451 | 19.616 | 19.611 | 19.620 | VV | 9153   | 51220  | 2.99%  | 0.110% |
| 452 | 19.628 | 19.620 | 19.644 | VV | 10346  | 132497 | 7.74%  | 0.284% |
| 453 | 19.653 | 19.644 | 19.658 | VV | 11245  | 84804  | 4.95%  | 0.182% |
| 454 | 19.661 | 19.658 | 19.672 | VV | 10760  | 79909  | 4.67%  | 0.171% |
| 455 | 19.694 | 19.672 | 19.710 | VV | 12757  | 216047 | 12.62% | 0.464% |
| 456 | 19.732 | 19.710 | 19.747 | VV | 13474  | 225604 | 13.18% | 0.484% |
| 457 | 19.755 | 19.747 | 19.769 | VV | 11807  | 134348 | 7.85%  | 0.288% |
| 458 | 19.794 | 19.769 | 19.803 | VV | 12347  | 208488 | 12.18% | 0.447% |
| 459 | 19.827 | 19.803 | 19.836 | VV | 15035  | 258187 | 15.08% | 0.554% |

|     |        |        |        |    |                 |        |        |        |
|-----|--------|--------|--------|----|-----------------|--------|--------|--------|
| 460 | 19.858 | 19.836 | 19.865 | VV | rteres<br>18694 | 272862 | 15.94% | 0.586% |
| 461 | 19.871 | 19.865 | 19.881 | VV | 17684           | 151742 | 8.86%  | 0.326% |
| 462 | 19.913 | 19.881 | 19.942 | VV | 19501           | 572783 | 33.45% | 1.229% |
| 463 | 19.951 | 19.942 | 19.964 | VV | 16333           | 193030 | 11.27% | 0.414% |
| 464 | 19.984 | 19.964 | 19.990 | VV | 20314           | 262670 | 15.34% | 0.564% |
| 465 | 19.999 | 19.990 | 20.014 | VV | 19790           | 261232 | 15.26% | 0.561% |
| 466 | 20.030 | 20.014 | 20.038 | VV | 18533           | 235119 | 13.73% | 0.505% |
| 467 | 20.042 | 20.038 | 20.047 | VV | 17363           | 97342  | 5.69%  | 0.209% |
| 468 | 20.054 | 20.047 | 20.070 | VV | 18177           | 217736 | 12.72% | 0.467% |
| 469 | 20.089 | 20.070 | 20.095 | VV | 17431           | 226216 | 13.21% | 0.485% |
| 470 | 20.108 | 20.095 | 20.143 | VV | 19935           | 480977 | 28.09% | 1.032% |
| 471 | 20.157 | 20.143 | 20.171 | VV | 15805           | 234866 | 13.72% | 0.504% |
| 472 | 20.186 | 20.171 | 20.197 | VV | 19577           | 252738 | 14.76% | 0.542% |
| 473 | 20.204 | 20.197 | 20.209 | VV | 17108           | 110676 | 6.46%  | 0.238% |
| 474 | 20.215 | 20.209 | 20.224 | VV | 18440           | 155789 | 9.10%  | 0.334% |
| 475 | 20.229 | 20.224 | 20.234 | VV | 16121           | 89295  | 5.22%  | 0.192% |
| 476 | 20.243 | 20.234 | 20.249 | VV | 20897           | 162735 | 9.50%  | 0.349% |
| 477 | 20.257 | 20.249 | 20.261 | VV | 23294           | 149057 | 8.71%  | 0.320% |
| 478 | 20.283 | 20.261 | 20.288 | VV | 24850           | 372589 | 21.76% | 0.800% |
| 479 | 20.292 | 20.288 | 20.302 | VV | 24402           | 187146 | 10.93% | 0.402% |
| 480 | 20.319 | 20.302 | 20.326 | VV | 26093           | 324027 | 18.93% | 0.695% |
| 481 | 20.332 | 20.326 | 20.347 | VV | 25424           | 300911 | 17.57% | 0.646% |
| 482 | 20.352 | 20.347 | 20.357 | VV | 24018           | 140923 | 8.23%  | 0.302% |
| 483 | 20.365 | 20.357 | 20.371 | VV | 25066           | 188441 | 11.01% | 0.404% |
| 484 | 20.377 | 20.371 | 20.397 | VV | 25568           | 374801 | 21.89% | 0.804% |
| 485 | 20.409 | 20.397 | 20.416 | VV | 26540           | 269905 | 15.76% | 0.579% |
| 486 | 20.428 | 20.416 | 20.439 | VV | 29795           | 377781 | 22.06% | 0.811% |
| 487 | 20.446 | 20.439 | 20.454 | VV | 26147           | 221340 | 12.93% | 0.475% |
| 488 | 20.469 | 20.454 | 20.475 | VV | 28768           | 331171 | 19.34% | 0.711% |
| 489 | 20.492 | 20.475 | 20.510 | VV | 31250           | 561577 | 32.80% | 1.205% |
| 490 | 20.519 | 20.510 | 20.526 | VV | 25609           | 236833 | 13.83% | 0.508% |
| 491 | 20.534 | 20.526 | 20.545 | VV | 27158           | 277757 | 16.22% | 0.596% |
| 492 | 20.550 | 20.545 | 20.557 | VV | 24997           | 162459 | 9.49%  | 0.349% |
| 493 | 20.569 | 20.557 | 20.574 | VV | 28663           | 257831 | 15.06% | 0.553% |
| 494 | 20.579 | 20.574 | 20.589 | VV | 28248           | 221455 | 12.93% | 0.475% |
| 495 | 20.598 | 20.589 | 20.607 | VV | 25552           | 241080 | 14.08% | 0.517% |
| 496 | 20.627 | 20.607 | 20.635 | VV | 29197           | 413163 | 24.13% | 0.887% |
| 497 | 20.640 | 20.635 | 20.645 | VV | 26969           | 160793 | 9.39%  | 0.345% |
| 498 | 20.660 | 20.645 | 20.666 | VV | 31877           | 350334 | 20.46% | 0.752% |
| 499 | 20.672 | 20.666 | 20.677 | VV | 34087           | 202763 | 11.84% | 0.435% |
| 500 | 20.682 | 20.677 | 20.687 | VV | 31464           | 177446 | 10.36% | 0.381% |
| 501 | 20.694 | 20.687 | 20.717 | VV | 32713           | 533477 | 31.16% | 1.145% |
| 502 | 20.726 | 20.717 | 20.735 | VV | 35730           | 345408 | 20.17% | 0.741% |
| 503 | 20.739 | 20.735 | 20.748 | VV | 32498           | 238002 | 13.90% | 0.511% |
| 504 | 20.762 | 20.748 | 20.779 | VV | 32084           | 557098 | 32.54% | 1.196% |
| 505 | 20.784 | 20.779 | 20.798 | VV | 26971           | 290040 | 16.94% | 0.622% |
| 506 | 20.817 | 20.798 | 20.841 | VV | 29819           | 696240 | 40.66% | 1.494% |

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|-----|--------|--------|--------|----|--------|--------|--------|--------|
|     |        |        |        |    | rteres |        |        |        |
| 507 | 20.847 | 20.841 | 20.857 | VV | 27836  | 264620 | 15.46% | 0.568% |
| 508 | 20.878 | 20.857 | 20.895 | VV | 27601  | 575036 | 33.59% | 1.234% |
| 509 | 20.900 | 20.895 | 20.912 | VV | 23998  | 236051 | 13.79% | 0.507% |
| 510 | 20.922 | 20.912 | 20.932 | VV | 27280  | 305370 | 17.84% | 0.655% |
| 511 | 20.940 | 20.932 | 20.947 | VV | 25549  | 211538 | 12.35% | 0.454% |
| 512 | 20.952 | 20.947 | 20.962 | VV | 25054  | 206398 | 12.05% | 0.443% |
| 513 | 20.970 | 20.962 | 20.987 | VV | 24095  | 339064 | 19.80% | 0.728% |
| 514 | 20.995 | 20.987 | 21.006 | VV | 24004  | 242943 | 14.19% | 0.521% |
| 515 | 21.018 | 21.006 | 21.035 | VV | 27484  | 443323 | 25.89% | 0.951% |
| 516 | 21.051 | 21.035 | 21.059 | VV | 30814  | 400718 | 23.40% | 0.860% |
| 517 | 21.067 | 21.059 | 21.077 | VV | 26276  | 264614 | 15.45% | 0.568% |
| 518 | 21.087 | 21.077 | 21.096 | VV | 29818  | 295506 | 17.26% | 0.634% |
| 519 | 21.105 | 21.096 | 21.111 | VV | 25156  | 206596 | 12.07% | 0.443% |
| 520 | 21.135 | 21.111 | 21.143 | VV | 29598  | 516401 | 30.16% | 1.108% |
| 521 | 21.165 | 21.143 | 21.179 | VV | 28787  | 598726 | 34.97% | 1.285% |
| 522 | 21.189 | 21.179 | 21.220 | VV | 29427  | 623636 | 36.42% | 1.338% |
| 523 | 21.230 | 21.220 | 21.241 | VV | 29261  | 320259 | 18.70% | 0.687% |
| 524 | 21.252 | 21.241 | 21.268 | VV | 27899  | 400560 | 23.39% | 0.860% |
| 525 | 21.280 | 21.268 | 21.294 | VV | 27370  | 371626 | 21.71% | 0.798% |
| 526 | 21.302 | 21.294 | 21.311 | VV | 25454  | 229989 | 13.43% | 0.494% |
| 527 | 21.317 | 21.311 | 21.323 | VV | 20975  | 142480 | 8.32%  | 0.306% |
| 528 | 21.344 | 21.323 | 21.350 | VV | 22503  | 333692 | 19.49% | 0.716% |
| 529 | 21.357 | 21.350 | 21.363 | VV | 23450  | 174678 | 10.20% | 0.375% |
| 530 | 21.370 | 21.363 | 21.386 | VV | 21903  | 276732 | 16.16% | 0.594% |
| 531 | 21.395 | 21.386 | 21.401 | VV | 22259  | 176928 | 10.33% | 0.380% |
| 532 | 21.412 | 21.401 | 21.430 | VV | 21390  | 333778 | 19.49% | 0.716% |
| 533 | 21.434 | 21.430 | 21.441 | VV | 17985  | 117485 | 6.86%  | 0.252% |
| 534 | 21.450 | 21.441 | 21.457 | VV | 17438  | 157801 | 9.22%  | 0.339% |
| 535 | 21.463 | 21.457 | 21.471 | VV | 17208  | 126039 | 7.36%  | 0.270% |
| 536 | 21.481 | 21.471 | 21.487 | VV | 16030  | 150971 | 8.82%  | 0.324% |
| 537 | 21.496 | 21.487 | 21.504 | VV | 18204  | 160624 | 9.38%  | 0.345% |
| 538 | 21.511 | 21.504 | 21.525 | VV | 16303  | 187894 | 10.97% | 0.403% |
| 539 | 21.540 | 21.525 | 21.545 | VV | 17216  | 181878 | 10.62% | 0.390% |
| 540 | 21.555 | 21.545 | 21.563 | VV | 18925  | 180065 | 10.52% | 0.386% |
| 541 | 21.571 | 21.563 | 21.579 | VV | 21084  | 184796 | 10.79% | 0.397% |
| 542 | 21.590 | 21.579 | 21.593 | VV | 21663  | 169996 | 9.93%  | 0.365% |
| 543 | 21.601 | 21.593 | 21.608 | VV | 25702  | 201526 | 11.77% | 0.433% |
| 544 | 21.625 | 21.608 | 21.636 | VV | 26958  | 391051 | 22.84% | 0.839% |
| 545 | 21.640 | 21.636 | 21.647 | VV | 21009  | 142393 | 8.32%  | 0.306% |
| 546 | 21.659 | 21.647 | 21.668 | VV | 22210  | 241143 | 14.08% | 0.518% |
| 547 | 21.685 | 21.668 | 21.711 | VV | 24353  | 491427 | 28.70% | 1.055% |
| 548 | 21.720 | 21.711 | 21.732 | VV | 15218  | 182547 | 10.66% | 0.392% |
| 549 | 21.738 | 21.732 | 21.755 | VV | 15390  | 185444 | 10.83% | 0.398% |
| 550 | 21.759 | 21.755 | 21.764 | VV | 10644  | 57598  | 3.36%  | 0.124% |
| 551 | 21.768 | 21.764 | 21.775 | VV | 11409  | 67144  | 3.92%  | 0.144% |
| 552 | 21.790 | 21.775 | 21.798 | VV | 13476  | 153259 | 8.95%  | 0.329% |
| 553 | 21.809 | 21.798 | 21.815 | VV | 12213  | 121428 | 7.09%  | 0.261% |
| 554 | 21.823 | 21.815 | 21.837 | VV | 13730  | 153633 | 8.97%  | 0.330% |

|     |        |        |        |     |                 |        |        |        |
|-----|--------|--------|--------|-----|-----------------|--------|--------|--------|
| 555 | 21.844 | 21.837 | 21.865 | VV  | rteres<br>12222 | 160622 | 9.38%  | 0.345% |
| 556 | 21.870 | 21.865 | 21.883 | VV  | 8899            | 67888  | 3.97%  | 0.146% |
| 557 | 21.891 | 21.883 | 21.911 | VV  | 6043            | 64881  | 3.79%  | 0.139% |
| 558 | 21.920 | 21.911 | 21.926 | PV  | 3804            | 21274  | 1.24%  | 0.046% |
| 559 | 21.932 | 21.926 | 21.937 | VV  | 4344            | 21375  | 1.25%  | 0.046% |
| 560 | 21.944 | 21.937 | 21.950 | VV  | 3852            | 26348  | 1.54%  | 0.057% |
| 561 | 21.963 | 21.950 | 21.969 | VV  | 6005            | 56529  | 3.30%  | 0.121% |
| 562 | 21.979 | 21.969 | 21.985 | VV  | 8684            | 72114  | 4.21%  | 0.155% |
| 563 | 21.997 | 21.985 | 22.008 | VV  | 10689           | 128191 | 7.49%  | 0.275% |
| 564 | 22.015 | 22.008 | 22.034 | VV  | 11897           | 152372 | 8.90%  | 0.327% |
| 565 | 22.039 | 22.034 | 22.044 | VV  | 10663           | 59137  | 3.45%  | 0.127% |
| 566 | 22.048 | 22.044 | 22.054 | VV  | 9322            | 50705  | 2.96%  | 0.109% |
| 567 | 22.063 | 22.054 | 22.071 | VV  | 12548           | 100908 | 5.89%  | 0.217% |
| 568 | 22.079 | 22.071 | 22.089 | VV  | 14673           | 119204 | 6.96%  | 0.256% |
| 569 | 22.096 | 22.089 | 22.109 | VV  | 9608            | 98568  | 5.76%  | 0.212% |
| 570 | 22.124 | 22.109 | 22.129 | VV  | 10307           | 112227 | 6.55%  | 0.241% |
| 571 | 22.134 | 22.129 | 22.143 | VV  | 10383           | 71490  | 4.18%  | 0.153% |
| 572 | 22.152 | 22.143 | 22.167 | VV  | 7690            | 99358  | 5.80%  | 0.213% |
| 573 | 22.186 | 22.167 | 22.192 | VV  | 9498            | 103940 | 6.07%  | 0.223% |
| 574 | 22.218 | 22.192 | 22.227 | VV  | 14394           | 208690 | 12.19% | 0.448% |
| 575 | 22.232 | 22.227 | 22.244 | VV  | 10611           | 100319 | 5.86%  | 0.215% |
| 576 | 22.250 | 22.244 | 22.255 | VV  | 10063           | 64895  | 3.79%  | 0.139% |
| 577 | 22.267 | 22.255 | 22.275 | VV  | 11608           | 122040 | 7.13%  | 0.262% |
| 578 | 22.282 | 22.275 | 22.293 | VV  | 10769           | 87100  | 5.09%  | 0.187% |
| 579 | 22.301 | 22.293 | 22.314 | VV  | 7735            | 74493  | 4.35%  | 0.160% |
| 580 | 22.319 | 22.314 | 22.325 | VV  | 5462            | 31532  | 1.84%  | 0.068% |
| 581 | 22.331 | 22.325 | 22.339 | VV  | 6127            | 38746  | 2.26%  | 0.083% |
| 582 | 22.347 | 22.339 | 22.356 | VV  | 5152            | 31834  | 1.86%  | 0.068% |
| 583 | 22.363 | 22.356 | 22.367 | VV  | 2285            | 11234  | 0.66%  | 0.024% |
| 584 | 22.377 | 22.367 | 22.385 | VV  | 3558            | 21959  | 1.28%  | 0.047% |
| 585 | 22.391 | 22.385 | 22.401 | PBA | 2525            | 45326  | 2.65%  | 0.097% |

Sum of corrected areas: 46595120

FG121924.M Tue Dec 24 01:09:32 2024



# CALIBRATION SUMMARY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

**TPH GC INITIAL CALIBRATION SUMMARY**

Lab Name: Chemtech Contract: PARS02  
 ProjectID: Con Edison Non-MGP - East River 453648.60024.03  
 Lab Code: CHEM Case No.: P5361 SAS No.: P5361 SDG No.: P5361

| Calibration Sequence : FG121924 |            | Test : TPH GC    |                 |
|---------------------------------|------------|------------------|-----------------|
| Concentration (PPM)             | Area Count | Reference Factor | File ID         |
| 1700                            | 200331626  | 117842           | FG014987.D      |
| 850                             | 106454179  | 125240           | FG014988.D      |
| 340                             | 43934817   | 129220           | FG014989.D      |
| 170                             | 26196418   | 154097           | FG014990.D      |
| 85                              | 12067151   | 141966           | FG014991.D      |
| AVG RF : 133673                 |            | % RSD : 10.76    | AVG RT : 15.074 |

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014987.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 14:32  
Operator : YP\AJ  
Sample : 100 TRPH STD  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 15:17:55 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 15:13:43 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.080 | 11925865 | 96.659 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.019  | 11110211 | 97.913 ug/ml |
| 2) N-DECANE                   | 4.564  | 11348976 | 97.683 ug/ml |
| 3) N-DODECANE                 | 6.749  | 11980293 | 97.731 ug/ml |
| 4) N-TETRADECANE              | 8.588  | 11952741 | 97.633 ug/ml |
| 5) N-HEXADECANE               | 10.206 | 12433366 | 97.435 ug/ml |
| 6) N-OCTADECANE               | 11.657 | 13077662 | 97.256 ug/ml |
| 7) N-EICOSANE                 | 12.973 | 13015211 | 97.043 ug/ml |
| 8) N-DOCOSANE                 | 14.177 | 13029408 | 96.796 ug/ml |
| 10) N-TETRACOSANE             | 15.285 | 13114938 | 96.605 ug/ml |
| 11) N-HEXACOSANE              | 16.311 | 12998309 | 96.386 ug/ml |
| 12) N-OCTACOSANE              | 17.264 | 12787708 | 96.044 ug/ml |
| 13) N-TRIACONTANE             | 18.154 | 12616939 | 95.976 ug/ml |
| 14) N-DOTRIACONTANE           | 18.989 | 12218550 | 96.002 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.776 | 11127813 | 96.350 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.517 | 9743072  | 96.845 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.272 | 9088005  | 97.643 ug/ml |
| 18) N-TETRACONTANE            | 22.227 | 8688424  | 97.541 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

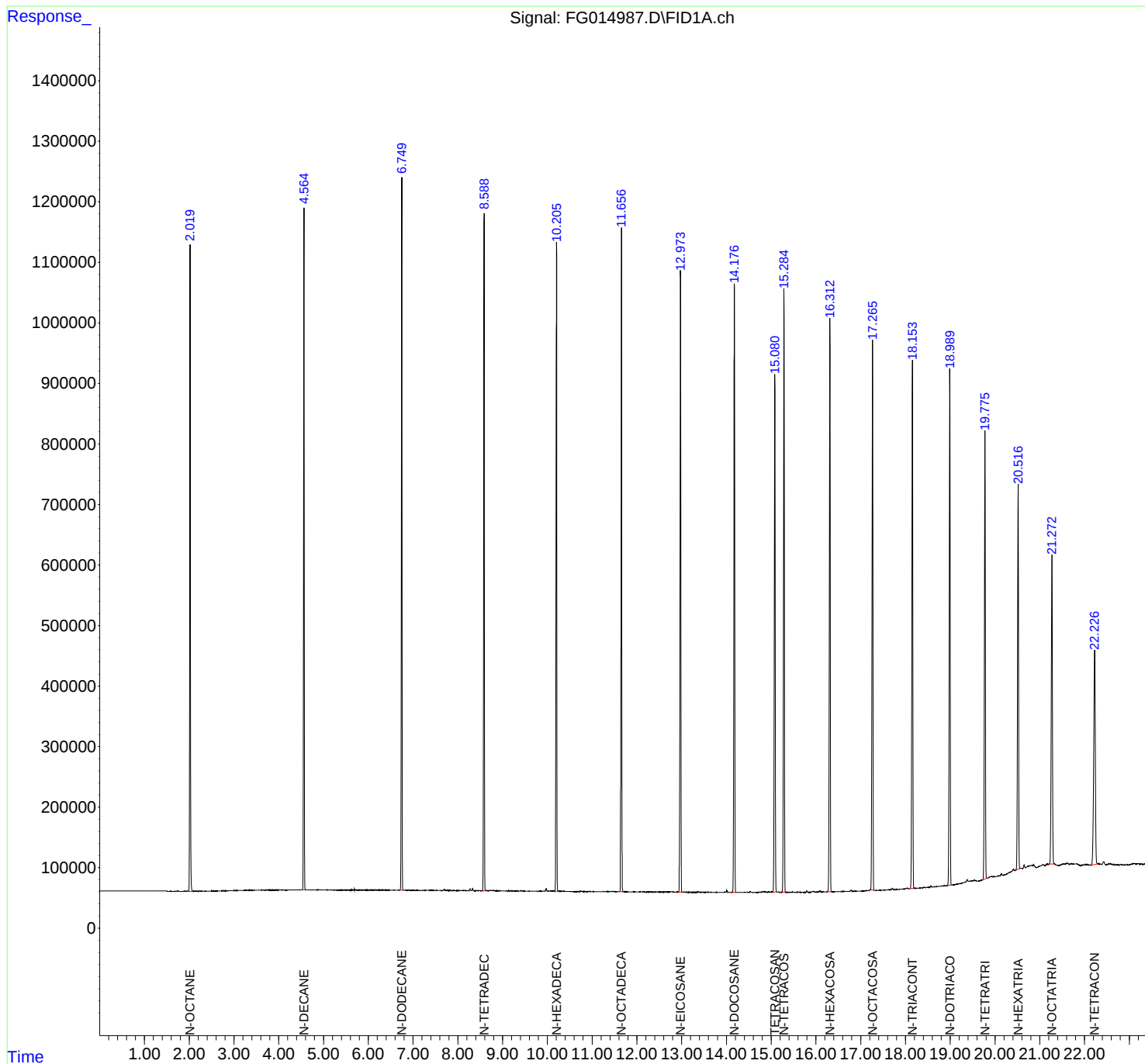
(m)=manual int.

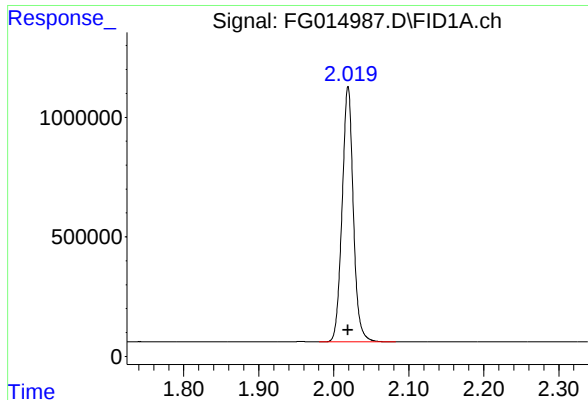
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014987.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 14:32  
Operator : YP\AJ  
Sample : 100 TRPH STD  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 15:17:55 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 15:13:43 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

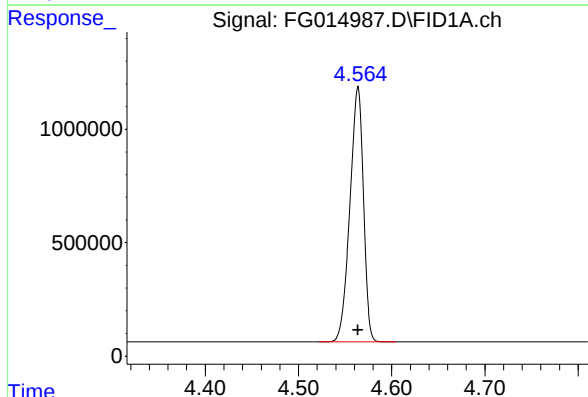




#1 N-OCTANE

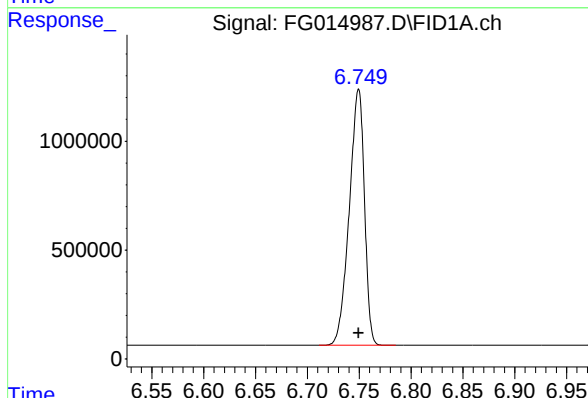
R.T.: 2.019 min  
Delta R.T.: 0.000 min  
Response: 11110211  
Conc: 97.91 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD



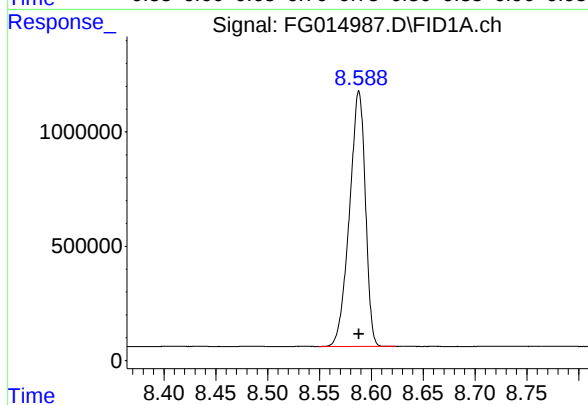
#2 N-DECANE

R.T.: 4.564 min  
Delta R.T.: 0.000 min  
Response: 11348976  
Conc: 97.68 ug/ml



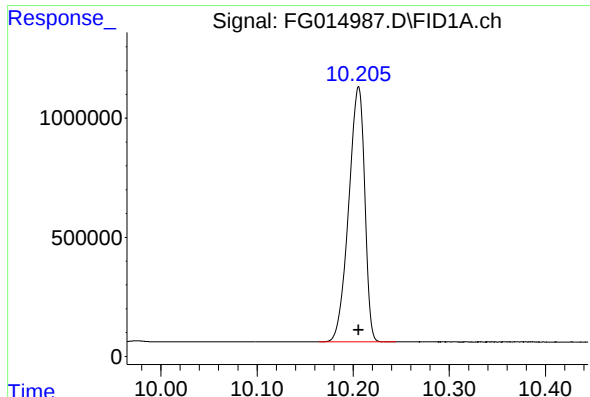
#3 N-DODECANE

R.T.: 6.749 min  
Delta R.T.: 0.000 min  
Response: 11980293  
Conc: 97.73 ug/ml



#4 N-TETRADECANE

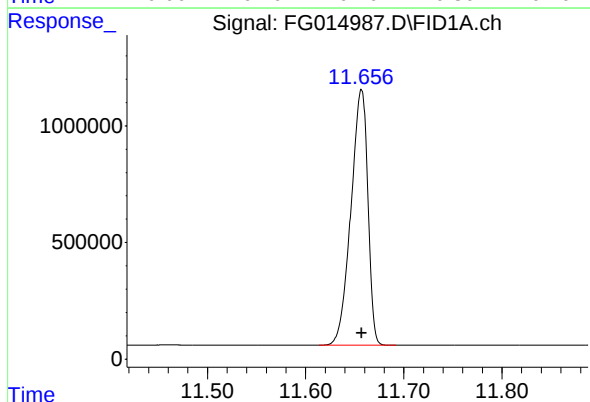
R.T.: 8.588 min  
Delta R.T.: 0.000 min  
Response: 11952741  
Conc: 97.63 ug/ml



#5 N-HEXADECANE

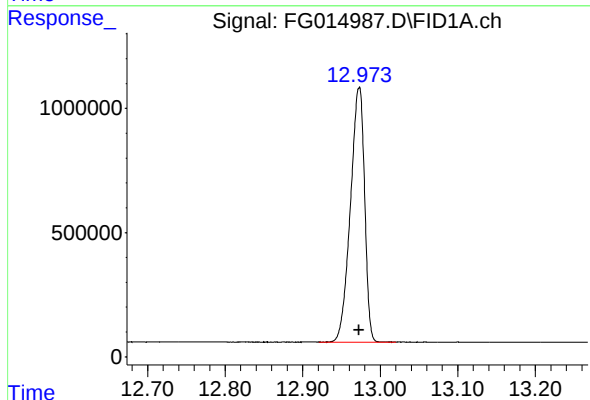
R.T.: 10.206 min  
Delta R.T.: 0.000 min  
Response: 12433366  
Conc: 97.44 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD



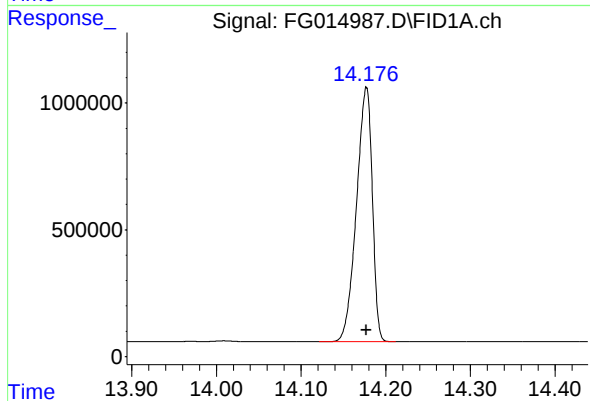
#6 N-OCTADECANE

R.T.: 11.657 min  
Delta R.T.: 0.000 min  
Response: 13077662  
Conc: 97.26 ug/ml



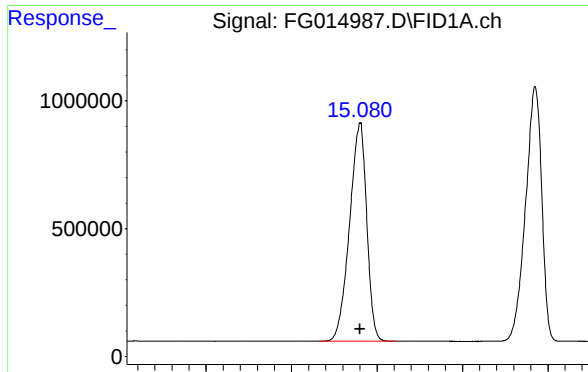
#7 N-EICOSANE

R.T.: 12.973 min  
Delta R.T.: 0.000 min  
Response: 13015211  
Conc: 97.04 ug/ml



#8 N-DOCOSANE

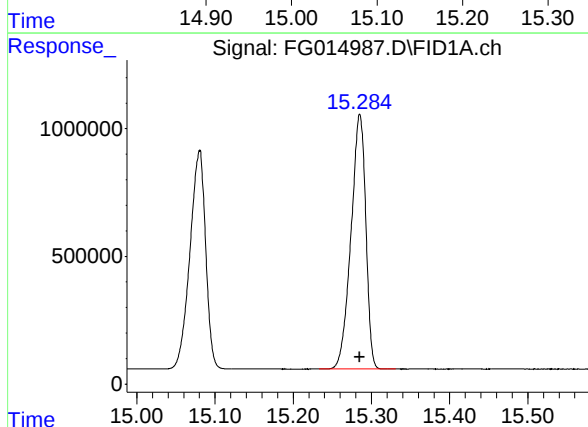
R.T.: 14.177 min  
Delta R.T.: 0.000 min  
Response: 13029408  
Conc: 96.80 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

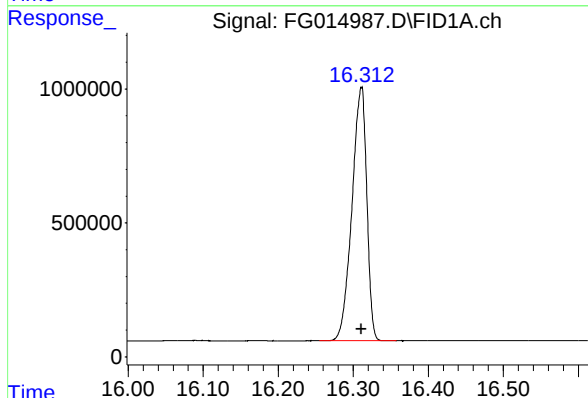
R.T.: 15.080 min  
Delta R.T.: 0.000 min  
Response: 11925865  
Conc: 96.66 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD



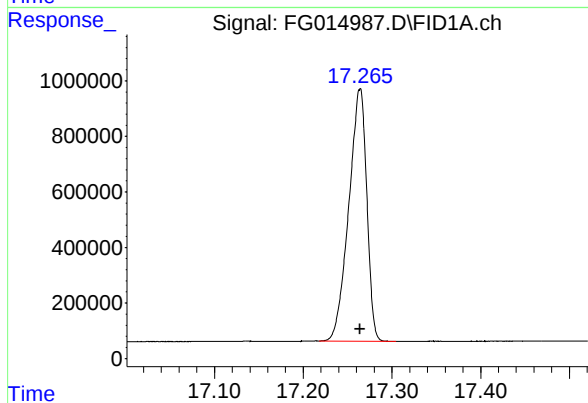
#10 N-TETRACOSANE

R.T.: 15.285 min  
Delta R.T.: 0.000 min  
Response: 13114938  
Conc: 96.60 ug/ml



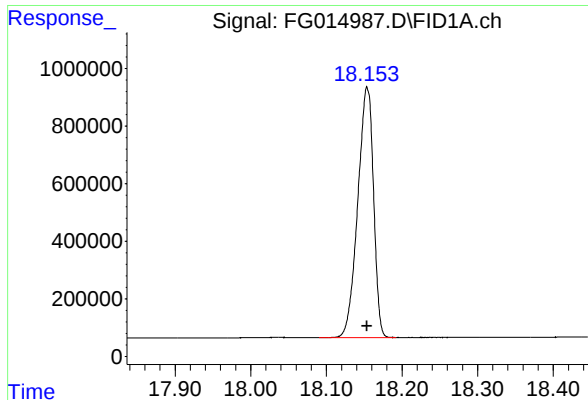
#11 N-HEXACOSANE

R.T.: 16.311 min  
Delta R.T.: 0.000 min  
Response: 12998309  
Conc: 96.39 ug/ml



#12 N-OCTACOSANE

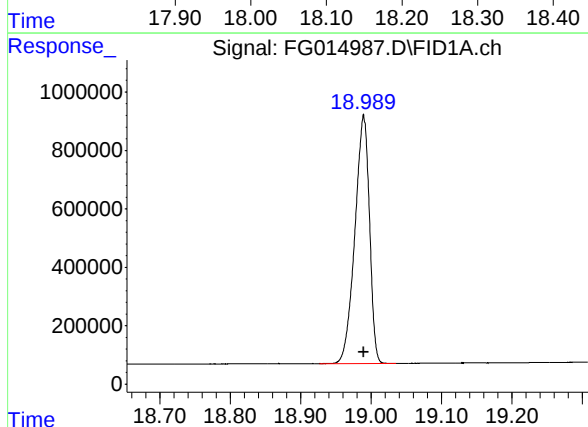
R.T.: 17.264 min  
Delta R.T.: 0.000 min  
Response: 12787708  
Conc: 96.04 ug/ml



#13 N-TRIACONTANE

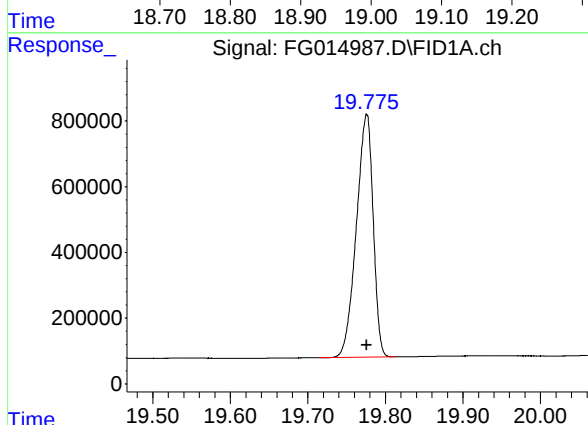
R.T.: 18.154 min  
Delta R.T.: 0.000 min  
Response: 12616939  
Conc: 95.98 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD



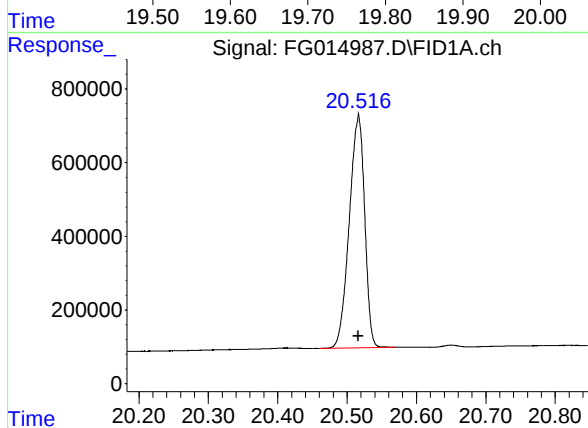
#14 N-DOTRIACONTANE

R.T.: 18.989 min  
Delta R.T.: 0.000 min  
Response: 12218550  
Conc: 96.00 ug/ml



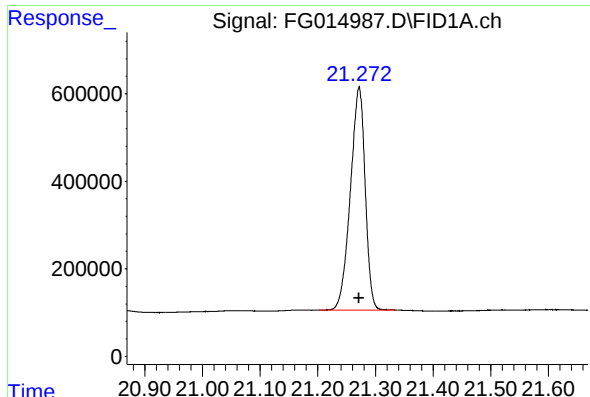
#15 N-TETRATRIACONTANE

R.T.: 19.776 min  
Delta R.T.: 0.000 min  
Response: 11127813  
Conc: 96.35 ug/ml



#16 N-HEXATRIACONTANE

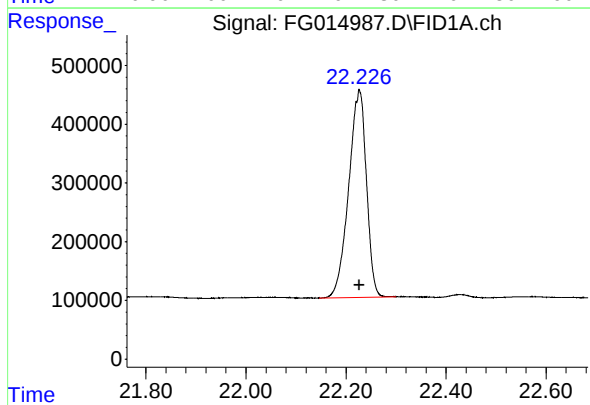
R.T.: 20.517 min  
Delta R.T.: 0.000 min  
Response: 9743072  
Conc: 96.84 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.272 min  
Delta R.T.: 0.000 min  
Response: 9088005  
Conc: 97.64 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.227 min  
Delta R.T.: 0.000 min  
Response: 8688424  
Conc: 97.54 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014987.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 14:32  
Sample : 100 TRPH STD  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 2.019       | 1.980        | 2.083      | BB       | 1069253        | 11110211     | 84.71%         | 5.234%        |
| 2                       | 4.564       | 4.522        | 4.604      | BB       | 1125723        | 11348976     | 86.53%         | 5.347%        |
| 3                       | 6.749       | 6.711        | 6.785      | BB       | 1177267        | 11980293     | 91.35%         | 5.644%        |
| 4                       | 8.588       | 8.550        | 8.624      | BB       | 1118043        | 11952741     | 91.14%         | 5.631%        |
| 5                       | 10.206      | 10.165       | 10.245     | BB       | 1072221        | 12433366     | 94.80%         | 5.858%        |
| 6                       | 11.657      | 11.614       | 11.692     | BB       | 1095907        | 13077662     | 99.72%         | 6.161%        |
| 7                       | 12.973      | 12.921       | 13.020     | BB       | 1022758        | 13015211     | 99.24%         | 6.132%        |
| 8                       | 14.177      | 14.121       | 14.212     | BB       | 1004181        | 13029408     | 99.35%         | 6.138%        |
| 9                       | 15.080      | 15.032       | 15.122     | BB       | 854778         | 11925865     | 90.93%         | 5.619%        |
| 10                      | 15.285      | 15.233       | 15.331     | BB       | 998050         | 13114938     | 100.00%        | 6.179%        |
| 11                      | 16.311      | 16.255       | 16.357     | BB       | 944327         | 12998309     | 99.11%         | 6.124%        |
| 12                      | 17.264      | 17.218       | 17.305     | BB       | 905577         | 12787708     | 97.50%         | 6.025%        |
| 13                      | 18.154      | 18.090       | 18.192     | BB       | 871002         | 12616939     | 96.20%         | 5.944%        |
| 14                      | 18.989      | 18.926       | 19.035     | BB       | 851570         | 12218550     | 93.17%         | 5.756%        |
| 15                      | 19.776      | 19.715       | 19.814     | BB       | 738552         | 11127813     | 84.85%         | 5.243%        |
| 16                      | 20.517      | 20.460       | 20.570     | BB       | 635189         | 9743072      | 74.29%         | 4.590%        |
| 17                      | 21.272      | 21.202       | 21.335     | BB       | 511347         | 9088005      | 69.30%         | 4.282%        |
| 18                      | 22.227      | 22.146       | 22.300     | BBA      | 352878         | 8688424      | 66.25%         | 4.093%        |
| Sum of corrected areas: |             |              |            |          |                | 212257488    |                |               |

FG121924.M Thu Dec 19 16:48:14 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014988.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:01  
Operator : YP\AJ  
Sample : 50 TRPH STD  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 15:16:07 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 15:13:43 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.077 | 6375111  | 50.000 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.018  | 5791922  | 50.000 ug/ml |
| 2) N-DECANE                   | 4.560  | 5943718  | 50.000 ug/ml |
| 3) N-DODECANE                 | 6.745  | 6268238  | 50.000 ug/ml |
| 4) N-TETRADECANE              | 8.584  | 6266153  | 50.000 ug/ml |
| 5) N-HEXADECANE               | 10.200 | 6543945  | 50.000 ug/ml |
| 6) N-OCTADECANE               | 11.652 | 6907764  | 50.000 ug/ml |
| 7) N-EICOSANE                 | 12.968 | 6904204  | 50.000 ug/ml |
| 8) N-DOCOSANE                 | 14.173 | 6946035  | 50.000 ug/ml |
| 10) N-TETRACOSANE             | 15.282 | 7018431  | 50.000 ug/ml |
| 11) N-HEXACOSANE              | 16.308 | 6986570  | 50.000 ug/ml |
| 12) N-OCTACOSANE              | 17.261 | 6920572  | 50.000 ug/ml |
| 13) N-TRIACONTANE             | 18.152 | 6837519  | 50.000 ug/ml |
| 14) N-DOTRIACONTANE           | 18.989 | 6618057  | 50.000 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.775 | 5985475  | 50.000 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.517 | 5188983  | 50.000 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.272 | 4763360  | 50.000 ug/ml |
| 18) N-TETRACONTANE            | 22.228 | 4563233  | 50.000 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

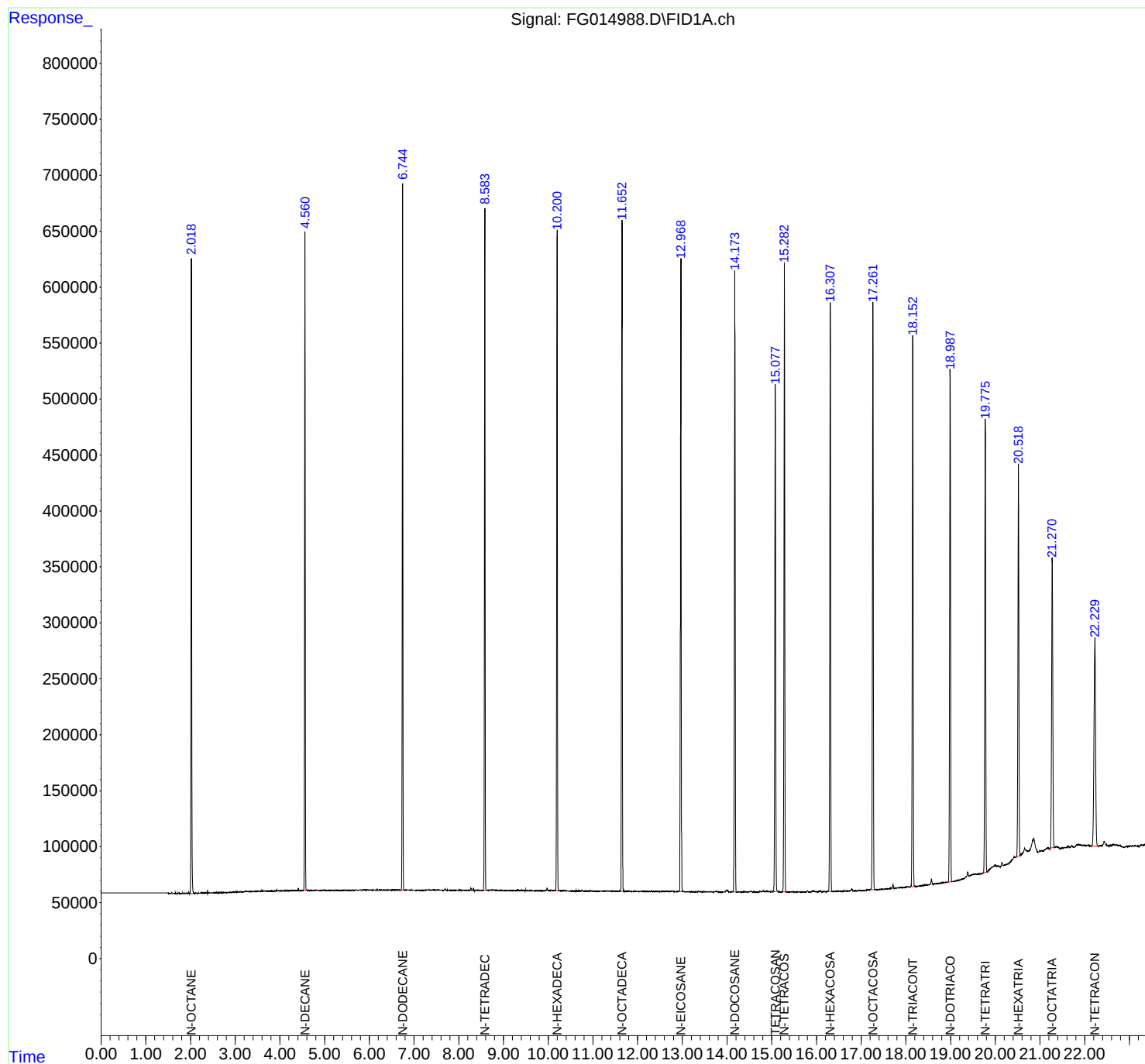
(m)=manual int.

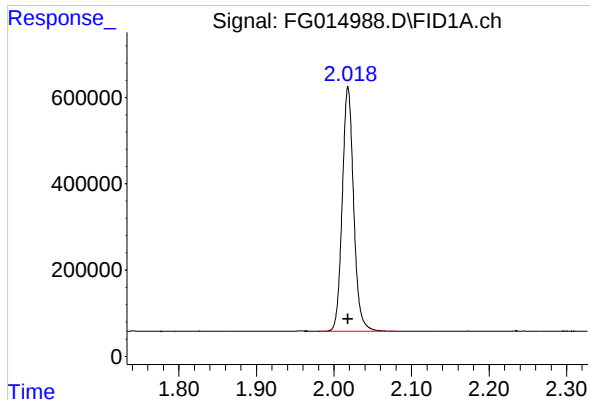
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014988.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:01  
Operator : YP\AJ  
Sample : 50 TRPH STD  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 15:16:07 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 15:13:43 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

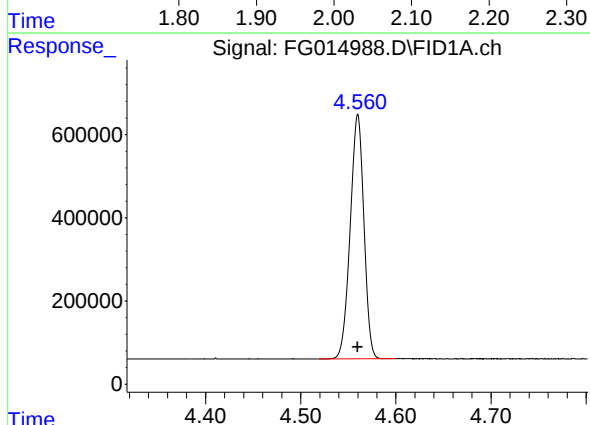




#1 N-OCTANE

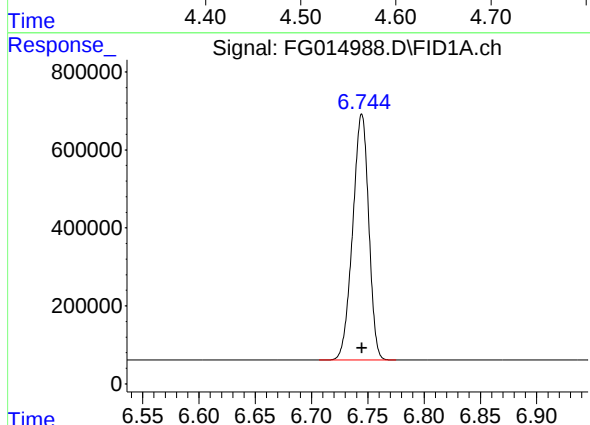
R.T.: 2.018 min  
Delta R.T.: 0.000 min  
Response: 5791922  
Conc: 50.00 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD



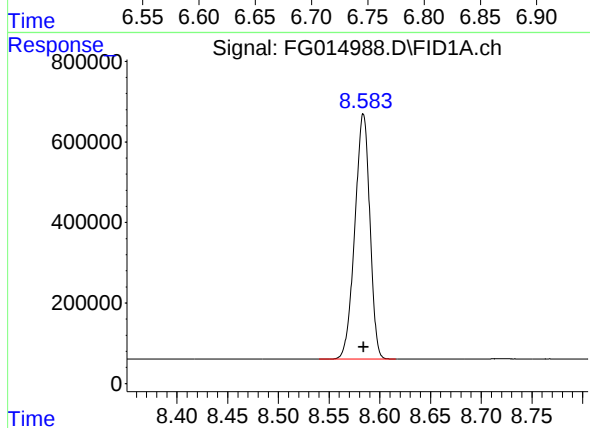
#2 N-DECANE

R.T.: 4.560 min  
Delta R.T.: 0.000 min  
Response: 5943718  
Conc: 50.00 ug/ml



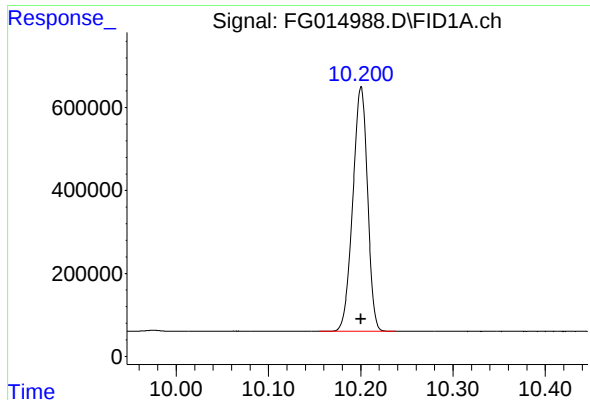
#3 N-DODECANE

R.T.: 6.745 min  
Delta R.T.: 0.000 min  
Response: 6268238  
Conc: 50.00 ug/ml



#4 N-TETRADECANE

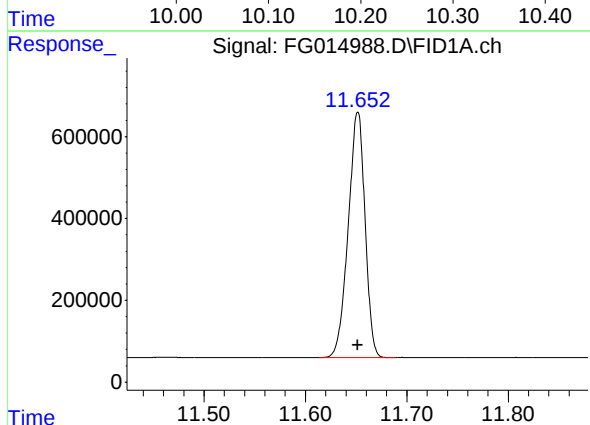
R.T.: 8.584 min  
Delta R.T.: 0.000 min  
Response: 6266153  
Conc: 50.00 ug/ml



#5 N-HEXADECANE

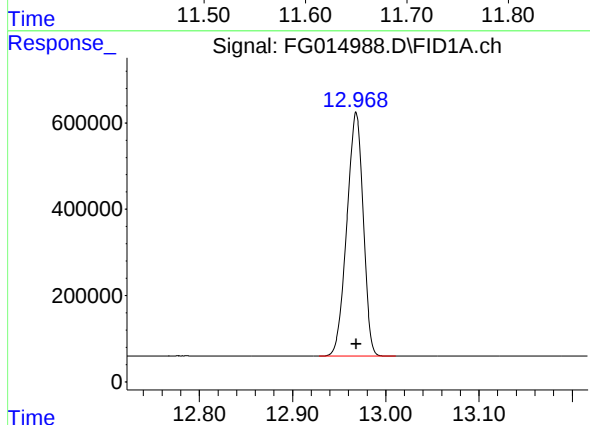
R.T.: 10.200 min  
Delta R.T.: 0.000 min  
Response: 6543945  
Conc: 50.00 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD



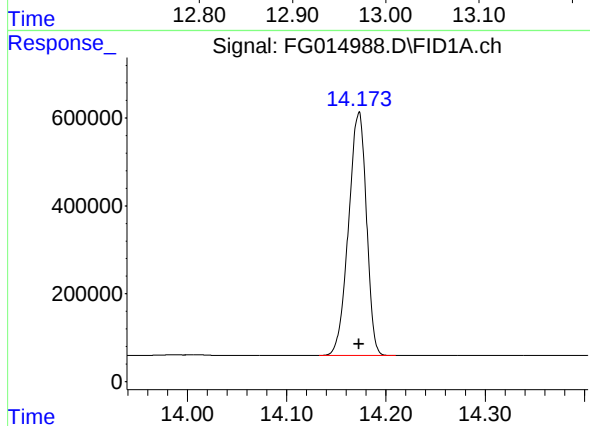
#6 N-OCTADECANE

R.T.: 11.652 min  
Delta R.T.: 0.000 min  
Response: 6907764  
Conc: 50.00 ug/ml



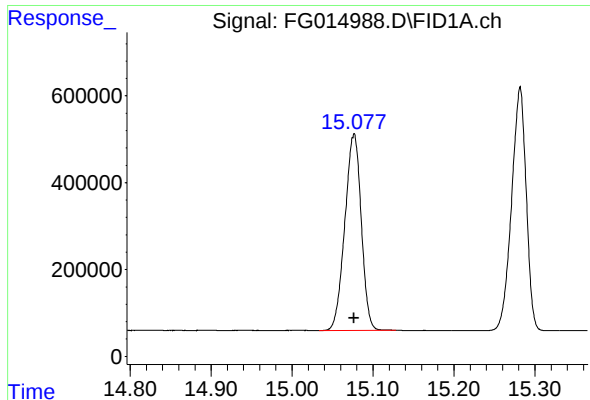
#7 N-EICOSANE

R.T.: 12.968 min  
Delta R.T.: 0.000 min  
Response: 6904204  
Conc: 50.00 ug/ml



#8 N-DOCOSANE

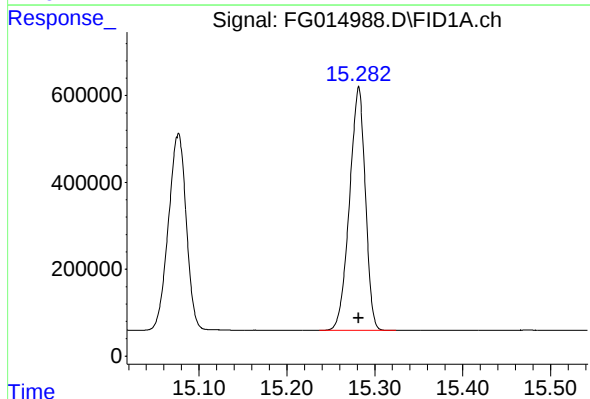
R.T.: 14.173 min  
Delta R.T.: 0.000 min  
Response: 6946035  
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

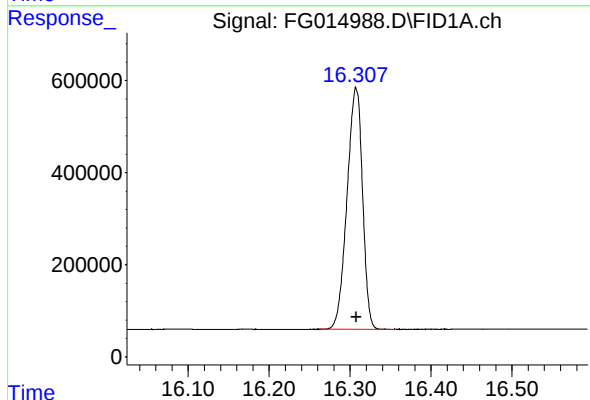
R.T.: 15.077 min  
Delta R.T.: 0.000 min  
Response: 6375111  
Conc: 50.00 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD



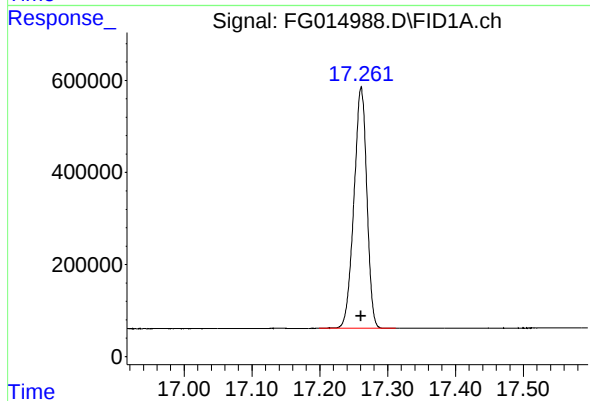
#10 N-TETRACOSANE

R.T.: 15.282 min  
Delta R.T.: 0.000 min  
Response: 7018431  
Conc: 50.00 ug/ml



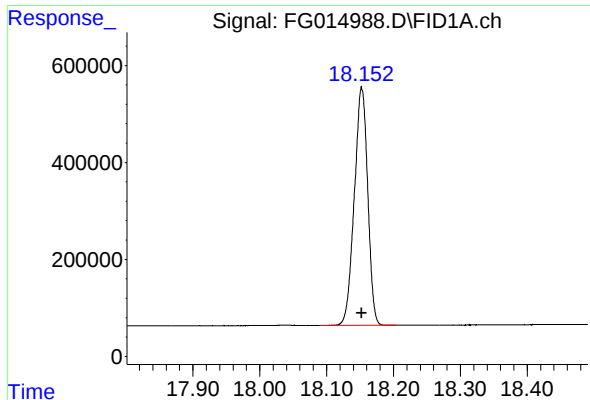
#11 N-HEXACOSANE

R.T.: 16.308 min  
Delta R.T.: 0.000 min  
Response: 6986570  
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

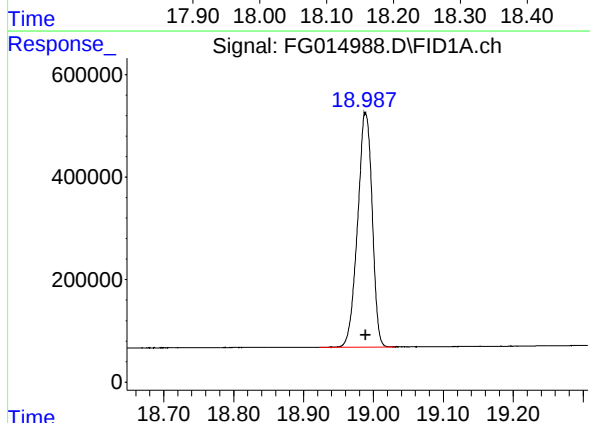
R.T.: 17.261 min  
Delta R.T.: 0.000 min  
Response: 6920572  
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

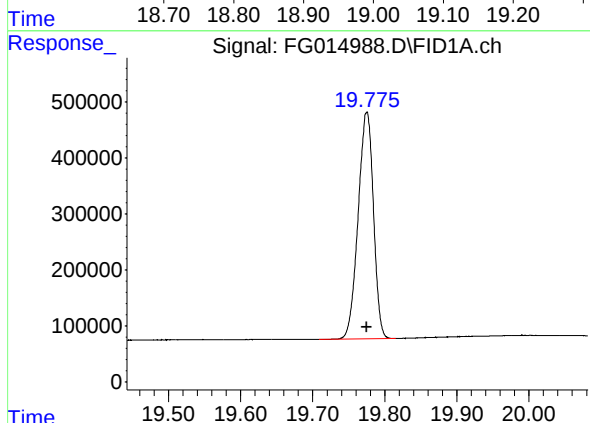
R.T.: 18.152 min  
Delta R.T.: 0.000 min  
Response: 6837519  
Conc: 50.00 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD



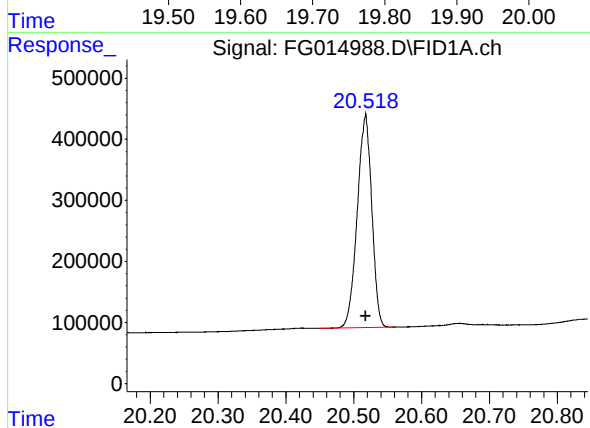
#14 N-DOTRIACONTANE

R.T.: 18.989 min  
Delta R.T.: 0.000 min  
Response: 6618057  
Conc: 50.00 ug/ml



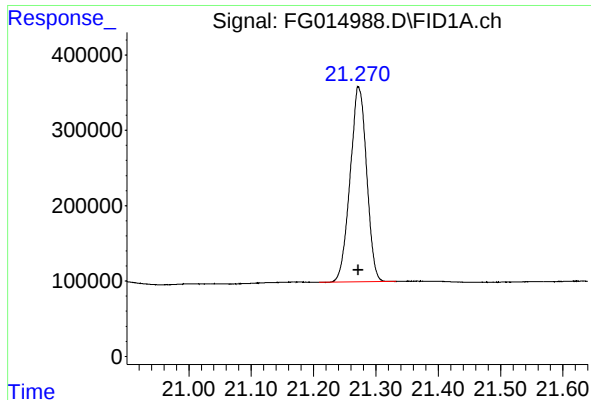
#15 N-TETRATRIACONTANE

R.T.: 19.775 min  
Delta R.T.: 0.000 min  
Response: 5985475  
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

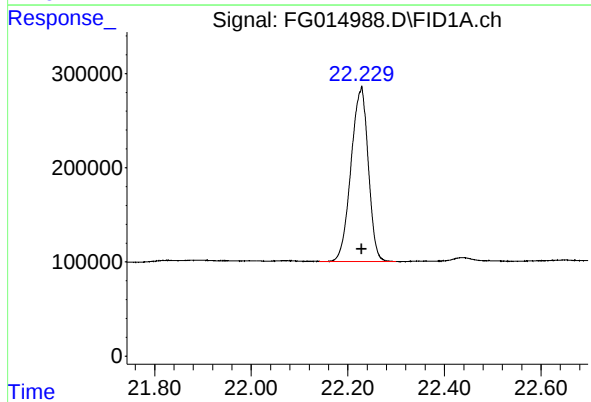
R.T.: 20.517 min  
Delta R.T.: 0.000 min  
Response: 5188983  
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.272 min  
Delta R.T.: 0.000 min  
Response: 4763360  
Conc: 50.00 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.228 min  
Delta R.T.: 0.000 min  
Response: 4563233  
Conc: 50.00 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014988.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:01  
Sample : 50 TRPH STD  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 2.018       | 1.981        | 2.080      | BB       | 567289         | 5791922      | 82.52%         | 5.133%        |
| 2                       | 4.560       | 4.519        | 4.600      | BB       | 588101         | 5943718      | 84.69%         | 5.268%        |
| 3                       | 6.745       | 6.707        | 6.775      | BB       | 630930         | 6268238      | 89.31%         | 5.556%        |
| 4                       | 8.584       | 8.540        | 8.616      | BB       | 607870         | 6266153      | 89.28%         | 5.554%        |
| 5                       | 10.200      | 10.155       | 10.238     | BB       | 590577         | 6543945      | 93.24%         | 5.800%        |
| 6                       | 11.652      | 11.613       | 11.689     | BB       | 600046         | 6907764      | 98.42%         | 6.122%        |
| 7                       | 12.968      | 12.928       | 13.011     | BB       | 564493         | 6904204      | 98.37%         | 6.119%        |
| 8                       | 14.173      | 14.133       | 14.210     | BB       | 553627         | 6946035      | 98.97%         | 6.156%        |
| 9                       | 15.077      | 15.033       | 15.128     | BB       | 453309         | 6375111      | 90.83%         | 5.650%        |
| 10                      | 15.282      | 15.237       | 15.324     | BB       | 561264         | 7018431      | 100.00%        | 6.220%        |
| 11                      | 16.308      | 16.262       | 16.357     | BB       | 523399         | 6986570      | 99.55%         | 6.192%        |
| 12                      | 17.261      | 17.199       | 17.312     | BB       | 522303         | 6920572      | 98.61%         | 6.134%        |
| 13                      | 18.152      | 18.089       | 18.204     | BB       | 490956         | 6837519      | 97.42%         | 6.060%        |
| 14                      | 18.989      | 18.922       | 19.032     | BB       | 455691         | 6618057      | 94.30%         | 5.866%        |
| 15                      | 19.775      | 19.709       | 19.815     | BB       | 404671         | 5985475      | 85.28%         | 5.305%        |
| 16                      | 20.517      | 20.449       | 20.562     | BB       | 346735         | 5188983      | 73.93%         | 4.599%        |
| 17                      | 21.272      | 21.209       | 21.332     | BB       | 258255         | 4763360      | 67.87%         | 4.222%        |
| 18                      | 22.228      | 22.140       | 22.300     | BBA      | 186132         | 4563233      | 65.02%         | 4.044%        |
| Sum of corrected areas: |             |              |            |          |                | 112829289    |                |               |

FG121924.M Thu Dec 19 16:48:30 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014989.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:29  
Operator : YP\AJ  
Sample : 20 TRPH STD  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 15:41:43 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 15:41:31 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.072 | 2587289  | 20.636 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.020  | 2376215  | 20.618 ug/ml |
| 2) N-DECANE                   | 4.558  | 2449289  | 20.708 ug/ml |
| 3) N-DODECANE                 | 6.742  | 2589475  | 20.736 ug/ml |
| 4) N-TETRADECANE              | 8.581  | 2590236  | 20.757 ug/ml |
| 5) N-HEXADECANE               | 10.197 | 2701782  | 20.767 ug/ml |
| 6) N-OCTADECANE               | 11.648 | 2847684  | 20.770 ug/ml |
| 7) N-EICOSANE                 | 12.964 | 2833663  | 20.738 ug/ml |
| 8) N-DOCOSANE                 | 14.169 | 2839166  | 20.715 ug/ml |
| 10) N-TETRACOSANE             | 15.278 | 2860445  | 20.701 ug/ml |
| 11) N-HEXACOSANE              | 16.302 | 2838385  | 20.686 ug/ml |
| 12) N-OCTACOSANE              | 17.256 | 2832554  | 20.832 ug/ml |
| 13) N-TRIACONTANE             | 18.147 | 2853207  | 21.105 ug/ml |
| 14) N-DOTRIACONTANE           | 18.983 | 2787984  | 21.231 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.770 | 2499156  | 21.064 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.513 | 2171430  | 21.029 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.268 | 1980349  | 20.834 ug/ml |
| 18) N-TETRACONTANE            | 22.219 | 1883797  | 20.751 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

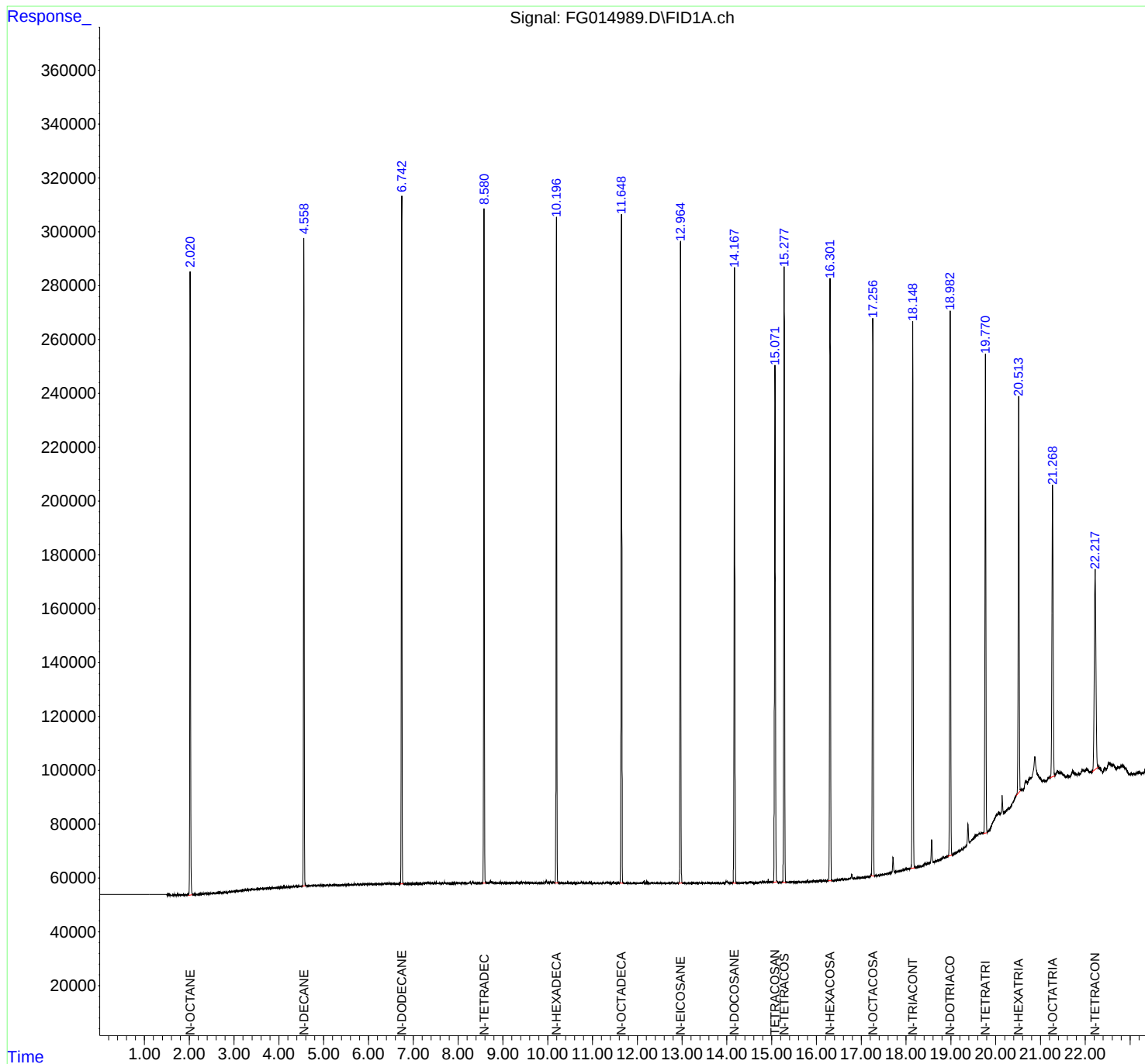
(m)=manual int.

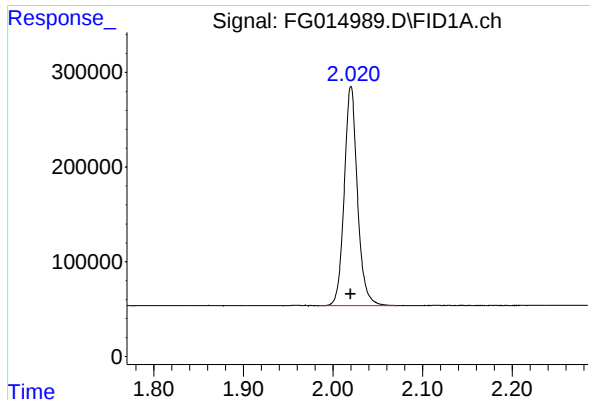
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014989.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:29  
Operator : YP\AJ  
Sample : 20 TRPH STD  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 15:41:43 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 15:41:31 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

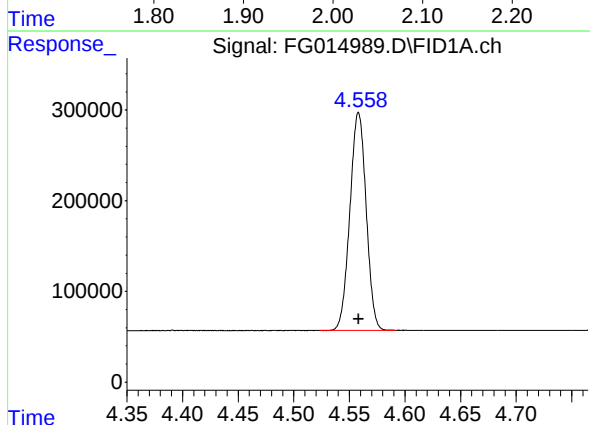




#1 N-OCTANE

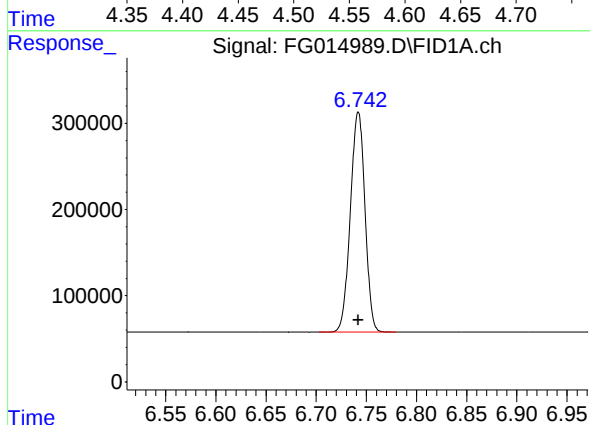
R.T.: 2.020 min  
Delta R.T.: 0.000 min  
Response: 2376215  
Conc: 20.62 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD



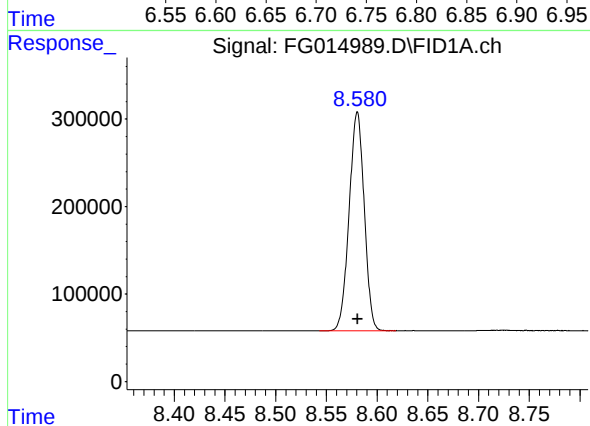
#2 N-DECANE

R.T.: 4.558 min  
Delta R.T.: 0.000 min  
Response: 2449289  
Conc: 20.71 ug/ml



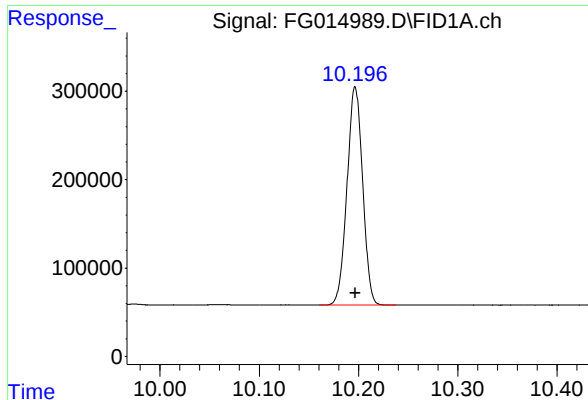
#3 N-DODECANE

R.T.: 6.742 min  
Delta R.T.: 0.000 min  
Response: 2589475  
Conc: 20.74 ug/ml



#4 N-TETRADECANE

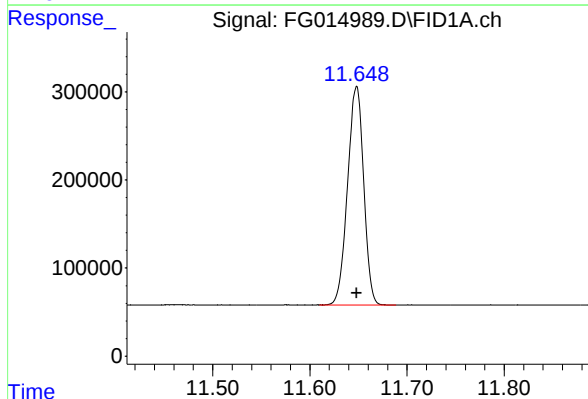
R.T.: 8.581 min  
Delta R.T.: 0.000 min  
Response: 2590236  
Conc: 20.76 ug/ml



#5 N-HEXADECANE

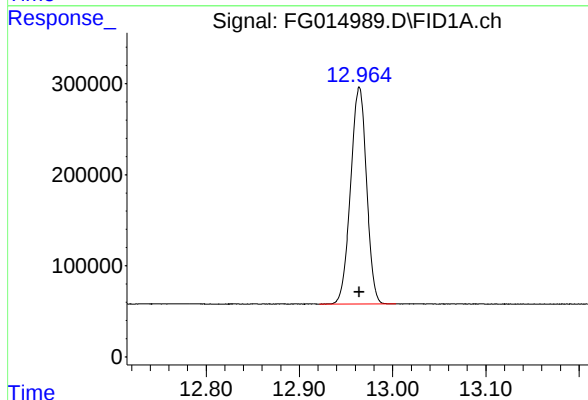
R.T.: 10.197 min  
Delta R.T.: 0.000 min  
Response: 2701782  
Conc: 20.77 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD



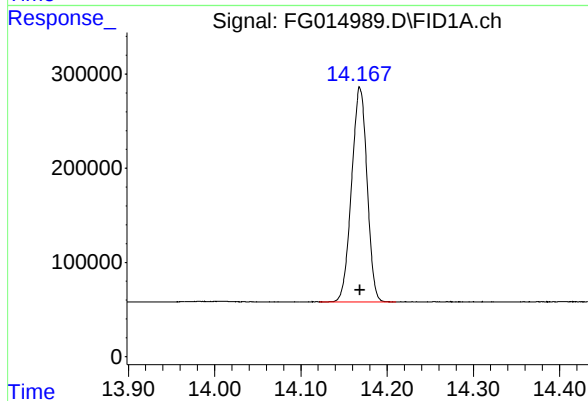
#6 N-OCTADECANE

R.T.: 11.648 min  
Delta R.T.: 0.000 min  
Response: 2847684  
Conc: 20.77 ug/ml



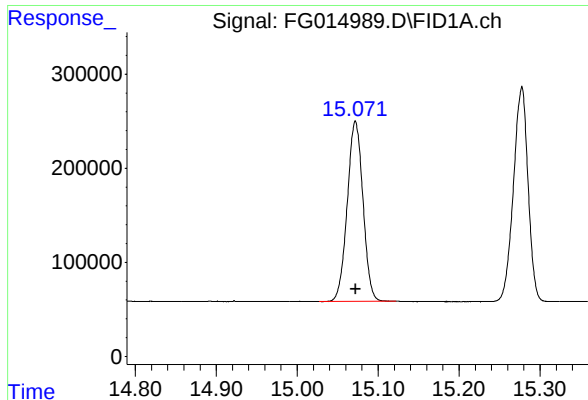
#7 N-EICOSANE

R.T.: 12.964 min  
Delta R.T.: 0.000 min  
Response: 2833663  
Conc: 20.74 ug/ml



#8 N-DOCOSANE

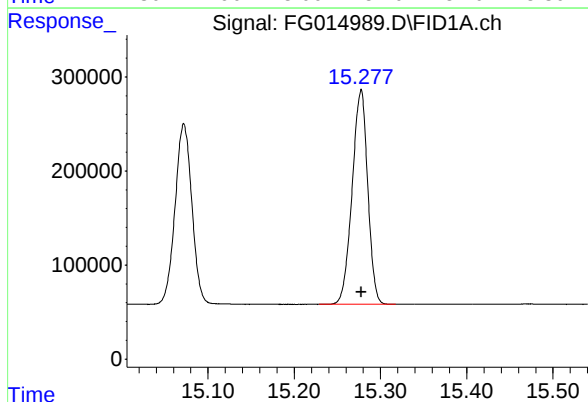
R.T.: 14.169 min  
Delta R.T.: 0.000 min  
Response: 2839166  
Conc: 20.72 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

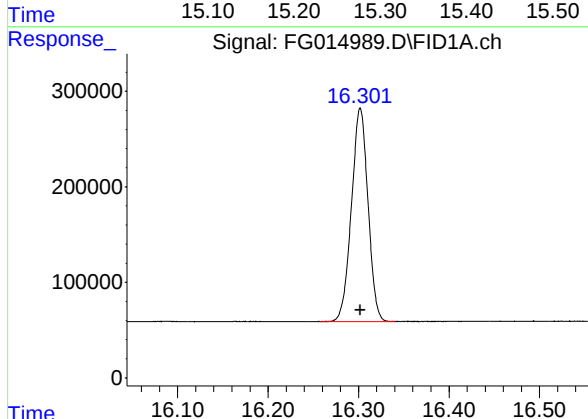
R.T.: 15.072 min  
Delta R.T.: 0.000 min  
Response: 2587289  
Conc: 20.64 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD



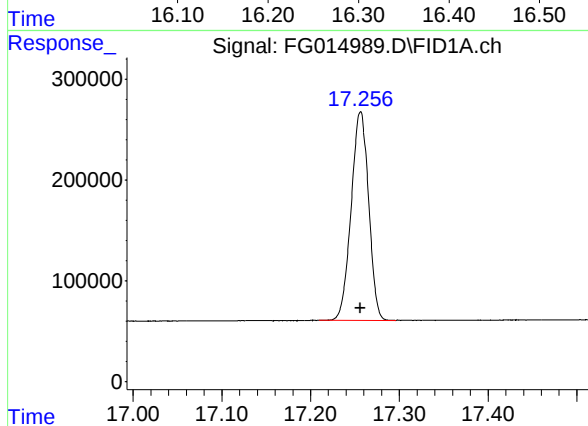
#10 N-TETRACOSANE

R.T.: 15.278 min  
Delta R.T.: 0.000 min  
Response: 2860445  
Conc: 20.70 ug/ml



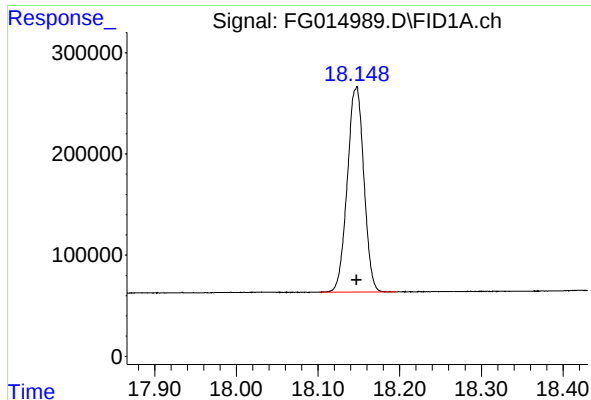
#11 N-HEXACOSANE

R.T.: 16.302 min  
Delta R.T.: 0.000 min  
Response: 2838385  
Conc: 20.69 ug/ml



#12 N-OCTACOSANE

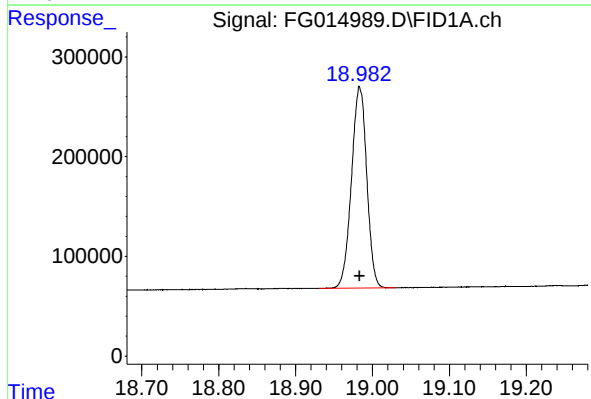
R.T.: 17.256 min  
Delta R.T.: 0.000 min  
Response: 2832554  
Conc: 20.83 ug/ml



#13 N-TRIACONTANE

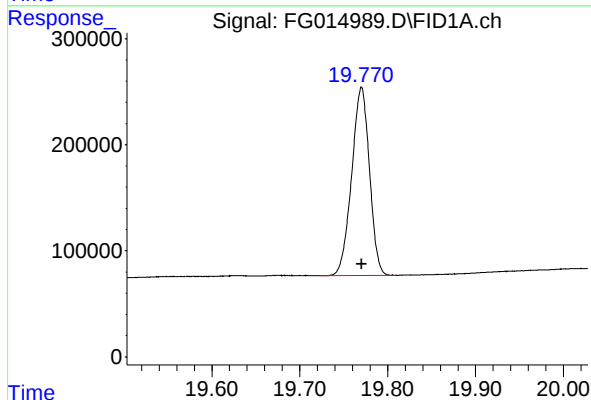
R.T.: 18.147 min  
Delta R.T.: 0.000 min  
Response: 2853207  
Conc: 21.10 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD



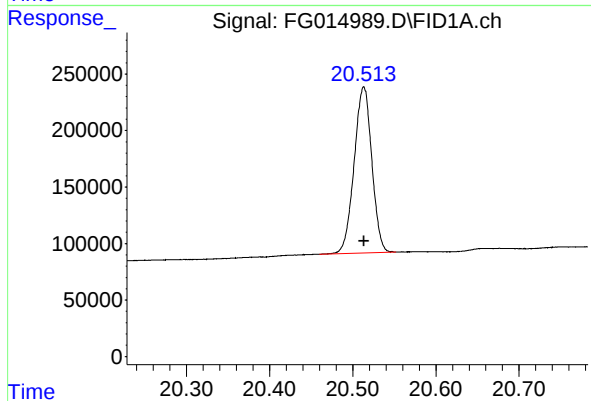
#14 N-DOTRIACONTANE

R.T.: 18.983 min  
Delta R.T.: 0.000 min  
Response: 2787984  
Conc: 21.23 ug/ml



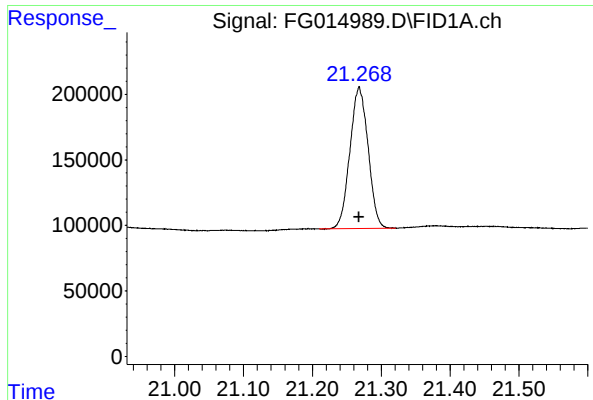
#15 N-TETRATRIACONTANE

R.T.: 19.770 min  
Delta R.T.: 0.000 min  
Response: 2499156  
Conc: 21.06 ug/ml



#16 N-HEXATRIACONTANE

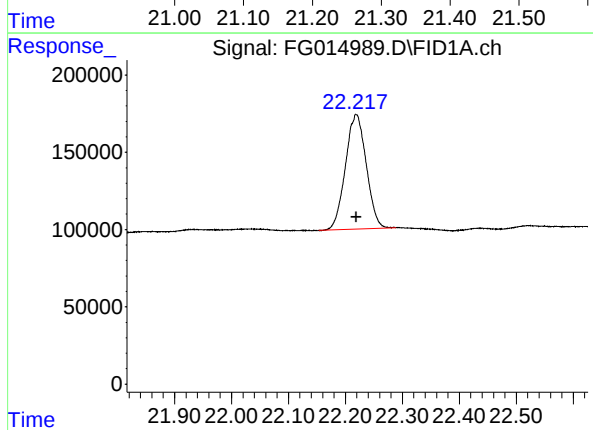
R.T.: 20.513 min  
Delta R.T.: 0.000 min  
Response: 2171430  
Conc: 21.03 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.268 min  
Delta R.T.: 0.000 min  
Response: 1980349  
Conc: 20.83 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.219 min  
Delta R.T.: 0.000 min  
Response: 1883797  
Conc: 20.75 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014989.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:29  
Sample : 20 TRPH STD  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 2.020       | 1.985        | 2.070      | BB       | 231789         | 2376215      | 83.07%         | 5.108%        |
| 2                       | 4.558       | 4.523        | 4.592      | BB       | 240267         | 2449289      | 85.63%         | 5.265%        |
| 3                       | 6.742       | 6.703        | 6.780      | BB       | 255494         | 2589475      | 90.53%         | 5.566%        |
| 4                       | 8.581       | 8.543        | 8.619      | BB       | 250139         | 2590236      | 90.55%         | 5.568%        |
| 5                       | 10.197      | 10.160       | 10.238     | BB       | 247216         | 2701782      | 94.45%         | 5.808%        |
| 6                       | 11.648      | 11.610       | 11.689     | BB       | 247635         | 2847684      | 99.55%         | 6.121%        |
| 7                       | 12.964      | 12.921       | 13.004     | BB       | 238322         | 2833663      | 99.06%         | 6.091%        |
| 8                       | 14.169      | 14.121       | 14.210     | BB       | 226662         | 2839166      | 99.26%         | 6.103%        |
| 9                       | 15.072      | 15.027       | 15.122     | BB       | 191963         | 2587289      | 90.45%         | 5.561%        |
| 10                      | 15.278      | 15.229       | 15.318     | BB       | 228751         | 2860445      | 100.00%        | 6.149%        |
| 11                      | 16.302      | 16.256       | 16.341     | BB       | 223685         | 2838385      | 99.23%         | 6.101%        |
| 12                      | 17.256      | 17.210       | 17.296     | BB       | 206763         | 2832554      | 99.02%         | 6.089%        |
| 13                      | 18.147      | 18.101       | 18.195     | BB       | 201672         | 2853207      | 99.75%         | 6.133%        |
| 14                      | 18.983      | 18.930       | 19.030     | BB       | 201399         | 2787984      | 97.47%         | 5.993%        |
| 15                      | 19.770      | 19.722       | 19.810     | BB       | 177632         | 2499156      | 87.37%         | 5.372%        |
| 16                      | 20.513      | 20.460       | 20.552     | BB       | 147351         | 2171430      | 75.91%         | 4.668%        |
| 17                      | 21.268      | 21.210       | 21.321     | BB       | 108367         | 1980349      | 69.23%         | 4.257%        |
| 18                      | 22.219      | 22.154       | 22.289     | BB       | 74041          | 1883797      | 65.86%         | 4.049%        |
| Sum of corrected areas: |             |              |            |          |                | 46522105     |                |               |

FG121924.M Thu Dec 19 16:48:44 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
 Data File : FG014990.D  
 Signal(s) : FID1A.ch  
 Acq On : 19 Dec 2024 15:57  
 Operator : YP\AJ  
 Sample : 10 TRPH STD  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 FID\_G  
 ClientSampleId :  
 10 TRPH STD

Integration File: autoint1.e  
 Quant Time: Dec 19 16:10:03 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:09:56 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.071 | 1536504  | 11.601 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.022  | 1419718  | 11.644 ug/ml |
| 2) N-DECANE                   | 4.558  | 1476623  | 11.754 ug/ml |
| 3) N-DODECANE                 | 6.741  | 1565328  | 11.788 ug/ml |
| 4) N-TETRADECANE              | 8.579  | 1570091  | 11.819 ug/ml |
| 5) N-HEXADECANE               | 10.196 | 1638386  | 11.827 ug/ml |
| 6) N-OCTADECANE               | 11.647 | 1723122  | 11.810 ug/ml |
| 7) N-EICOSANE                 | 12.963 | 1708790  | 11.769 ug/ml |
| 8) N-DOCOSANE                 | 14.167 | 1702540  | 11.713 ug/ml |
| 10) N-TETRACOSANE             | 15.276 | 1705871  | 11.662 ug/ml |
| 11) N-HEXACOSANE              | 16.302 | 1686678  | 11.626 ug/ml |
| 12) N-OCTACOSANE              | 17.255 | 1680427  | 11.670 ug/ml |
| 13) N-TRIACONTANE             | 18.147 | 1681963  | 11.726 ug/ml |
| 14) N-DOTRIACONTANE           | 18.983 | 1640283  | 11.759 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.769 | 1475006  | 11.719 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.512 | 1275345  | 11.665 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.268 | 1171872  | 11.650 ug/ml |
| 18) N-TETRACONTANE            | 22.217 | 1074375  | 11.316 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

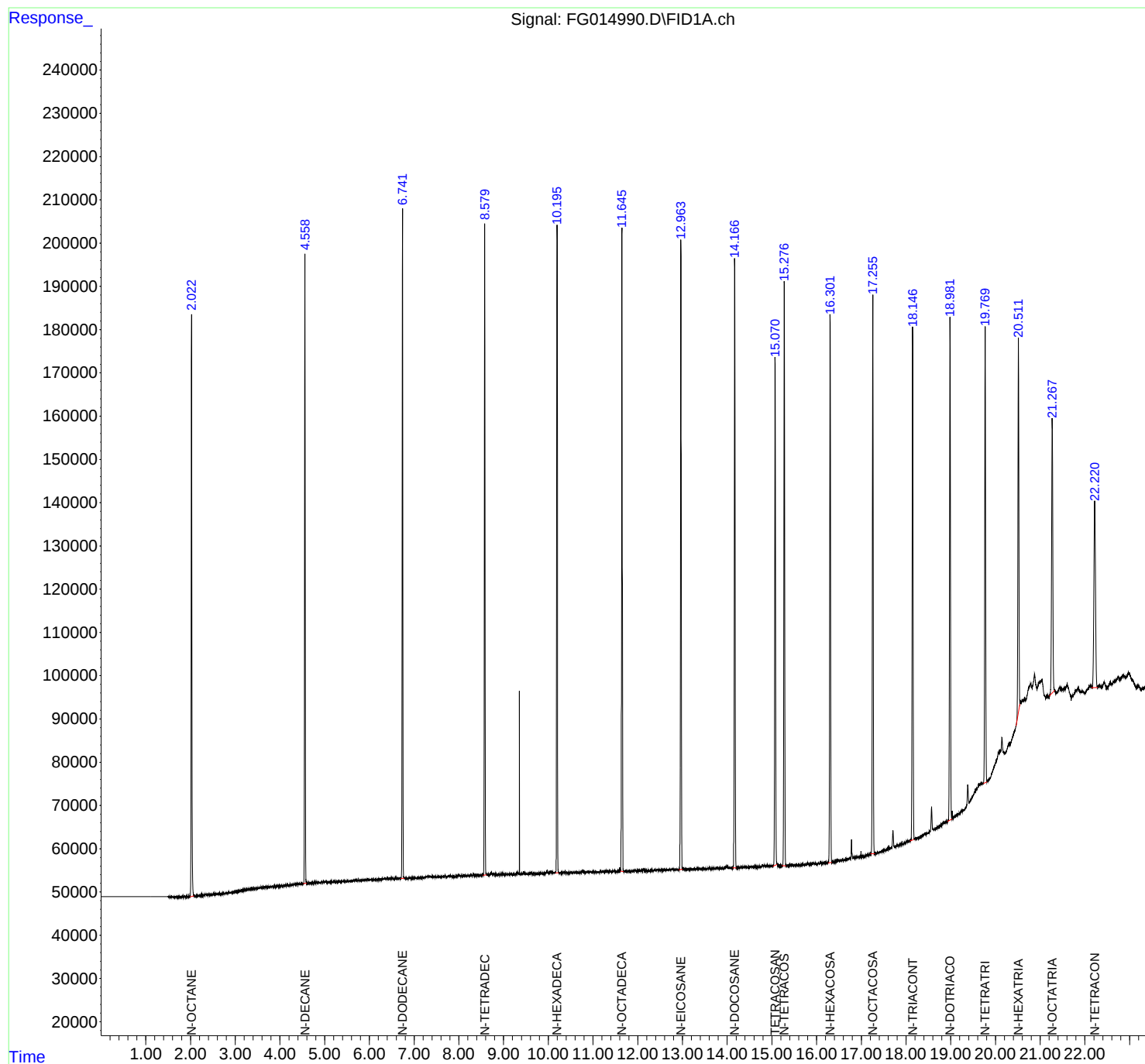
(m)=manual int.

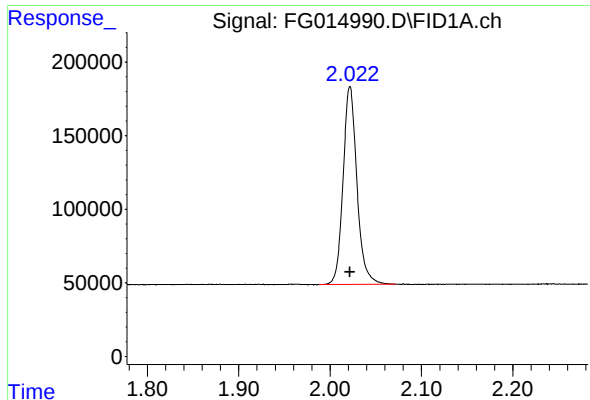
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014990.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:57  
Operator : YP\AJ  
Sample : 10 TRPH STD  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
10 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 16:10:03 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:09:56 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

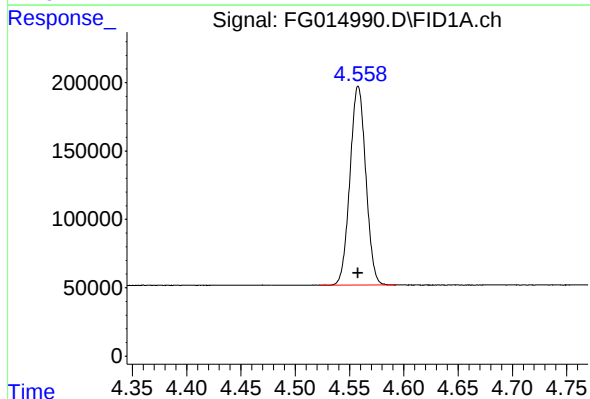




#1 N-OCTANE

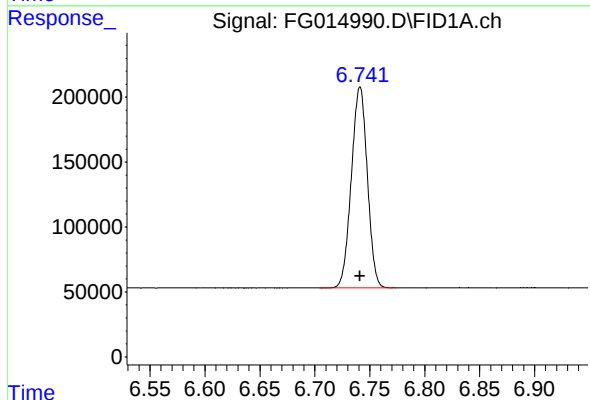
R.T.: 2.022 min  
Delta R.T.: 0.000 min  
Response: 1419718  
Conc: 11.64 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
10 TRPH STD



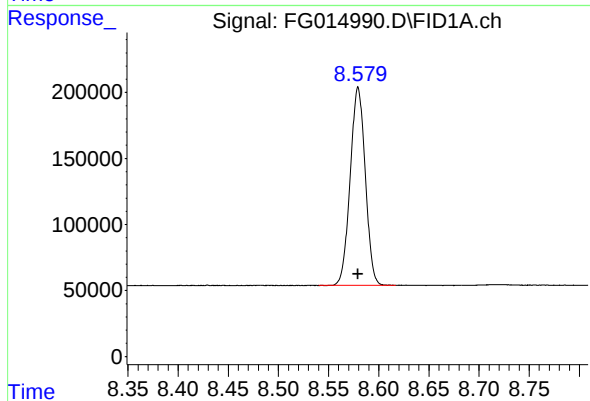
#2 N-DECANE

R.T.: 4.558 min  
Delta R.T.: 0.000 min  
Response: 1476623  
Conc: 11.75 ug/ml



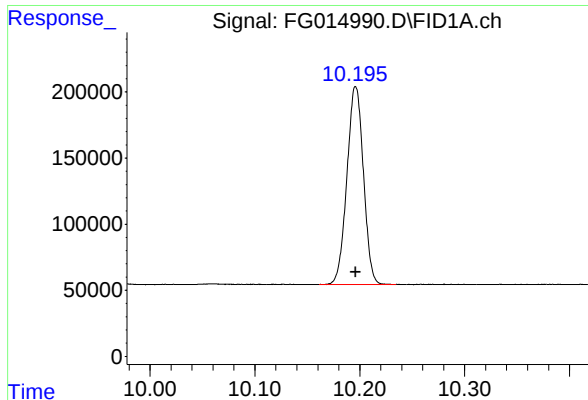
#3 N-DODECANE

R.T.: 6.741 min  
Delta R.T.: 0.000 min  
Response: 1565328  
Conc: 11.79 ug/ml



#4 N-TETRADECANE

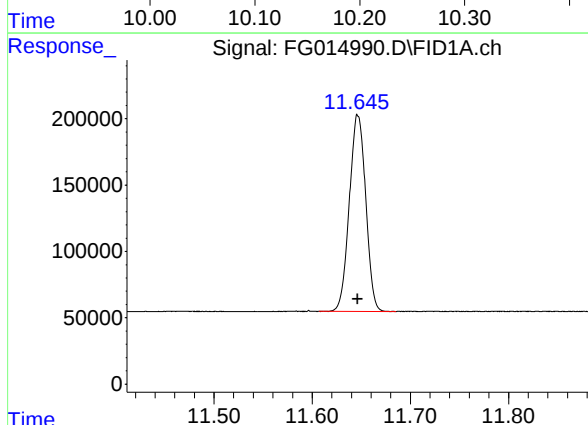
R.T.: 8.579 min  
Delta R.T.: 0.000 min  
Response: 1570091  
Conc: 11.82 ug/ml



#5 N-HEXADECANE

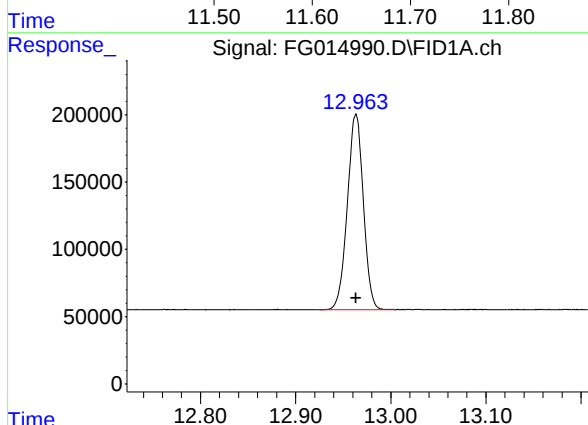
R.T.: 10.196 min  
Delta R.T.: 0.000 min  
Response: 1638386  
Conc: 11.83 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
10 TRPH STD



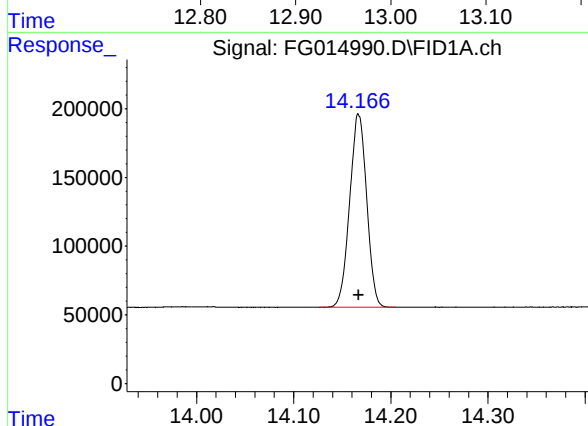
#6 N-OCTADECANE

R.T.: 11.647 min  
Delta R.T.: 0.000 min  
Response: 1723122  
Conc: 11.81 ug/ml



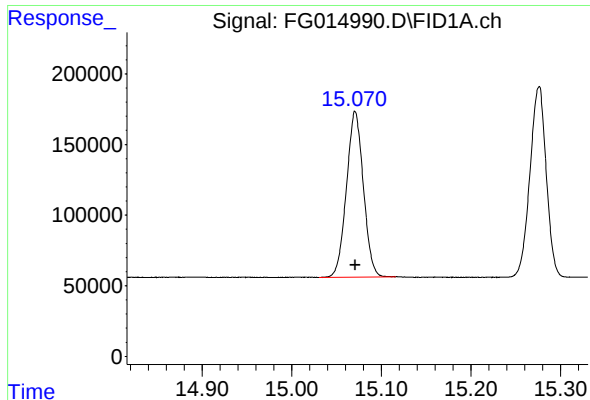
#7 N-EICOSANE

R.T.: 12.963 min  
Delta R.T.: 0.000 min  
Response: 1708790  
Conc: 11.77 ug/ml



#8 N-DOCOSANE

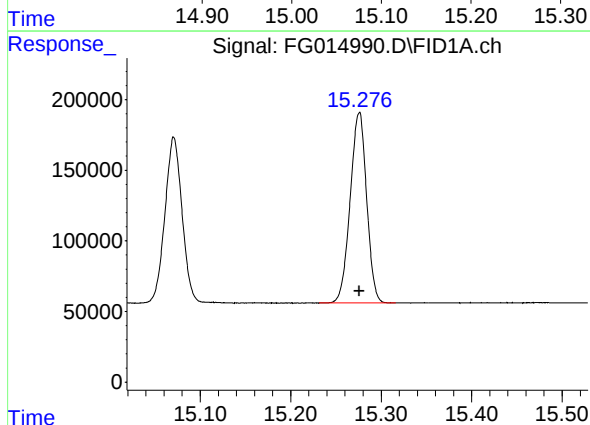
R.T.: 14.167 min  
Delta R.T.: 0.000 min  
Response: 1702540  
Conc: 11.71 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

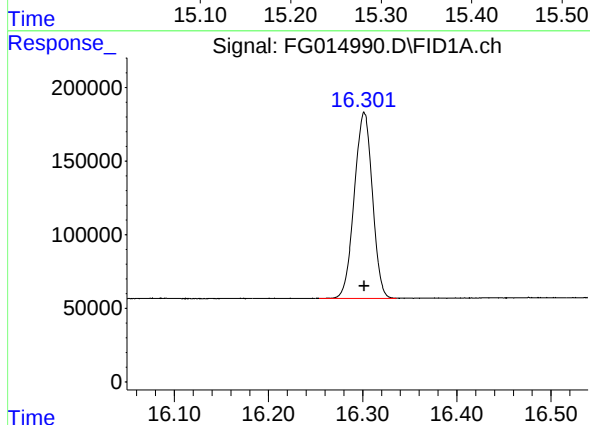
R.T.: 15.071 min  
Delta R.T.: 0.000 min  
Response: 1536504  
Conc: 11.60 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
10 TRPH STD



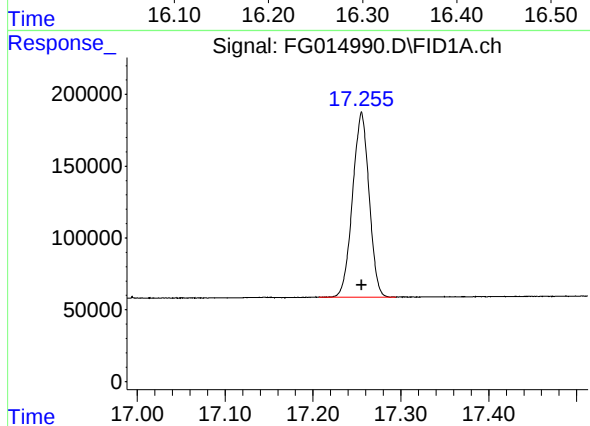
#10 N-TETRACOSANE

R.T.: 15.276 min  
Delta R.T.: 0.000 min  
Response: 1705871  
Conc: 11.66 ug/ml



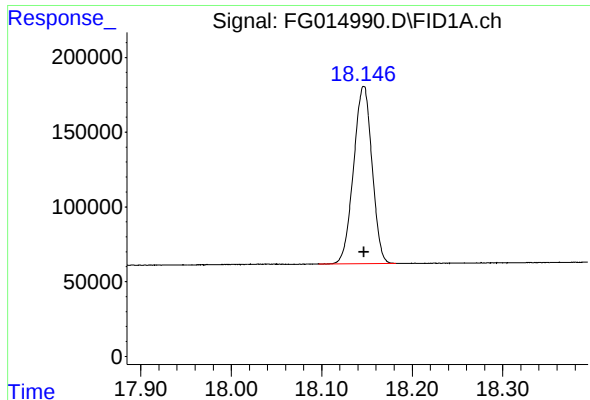
#11 N-HEXACOSANE

R.T.: 16.302 min  
Delta R.T.: 0.000 min  
Response: 1686678  
Conc: 11.63 ug/ml



#12 N-OCTACOSANE

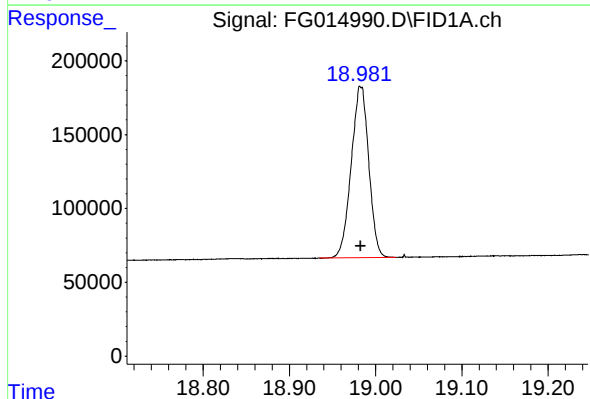
R.T.: 17.255 min  
Delta R.T.: 0.000 min  
Response: 1680427  
Conc: 11.67 ug/ml



#13 N-TRIACONTANE

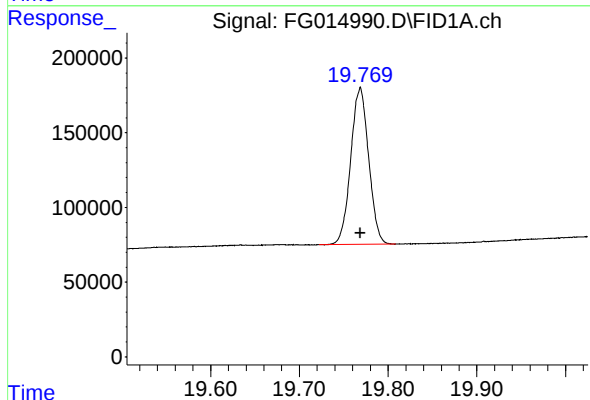
R.T.: 18.147 min  
Delta R.T.: 0.000 min  
Response: 1681963  
Conc: 11.73 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
10 TRPH STD



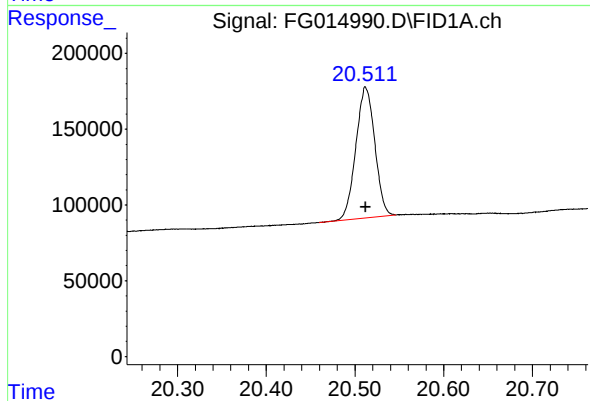
#14 N-DOTRIACONTANE

R.T.: 18.983 min  
Delta R.T.: 0.000 min  
Response: 1640283  
Conc: 11.76 ug/ml



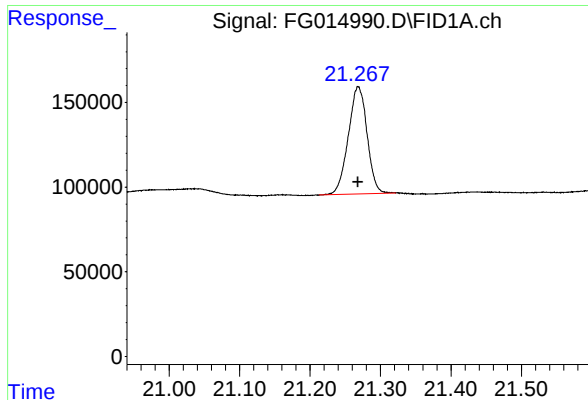
#15 N-TETRATRIACONTANE

R.T.: 19.769 min  
Delta R.T.: 0.000 min  
Response: 1475006  
Conc: 11.72 ug/ml



#16 N-HEXATRIACONTANE

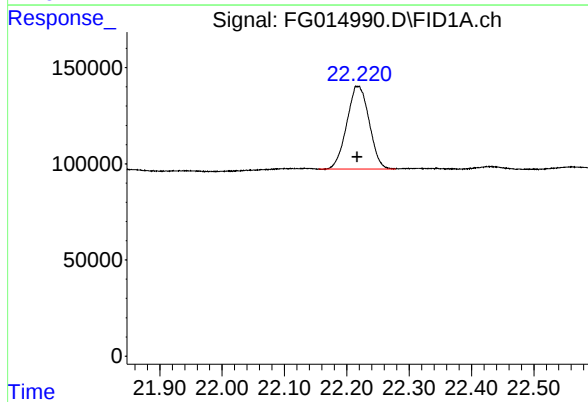
R.T.: 20.512 min  
Delta R.T.: 0.000 min  
Response: 1275345  
Conc: 11.67 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.268 min  
Delta R.T.: 0.000 min  
Response: 1171872  
Conc: 11.65 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.217 min  
Delta R.T.: 0.000 min  
Response: 1074375  
Conc: 11.32 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014990.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 15:57  
Sample : 10 TRPH STD  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 2.022       | 1.988        | 2.072      | BB       | 134604         | 1419718      | 82.39%         | 5.119%        |
| 2                       | 4.558       | 4.522        | 4.593      | BB       | 145468         | 1476623      | 85.69%         | 5.324%        |
| 3                       | 6.741       | 6.704        | 6.774      | BB       | 154864         | 1565328      | 90.84%         | 5.644%        |
| 4                       | 8.580       | 8.540        | 8.617      | BB       | 150303         | 1570091      | 91.12%         | 5.661%        |
| 5                       | 10.196      | 10.161       | 10.235     | BB       | 149533         | 1638386      | 95.08%         | 5.908%        |
| 6                       | 11.647      | 11.607       | 11.685     | BB       | 147783         | 1723122      | 100.00%        | 6.213%        |
| 7                       | 12.963      | 12.925       | 13.005     | BB       | 145692         | 1708790      | 99.17%         | 6.162%        |
| 8                       | 14.167      | 14.126       | 14.205     | BB       | 139668         | 1702540      | 98.81%         | 6.139%        |
| 9                       | 15.071      | 15.030       | 15.116     | BB       | 117458         | 1536504      | 89.17%         | 5.540%        |
| 10                      | 15.276      | 15.231       | 15.316     | BB       | 134957         | 1705871      | 99.00%         | 6.151%        |
| 11                      | 16.302      | 16.254       | 16.335     | BB       | 125954         | 1686678      | 97.89%         | 6.082%        |
| 12                      | 17.255      | 17.207       | 17.294     | BB       | 129125         | 1680427      | 97.52%         | 6.059%        |
| 13                      | 18.147      | 18.097       | 18.182     | BB       | 118614         | 1681963      | 97.61%         | 6.065%        |
| 14                      | 18.983      | 18.935       | 19.024     | BB       | 115407         | 1640283      | 95.19%         | 5.915%        |
| 15                      | 19.769      | 19.722       | 19.809     | BB       | 105358         | 1475006      | 85.60%         | 5.319%        |
| 16                      | 20.512      | 20.460       | 20.546     | BB       | 86235          | 1275345      | 74.01%         | 4.599%        |
| 17                      | 21.268      | 21.213       | 21.322     | BB       | 63163          | 1171872      | 68.01%         | 4.226%        |
| 18                      | 22.217      | 22.155       | 22.279     | BB       | 42985          | 1074375      | 62.35%         | 3.874%        |
| Sum of corrected areas: |             |              |            |          |                | 27732922     |                |               |

FG121924.M Thu Dec 19 16:49:00 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014991.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 16:26  
Operator : YP\AJ  
Sample : 5 TRPH STD  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 16:42:12 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:02 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units  |
|-------------------------------|--------|----------|-------------|
| -----                         |        |          |             |
| System Monitoring Compounds   |        |          |             |
| 9) S TETRACOSANE-d50 (SURR... | 15.070 | 692466   | 5.181 ug/ml |
| Target Compounds              |        |          |             |
| 1) N-OCTANE                   | 2.019  | 632488   | 5.149 ug/ml |
| 2) N-DECANE                   | 4.557  | 656741   | 5.181 ug/ml |
| 3) N-DODECANE                 | 6.741  | 696354   | 5.193 ug/ml |
| 4) N-TETRADECANE              | 8.579  | 698622   | 5.205 ug/ml |
| 5) N-HEXADECANE               | 10.195 | 732818   | 5.229 ug/ml |
| 6) N-OCTADECANE               | 11.646 | 773424   | 5.238 ug/ml |
| 7) N-EICOSANE                 | 12.962 | 768571   | 5.232 ug/ml |
| 8) N-DOCOSANE                 | 14.165 | 770098   | 5.236 ug/ml |
| 10) N-TETRACOSANE             | 15.274 | 774299   | 5.232 ug/ml |
| 11) N-HEXACOSANE              | 16.300 | 769051   | 5.238 ug/ml |
| 12) N-OCTACOSANE              | 17.253 | 781203   | 5.335 ug/ml |
| 13) N-TRIACONTANE             | 18.143 | 817412   | 5.544 ug/ml |
| 14) N-DOTRIACONTANE           | 18.982 | 817799   | 5.667 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.767 | 730244   | 5.622 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.508 | 605130   | 5.419 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.263 | 545188   | 5.330 ug/ml |
| 18) N-TETRACONTANE            | 22.216 | 497709   | 5.192 ug/ml |
| -----                         |        |          |             |

(f)=RT Delta > 1/2 Window

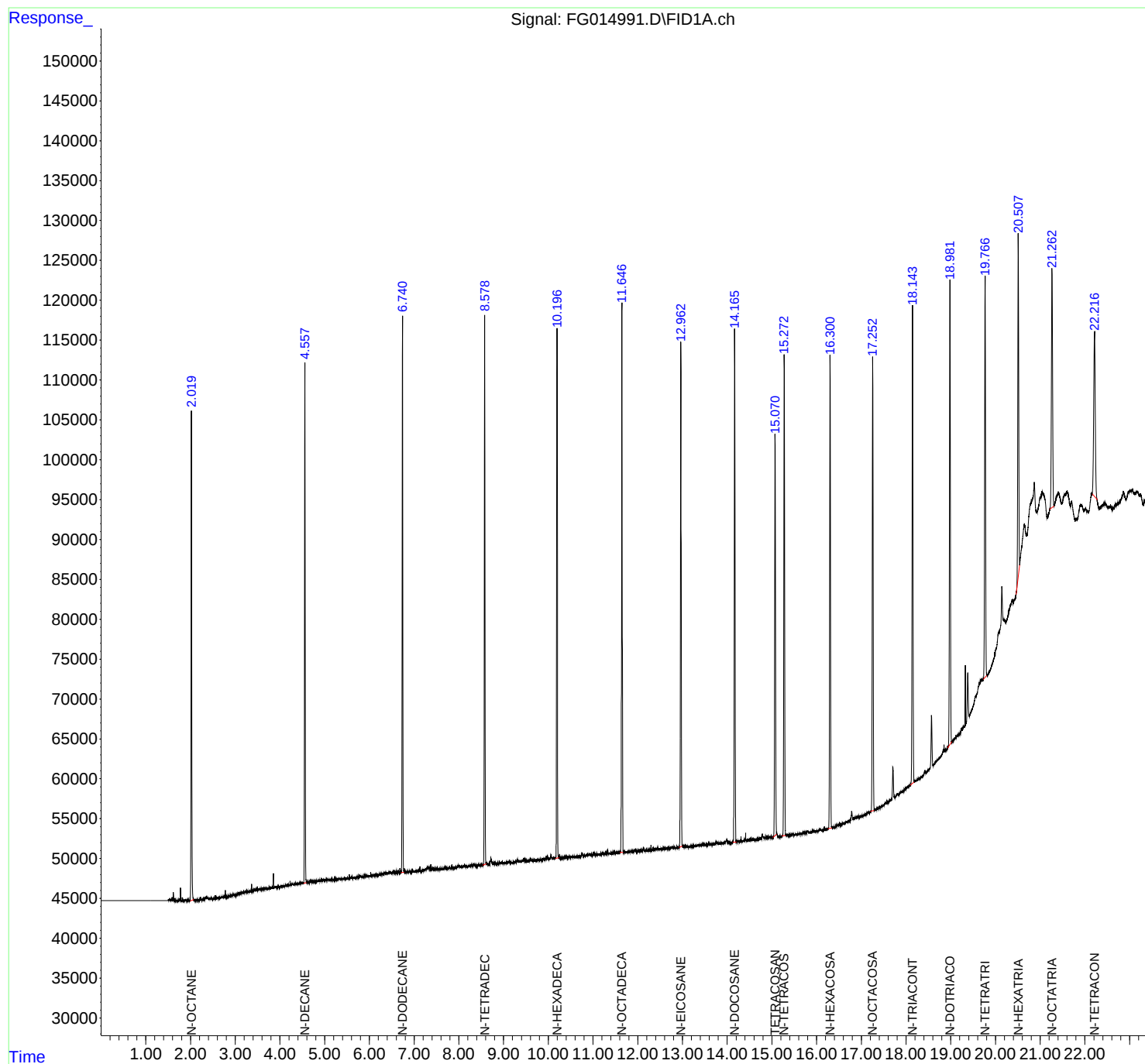
(m)=manual int.

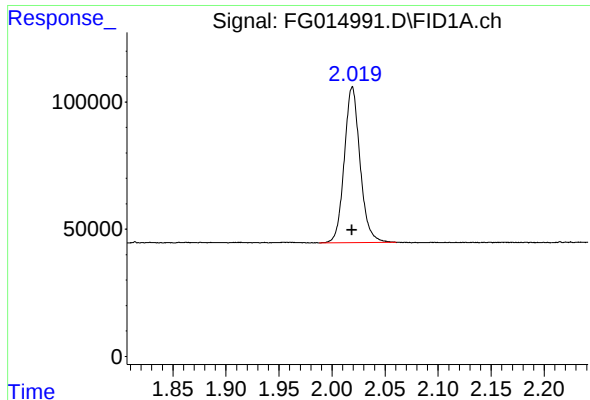
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014991.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 16:26  
Operator : YP\AJ  
Sample : 5 TRPH STD  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 19 16:42:12 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:02 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

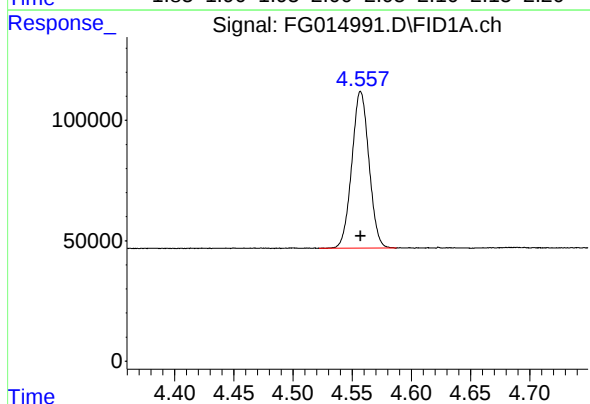




#1 N-OCTANE

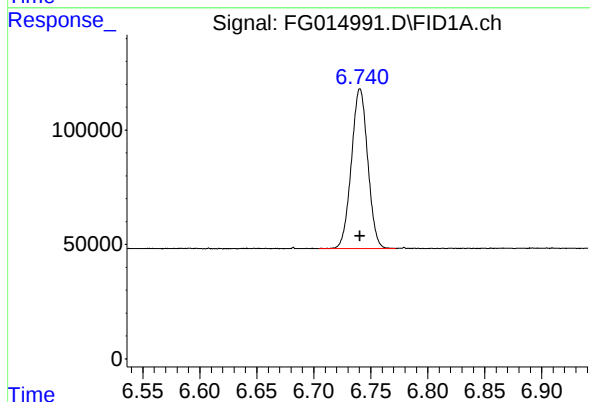
R.T.: 2.019 min  
Delta R.T.: 0.000 min  
Response: 632488  
Conc: 5.15 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD



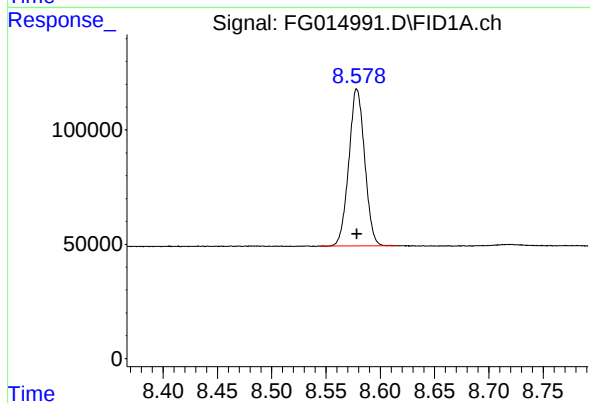
#2 N-DECANE

R.T.: 4.557 min  
Delta R.T.: 0.000 min  
Response: 656741  
Conc: 5.18 ug/ml



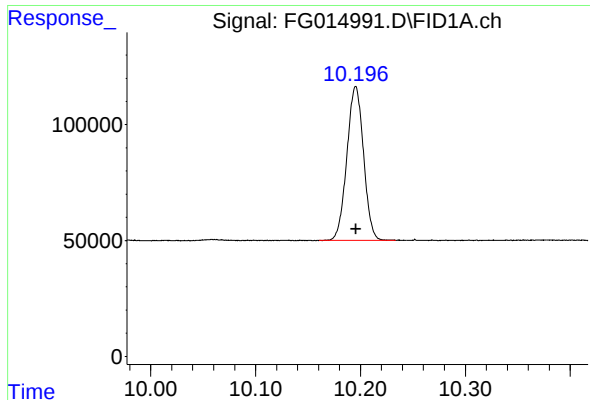
#3 N-DODECANE

R.T.: 6.741 min  
Delta R.T.: 0.000 min  
Response: 696354  
Conc: 5.19 ug/ml



#4 N-TETRADECANE

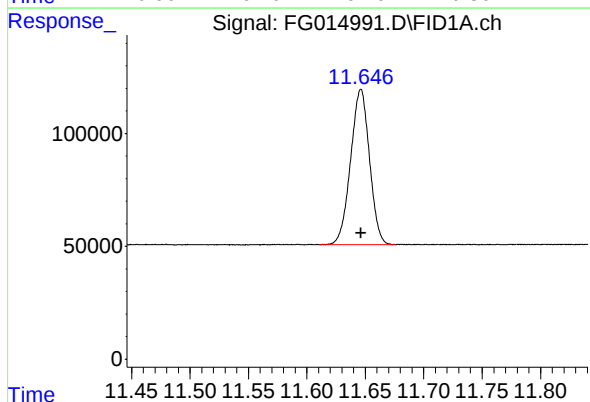
R.T.: 8.579 min  
Delta R.T.: 0.000 min  
Response: 698622  
Conc: 5.21 ug/ml



#5 N-HEXADECANE

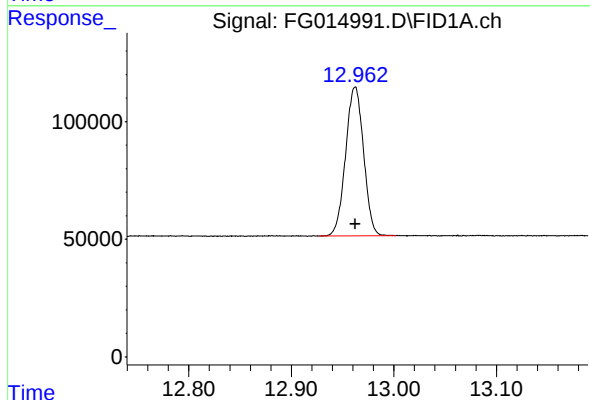
R.T.: 10.195 min  
Delta R.T.: 0.000 min  
Response: 732818  
Conc: 5.23 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD



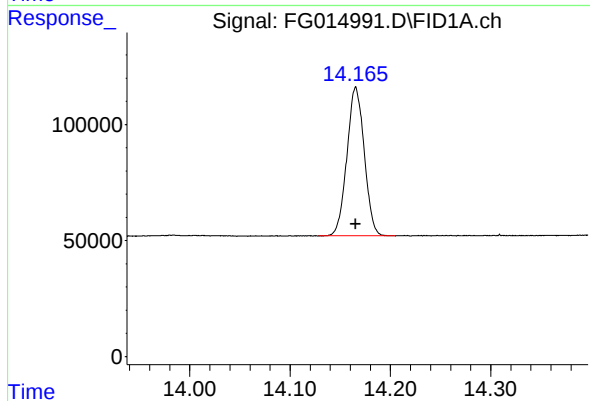
#6 N-OCTADECANE

R.T.: 11.646 min  
Delta R.T.: 0.000 min  
Response: 773424  
Conc: 5.24 ug/ml



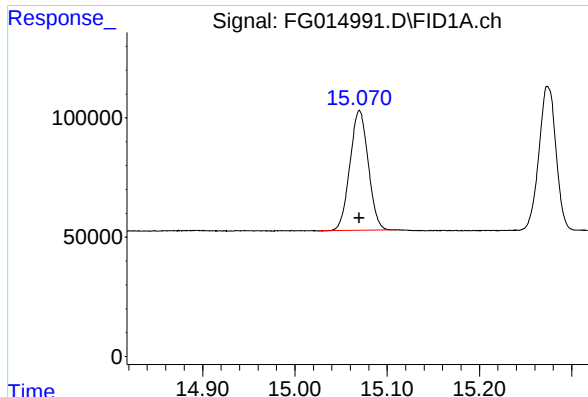
#7 N-EICOSANE

R.T.: 12.962 min  
Delta R.T.: 0.000 min  
Response: 768571  
Conc: 5.23 ug/ml



#8 N-DOCOSANE

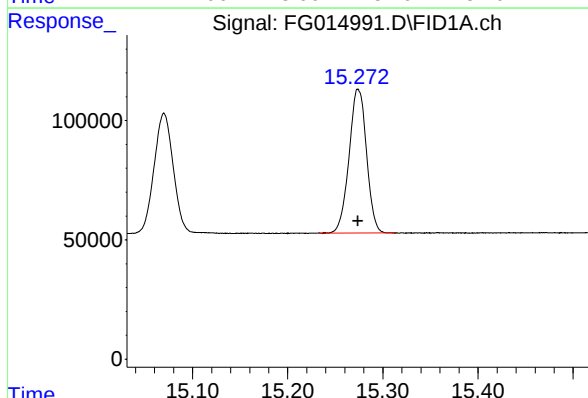
R.T.: 14.165 min  
Delta R.T.: 0.000 min  
Response: 770098  
Conc: 5.24 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

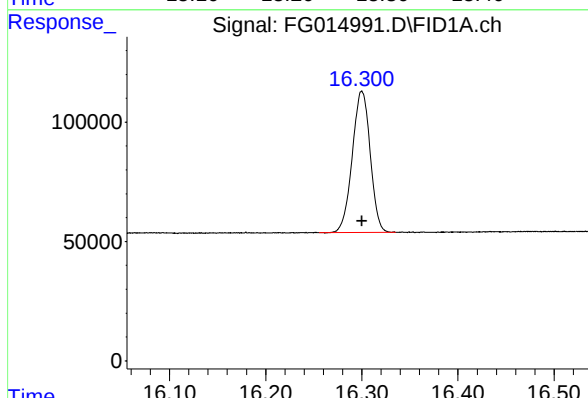
R.T.: 15.070 min  
Delta R.T.: 0.000 min  
Response: 692466  
Conc: 5.18 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD



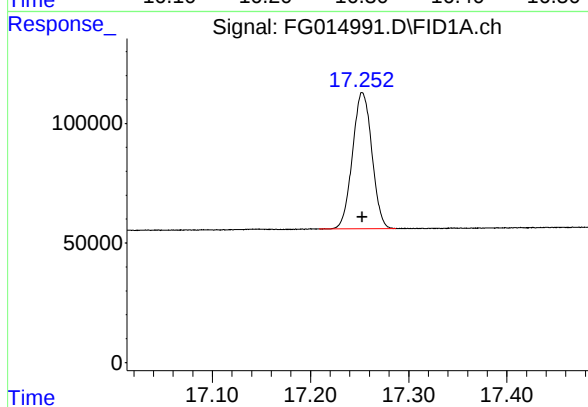
#10 N-TETRACOSANE

R.T.: 15.274 min  
Delta R.T.: 0.000 min  
Response: 774299  
Conc: 5.23 ug/ml



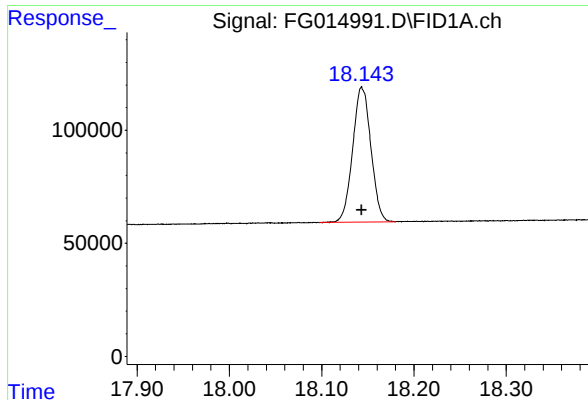
#11 N-HEXACOSANE

R.T.: 16.300 min  
Delta R.T.: 0.000 min  
Response: 769051  
Conc: 5.24 ug/ml



#12 N-OCTACOSANE

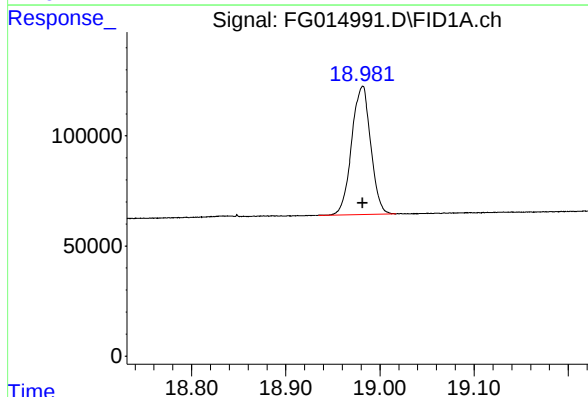
R.T.: 17.253 min  
Delta R.T.: 0.000 min  
Response: 781203  
Conc: 5.33 ug/ml



#13 N-TRIACONTANE

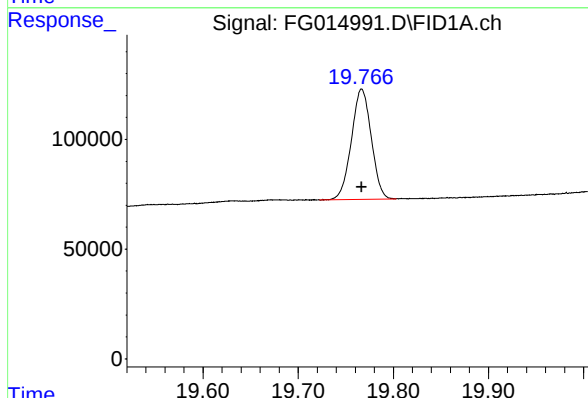
R.T.: 18.143 min  
Delta R.T.: 0.000 min  
Response: 817412  
Conc: 5.54 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD



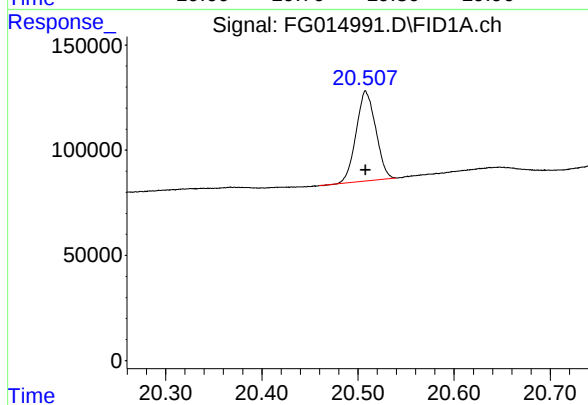
#14 N-DOTRIACONTANE

R.T.: 18.982 min  
Delta R.T.: 0.000 min  
Response: 817799  
Conc: 5.67 ug/ml



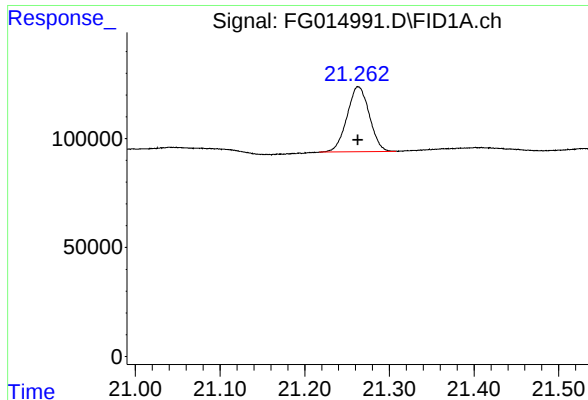
#15 N-TETRATRIACONTANE

R.T.: 19.767 min  
Delta R.T.: 0.000 min  
Response: 730244  
Conc: 5.62 ug/ml



#16 N-HEXATRIACONTANE

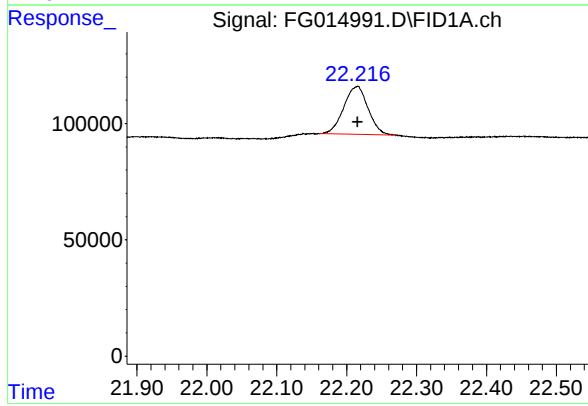
R.T.: 20.508 min  
Delta R.T.: 0.000 min  
Response: 605130  
Conc: 5.42 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.263 min  
Delta R.T.: 0.000 min  
Response: 545188  
Conc: 5.33 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.216 min  
Delta R.T.: 0.000 min  
Response: 497709  
Conc: 5.19 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014991.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 16:26  
Sample : 5 TRPH STD  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 2.019       | 1.988        | 2.060      | BB       | 61505          | 632488       | 77.34%         | 4.957%        |
| 2                       | 4.557       | 4.522        | 4.587      | BB       | 65137          | 656741       | 80.31%         | 5.147%        |
| 3                       | 6.741       | 6.705        | 6.772      | BB       | 69801          | 696354       | 85.15%         | 5.457%        |
| 4                       | 8.579       | 8.544        | 8.614      | BB       | 68584          | 698622       | 85.43%         | 5.475%        |
| 5                       | 10.196      | 10.160       | 10.234     | BB       | 66395          | 732818       | 89.61%         | 5.743%        |
| 6                       | 11.646      | 11.610       | 11.676     | BB       | 68852          | 773424       | 94.57%         | 6.061%        |
| 7                       | 12.962      | 12.927       | 13.002     | BB       | 63152          | 768571       | 93.98%         | 6.023%        |
| 8                       | 14.165      | 14.129       | 14.205     | BB       | 64317          | 770098       | 94.17%         | 6.035%        |
| 9                       | 15.070      | 15.026       | 15.110     | BB       | 50250          | 692466       | 84.67%         | 5.427%        |
| 10                      | 15.274      | 15.233       | 15.314     | BB       | 60256          | 774299       | 94.68%         | 6.068%        |
| 11                      | 16.300      | 16.255       | 16.335     | BB       | 59322          | 769051       | 94.04%         | 6.027%        |
| 12                      | 17.253      | 17.209       | 17.287     | BB       | 56915          | 781203       | 95.53%         | 6.122%        |
| 13                      | 18.143      | 18.097       | 18.180     | BB       | 59756          | 817412       | 99.95%         | 6.406%        |
| 14                      | 18.982      | 18.935       | 19.017     | BB       | 58299          | 817799       | 100.00%        | 6.409%        |
| 15                      | 19.767      | 19.722       | 19.803     | BB       | 50253          | 730244       | 89.29%         | 5.723%        |
| 16                      | 20.508      | 20.460       | 20.540     | BB       | 42920          | 605130       | 73.99%         | 4.743%        |
| 17                      | 21.263      | 21.217       | 21.308     | BB       | 29748          | 545188       | 66.67%         | 4.273%        |
| 18                      | 22.216      | 22.160       | 22.270     | BB       | 20757          | 497709       | 60.86%         | 3.901%        |
| Sum of corrected areas: |             |              |            |          |                |              | 12759618       |               |

FG121924.M Thu Dec 19 16:49:14 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
 Data File : FG014992.D  
 Signal(s) : FID1A.ch  
 Acq On : 19 Dec 2024 16:54  
 Operator : YP\AJ  
 Sample : FG121924ICV  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 FID\_G  
 ClientSampleId :  
 FG121924ICV

Integration File: autoint1.e  
 Quant Time: Dec 19 17:20:12 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:42:40 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.075 | 6464996  | 48.371 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.018  | 5755572  | 46.853 ug/ml |
| 2) N-DECANE                   | 4.559  | 5917608  | 46.681 ug/ml |
| 3) N-DODECANE                 | 6.744  | 6282846  | 46.856 ug/ml |
| 4) N-TETRADECANE              | 8.583  | 6311988  | 47.027 ug/ml |
| 5) N-HEXADECANE               | 10.200 | 6619963  | 47.238 ug/ml |
| 6) N-OCTADECANE               | 11.650 | 7016259  | 47.515 ug/ml |
| 7) N-EICOSANE                 | 12.966 | 7029328  | 47.850 ug/ml |
| 8) N-DOCOSANE                 | 14.171 | 7079115  | 48.128 ug/ml |
| 10) N-TETRACOSANE             | 15.280 | 7163133  | 48.400 ug/ml |
| 11) N-HEXACOSANE              | 16.306 | 7136470  | 48.606 ug/ml |
| 12) N-OCTACOSANE              | 17.259 | 7072414  | 48.296 ug/ml |
| 13) N-TRIACONTANE             | 18.151 | 7021526  | 47.619 ug/ml |
| 14) N-DOTRIACONTANE           | 18.987 | 6824550  | 47.292 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.772 | 6171709  | 47.512 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.515 | 5286916  | 47.345 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.271 | 4860518  | 47.523 ug/ml |
| 18) N-TETRACONTANE            | 22.221 | 4735319  | 49.396 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

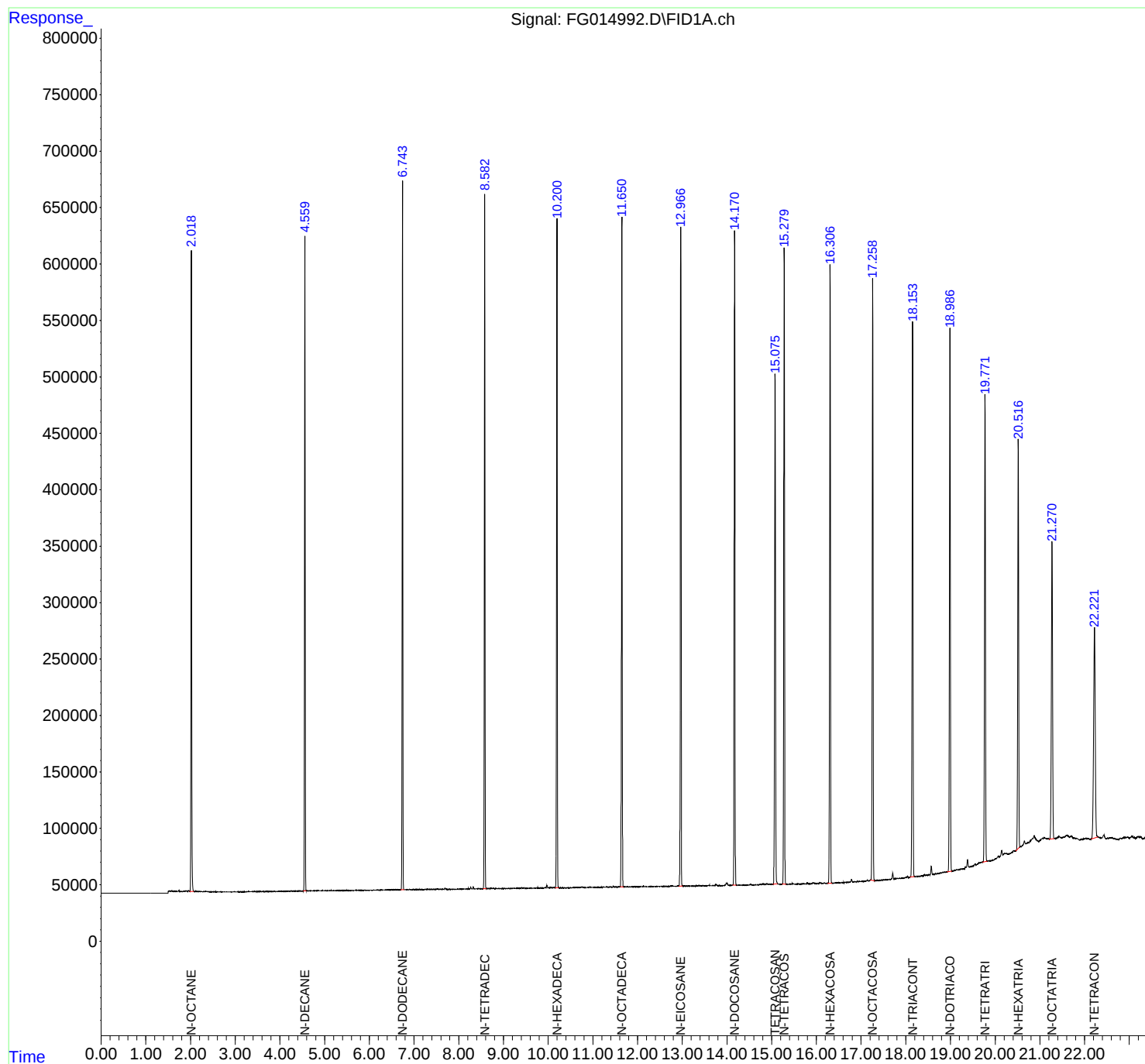
(m)=manual int.

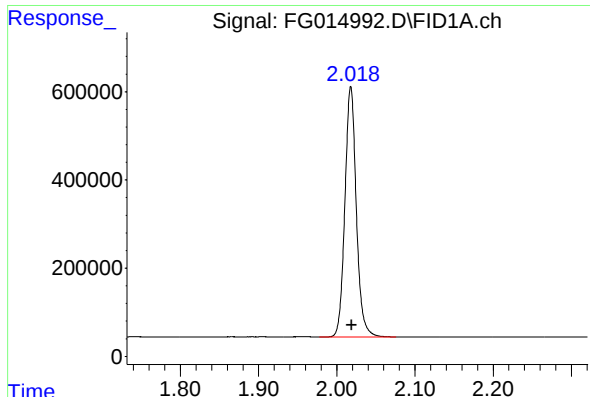
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014992.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 16:54  
Operator : YP\AJ  
Sample : FG121924ICV  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
FG121924ICV

Integration File: autoint1.e  
Quant Time: Dec 19 17:20:12 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

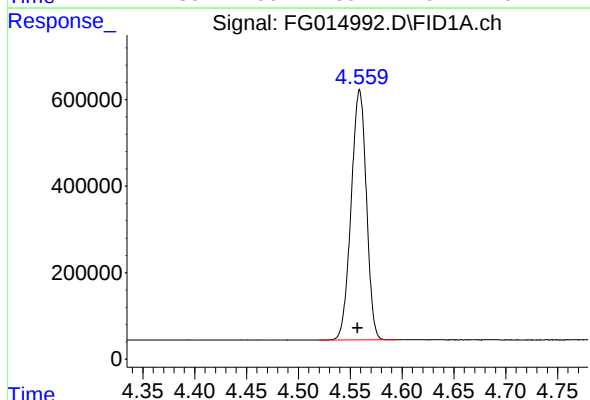




#1 N-OCTANE

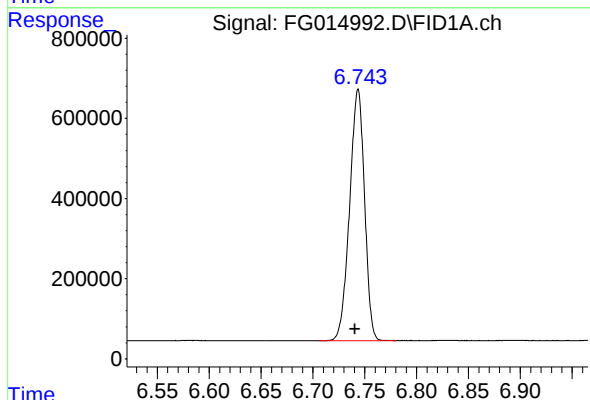
R.T.: 2.018 min  
Delta R.T.: -0.001 min  
Response: 5755572  
Conc: 46.85 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
FG121924ICV



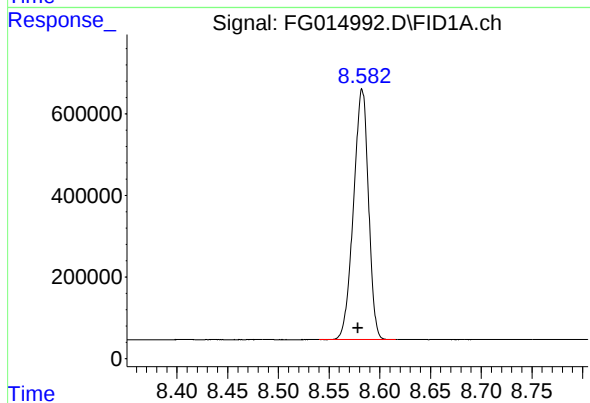
#2 N-DECANE

R.T.: 4.559 min  
Delta R.T.: 0.002 min  
Response: 5917608  
Conc: 46.68 ug/ml



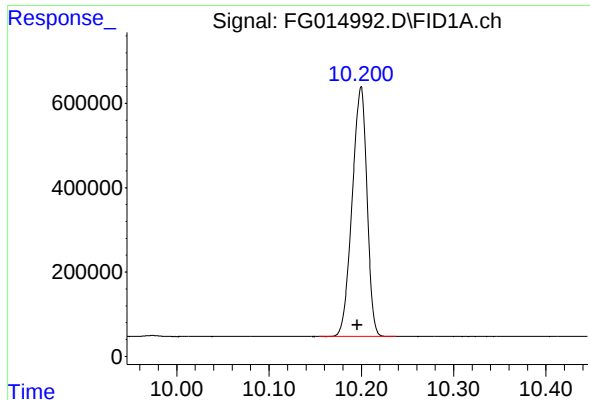
#3 N-DODECANE

R.T.: 6.744 min  
Delta R.T.: 0.003 min  
Response: 6282846  
Conc: 46.86 ug/ml



#4 N-TETRADECANE

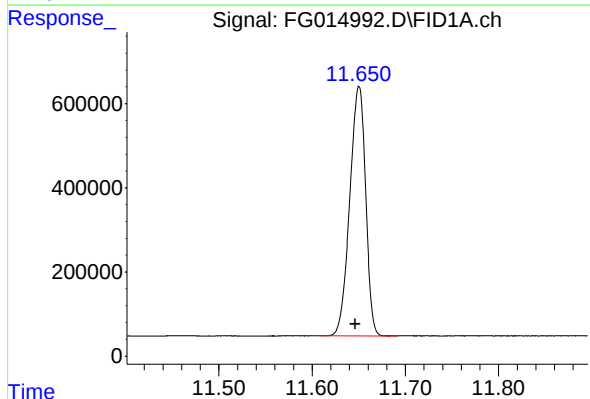
R.T.: 8.583 min  
Delta R.T.: 0.004 min  
Response: 6311988  
Conc: 47.03 ug/ml



#5 N-HEXADECANE

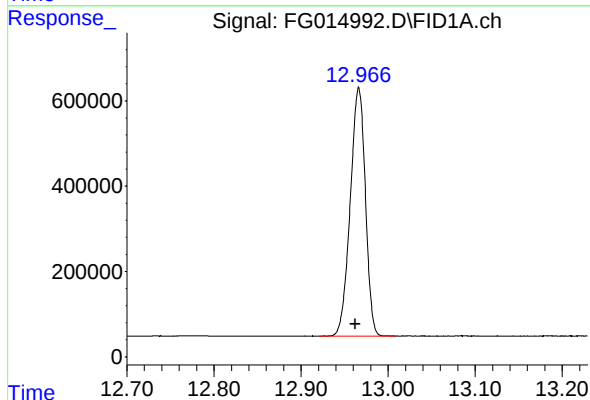
R.T.: 10.200 min  
Delta R.T.: 0.004 min  
Response: 6619963  
Conc: 47.24 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
FG121924ICV



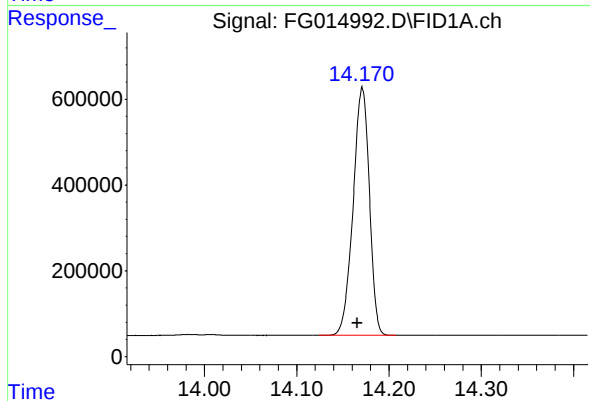
#6 N-OCTADECANE

R.T.: 11.650 min  
Delta R.T.: 0.004 min  
Response: 7016259  
Conc: 47.52 ug/ml



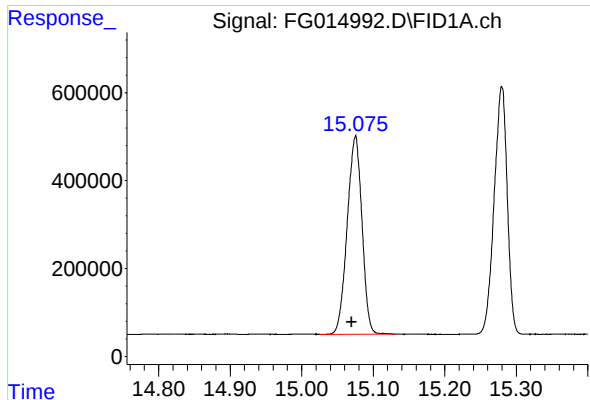
#7 N-EICOSANE

R.T.: 12.966 min  
Delta R.T.: 0.004 min  
Response: 7029328  
Conc: 47.85 ug/ml



#8 N-DOCOSANE

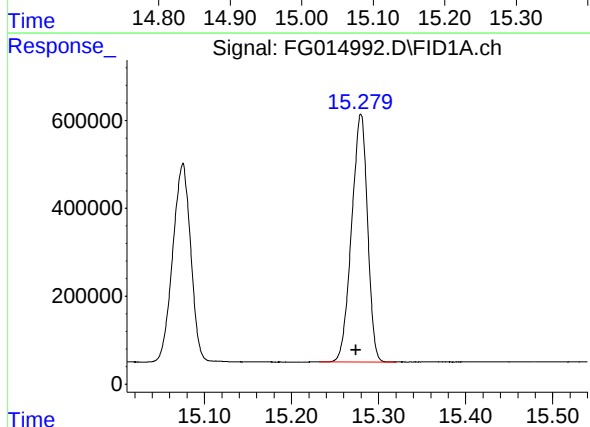
R.T.: 14.171 min  
Delta R.T.: 0.006 min  
Response: 7079115  
Conc: 48.13 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

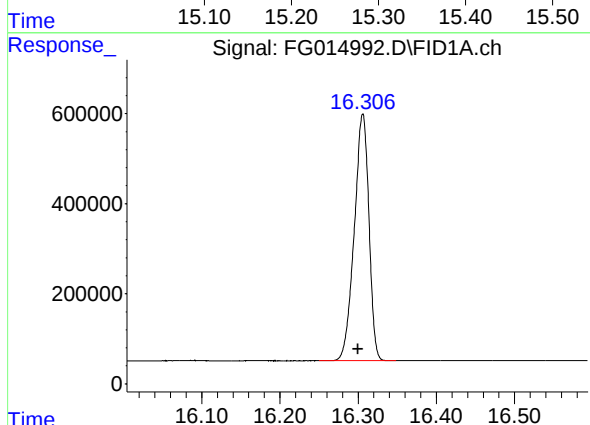
R.T.: 15.075 min  
Delta R.T.: 0.005 min  
Response: 6464996  
Conc: 48.37 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
FG121924ICV



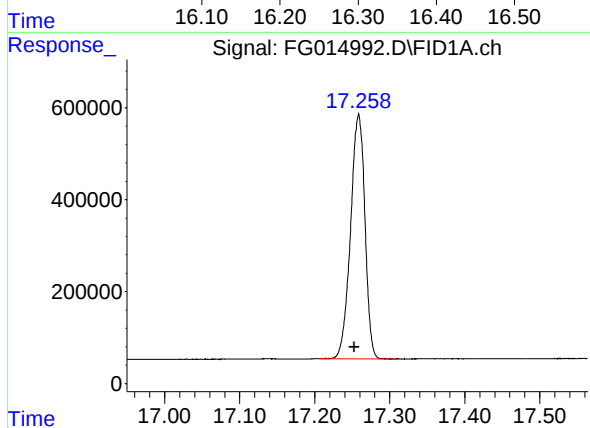
#10 N-TETRACOSANE

R.T.: 15.280 min  
Delta R.T.: 0.006 min  
Response: 7163133  
Conc: 48.40 ug/ml



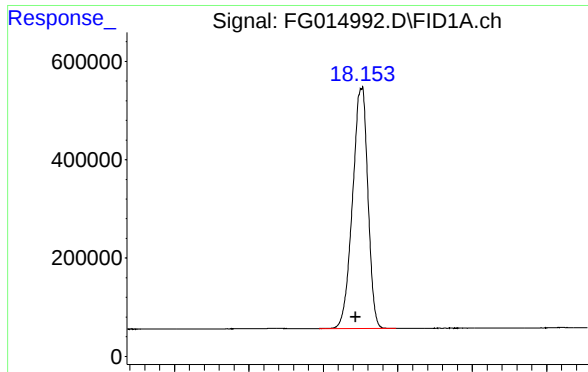
#11 N-HEXACOSANE

R.T.: 16.306 min  
Delta R.T.: 0.006 min  
Response: 7136470  
Conc: 48.61 ug/ml



#12 N-OCTACOSANE

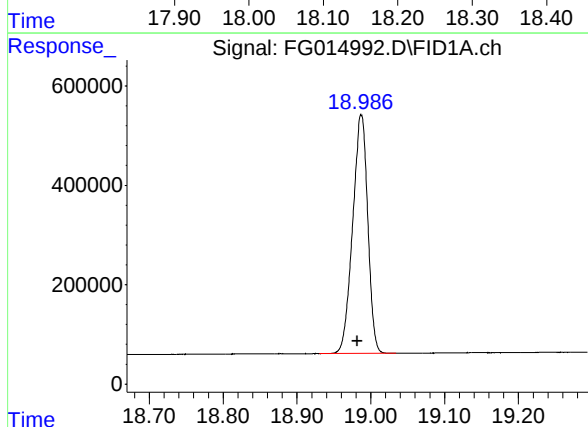
R.T.: 17.259 min  
Delta R.T.: 0.006 min  
Response: 7072414  
Conc: 48.30 ug/ml



#13 N-TRIACONTANE

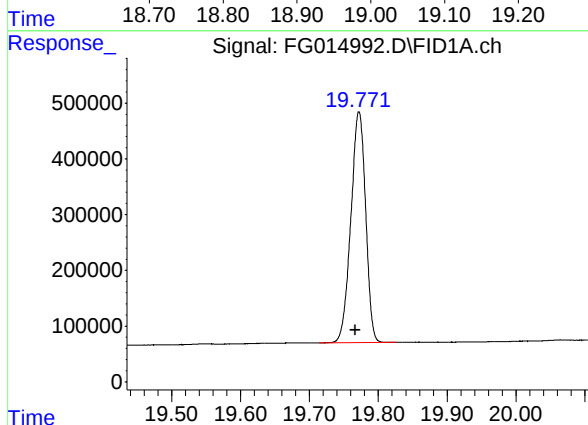
R.T.: 18.151 min  
Delta R.T.: 0.008 min  
Response: 7021526  
Conc: 47.62 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
FG121924ICV



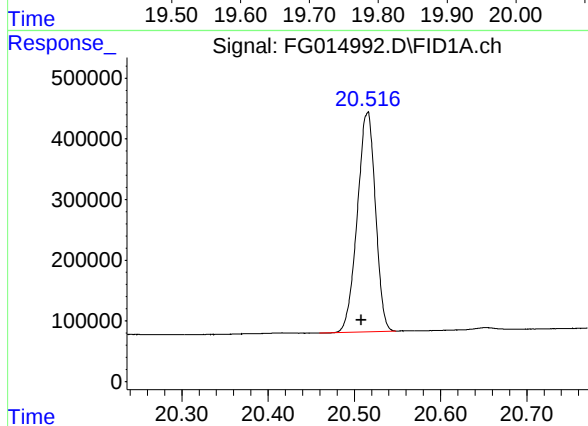
#14 N-DOTRIACONTANE

R.T.: 18.987 min  
Delta R.T.: 0.005 min  
Response: 6824550  
Conc: 47.29 ug/ml



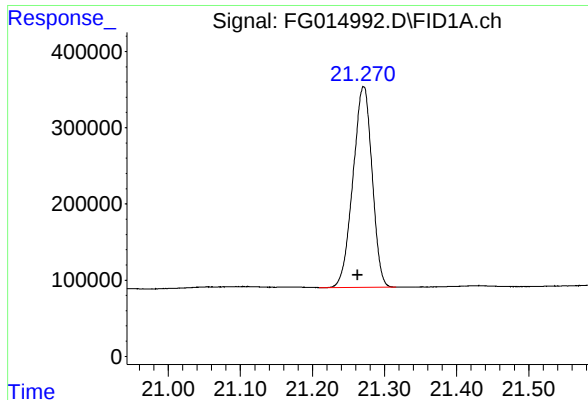
#15 N-TETRATRIACONTANE

R.T.: 19.772 min  
Delta R.T.: 0.005 min  
Response: 6171709  
Conc: 47.51 ug/ml



#16 N-HEXATRIACONTANE

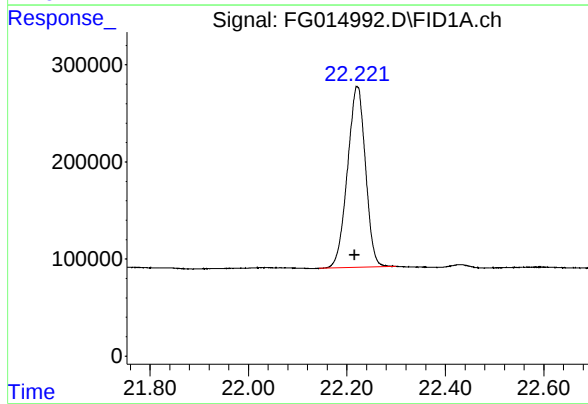
R.T.: 20.515 min  
Delta R.T.: 0.007 min  
Response: 5286916  
Conc: 47.34 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.271 min  
Delta R.T.: 0.008 min  
Response: 4860518  
Conc: 47.52 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
FG121924ICV



#18 N-TETRACONTANE

R.T.: 22.221 min  
Delta R.T.: 0.005 min  
Response: 4735319  
Conc: 49.40 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG121924\  
Data File : FG014992.D  
Signal(s) : FID1A.ch  
Acq On : 19 Dec 2024 16:54  
Sample : FG121924ICV  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br># | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-----------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1         | 2.018       | 1.978        | 2.076      | BB       | 568092         | 5755572      | 80.35%         | 5.016%        |
| 2         | 4.559       | 4.520        | 4.594      | BB       | 579330         | 5917608      | 82.61%         | 5.157%        |
| 3         | 6.744       | 6.706        | 6.780      | BB       | 627733         | 6282846      | 87.71%         | 5.475%        |
| 4         | 8.583       | 8.540        | 8.616      | BB       | 613951         | 6311988      | 88.12%         | 5.501%        |
| 5         | 10.200      | 10.154       | 10.238     | BB       | 593621         | 6619963      | 92.42%         | 5.769%        |
| 6         | 11.650      | 11.608       | 11.690     | BB       | 593543         | 7016259      | 97.95%         | 6.114%        |
| 7         | 12.966      | 12.921       | 13.009     | BB       | 582240         | 7029328      | 98.13%         | 6.126%        |
| 8         | 14.171      | 14.124       | 14.208     | BB       | 578675         | 7079115      | 98.83%         | 6.169%        |
| 9         | 15.075      | 15.024       | 15.132     | BB       | 450028         | 6464996      | 90.25%         | 5.634%        |
| 10        | 15.280      | 15.232       | 15.320     | BB       | 563027         | 7163133      | 100.00%        | 6.242%        |
| 11        | 16.306      | 16.250       | 16.348     | BB       | 547558         | 7136470      | 99.63%         | 6.219%        |
| 12        | 17.259      | 17.206       | 17.308     | BB       | 531486         | 7072414      | 98.73%         | 6.163%        |
| 13        | 18.152      | 18.094       | 18.198     | BB       | 486479         | 7021526      | 98.02%         | 6.119%        |
| 14        | 18.987      | 18.930       | 19.034     | BB       | 479189         | 6824550      | 95.27%         | 5.947%        |
| 15        | 19.772      | 19.714       | 19.826     | BB       | 413950         | 6171709      | 86.16%         | 5.378%        |
| 16        | 20.515      | 20.459       | 20.548     | BB       | 361810         | 5286916      | 73.81%         | 4.607%        |
| 17        | 21.271      | 21.209       | 21.316     | BB       | 263117         | 4860518      | 67.85%         | 4.236%        |
| 18        | 22.221      | 22.143       | 22.300     | BBA      | 186621         | 4735319      | 66.11%         | 4.127%        |

Sum of corrected areas: 114750229

FG121924.M Thu Dec 19 17:21:45 2024

**TPH GC CONTINUING CALIBRATION SUMMARY**

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: PARS02  
 ProjectID: Con Edison Non-MGP - East River 453648.60024.0  
 Lab Code: CHEM Case No.: P5361 SAS No.: P5361 SDG No.: P5361  
 DataFile: FG015015.D Analyst Name: YP\AJ Analyst Date: 12-23-2024

| Conc. (PPM) | Area Count | RF     | Average RF | %D     |
|-------------|------------|--------|------------|--------|
| 850         | 101083534  | 118922 | 133673     | 11.035 |

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
 Data File : FG015015.D  
 Signal(s) : FID1A.ch  
 Acq On : 23 Dec 2024 11:02  
 Operator : YP\AJ  
 Sample : 50 PPM TRPH STD  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 FID\_G  
 ClientSampleId :  
 50 PPM TRPH STD

### Manual Integrations APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
 Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
 Quant Time: Dec 24 00:26:30 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:42:40 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units    |
|-------------------------------|--------|----------|---------------|
| -----                         |        |          |               |
| System Monitoring Compounds   |        |          |               |
| 9) S TETRACOSANE-d50 (SURR... | 15.058 | 6168067  | 46.150 ug/mlm |
| Target Compounds              |        |          |               |
| 1) N-OCTANE                   | 2.014  | 5782919  | 47.075 ug/ml  |
| 2) N-DECANE                   | 4.552  | 5994973  | 47.291 ug/ml  |
| 3) N-DODECANE                 | 6.735  | 6392456  | 47.673 ug/ml  |
| 4) N-TETRADECANE              | 8.572  | 6443794  | 48.009 ug/ml  |
| 5) N-HEXADECANE               | 10.188 | 6718268  | 47.939 ug/ml  |
| 6) N-OCTADECANE               | 11.638 | 7021634  | 47.552 ug/ml  |
| 7) N-EICOSANE                 | 12.953 | 6908728  | 47.029 ug/ml  |
| 8) N-DOCOSANE                 | 14.157 | 6825399  | 46.403 ug/ml  |
| 10) N-TETRACOSANE             | 15.264 | 6786928  | 45.858 ug/ml  |
| 11) N-HEXACOSANE              | 16.288 | 6685365  | 45.534 ug/ml  |
| 12) N-OCTACOSANE              | 17.241 | 6580705  | 44.938 ug/ml  |
| 13) N-TRIACONTANE             | 18.132 | 6516073  | 44.191 ug/ml  |
| 14) N-DOTRIACONTANE           | 18.966 | 6236967  | 43.220 ug/ml  |
| 15) N-TETRATRIACONTANE        | 19.750 | 5329448  | 41.028 ug/ml  |
| 16) N-HEXATRIACONTANE         | 20.492 | 4209112  | 37.693 ug/ml  |
| 17) N-OCTATRIACONTANE         | 21.242 | 3529727  | 34.511 ug/ml  |
| 18) N-TETRACONTANE            | 22.185 | 3121038  | 32.557 ug/ml  |
| -----                         |        |          |               |

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015015.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 11:02  
Operator : YP\AJ  
Sample : 50 PPM TRPH STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

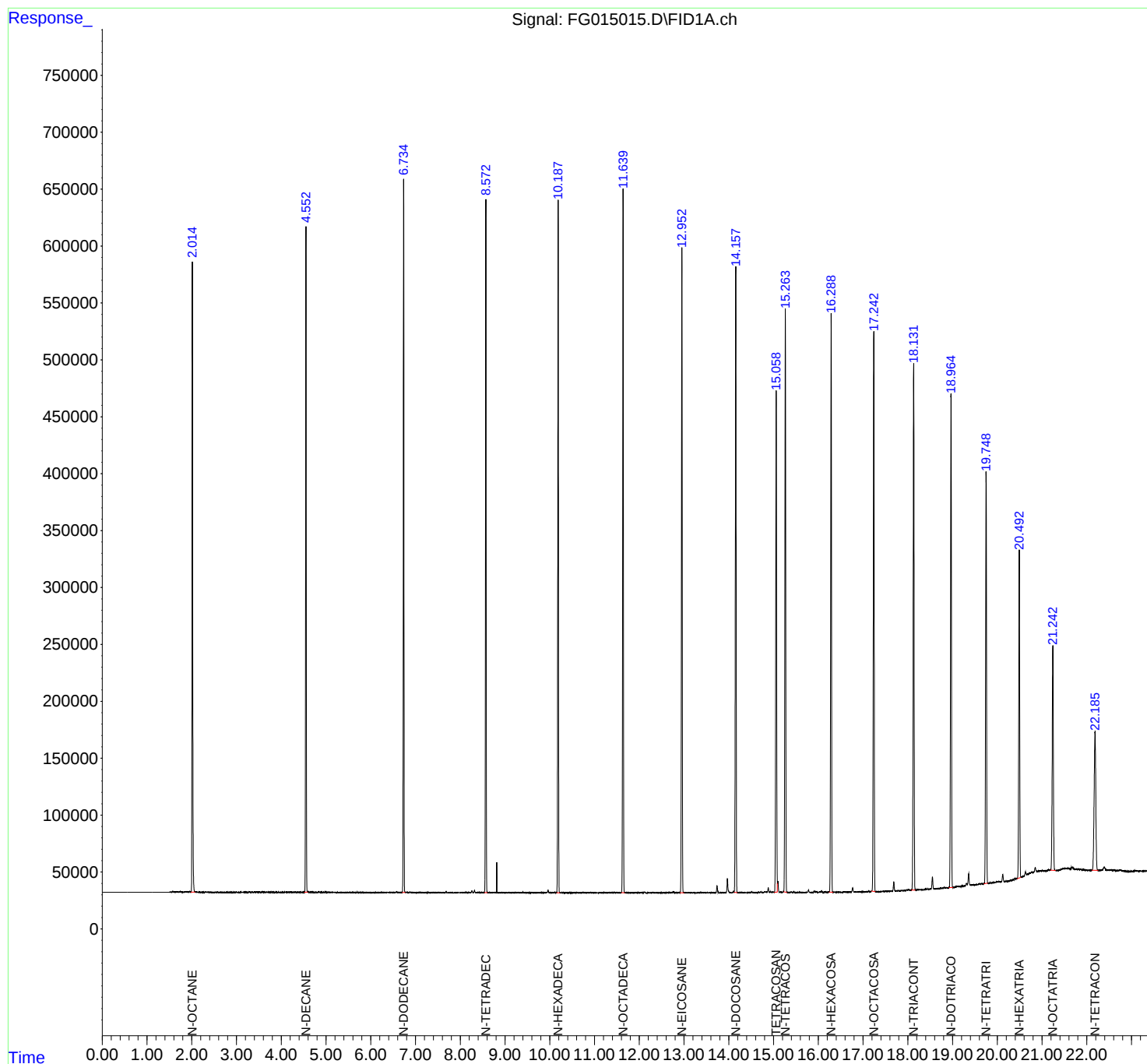
Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD

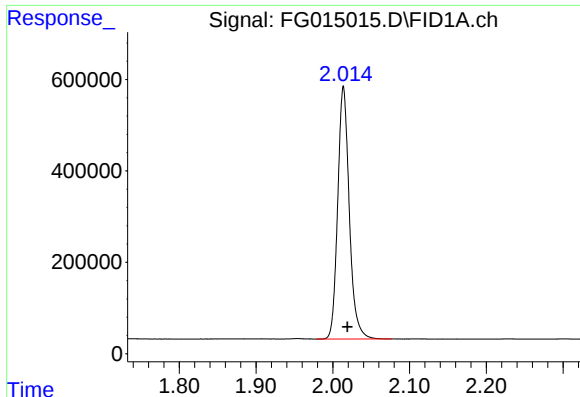
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:26:30 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#1 N-OCTANE

R.T.: 2.014 min  
Delta R.T.: -0.005 min  
Response: 5782919  
Conc: 47.08 ug/ml

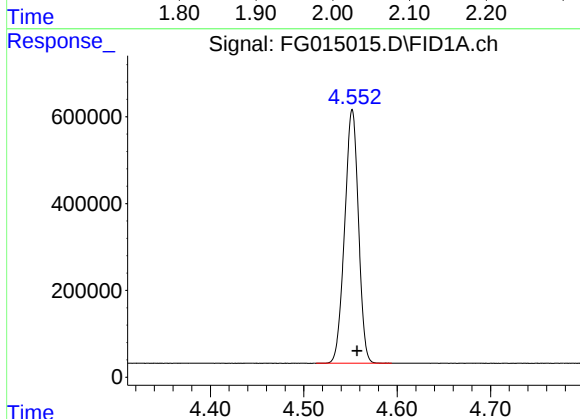
Instrument :

FID\_G

ClientSampleId :  
50 PPM TRPH STD

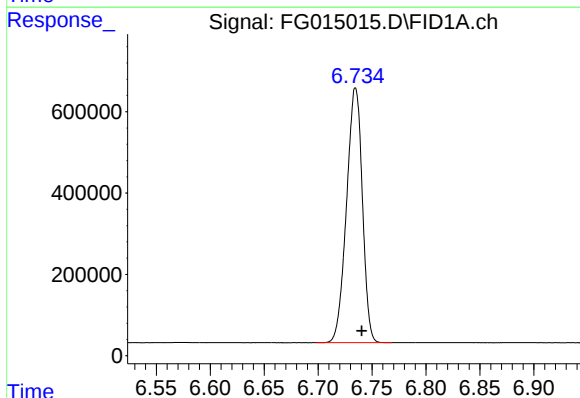
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



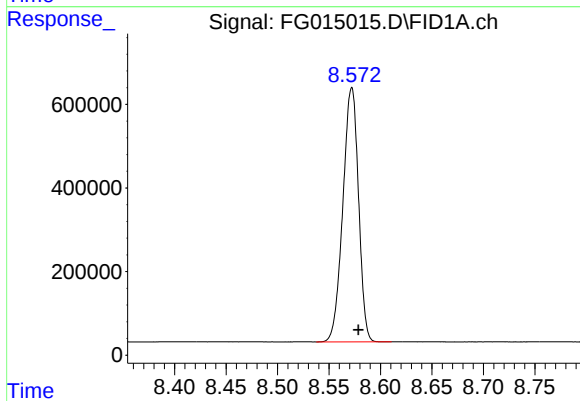
#2 N-DECANE

R.T.: 4.552 min  
Delta R.T.: -0.005 min  
Response: 5994973  
Conc: 47.29 ug/ml



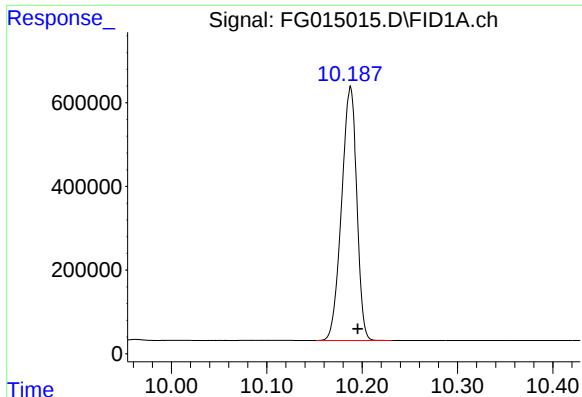
#3 N-DODECANE

R.T.: 6.735 min  
Delta R.T.: -0.006 min  
Response: 6392456  
Conc: 47.67 ug/ml



#4 N-TETRADECANE

R.T.: 8.572 min  
Delta R.T.: -0.006 min  
Response: 6443794  
Conc: 48.01 ug/ml



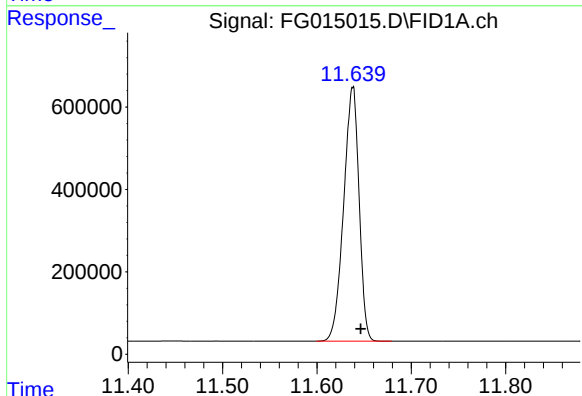
#5 N-HEXADECANE

R.T.: 10.188 min  
Delta R.T.: -0.008 min  
Response: 6718268  
Conc: 47.94 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD

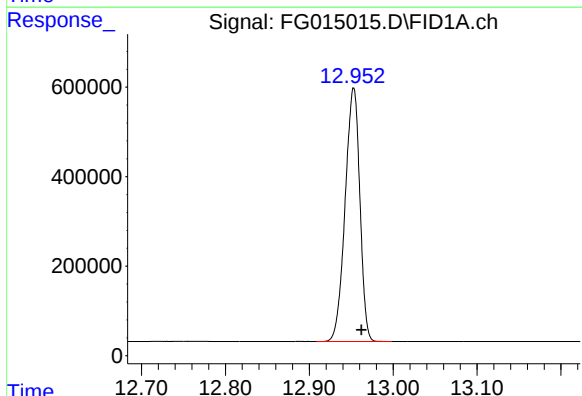
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



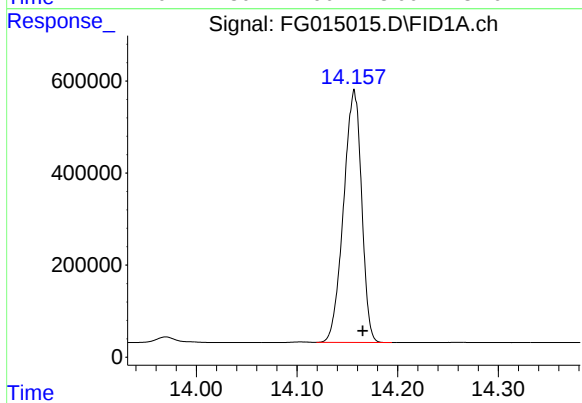
#6 N-OCTADECANE

R.T.: 11.638 min  
Delta R.T.: -0.008 min  
Response: 7021634  
Conc: 47.55 ug/ml



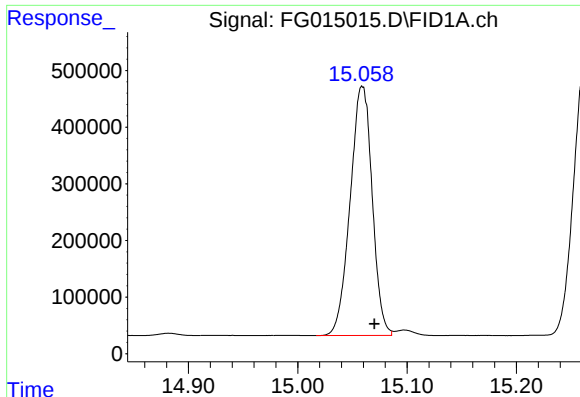
#7 N-EICOSANE

R.T.: 12.953 min  
Delta R.T.: -0.009 min  
Response: 6908728  
Conc: 47.03 ug/ml



#8 N-DOCOSANE

R.T.: 14.157 min  
Delta R.T.: -0.008 min  
Response: 6825399  
Conc: 46.40 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.058 min  
Delta R.T.: -0.012 min  
Response: 6168067  
Conc: 46.15 ug/ml

Instrument :

FID\_G

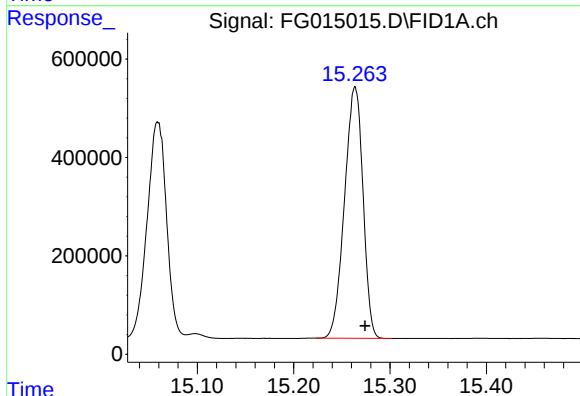
ClientSampleId :

50 PPM TRPH STD

Manual Integrations

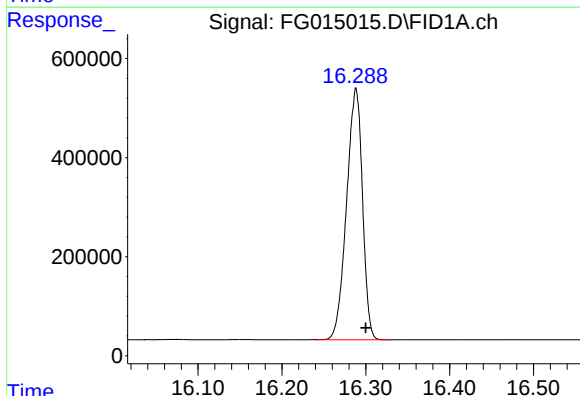
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



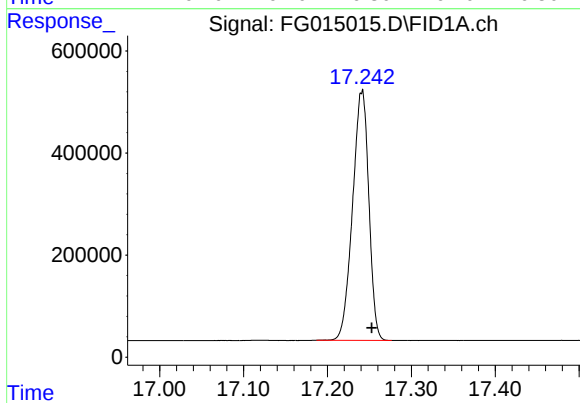
#10 N-TETRACOSANE

R.T.: 15.264 min  
Delta R.T.: -0.010 min  
Response: 6786928  
Conc: 45.86 ug/ml



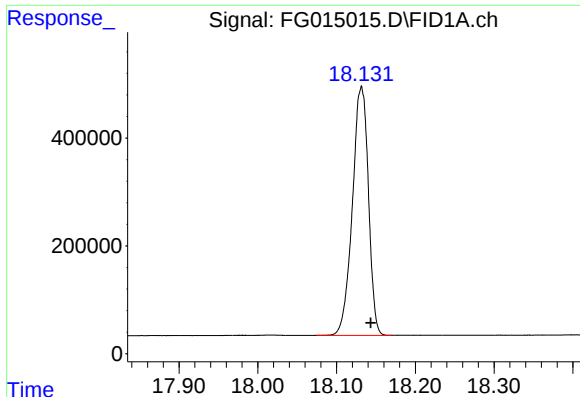
#11 N-HEXACOSANE

R.T.: 16.288 min  
Delta R.T.: -0.012 min  
Response: 6685365  
Conc: 45.53 ug/ml



#12 N-OCTACOSANE

R.T.: 17.241 min  
Delta R.T.: -0.012 min  
Response: 6580705  
Conc: 44.94 ug/ml



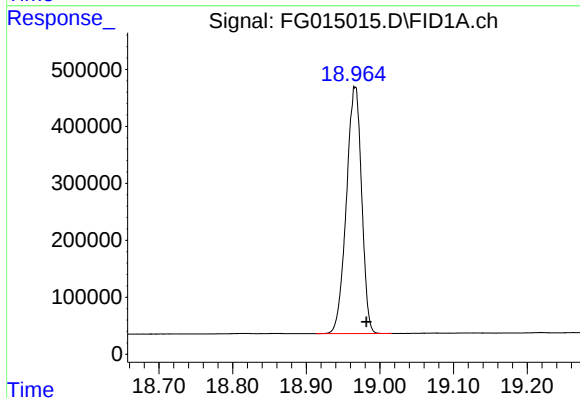
#13 N-TRIACONTANE

R.T.: 18.132 min  
Delta R.T.: -0.012 min  
Response: 6516073  
Conc: 44.19 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD

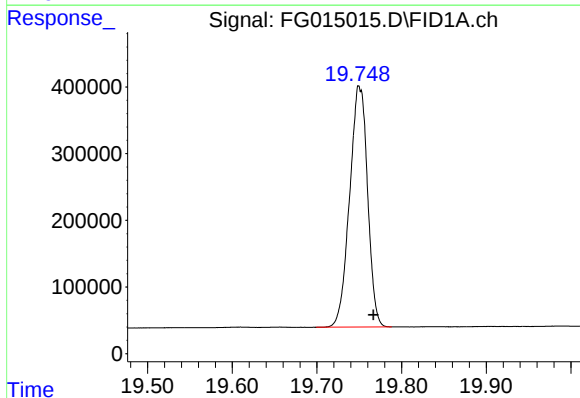
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



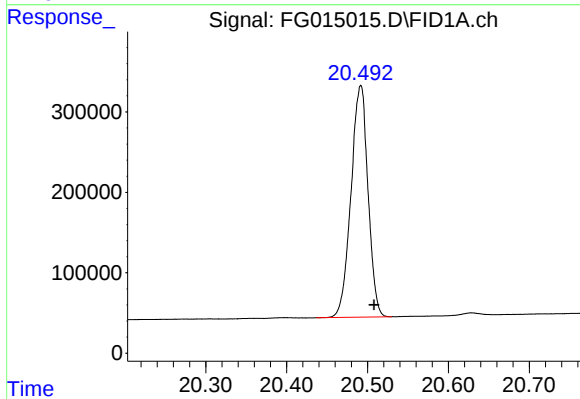
#14 N-DOTRIACONTANE

R.T.: 18.966 min  
Delta R.T.: -0.015 min  
Response: 6236967  
Conc: 43.22 ug/ml



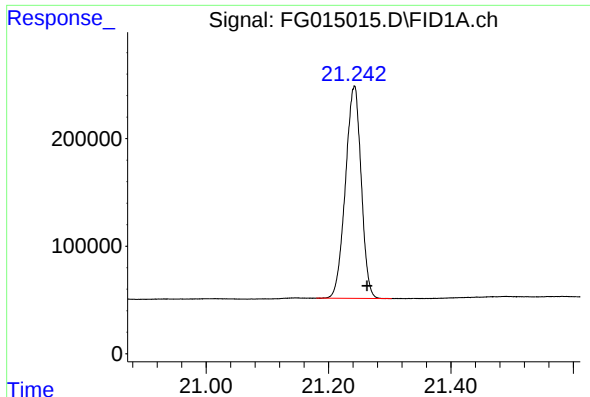
#15 N-TETRATRIACONTANE

R.T.: 19.750 min  
Delta R.T.: -0.017 min  
Response: 5329448  
Conc: 41.03 ug/ml



#16 N-HEXATRIACONTANE

R.T.: 20.492 min  
Delta R.T.: -0.016 min  
Response: 4209112  
Conc: 37.69 ug/ml



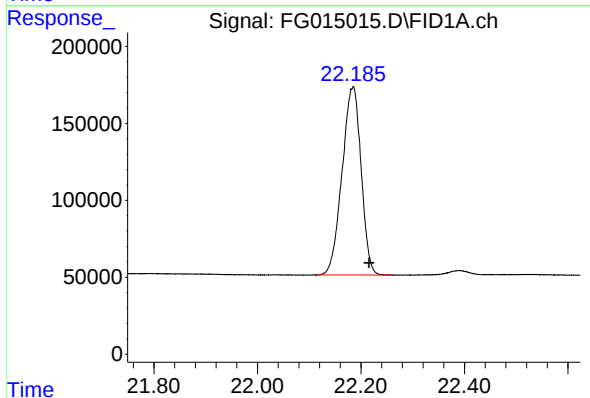
#17 N-OCTATRIACONTANE

R.T.: 21.242 min  
Delta R.T.: -0.021 min  
Response: 3529727  
Conc: 34.51 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



#18 N-TETRACONTANE

R.T.: 22.185 min  
Delta R.T.: -0.031 min  
Response: 3121038  
Conc: 32.56 ug/ml

Instrument :  
FID\_G  
LabSampleId :  
50 PPM TRPH STD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG  
Data File : FG015015.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 11:02  
Sample : 50 PPM TRPH STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br># | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-----------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1         | 2.014       | 1.978        | 2.077      | BB       | 553381         | 5782919      | 82.36%         | 5.399%        |
| 2         | 4.552       | 4.513        | 4.594      | BB       | 584526         | 5994973      | 85.38%         | 5.597%        |
| 3         | 6.735       | 6.698        | 6.768      | BB       | 626591         | 6392456      | 91.04%         | 5.969%        |
| 4         | 8.572       | 8.537        | 8.611      | BB       | 609694         | 6443794      | 91.77%         | 6.016%        |
| 5         | 10.188      | 10.152       | 10.231     | BB       | 607530         | 6718268      | 95.68%         | 6.273%        |
| 6         | 11.638      | 11.599       | 11.679     | BB       | 615614         | 7021634      | 100.00%        | 6.556%        |
| 7         | 12.953      | 12.908       | 12.998     | BB       | 566600         | 6908728      | 98.39%         | 6.451%        |
| 8         | 14.157      | 14.119       | 14.194     | BB       | 548893         | 6825399      | 97.21%         | 6.373%        |
| 9         | 15.059      | 15.014       | 15.089     | BV       | 435060         | 6019462      | 85.73%         | 5.620%        |
| 10        | 15.264      | 15.223       | 15.302     | BB       | 511725         | 6786928      | 96.66%         | 6.337%        |
| 11        | 16.288      | 16.241       | 16.331     | BB       | 508330         | 6685365      | 95.21%         | 6.242%        |
| 12        | 17.241      | 17.187       | 17.277     | BB       | 484847         | 6580705      | 93.72%         | 6.144%        |
| 13        | 18.132      | 18.074       | 18.170     | BB       | 462617         | 6516073      | 92.80%         | 6.084%        |
| 14        | 18.966      | 18.913       | 19.016     | BB       | 432508         | 6236967      | 88.83%         | 5.823%        |
| 15        | 19.750      | 19.699       | 19.788     | BB       | 361256         | 5329448      | 75.90%         | 4.976%        |
| 16        | 20.492      | 20.437       | 20.530     | BB       | 287903         | 4209112      | 59.94%         | 3.930%        |
| 17        | 21.242      | 21.180       | 21.303     | BB       | 197645         | 3529727      | 50.27%         | 3.296%        |
| 18        | 22.185      | 22.113       | 22.259     | BB       | 122534         | 3121038      | 44.45%         | 2.914%        |

Sum of corrected areas: 107102995

FG121924.M Tue Dec 24 01:00:15 2024

**TPH GC CONTINUING CALIBRATION SUMMARY**

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: PARS02  
 ProjectID: Con Edison Non-MGP - East River 453648.60024.0  
 Lab Code: CHEM Case No.: P5361 SAS No.: P5361 SDG No.: P5361  
 DataFile: FG015022.D Analyst Name: YP\AJ Analyst Date: 12-23-2024

| Conc. (PPM) | Area Count | RF     | Average RF | %D    |
|-------------|------------|--------|------------|-------|
| 850         | 104298486  | 122704 | 133673     | 8.206 |

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
 Data File : FG015022.D  
 Signal(s) : FID1A.ch  
 Acq On : 23 Dec 2024 14:19  
 Operator : YP\AJ  
 Sample : 50 PPM TRPH STD  
 Misc :  
 ALS Vial : 53 Sample Multiplier: 1

Instrument :  
 FID\_G  
 ClientSampleId :  
 50 PPM TRPH STD

Integration File: autoint1.e  
 Quant Time: Dec 24 00:28:45 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:42:40 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.063 | 6127298  | 45.845 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.016  | 5939832  | 48.353 ug/ml |
| 2) N-DECANE                   | 4.554  | 6269320  | 49.455 ug/ml |
| 3) N-DODECANE                 | 6.738  | 6679142  | 49.811 ug/ml |
| 4) N-TETRADECANE              | 8.576  | 6622080  | 49.338 ug/ml |
| 5) N-HEXADECANE               | 10.191 | 6800207  | 48.524 ug/ml |
| 6) N-OCTADECANE               | 11.641 | 7040858  | 47.682 ug/ml |
| 7) N-EICOSANE                 | 12.957 | 6890155  | 46.903 ug/ml |
| 8) N-DOCOSANE                 | 14.160 | 6774569  | 46.058 ug/ml |
| 10) N-TETRACOSANE             | 15.269 | 6707161  | 45.319 ug/ml |
| 11) N-HEXACOSANE              | 16.293 | 6548009  | 44.598 ug/ml |
| 12) N-OCTACOSANE              | 17.245 | 6389105  | 43.630 ug/ml |
| 13) N-TRIACONTANE             | 18.135 | 6283307  | 42.613 ug/ml |
| 14) N-DOTRIACONTANE           | 18.969 | 6085363  | 42.170 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.754 | 5520335  | 42.497 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.497 | 4832523  | 43.276 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.249 | 4486795  | 43.869 ug/ml |
| 18) N-TETRACONTANE            | 22.196 | 4429725  | 46.209 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

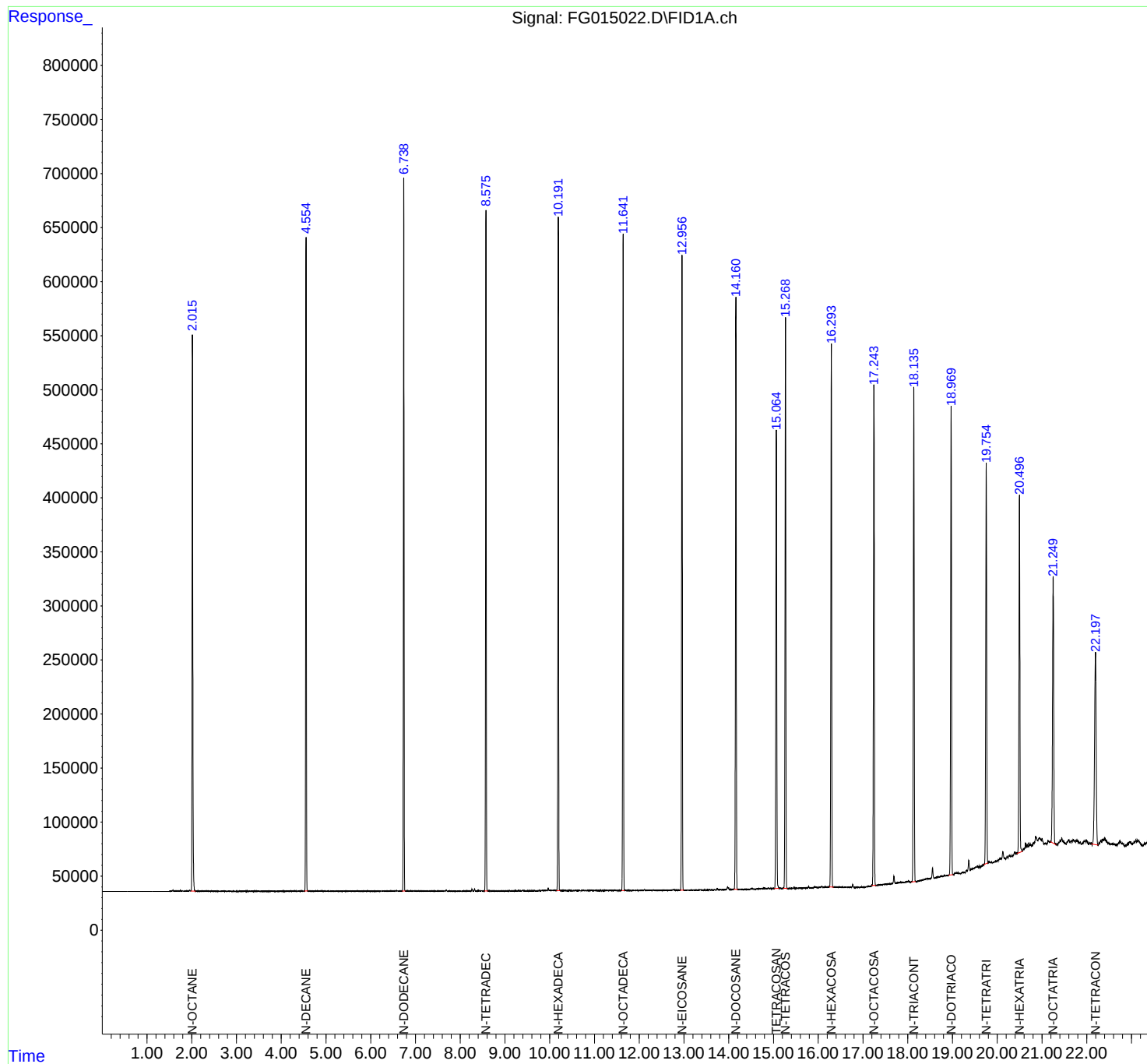
(m)=manual int.

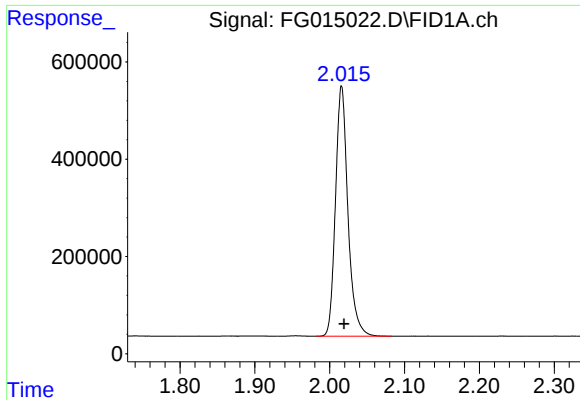
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015022.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 14:19  
Operator : YP\AJ  
Sample : 50 PPM TRPH STD  
Misc :  
ALS Vial : 53 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 24 00:28:45 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

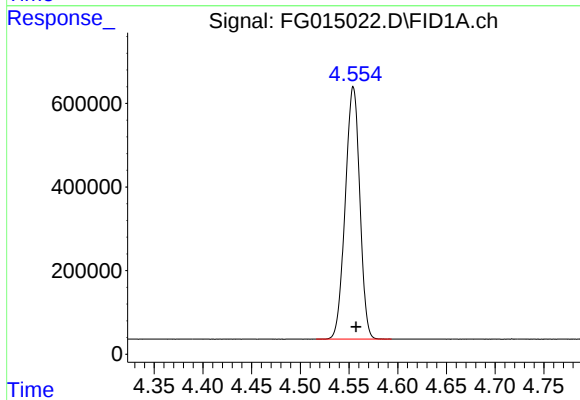




#1 N-OCTANE

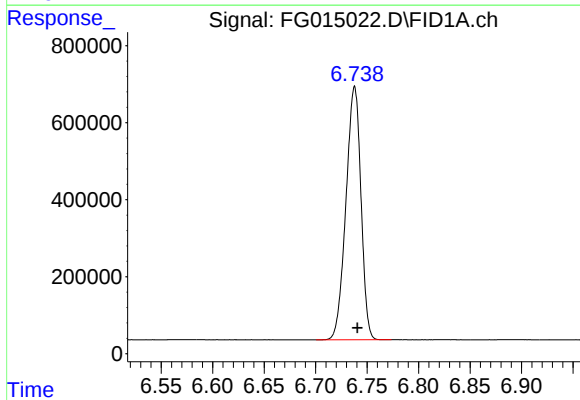
R.T.: 2.016 min  
Delta R.T.: -0.003 min  
Response: 5939832  
Conc: 48.35 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



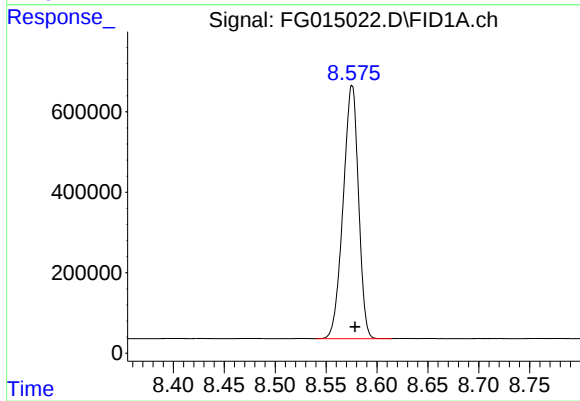
#2 N-DECANE

R.T.: 4.554 min  
Delta R.T.: -0.003 min  
Response: 6269320  
Conc: 49.46 ug/ml



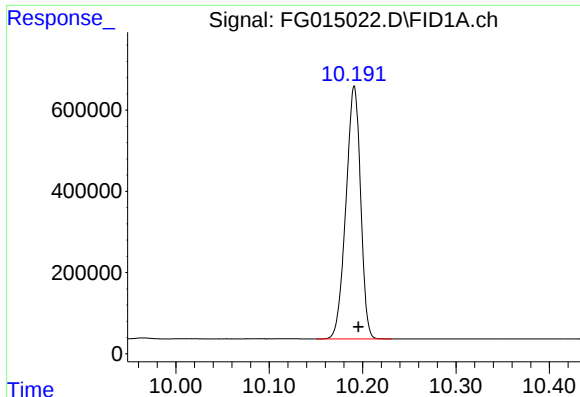
#3 N-DODECANE

R.T.: 6.738 min  
Delta R.T.: -0.003 min  
Response: 6679142  
Conc: 49.81 ug/ml



#4 N-TETRADECANE

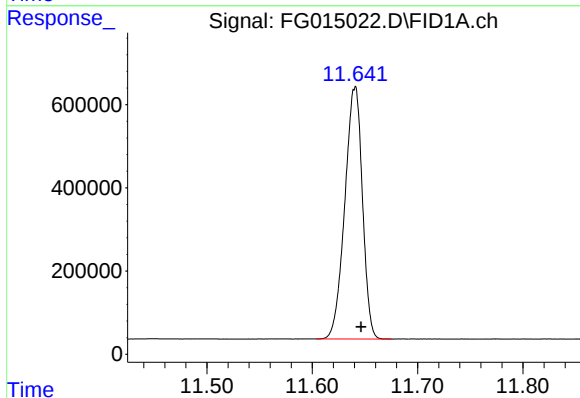
R.T.: 8.576 min  
Delta R.T.: -0.003 min  
Response: 6622080  
Conc: 49.34 ug/ml



#5 N-HEXADECANE

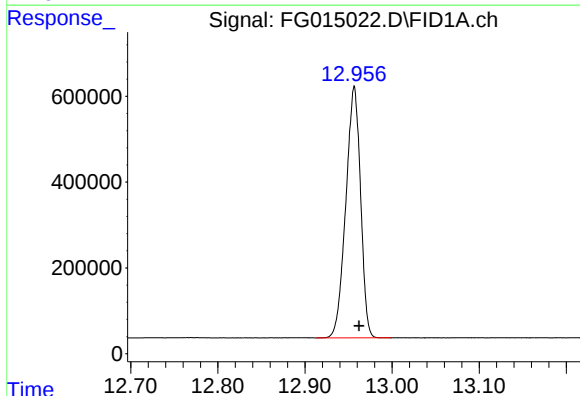
R.T.: 10.191 min  
Delta R.T.: -0.004 min  
Response: 6800207  
Conc: 48.52 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



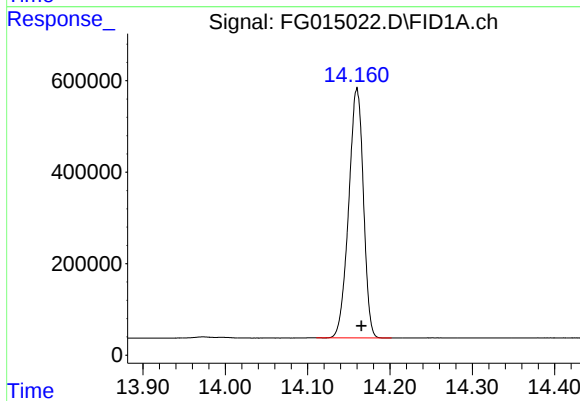
#6 N-OCTADECANE

R.T.: 11.641 min  
Delta R.T.: -0.006 min  
Response: 7040858  
Conc: 47.68 ug/ml



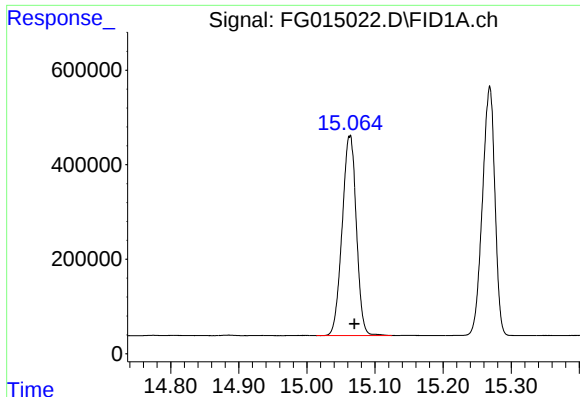
#7 N-EICOSANE

R.T.: 12.957 min  
Delta R.T.: -0.006 min  
Response: 6890155  
Conc: 46.90 ug/ml



#8 N-DOCOSANE

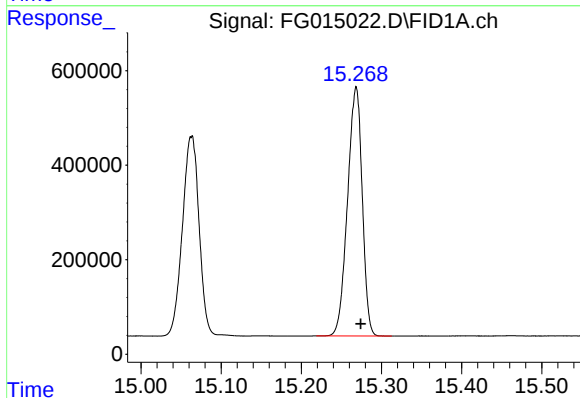
R.T.: 14.160 min  
Delta R.T.: -0.006 min  
Response: 6774569  
Conc: 46.06 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

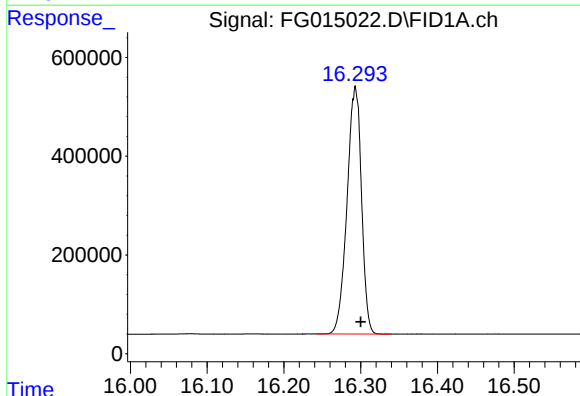
R.T.: 15.063 min  
Delta R.T.: -0.007 min  
Response: 6127298  
Conc: 45.84 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



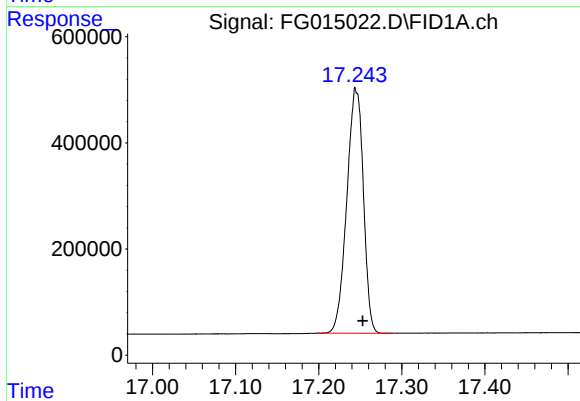
#10 N-TETRACOSANE

R.T.: 15.269 min  
Delta R.T.: -0.005 min  
Response: 6707161  
Conc: 45.32 ug/ml



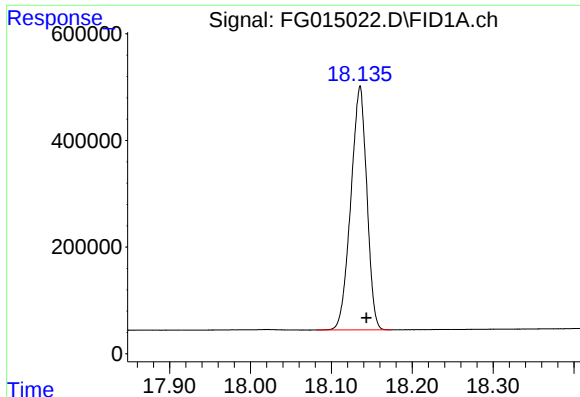
#11 N-HEXACOSANE

R.T.: 16.293 min  
Delta R.T.: -0.007 min  
Response: 6548009  
Conc: 44.60 ug/ml



#12 N-OCTACOSANE

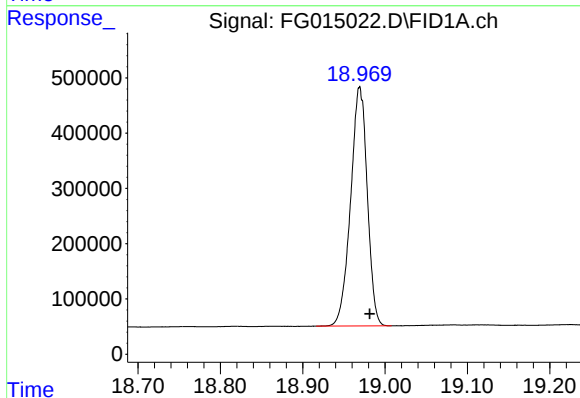
R.T.: 17.245 min  
Delta R.T.: -0.008 min  
Response: 6389105  
Conc: 43.63 ug/ml



#13 N-TRIACONTANE

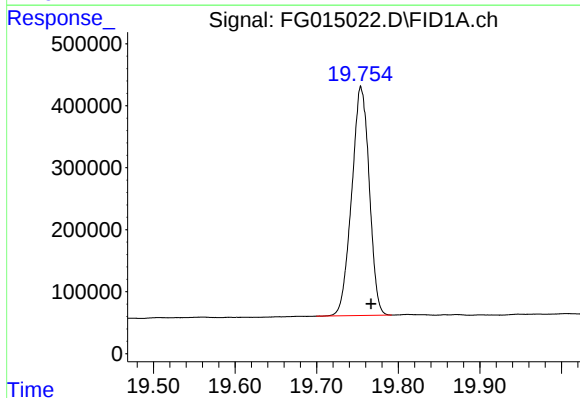
R.T.: 18.135 min  
Delta R.T.: -0.008 min  
Response: 6283307  
Conc: 42.61 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



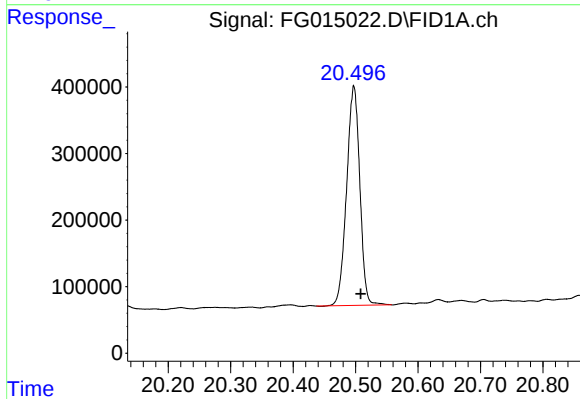
#14 N-DOTRIACONTANE

R.T.: 18.969 min  
Delta R.T.: -0.013 min  
Response: 6085363  
Conc: 42.17 ug/ml



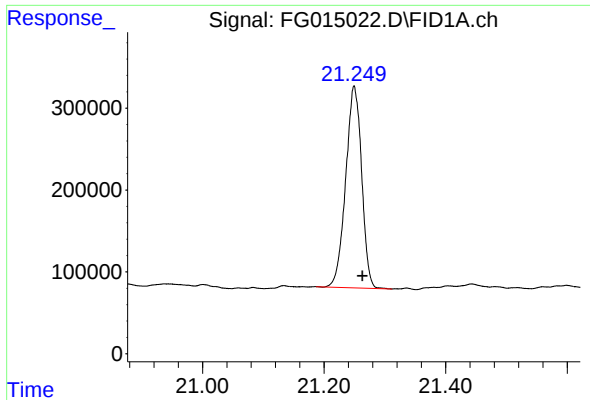
#15 N-TETRATRIACONTANE

R.T.: 19.754 min  
Delta R.T.: -0.013 min  
Response: 5520335  
Conc: 42.50 ug/ml



#16 N-HEXATRIACONTANE

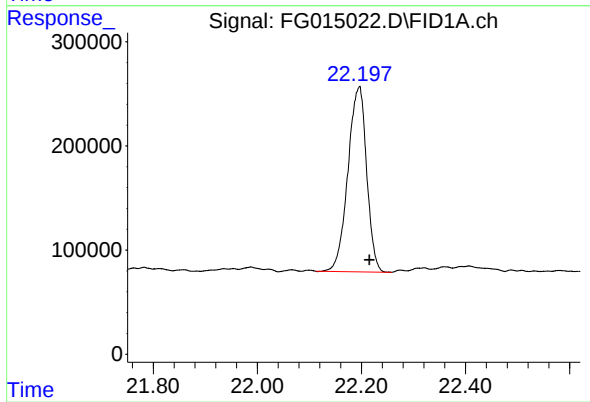
R.T.: 20.497 min  
Delta R.T.: -0.011 min  
Response: 4832523  
Conc: 43.28 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.249 min  
Delta R.T.: -0.014 min  
Response: 4486795  
Conc: 43.87 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



#18 N-TETRACONTANE

R.T.: 22.196 min  
Delta R.T.: -0.020 min  
Response: 4429725  
Conc: 46.21 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015022.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 14:19  
Sample : 50 PPM TRPH STD  
Misc :  
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br># | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-----------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1         | 2.016       | 1.982        | 2.083      | BB       | 513951         | 5939832      | 84.36%         | 5.379%        |
| 2         | 4.554       | 4.516        | 4.594      | BB       | 603659         | 6269320      | 89.04%         | 5.677%        |
| 3         | 6.738       | 6.700        | 6.774      | BB       | 658980         | 6679142      | 94.86%         | 6.049%        |
| 4         | 8.576       | 8.540        | 8.614      | BB       | 628922         | 6622080      | 94.05%         | 5.997%        |
| 5         | 10.191      | 10.150       | 10.231     | BB       | 623295         | 6800207      | 96.58%         | 6.158%        |
| 6         | 11.641      | 11.604       | 11.675     | BB       | 602853         | 7040858      | 100.00%        | 6.376%        |
| 7         | 12.957      | 12.913       | 13.000     | BB       | 588284         | 6890155      | 97.86%         | 6.240%        |
| 8         | 14.160      | 14.110       | 14.202     | BB       | 544733         | 6774569      | 96.22%         | 6.135%        |
| 9         | 15.063      | 15.014       | 15.125     | BB       | 420451         | 6127298      | 87.02%         | 5.549%        |
| 10        | 15.269      | 15.219       | 15.313     | BB       | 527941         | 6707161      | 95.26%         | 6.074%        |
| 11        | 16.293      | 16.242       | 16.340     | BB       | 501843         | 6548009      | 93.00%         | 5.930%        |
| 12        | 17.245      | 17.197       | 17.288     | BB       | 457592         | 6389105      | 90.74%         | 5.786%        |
| 13        | 18.135      | 18.081       | 18.175     | BB       | 457464         | 6283307      | 89.24%         | 5.690%        |
| 14        | 18.969      | 18.916       | 19.008     | BB       | 431712         | 6085363      | 86.43%         | 5.511%        |
| 15        | 19.754      | 19.700       | 19.792     | BB       | 368968         | 5520335      | 78.40%         | 4.999%        |
| 16        | 20.497      | 20.437       | 20.558     | BB       | 328818         | 4832523      | 68.64%         | 4.376%        |
| 17        | 21.249      | 21.187       | 21.311     | BB       | 246890         | 4486795      | 63.73%         | 4.063%        |
| 18        | 22.196      | 22.113       | 22.258     | BV       | 177994         | 4429725      | 62.91%         | 4.011%        |

Sum of corrected areas: 110425782

FG121924.M Tue Dec 24 01:03:37 2024

**TPH GC CONTINUING CALIBRATION SUMMARY**

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: PARS02  
 ProjectID: Con Edison Non-MGP - East River 453648.60024.0  
 Lab Code: CHEM Case No.: P5361 SAS No.: P5361 SDG No.: P5361  
 DataFile: FG015029.D Analyst Name: YP\AJ Analyst Date: 12-23-2024

| Conc. (PPM) | Area Count | RF     | Average RF | %D    |
|-------------|------------|--------|------------|-------|
| 850         | 106851517  | 125708 | 133673     | 5.959 |

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
 Data File : FG015029.D  
 Signal(s) : FID1A.ch  
 Acq On : 23 Dec 2024 18:34  
 Operator : YP\AJ  
 Sample : 50 PPM TRPH STD  
 Misc :  
 ALS Vial : 53 Sample Multiplier: 1

Instrument :  
 FID\_G  
 ClientSampleId :  
 50 PPM TRPH STD

Integration File: autoint1.e  
 Quant Time: Dec 24 00:31:03 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:42:40 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.061 | 6264252  | 46.869 ug/ml |
| Target Compounds              |        |          |              |
| 1) N-OCTANE                   | 2.014  | 6086961  | 49.550 ug/ml |
| 2) N-DECANE                   | 4.552  | 6425891  | 50.690 ug/ml |
| 3) N-DODECANE                 | 6.735  | 6830543  | 50.940 ug/ml |
| 4) N-TETRADECANE              | 8.572  | 6772250  | 50.457 ug/ml |
| 5) N-HEXADECANE               | 10.188 | 6954049  | 49.622 ug/ml |
| 6) N-OCTADECANE               | 11.638 | 7199686  | 48.758 ug/ml |
| 7) N-EICOSANE                 | 12.954 | 7043429  | 47.946 ug/ml |
| 8) N-DOCOSANE                 | 14.159 | 6928734  | 47.106 ug/ml |
| 10) N-TETRACOSANE             | 15.267 | 6853242  | 46.306 ug/ml |
| 11) N-HEXACOSANE              | 16.291 | 6695979  | 45.606 ug/ml |
| 12) N-OCTACOSANE              | 17.245 | 6554866  | 44.761 ug/ml |
| 13) N-TRIACONTANE             | 18.135 | 6469621  | 43.876 ug/ml |
| 14) N-DOTRIACONTANE           | 18.970 | 6269060  | 43.443 ug/ml |
| 15) N-TETRATRIACONTANE        | 19.757 | 5678444  | 43.714 ug/ml |
| 16) N-HEXATRIACONTANE         | 20.498 | 4965293  | 44.465 ug/ml |
| 17) N-OCTATRIACONTANE         | 21.249 | 4605570  | 45.030 ug/ml |
| 18) N-TETRACONTANE            | 22.195 | 4517899  | 47.128 ug/ml |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

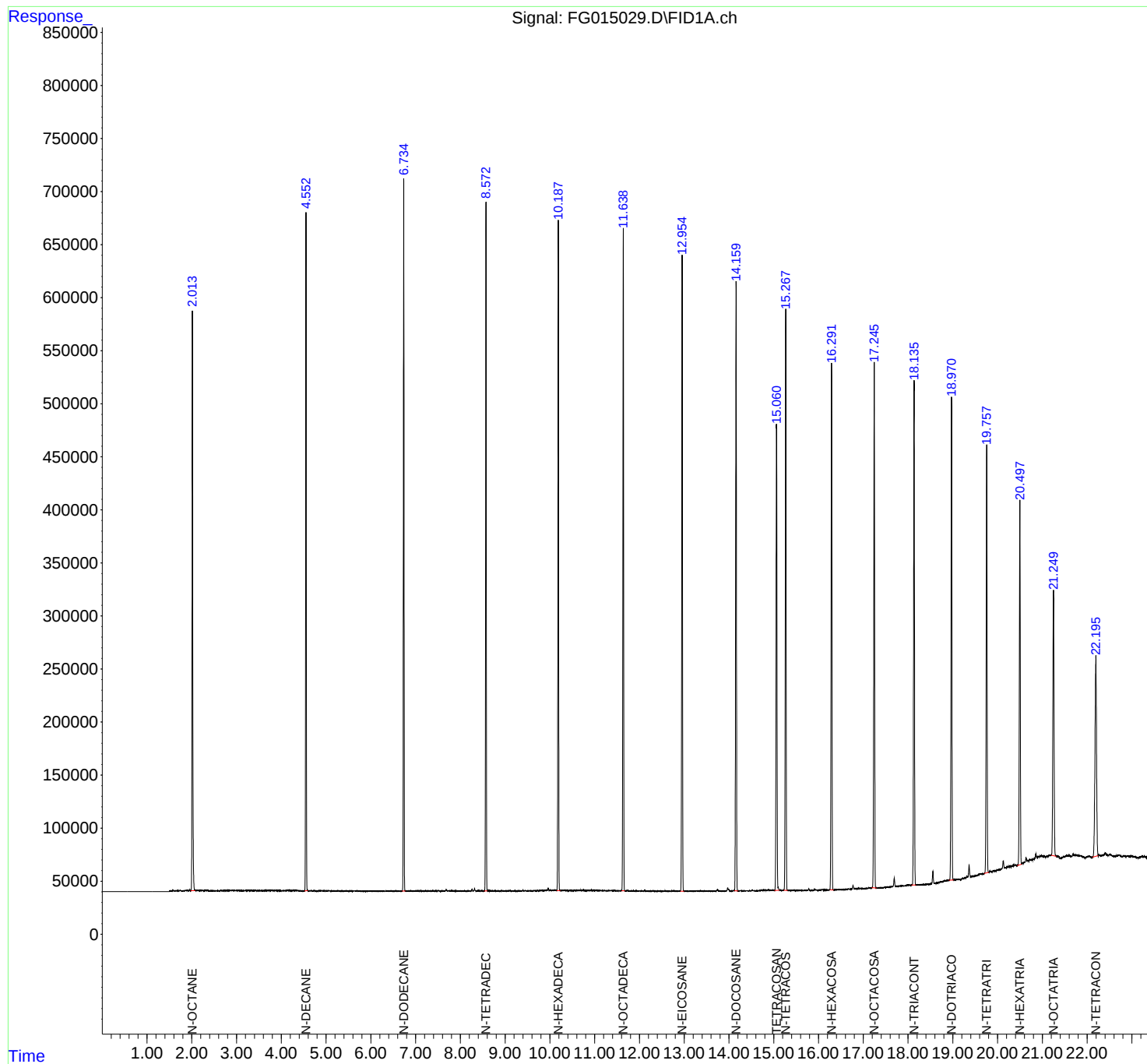
(m)=manual int.

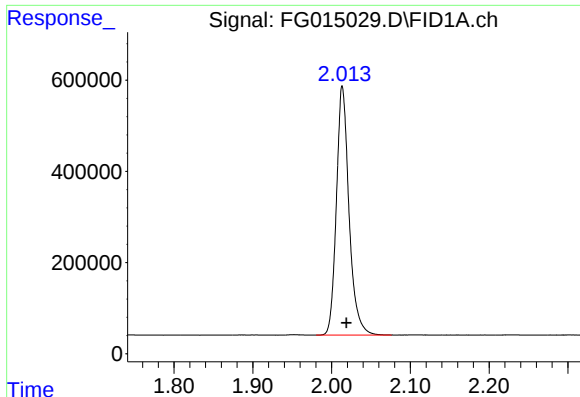
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015029.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 18:34  
Operator : YP\AJ  
Sample : 50 PPM TRPH STD  
Misc :  
ALS Vial : 53 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD

Integration File: autoint1.e  
Quant Time: Dec 24 00:31:03 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

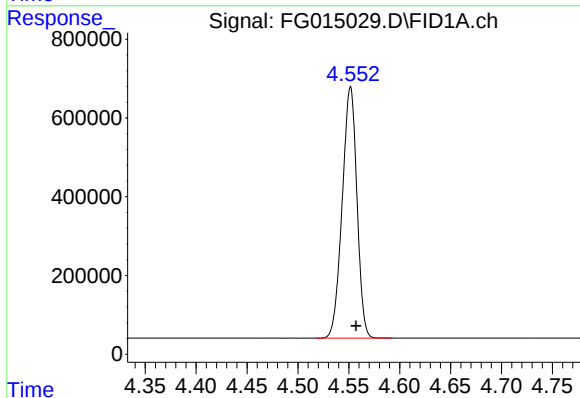




#1 N-OCTANE

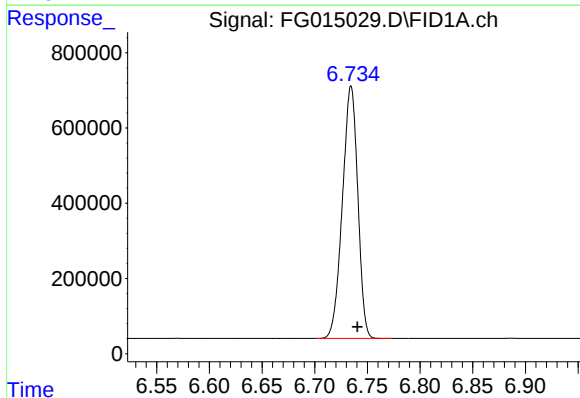
R.T.: 2.014 min  
Delta R.T.: -0.005 min  
Response: 6086961  
Conc: 49.55 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



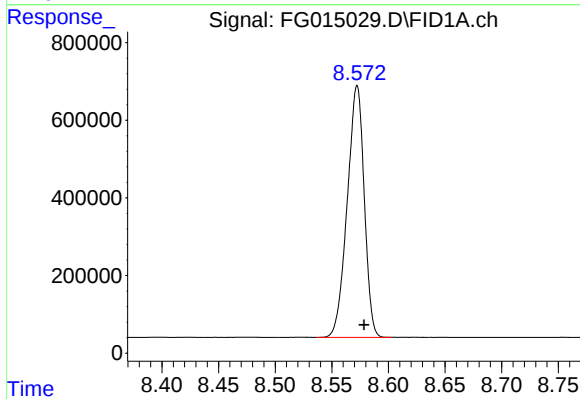
#2 N-DECANE

R.T.: 4.552 min  
Delta R.T.: -0.006 min  
Response: 6425891  
Conc: 50.69 ug/ml



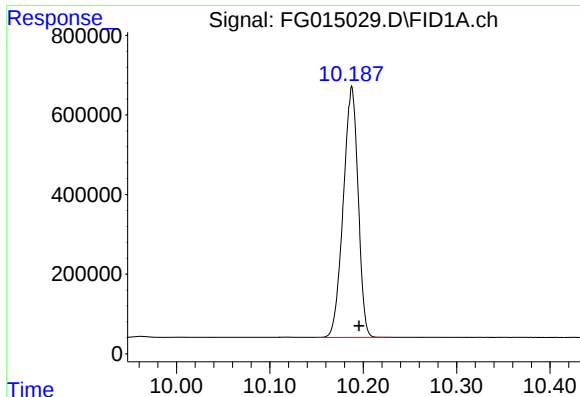
#3 N-DODECANE

R.T.: 6.735 min  
Delta R.T.: -0.006 min  
Response: 6830543  
Conc: 50.94 ug/ml



#4 N-TETRADECANE

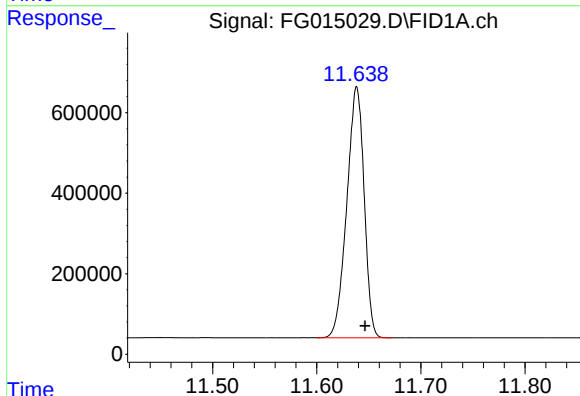
R.T.: 8.572 min  
Delta R.T.: -0.006 min  
Response: 6772250  
Conc: 50.46 ug/ml



#5 N-HEXADECANE

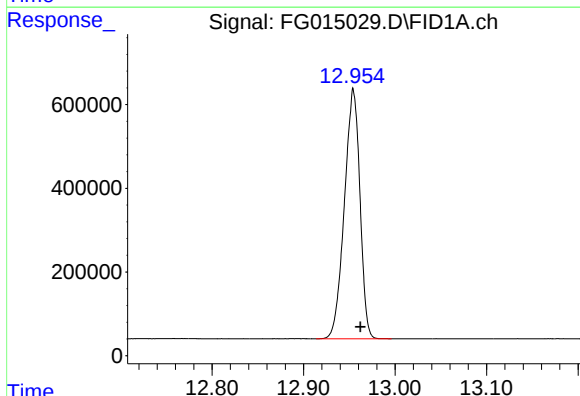
R.T.: 10.188 min  
Delta R.T.: -0.008 min  
Response: 6954049  
Conc: 49.62 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



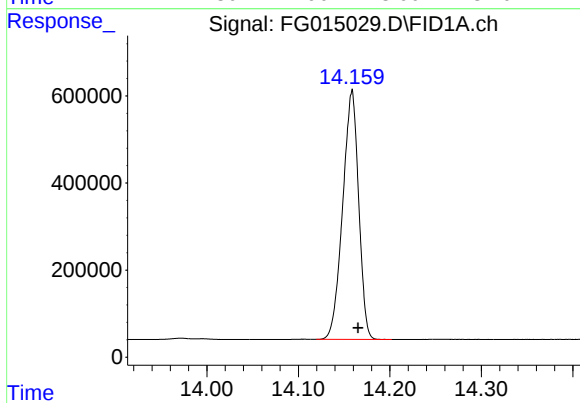
#6 N-OCTADECANE

R.T.: 11.638 min  
Delta R.T.: -0.008 min  
Response: 7199686  
Conc: 48.76 ug/ml



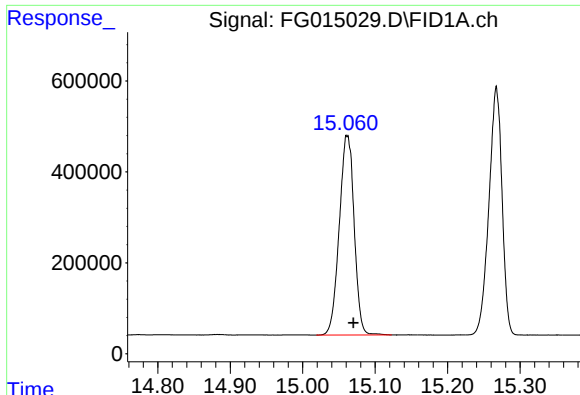
#7 N-EICOSANE

R.T.: 12.954 min  
Delta R.T.: -0.008 min  
Response: 7043429  
Conc: 47.95 ug/ml



#8 N-DOCOSANE

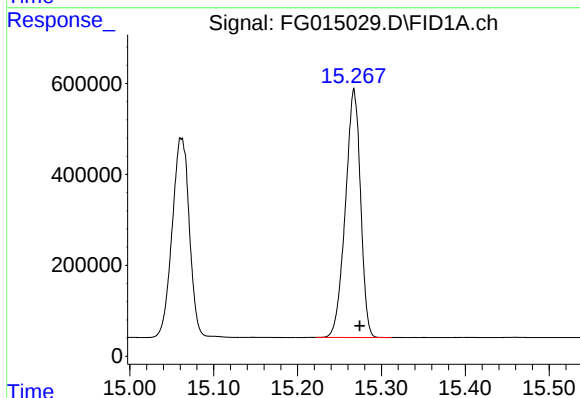
R.T.: 14.159 min  
Delta R.T.: -0.007 min  
Response: 6928734  
Conc: 47.11 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

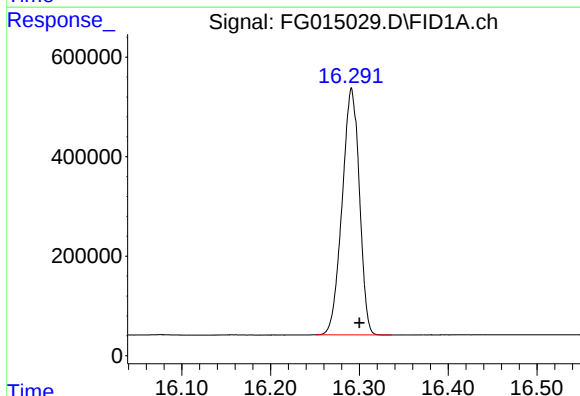
R.T.: 15.061 min  
Delta R.T.: -0.009 min  
Response: 6264252  
Conc: 46.87 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



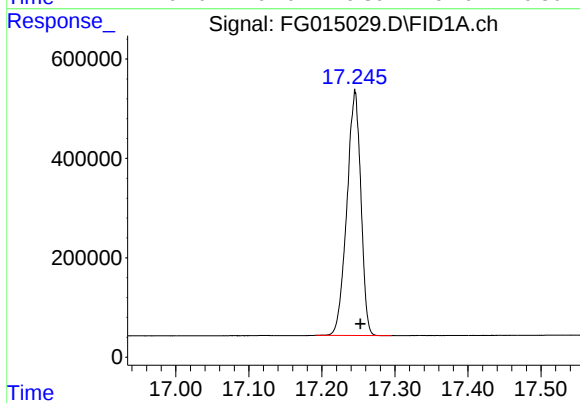
#10 N-TETRACOSANE

R.T.: 15.267 min  
Delta R.T.: -0.007 min  
Response: 6853242  
Conc: 46.31 ug/ml



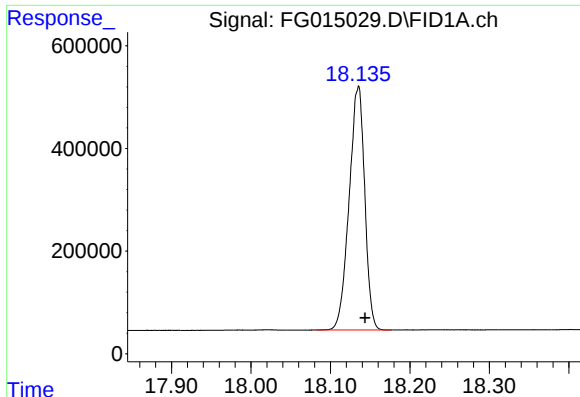
#11 N-HEXACOSANE

R.T.: 16.291 min  
Delta R.T.: -0.009 min  
Response: 6695979  
Conc: 45.61 ug/ml



#12 N-OCTACOSANE

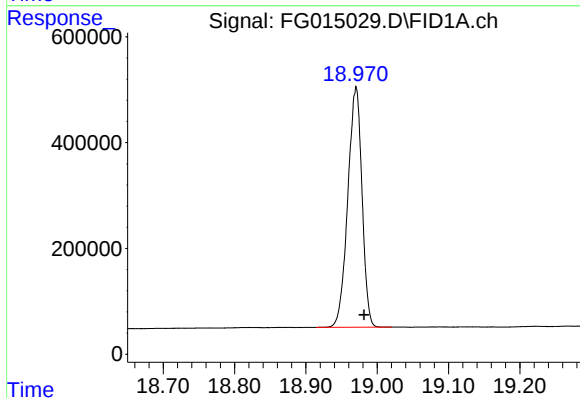
R.T.: 17.245 min  
Delta R.T.: -0.007 min  
Response: 6554866  
Conc: 44.76 ug/ml



#13 N-TRIACONTANE

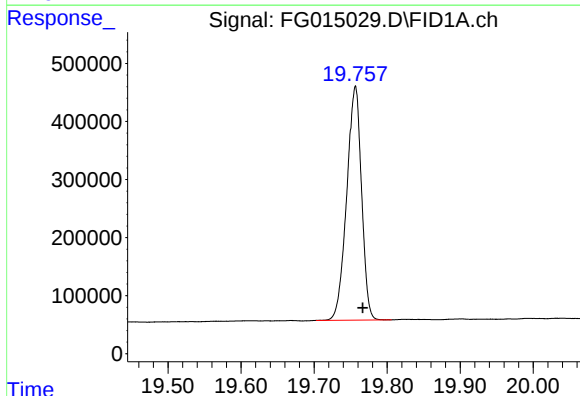
R.T.: 18.135 min  
Delta R.T.: -0.008 min  
Response: 6469621  
Conc: 43.88 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



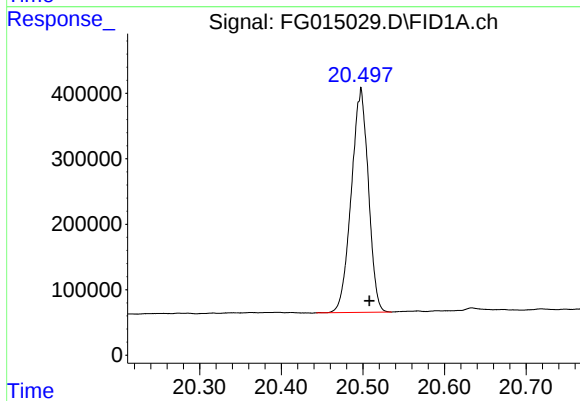
#14 N-DOTRIACONTANE

R.T.: 18.970 min  
Delta R.T.: -0.011 min  
Response: 6269060  
Conc: 43.44 ug/ml



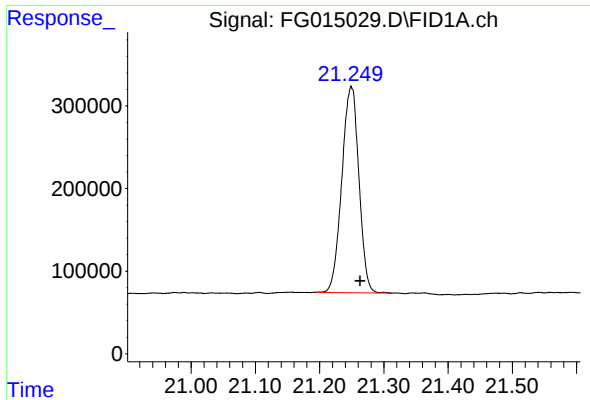
#15 N-TETRATRIACONTANE

R.T.: 19.757 min  
Delta R.T.: -0.010 min  
Response: 5678444  
Conc: 43.71 ug/ml



#16 N-HEXATRIACONTANE

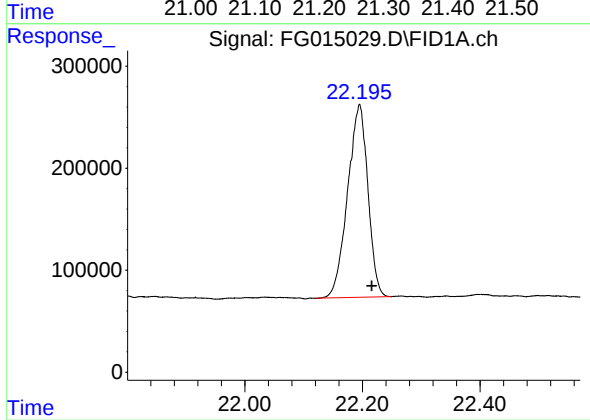
R.T.: 20.498 min  
Delta R.T.: -0.010 min  
Response: 4965293  
Conc: 44.46 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.249 min  
Delta R.T.: -0.014 min  
Response: 4605570  
Conc: 45.03 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
50 PPM TRPH STD



#18 N-TETRACONTANE

R.T.: 22.195 min  
Delta R.T.: -0.021 min  
Response: 4517899  
Conc: 47.13 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015029.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 18:34  
Sample : 50 PPM TRPH STD  
Misc :  
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br># | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-----------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1         | 2.014       | 1.980        | 2.076      | BB       | 546003         | 6086961      | 84.54%         | 5.381%        |
| 2         | 4.552       | 4.518        | 4.592      | BB       | 640041         | 6425891      | 89.25%         | 5.681%        |
| 3         | 6.735       | 6.701        | 6.773      | BB       | 671308         | 6830543      | 94.87%         | 6.039%        |
| 4         | 8.572       | 8.536        | 8.603      | BB       | 648851         | 6772250      | 94.06%         | 5.987%        |
| 5         | 10.188      | 10.150       | 10.230     | BB       | 631402         | 6954049      | 96.59%         | 6.148%        |
| 6         | 11.638      | 11.600       | 11.672     | BB       | 624238         | 7199686      | 100.00%        | 6.365%        |
| 7         | 12.954      | 12.914       | 12.996     | BB       | 594706         | 7043429      | 97.83%         | 6.227%        |
| 8         | 14.159      | 14.120       | 14.202     | BB       | 572059         | 6928734      | 96.24%         | 6.125%        |
| 9         | 15.061      | 15.019       | 15.123     | BB       | 435830         | 6264252      | 87.01%         | 5.538%        |
| 10        | 15.267      | 15.222       | 15.312     | BB       | 546658         | 6853242      | 95.19%         | 6.059%        |
| 11        | 16.291      | 16.251       | 16.336     | BB       | 496335         | 6695979      | 93.00%         | 5.920%        |
| 12        | 17.245      | 17.192       | 17.295     | BB       | 494496         | 6554866      | 91.04%         | 5.795%        |
| 13        | 18.135      | 18.082       | 18.177     | BB       | 475511         | 6469621      | 89.86%         | 5.719%        |
| 14        | 18.970      | 18.915       | 19.020     | BB       | 455216         | 6269060      | 87.07%         | 5.542%        |
| 15        | 19.757      | 19.703       | 19.806     | BB       | 404080         | 5678444      | 78.87%         | 5.020%        |
| 16        | 20.498      | 20.443       | 20.535     | BB       | 343666         | 4965293      | 68.97%         | 4.390%        |
| 17        | 21.249      | 21.195       | 21.312     | BB       | 249679         | 4605570      | 63.97%         | 4.072%        |
| 18        | 22.195      | 22.121       | 22.250     | BB       | 189215         | 4517899      | 62.75%         | 3.994%        |

Sum of corrected areas: 113115768

FG121924.M Tue Dec 24 01:05:51 2024

## Analytical Sequence

|                                                                 |                             |
|-----------------------------------------------------------------|-----------------------------|
| <b>Client:</b> PARSONS Engineering of New York, Inc.            | <b>SDG No.:</b> P5361       |
| <b>Project:</b> Con Edison Non-MGP - East River 453648.60024.03 | <b>Instrument ID:</b> FID_G |
| <b>GC Column:</b> RXI-1MS                                       | <b>ID:</b> 0.18 (mm)        |

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

| MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.074 |                  |                           |            |        |   |
|--------------------------------------------------|------------------|---------------------------|------------|--------|---|
| EPA<br>SAMPLE NO.                                | LAB<br>SAMPLE ID | DATE AND TIME<br>ANALYZED | DATAFILE   | RT     | # |
| PIBLK01                                          | LBLK01           | 23 Dec 2024 10:34         | FG015014.D | 15.054 |   |
| 50 PPM TRPH STD                                  | 50 PPM TRPH STD  | 23 Dec 2024 11:02         | FG015015.D | 15.058 |   |
| SB-01-20241219-7.0-7.5                           | P5361-01         | 23 Dec 2024 12:26         | FG015018.D | 15.059 |   |
| SB-01-20241219-9.0-9.5                           | P5361-02         | 23 Dec 2024 12:54         | FG015019.D | 15.060 |   |
| SB-01-20241219-9.0-9.5MS                         | P5361-02MS       | 23 Dec 2024 13:23         | FG015020.D | 15.058 |   |
| PIBLK02                                          | LBLK02           | 23 Dec 2024 13:51         | FG015021.D | 15.059 |   |
| 50 PPM TRPH STD                                  | 50 PPM TRPH STD  | 23 Dec 2024 14:19         | FG015022.D | 15.063 |   |
| PB165807BL                                       | PB165807BL       | 23 Dec 2024 15:44         | FG015024.D | 15.061 |   |
| PB165807BS                                       | PB165807BS       | 23 Dec 2024 16:12         | FG015025.D | 15.058 |   |
| SB-01-20241219-9.0-9.5MSD                        | P5361-02MSD      | 23 Dec 2024 16:41         | FG015026.D | 15.057 |   |
| PIBLK03                                          | LBLK03           | 23 Dec 2024 17:37         | FG015028.D | 15.058 |   |
| 50 PPM TRPH STD                                  | 50 PPM TRPH STD  | 23 Dec 2024 18:34         | FG015029.D | 15.061 |   |

# Column used to flag RT values with an \* values outside of QC limits

QC Limits  
(± 0.10 minutes)

Lower Limit  
14.974

Upper Limits  
15.174



# QC SAMPLE DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

## Report of Analysis

|                    |                                                 |          |                    |        |           |
|--------------------|-------------------------------------------------|----------|--------------------|--------|-----------|
| Client:            | PARSONS Engineering of New York, Inc.           |          | Date Collected:    |        |           |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 |          | Date Received:     |        |           |
| Client Sample ID:  | PB165807BL                                      |          | SDG No.:           | P5361  |           |
| Lab Sample ID:     | PB165807BL                                      |          | Matrix:            | SOIL   |           |
| Analytical Method: | 8015D TPH                                       |          | % Solid:           | 100    | Decanted: |
| Sample Wt/Vol:     | 30.01                                           | Units: g | Final Vol:         | 1      | mL        |
| Soil Aliquot Vol:  |                                                 | uL       | Test:              | TPH GC |           |
| Extraction Type:   |                                                 |          | Injection Volume : |        |           |
| GPC Factor :       |                                                 | PH :     |                    |        |           |
| Prep Method :      | SW3541                                          |          |                    |        |           |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| FG015024.D        | 1         | 12/23/24 08:35 | 12/23/24 15:44 | PB165807      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|-------------------|------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>    |                        |       |           |          |            |                   |
| PHC               | Petroleum Hydrocarbons | 2830  | U         | 318      | 2830       | ug/kg             |
| <b>SURROGATES</b> |                        |       |           |          |            |                   |
| 16416-32-3        | TETRACOSANE-d50        | 16.0  |           | 37 - 130 | 80%        | SPK: 20           |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015024.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 15:44  
Operator : YP\AJ  
Sample : PB165807BL  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BL

Integration File: autoint1.e  
Quant Time: Dec 24 00:29:26 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.061 | 2133681  | 15.964 ug/ml |
| Target Compounds              |        |          |              |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

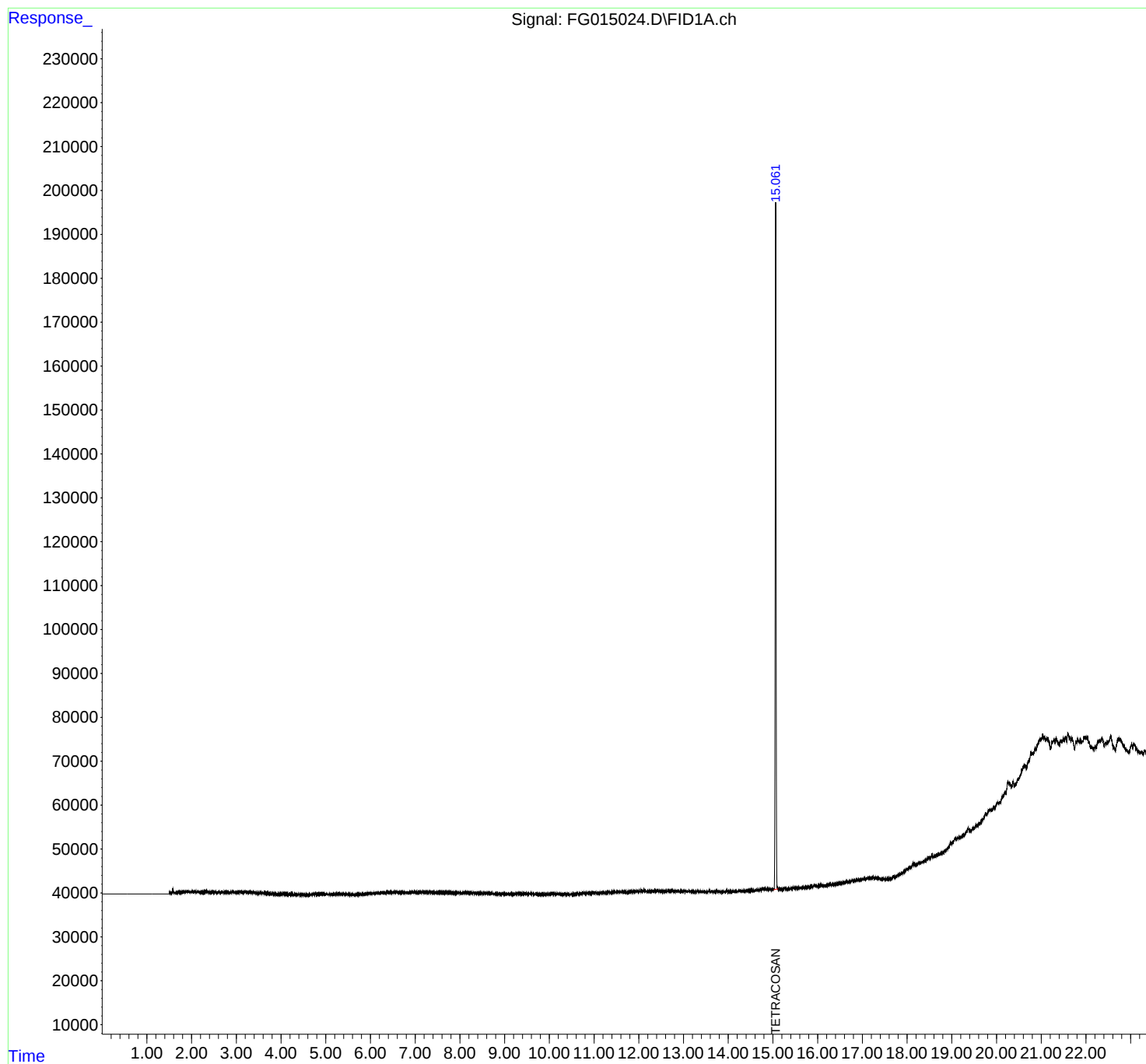
(m)=manual int.

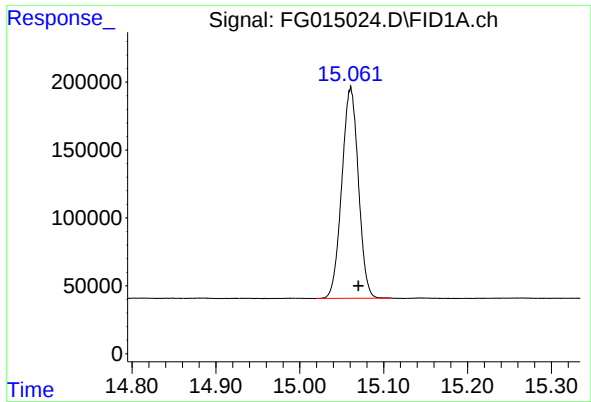
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015024.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 15:44  
Operator : YP\AJ  
Sample : PB165807BL  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BL

Integration File: autoint1.e  
Quant Time: Dec 24 00:29:26 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.061 min  
Delta R.T.: -0.009 min  
Response: 2133681  
Conc: 15.96 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BL

1  
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7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015024.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 15:44  
Sample : PB165807BL  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 15.061      | 15.020       | 15.110     | BB       | 154933         | 2133681      | 100.00%        | 100.000%      |
| Sum of corrected areas: |             |              |            |          |                |              | 2133681        |               |

FG121924.M Tue Dec 24 01:04:05 2024

## Report of Analysis

|                    |                                                 |                    |          |
|--------------------|-------------------------------------------------|--------------------|----------|
| Client:            | PARSONS Engineering of New York, Inc.           | Date Collected:    | 12/23/24 |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 | Date Received:     | 12/23/24 |
| Client Sample ID:  | PIBLK-FG015014.D                                | SDG No.:           | P5361    |
| Lab Sample ID:     | I.BLK-FG015014.D                                | Matrix:            | Water    |
| Analytical Method: | 8015D TPH                                       | % Solid:           | 0        |
| Sample Wt/Vol:     | 1000 Units: mL                                  | Decanted:          |          |
| Soil Aliquot Vol:  | uL                                              | Final Vol:         | 1 mL     |
| Extraction Type:   |                                                 | Test:              | TPH GC   |
| GPC Factor :       | PH :                                            | Injection Volume : |          |
| Prep Method :      | SW3510                                          |                    |          |

|                   |           |           |               |               |
|-------------------|-----------|-----------|---------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
| FG015014.D        | 1         |           | 12/23/24      | FG122324      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units   |
|-------------------|------------------------|-------|-----------|----------|------------|---------|
| <b>TARGETS</b>    |                        |       |           |          |            |         |
| PHC               | Petroleum Hydrocarbons | 85.0  | U         | 9.00     | 85.0       | ug/L    |
| <b>SURROGATES</b> |                        |       |           |          |            |         |
| 16416-32-3        | TETRACOSANE-d50        | 19.0  |           | 29 - 130 | 95%        | SPK: 20 |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015014.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 10:34  
Operator : YP\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:26:16 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units    |
|-------------------------------|--------|----------|---------------|
| -----                         |        |          |               |
| System Monitoring Compounds   |        |          |               |
| 9) S TETRACOSANE-d50 (SURR... | 15.054 | 2542099  | 19.020 ug/mlm |
| Target Compounds              |        |          |               |
| -----                         |        |          |               |

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015014.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 10:34  
Operator : YP\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

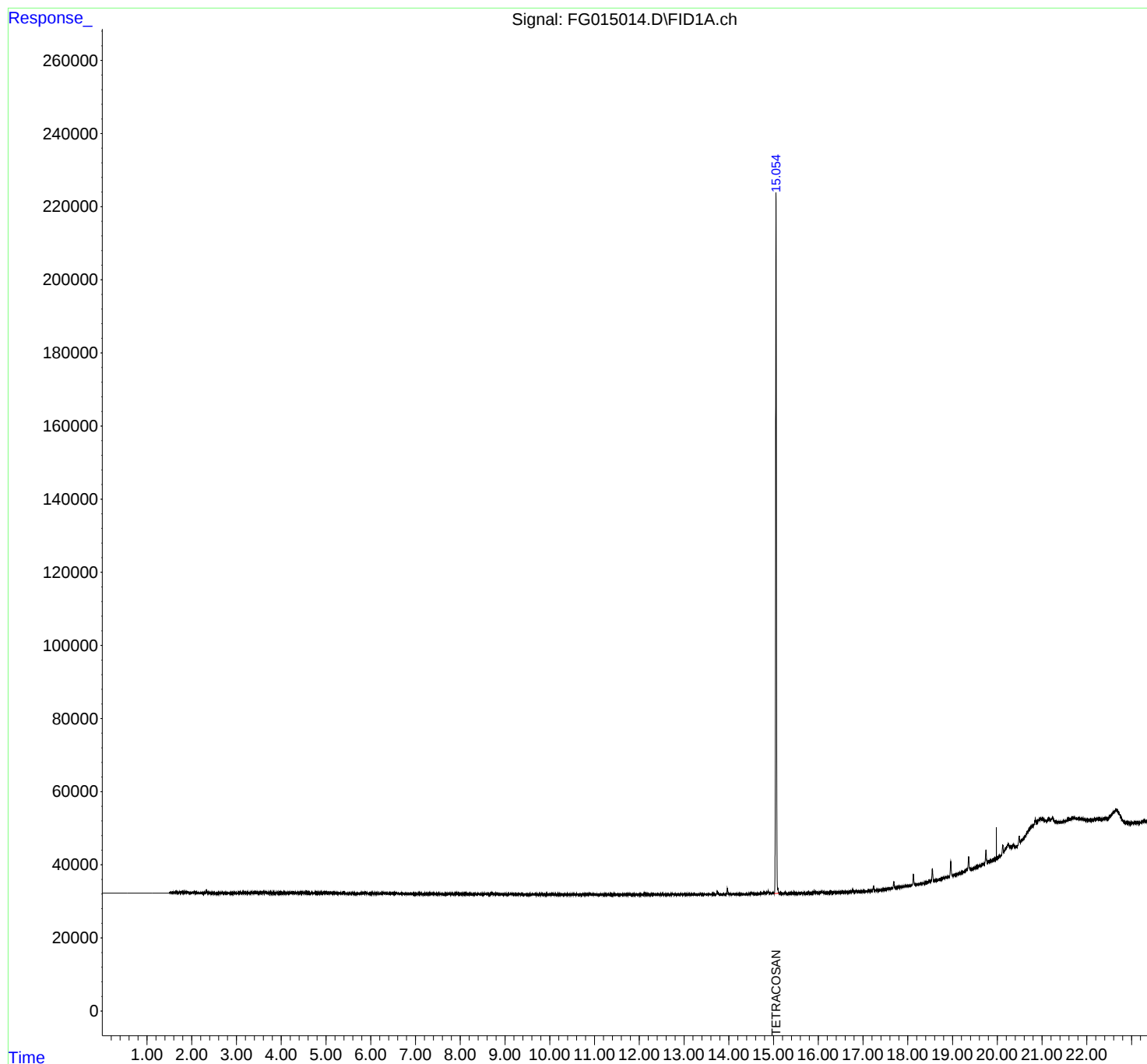
Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

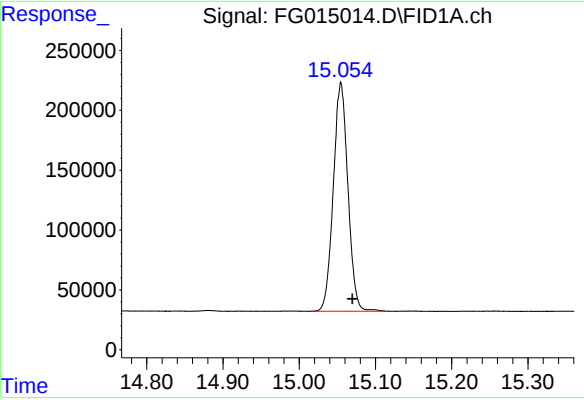
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:26:16 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.054 min  
Delta R.T.: -0.016 min  
Response: 2542099  
Conc: 19.02 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

Manual Integrations  
APPROVED  
Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

rtres

Instrument :  
FID\_G  
LabSampleId :  
I.BLK

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG015014.D  
Data File : FG015014.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 10:34  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 15.055      | 15.015       | 15.104     | BB       | 190987         | 2516732      | 100.00%        | 100.000%      |
| Sum of corrected areas: |             |              |            |          |                |              | 2516732        |               |

FG121924.M Tue Dec 24 02:24:48 2024

## Report of Analysis

|                    |                                                 |                    |          |
|--------------------|-------------------------------------------------|--------------------|----------|
| Client:            | PARSONS Engineering of New York, Inc.           | Date Collected:    | 12/23/24 |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 | Date Received:     | 12/23/24 |
| Client Sample ID:  | PIBLK-FG015021.D                                | SDG No.:           | P5361    |
| Lab Sample ID:     | I.BLK-FG015021.D                                | Matrix:            | Water    |
| Analytical Method: | 8015D TPH                                       | % Solid:           | 0        |
| Sample Wt/Vol:     | 1000 Units: mL                                  | Decanted:          |          |
| Soil Aliquot Vol:  | uL                                              | Final Vol:         | 1 mL     |
| Extraction Type:   |                                                 | Test:              | TPH GC   |
| GPC Factor :       | PH :                                            | Injection Volume : |          |
| Prep Method :      | SW3510                                          |                    |          |

|                   |           |           |               |               |
|-------------------|-----------|-----------|---------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
| FG015021.D        | 1         |           | 12/23/24      | FG122324      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units   |
|-------------------|------------------------|-------|-----------|----------|------------|---------|
| <b>TARGETS</b>    |                        |       |           |          |            |         |
| PHC               | Petroleum Hydrocarbons | 85.0  | U         | 9.00     | 85.0       | ug/L    |
| <b>SURROGATES</b> |                        |       |           |          |            |         |
| 16416-32-3        | TETRACOSANE-d50        | 18.5  |           | 29 - 130 | 92%        | SPK: 20 |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015021.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 13:51  
Operator : YP\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

Integration File: autoint1.e  
Quant Time: Dec 24 00:28:30 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.059 | 2472373  | 18.498 ug/ml |
| Target Compounds              |        |          |              |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

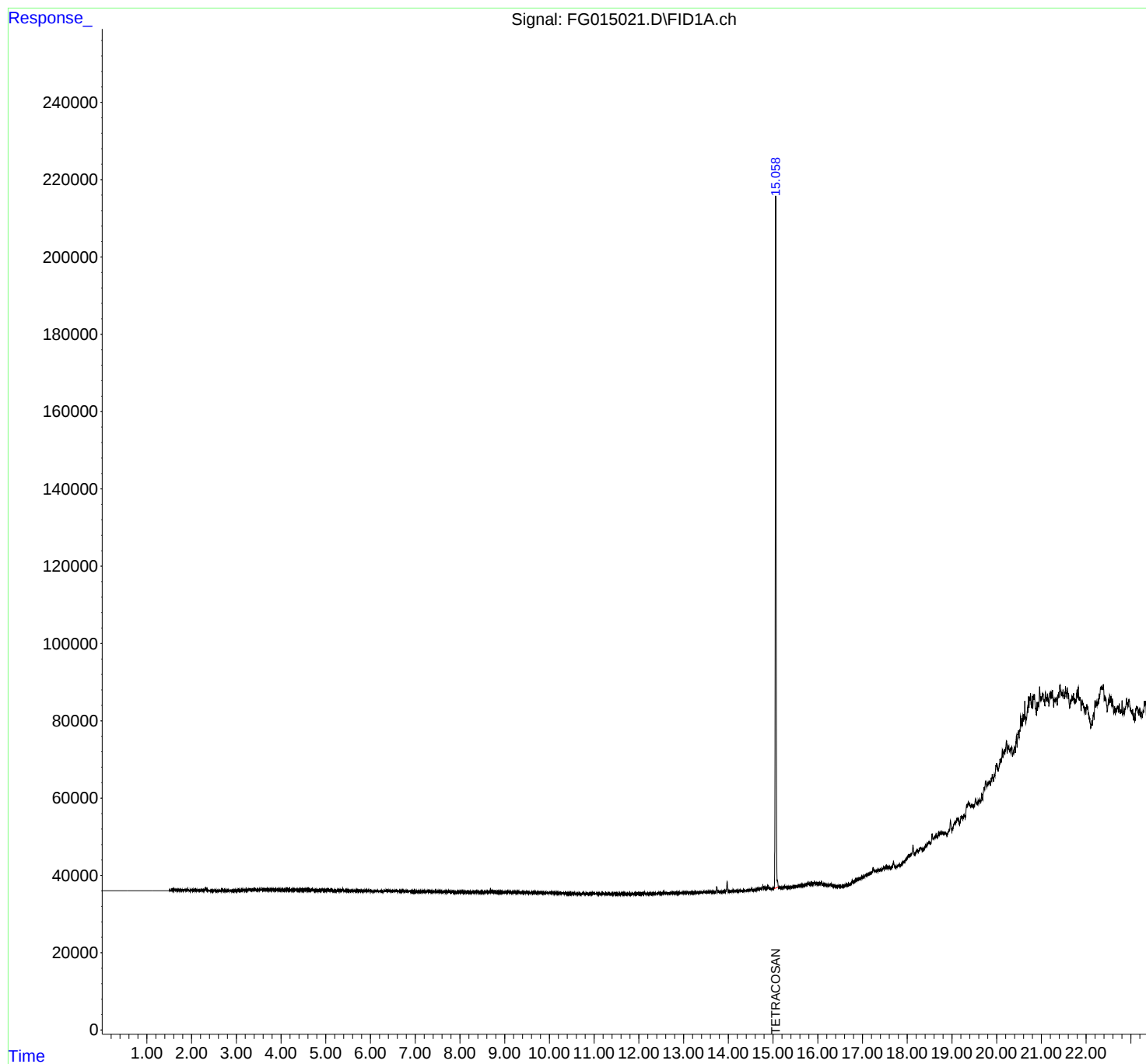
(m)=manual int.

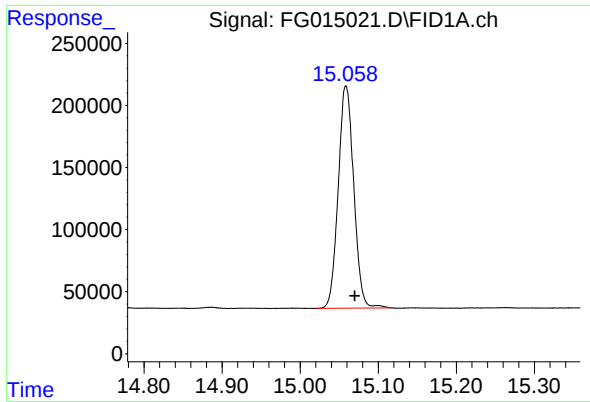
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015021.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 13:51  
Operator : YP\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

Integration File: autoint1.e  
Quant Time: Dec 24 00:28:30 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.059 min  
Delta R.T.: -0.011 min  
Response: 2472373  
Conc: 18.50 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

1  
2  
3  
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14  
15  
16  
17

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015021.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 13:51  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 15.059      | 15.020       | 15.117     | BB       | 178875         | 2472373      | 100.00%        | 100.000%      |
| Sum of corrected areas: |             |              |            |          |                | 2472373      |                |               |

FG121924.M Tue Dec 24 01:03:11 2024

## Report of Analysis

|                    |                                                 |                    |          |
|--------------------|-------------------------------------------------|--------------------|----------|
| Client:            | PARSONS Engineering of New York, Inc.           | Date Collected:    | 12/23/24 |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 | Date Received:     | 12/23/24 |
| Client Sample ID:  | PIBLK-FG015028.D                                | SDG No.:           | P5361    |
| Lab Sample ID:     | I.BLK-FG015028.D                                | Matrix:            | Water    |
| Analytical Method: | 8015D TPH                                       | % Solid:           | 0        |
| Sample Wt/Vol:     | 1000 Units: mL                                  | Decanted:          |          |
| Soil Aliquot Vol:  | uL                                              | Final Vol:         | 1 mL     |
| Extraction Type:   |                                                 | Test:              | TPH GC   |
| GPC Factor :       | PH :                                            | Injection Volume : |          |
| Prep Method :      | SW3510                                          |                    |          |

|                   |           |           |               |               |
|-------------------|-----------|-----------|---------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
| FG015028.D        | 1         |           | 12/23/24      | FG122324      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units   |
|-------------------|------------------------|-------|-----------|----------|------------|---------|
| <b>TARGETS</b>    |                        |       |           |          |            |         |
| PHC               | Petroleum Hydrocarbons | 85.0  | U         | 9.00     | 85.0       | ug/L    |
| <b>SURROGATES</b> |                        |       |           |          |            |         |
| 16416-32-3        | TETRACOSANE-d50        | 18.4  |           | 29 - 130 | 92%        | SPK: 20 |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015028.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 17:37  
Operator : YP\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

Integration File: autoint1.e  
Quant Time: Dec 24 00:30:45 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units   |
|-------------------------------|--------|----------|--------------|
| -----                         |        |          |              |
| System Monitoring Compounds   |        |          |              |
| 9) S TETRACOSANE-d50 (SURR... | 15.058 | 2458731  | 18.396 ug/ml |
| Target Compounds              |        |          |              |
| -----                         |        |          |              |

(f)=RT Delta > 1/2 Window

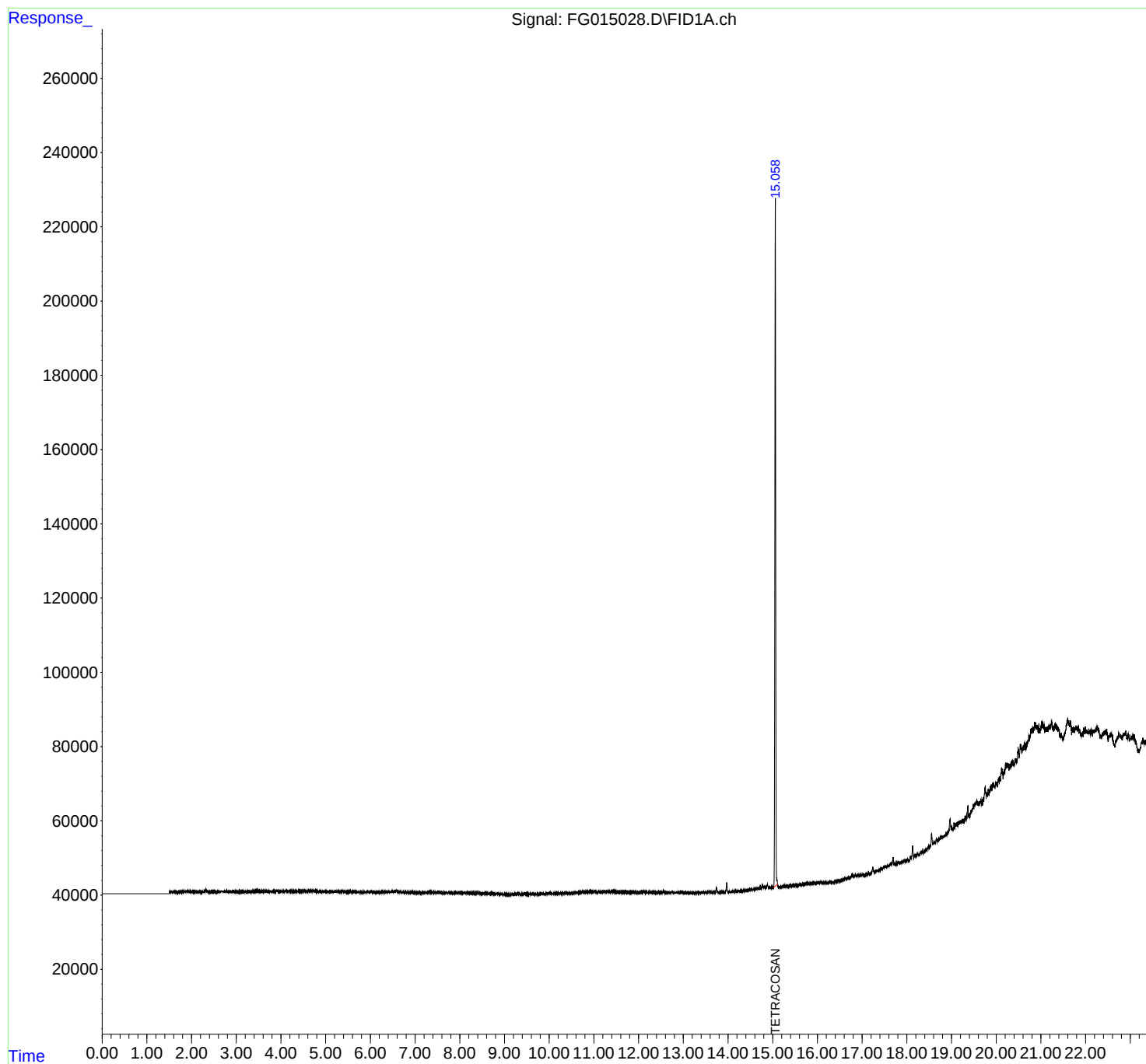
(m)=manual int.

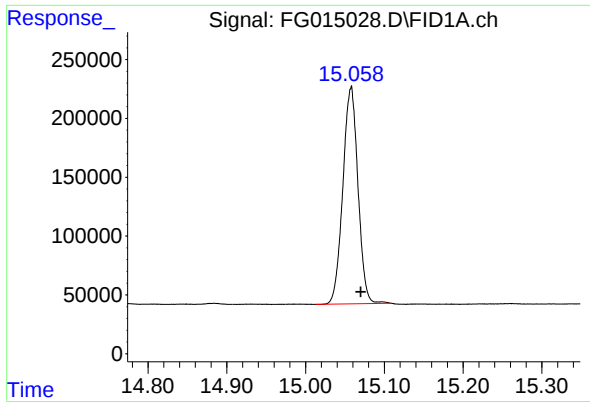
Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015028.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 17:37  
Operator : YP\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

Integration File: autoint1.e  
Quant Time: Dec 24 00:30:45 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.058 min  
Delta R.T.: -0.012 min  
Response: 2458731  
Conc: 18.40 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
I.BLK

1  
2  
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10  
11  
12  
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14  
15  
16  
17

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015028.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 17:37  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 15.058      | 15.013       | 15.109     | BB       | 183560         | 2458731      | 100.00%        | 100.000%      |
| Sum of corrected areas: |             |              |            |          |                |              | 2458731        |               |

FG121924.M Tue Dec 24 01:05:34 2024

## Report of Analysis

|                    |                                                 |          |                    |        |           |
|--------------------|-------------------------------------------------|----------|--------------------|--------|-----------|
| Client:            | PARSONS Engineering of New York, Inc.           |          | Date Collected:    |        |           |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 |          | Date Received:     |        |           |
| Client Sample ID:  | PB165807BS                                      |          | SDG No.:           | P5361  |           |
| Lab Sample ID:     | PB165807BS                                      |          | Matrix:            | SOIL   |           |
| Analytical Method: | 8015D TPH                                       |          | % Solid:           | 100    | Decanted: |
| Sample Wt/Vol:     | 30.02                                           | Units: g | Final Vol:         | 1      | mL        |
| Soil Aliquot Vol:  |                                                 | uL       | Test:              | TPH GC |           |
| Extraction Type:   |                                                 |          | Injection Volume : |        |           |
| GPC Factor :       |                                                 | PH :     |                    |        |           |
| Prep Method :      | SW3541                                          |          |                    |        |           |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| FG015025.D        | 1         | 12/23/24 08:35 | 12/23/24 16:12 | PB165807      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|-------------------|------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>    |                        |       |           |          |            |                   |
| PHC               | Petroleum Hydrocarbons | 8190  |           | 318      | 2830       | ug/kg             |
| <b>SURROGATES</b> |                        |       |           |          |            |                   |
| 16416-32-3        | TETRACOSANE-d50        | 14.9  |           | 37 - 130 | 74%        | SPK: 20           |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
 Data File : FG015025.D  
 Signal(s) : FID1A.ch  
 Acq On : 23 Dec 2024 16:12  
 Operator : YP\AJ  
 Sample : PB165807BS  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

## Instrument :

FID\_G

## ClientSampleId :

PB165807BS

## Manual Integrations

## APPROVED

Reviewed By :Yogesh Patel 12/26/2024

Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
 Quant Time: Dec 24 00:29:40 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:42:40 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units    |
|-------------------------------|--------|----------|---------------|
| -----                         |        |          |               |
| System Monitoring Compounds   |        |          |               |
| 9) S TETRACOSANE-d50 (SURR... | 15.058 | 1989782  | 14.888 ug/ml  |
| Target Compounds              |        |          |               |
| 1) N-OCTANE                   | 2.016  | 1265987  | 10.306 ug/ml  |
| 2) N-DECANE                   | 4.551  | 1794918  | 14.159 ug/ml  |
| 3) N-DODECANE                 | 6.732  | 1993607  | 14.868 ug/ml  |
| 4) N-TETRADECANE              | 8.570  | 2106495  | 15.694 ug/ml  |
| 5) N-HEXADECANE               | 10.185 | 2175964  | 15.527 ug/ml  |
| 6) N-OCTADECANE               | 11.635 | 2246336  | 15.213 ug/ml  |
| 7) N-EICOSANE                 | 12.952 | 2286089  | 15.562 ug/ml  |
| 8) N-DOCOSANE                 | 14.154 | 2215959  | 15.065 ug/ml  |
| 10) N-TETRACOSANE             | 15.262 | 2189399  | 14.793 ug/ml  |
| 11) N-HEXACOSANE              | 16.288 | 2149912  | 14.643 ug/ml  |
| 12) N-OCTACOSANE              | 17.241 | 2085348  | 14.240 ug/ml  |
| 13) N-TRIACONTANE             | 18.131 | 2073701  | 14.064 ug/ml  |
| 14) N-DOTRIACONTANE           | 18.968 | 1988161  | 13.777 ug/ml  |
| 15) N-TETRATRIACONTANE        | 19.752 | 1832567  | 14.108 ug/ml  |
| 16) N-HEXATRIACONTANE         | 20.494 | 1617859  | 14.488 ug/ml  |
| 17) N-OCTATRIACONTANE         | 21.243 | 1516224  | 14.825 ug/mlm |
| 18) N-TETRACONTANE            | 22.187 | 1388494  | 14.484 ug/ml  |
| -----                         |        |          |               |

(f)=RT Delta &gt; 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015025.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 16:12  
Operator : YP\AJ  
Sample : PB165807BS  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

## Instrument :

FID\_G

## ClientSampleId :

PB165807BS

## Manual Integrations

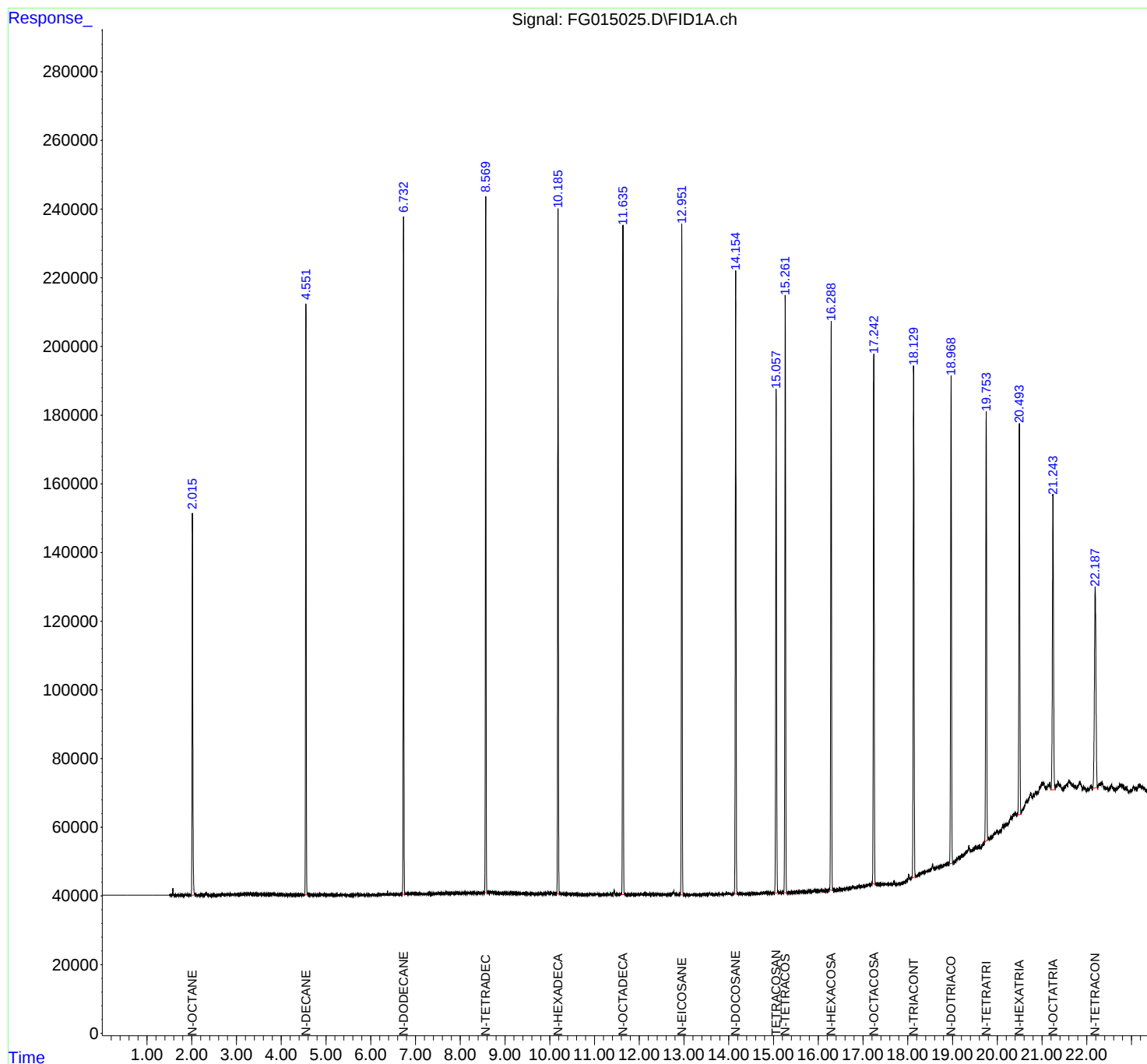
## APPROVED

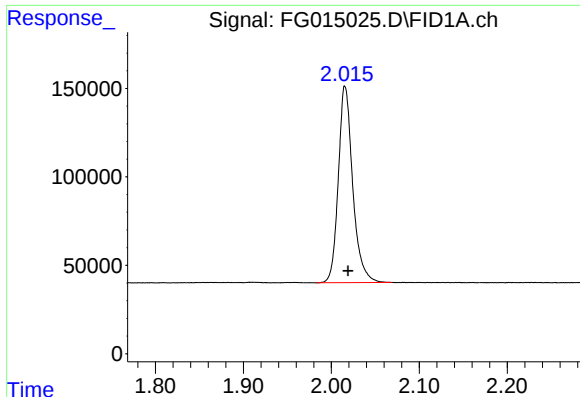
Reviewed By :Yogesh Patel 12/26/2024

Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:29:40 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





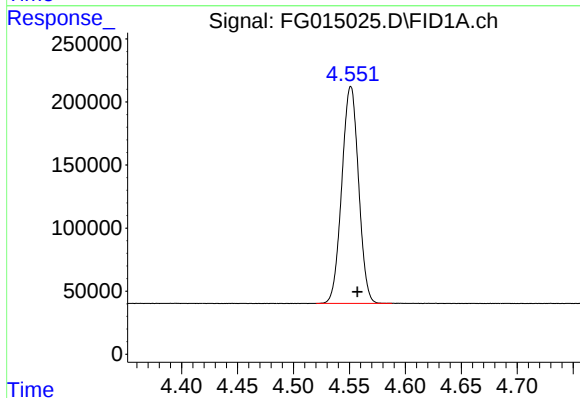
#1 N-OCTANE

R.T.: 2.016 min  
Delta R.T.: -0.003 min  
Response: 1265987  
Conc: 10.31 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BS

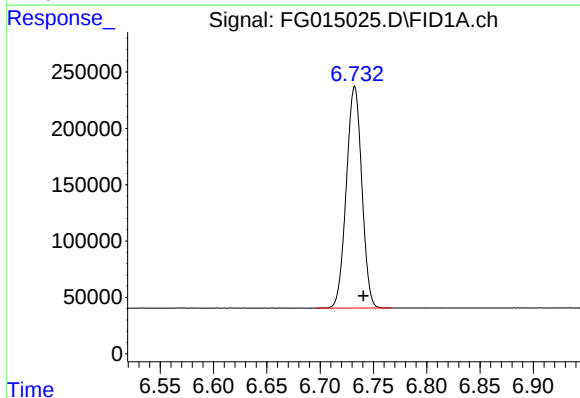
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



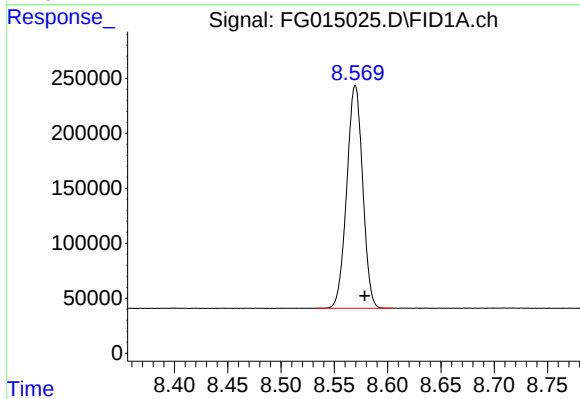
#2 N-DECANE

R.T.: 4.551 min  
Delta R.T.: -0.006 min  
Response: 1794918  
Conc: 14.16 ug/ml



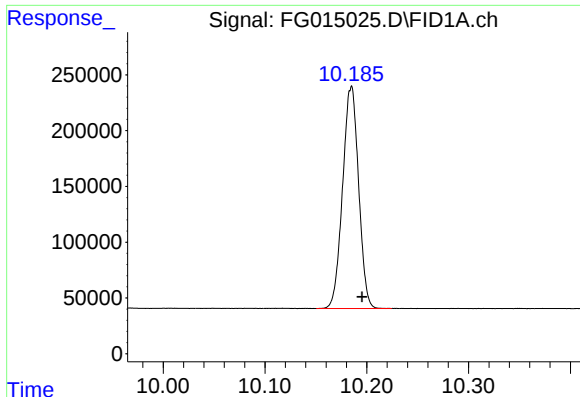
#3 N-DODECANE

R.T.: 6.732 min  
Delta R.T.: -0.008 min  
Response: 1993607  
Conc: 14.87 ug/ml



#4 N-TETRADECANE

R.T.: 8.570 min  
Delta R.T.: -0.009 min  
Response: 2106495  
Conc: 15.69 ug/ml



#5 N-HEXADECANE

R.T.: 10.185 min  
Delta R.T.: -0.011 min  
Response: 2175964  
Conc: 15.53 ug/ml

Instrument :

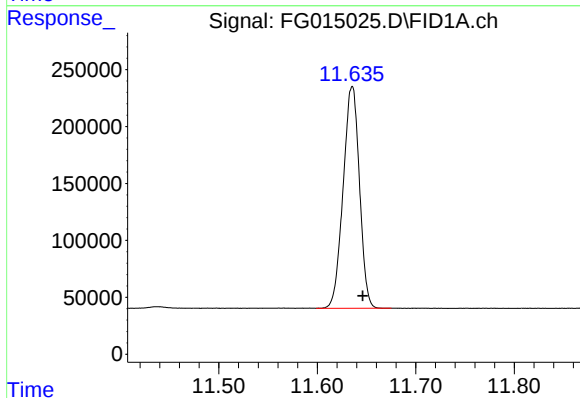
FID\_G

ClientSampleId :

PB165807BS

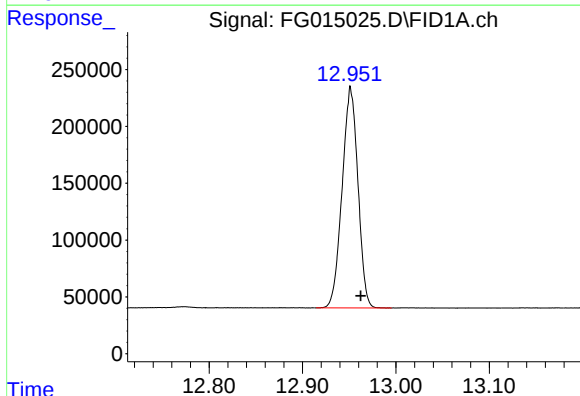
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



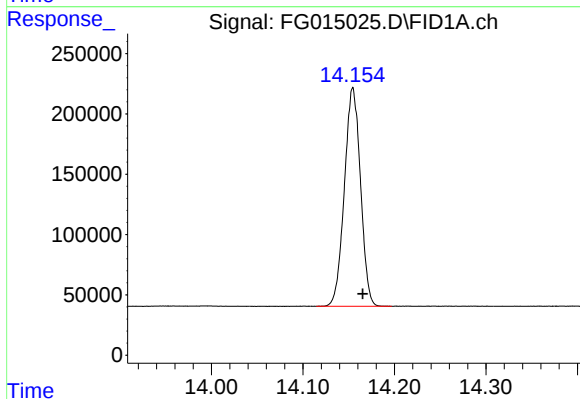
#6 N-OCTADECANE

R.T.: 11.635 min  
Delta R.T.: -0.011 min  
Response: 2246336  
Conc: 15.21 ug/ml



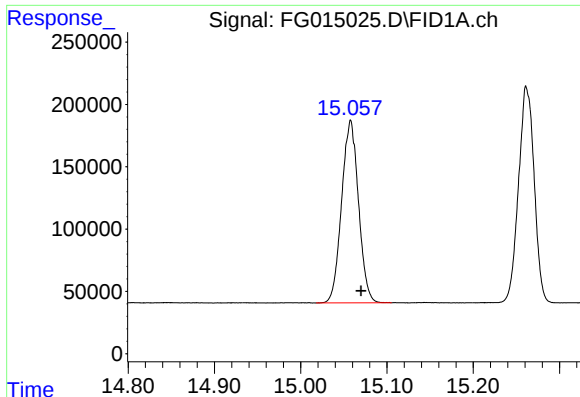
#7 N-EICOSANE

R.T.: 12.952 min  
Delta R.T.: -0.011 min  
Response: 2286089  
Conc: 15.56 ug/ml



#8 N-DOCOSANE

R.T.: 14.154 min  
Delta R.T.: -0.011 min  
Response: 2215959  
Conc: 15.07 ug/ml



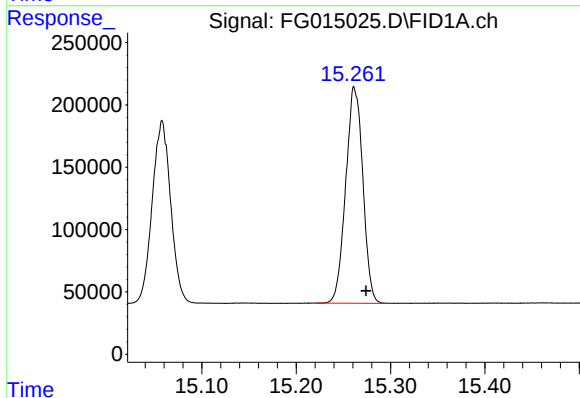
#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.058 min  
Delta R.T.: -0.012 min  
Response: 1989782  
Conc: 14.89 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BS

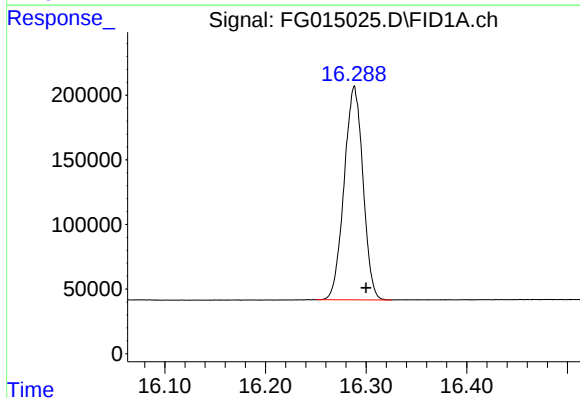
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



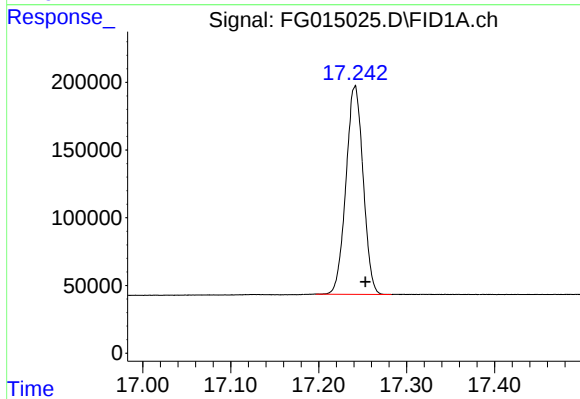
#10 N-TETRACOSANE

R.T.: 15.262 min  
Delta R.T.: -0.012 min  
Response: 2189399  
Conc: 14.79 ug/ml



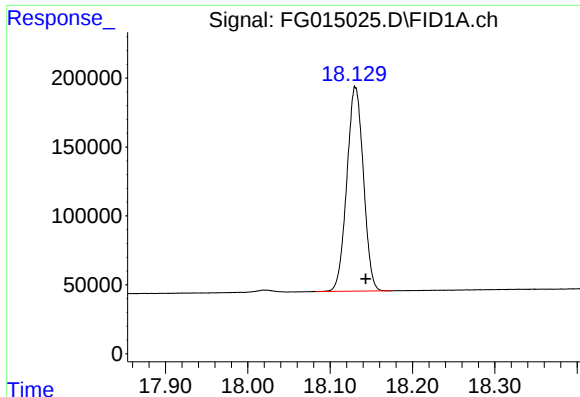
#11 N-HEXACOSANE

R.T.: 16.288 min  
Delta R.T.: -0.012 min  
Response: 2149912  
Conc: 14.64 ug/ml



#12 N-OCTACOSANE

R.T.: 17.241 min  
Delta R.T.: -0.012 min  
Response: 2085348  
Conc: 14.24 ug/ml



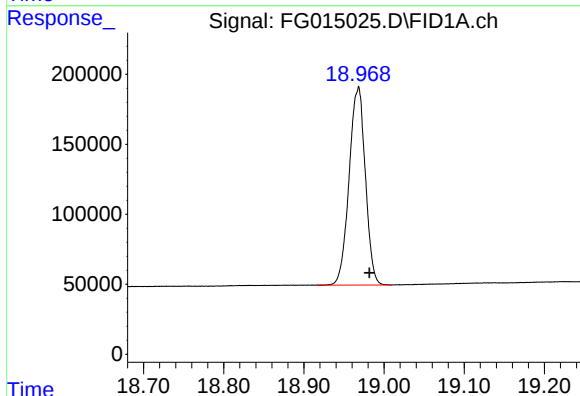
#13 N-TRIACONTANE

R.T.: 18.131 min  
Delta R.T.: -0.013 min  
Response: 2073701  
Conc: 14.06 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BS

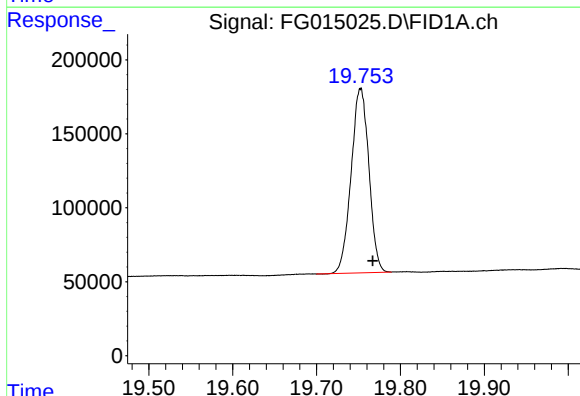
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



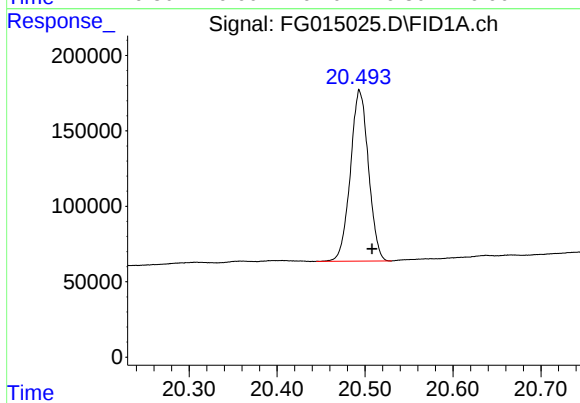
#14 N-DOTRIACONTANE

R.T.: 18.968 min  
Delta R.T.: -0.014 min  
Response: 1988161  
Conc: 13.78 ug/ml



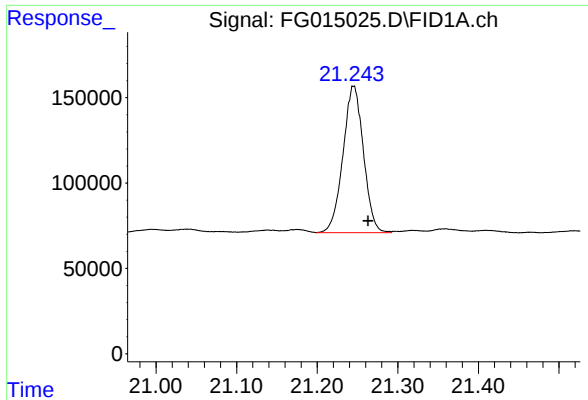
#15 N-TETRATRIACONTANE

R.T.: 19.752 min  
Delta R.T.: -0.014 min  
Response: 1832567  
Conc: 14.11 ug/ml



#16 N-HEXATRIACONTANE

R.T.: 20.494 min  
Delta R.T.: -0.014 min  
Response: 1617859  
Conc: 14.49 ug/ml



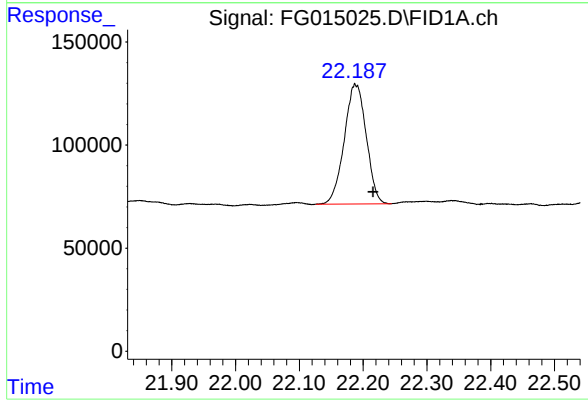
#17 N-OCTATRIACONTANE

R.T.: 21.243 min  
Delta R.T.: -0.020 min  
Response: 1516224  
Conc: 14.82 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
PB165807BS

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



#18 N-TETRACONTANE

R.T.: 22.187 min  
Delta R.T.: -0.029 min  
Response: 1388494  
Conc: 14.48 ug/ml

Instrument :

FID\_G

ClientSampleId :

PB165807BS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024

Supervised By :Ankita Jodhani 12/27/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG015025.D  
Data File : FG015025.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 16:12  
Sample : PB165807BS  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br>#               | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-------------------------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1                       | 2.016       | 1.983        | 2.069      | BB       | 111016         | 1265987      | 55.38%         | 3.631%        |
| 2                       | 4.551       | 4.520        | 4.588      | BB       | 172116         | 1794918      | 78.51%         | 5.148%        |
| 3                       | 6.732       | 6.696        | 6.767      | BB       | 197103         | 1993607      | 87.21%         | 5.718%        |
| 4                       | 8.570       | 8.533        | 8.604      | BB       | 202596         | 2106495      | 92.14%         | 6.041%        |
| 5                       | 10.185      | 10.150       | 10.225     | BB       | 198167         | 2175964      | 95.18%         | 6.241%        |
| 6                       | 11.635      | 11.599       | 11.675     | BB       | 194951         | 2246336      | 98.26%         | 6.442%        |
| 7                       | 12.952      | 12.915       | 12.995     | BB       | 194592         | 2286089      | 100.00%        | 6.556%        |
| 8                       | 14.154      | 14.115       | 14.197     | BB       | 181314         | 2215959      | 96.93%         | 6.355%        |
| 9                       | 15.058      | 15.018       | 15.105     | BB       | 146682         | 1989782      | 87.04%         | 5.707%        |
| 10                      | 15.262      | 15.221       | 15.301     | BB       | 173376         | 2189399      | 95.77%         | 6.279%        |
| 11                      | 16.288      | 16.250       | 16.325     | BB       | 164999         | 2149912      | 94.04%         | 6.166%        |
| 12                      | 17.241      | 17.197       | 17.283     | BB       | 153447         | 2085348      | 91.22%         | 5.981%        |
| 13                      | 18.131      | 18.083       | 18.175     | BB       | 147876         | 2073701      | 90.71%         | 5.947%        |
| 14                      | 18.968      | 18.915       | 19.009     | BB       | 141298         | 1988161      | 86.97%         | 5.702%        |
| 15                      | 19.752      | 19.700       | 19.790     | BB       | 124437         | 1832567      | 80.16%         | 5.256%        |
| 16                      | 20.494      | 20.445       | 20.530     | BB       | 113209         | 1617859      | 70.77%         | 4.640%        |
| 17                      | 21.245      | 21.187       | 21.293     | BB       | 84863          | 1467581      | 64.20%         | 4.209%        |
| 18                      | 22.187      | 22.126       | 22.245     | BB       | 58448          | 1388494      | 60.74%         | 3.982%        |
| Sum of corrected areas: |             |              |            |          |                |              | 34868161       |               |

FG121924.M Tue Dec 24 01:04:28 2024

## Report of Analysis

|                    |                                                 |                    |          |
|--------------------|-------------------------------------------------|--------------------|----------|
| Client:            | PARSONS Engineering of New York, Inc.           | Date Collected:    | 12/19/24 |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 | Date Received:     | 12/19/24 |
| Client Sample ID:  | SB-01-20241219-9.0-9.5MS                        | SDG No.:           | P5361    |
| Lab Sample ID:     | P5361-02MS                                      | Matrix:            | SOIL     |
| Analytical Method: | 8015D TPH                                       | % Solid:           | 87.1     |
| Sample Wt/Vol:     | 30.03 Units: g                                  | Final Vol:         | 1 mL     |
| Soil Aliquot Vol:  | uL                                              | Test:              | TPH GC   |
| Extraction Type:   |                                                 | Injection Volume : |          |
| GPC Factor :       | PH :                                            |                    |          |
| Prep Method :      | SW3541                                          |                    |          |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| FG015020.D        | 1         | 12/23/24 08:35 | 12/23/24 13:23 | PB165807      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|-------------------|------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>    |                        |       |           |          |            |                   |
| PHC               | Petroleum Hydrocarbons | 15200 |           | 365      | 3250       | ug/kg             |
| <b>SURROGATES</b> |                        |       |           |          |            |                   |
| 16416-32-3        | TETRACOSANE-d50        | 9.45  |           | 37 - 130 | 47%        | SPK: 20           |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
 Data File : FG015020.D  
 Signal(s) : FID1A.ch  
 Acq On : 23 Dec 2024 13:23  
 Operator : YP\AJ  
 Sample : P5361-02MS  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 FID\_G  
 ClientSampleId :  
 SB-01-20241219-9.0-9.5MS

Manual Integrations  
 APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
 Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
 Quant Time: Dec 24 00:28:07 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
 Quant Title :  
 QLast Update : Thu Dec 19 16:42:40 2024  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1uL  
 Signal Phase : Rxi-1ms  
 Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units    |
|-------------------------------|--------|----------|---------------|
| -----                         |        |          |               |
| System Monitoring Compounds   |        |          |               |
| 9) S TETRACOSANE-d50 (SURR... | 15.058 | 1262473  | 9.446 ug/mlm  |
| Target Compounds              |        |          |               |
| 1) N-OCTANE                   | 2.017  | 1346138  | 10.958 ug/ml  |
| 2) N-DECANE                   | 4.553  | 1662540  | 13.115 ug/ml  |
| 3) N-DODECANE                 | 6.735  | 1779024  | 13.267 ug/ml  |
| 4) N-TETRADECANE              | 8.572  | 1946590  | 14.503 ug/ml  |
| 5) N-HEXADECANE               | 10.187 | 1926365  | 13.746 ug/ml  |
| 6) N-OCTADECANE               | 11.637 | 1980670  | 13.413 ug/ml  |
| 7) N-EICOSANE                 | 12.953 | 2002002  | 13.628 ug/ml  |
| 8) N-DOCOSANE                 | 14.157 | 1924993  | 13.087 ug/ml  |
| 10) N-TETRACOSANE             | 15.263 | 1891202  | 12.779 ug/ml  |
| 11) N-HEXACOSANE              | 16.289 | 1878562  | 12.795 ug/ml  |
| 12) N-OCTACOSANE              | 17.242 | 1801331  | 12.301 ug/ml  |
| 13) N-TRIACONTANE             | 18.132 | 1795413  | 12.176 ug/ml  |
| 14) N-DOTRIACONTANE           | 18.967 | 1815327  | 12.580 ug/ml  |
| 15) N-TETRATRIACONTANE        | 19.754 | 1786002  | 13.749 ug/mlm |
| 16) N-HEXATRIACONTANE         | 20.493 | 1732422  | 15.514 ug/mlm |
| 17) N-OCTATRIACONTANE         | 21.248 | 1637479  | 16.010 ug/mlm |
| 18) N-TETRACONTANE            | 22.188 | 1786173  | 18.632 ug/mlm |
| -----                         |        |          |               |

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015020.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 13:23  
Operator : YP\AJ  
Sample : P5361-02MS  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

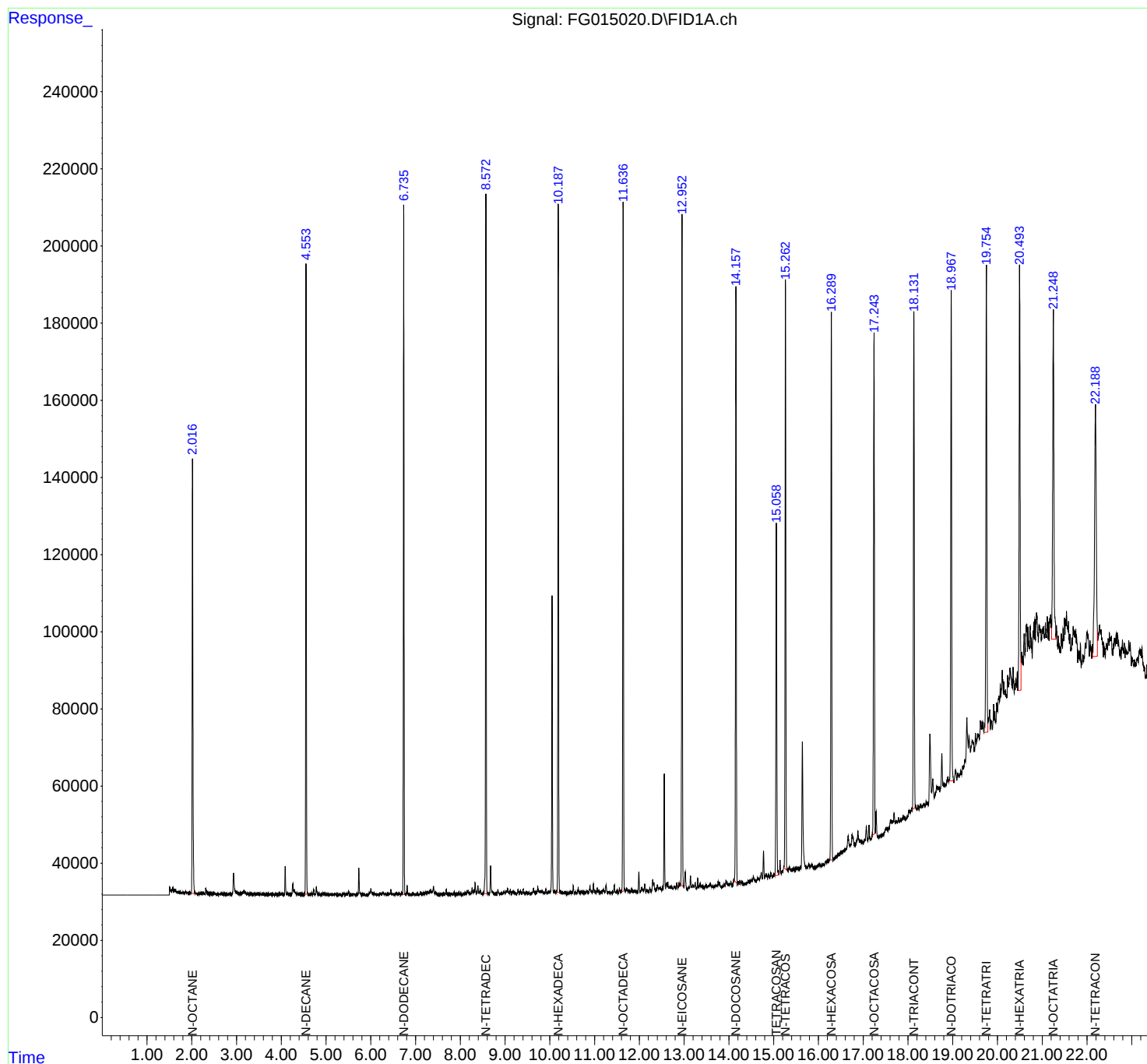
Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

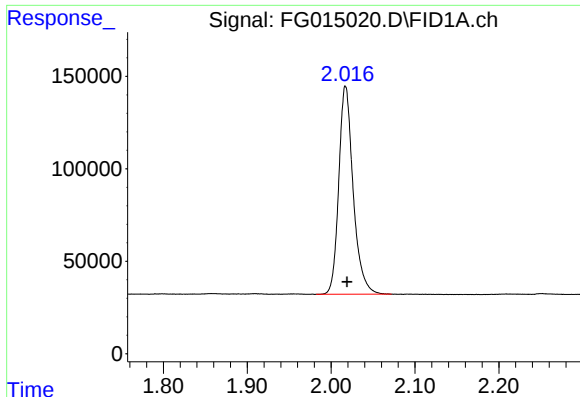
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:28:07 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





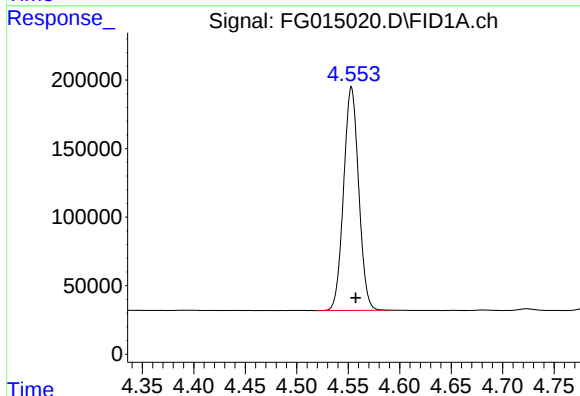
#1 N-OCTANE

R.T.: 2.017 min  
Delta R.T.: -0.002 min  
Response: 1346138  
Conc: 10.96 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

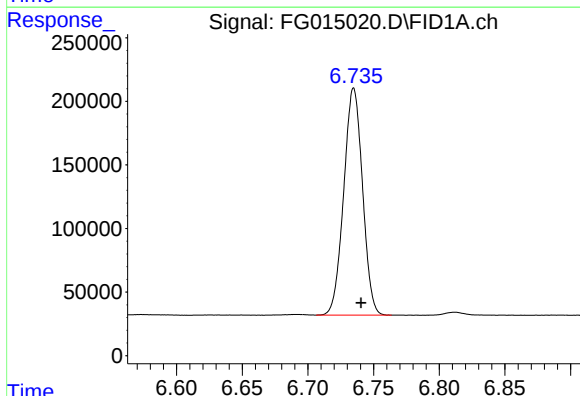
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



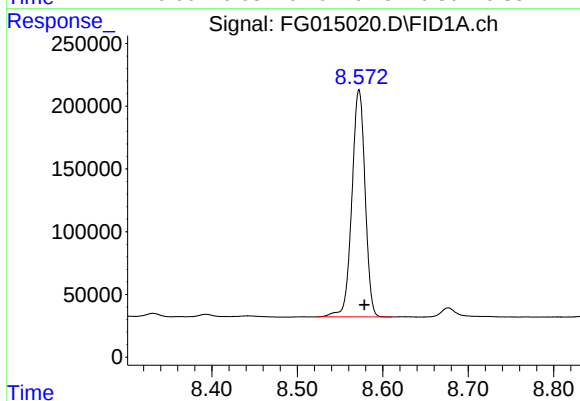
#2 N-DECANE

R.T.: 4.553 min  
Delta R.T.: -0.004 min  
Response: 1662540  
Conc: 13.11 ug/ml



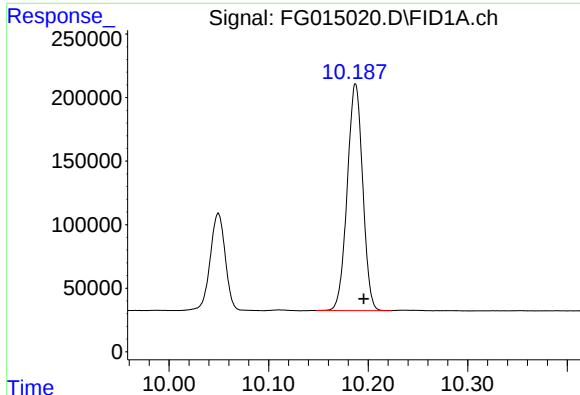
#3 N-DODECANE

R.T.: 6.735 min  
Delta R.T.: -0.006 min  
Response: 1779024  
Conc: 13.27 ug/ml



#4 N-TETRADECANE

R.T.: 8.572 min  
Delta R.T.: -0.006 min  
Response: 1946590  
Conc: 14.50 ug/ml



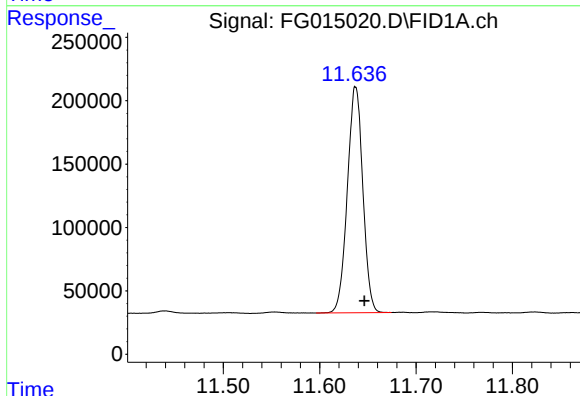
#5 N-HEXADECANE

R.T.: 10.187 min  
Delta R.T.: -0.008 min  
Response: 1926365  
Conc: 13.75 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

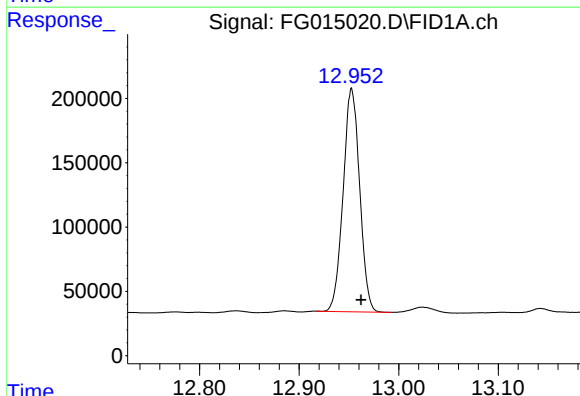
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



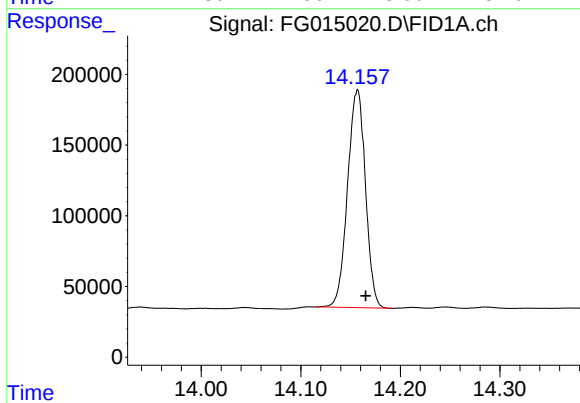
#6 N-OCTADECANE

R.T.: 11.637 min  
Delta R.T.: -0.009 min  
Response: 1980670  
Conc: 13.41 ug/ml



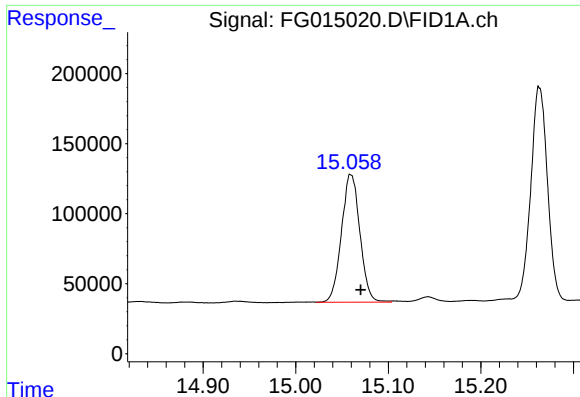
#7 N-EICOSANE

R.T.: 12.953 min  
Delta R.T.: -0.010 min  
Response: 2002002  
Conc: 13.63 ug/ml



#8 N-DOCOSANE

R.T.: 14.157 min  
Delta R.T.: -0.008 min  
Response: 1924993  
Conc: 13.09 ug/ml



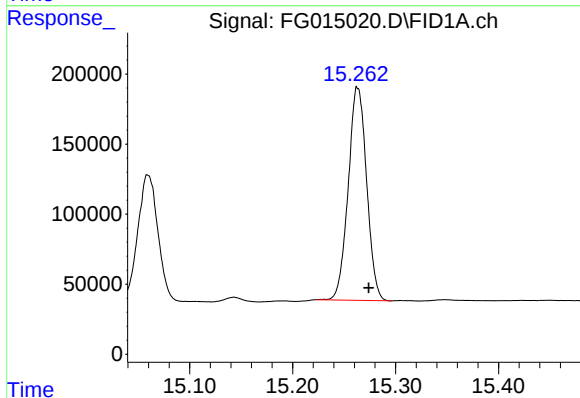
#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.058 min  
Delta R.T.: -0.012 min  
Response: 1262473  
Conc: 9.45 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

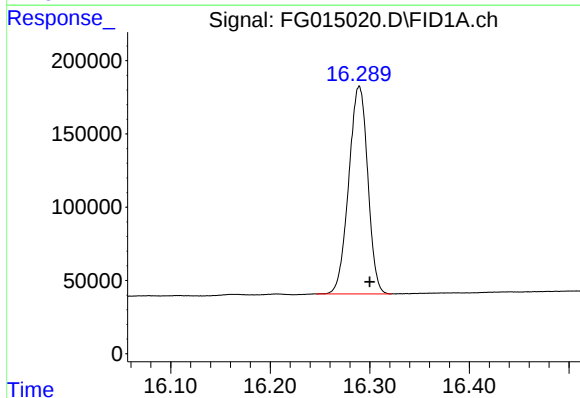
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



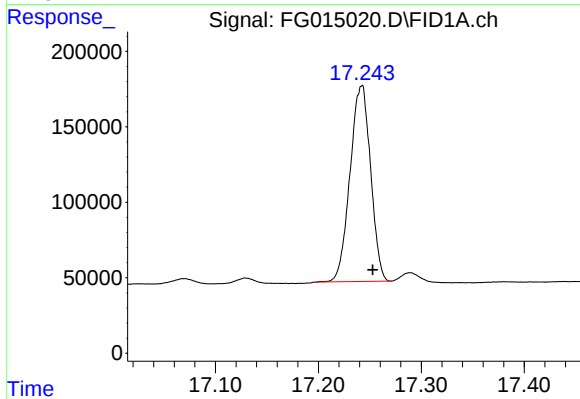
#10 N-TETRACOSANE

R.T.: 15.263 min  
Delta R.T.: -0.011 min  
Response: 1891202  
Conc: 12.78 ug/ml



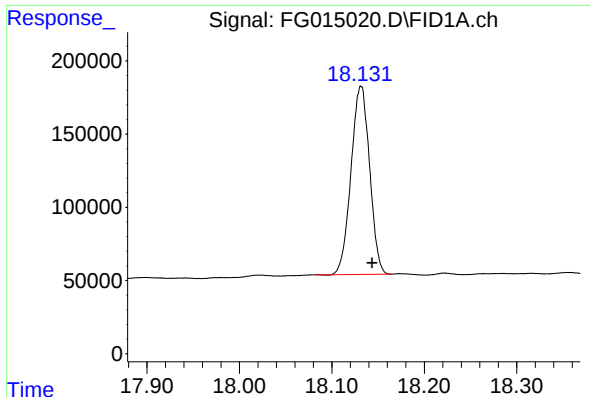
#11 N-HEXACOSANE

R.T.: 16.289 min  
Delta R.T.: -0.011 min  
Response: 1878562  
Conc: 12.79 ug/ml



#12 N-OCTACOSANE

R.T.: 17.242 min  
Delta R.T.: -0.011 min  
Response: 1801331  
Conc: 12.30 ug/ml



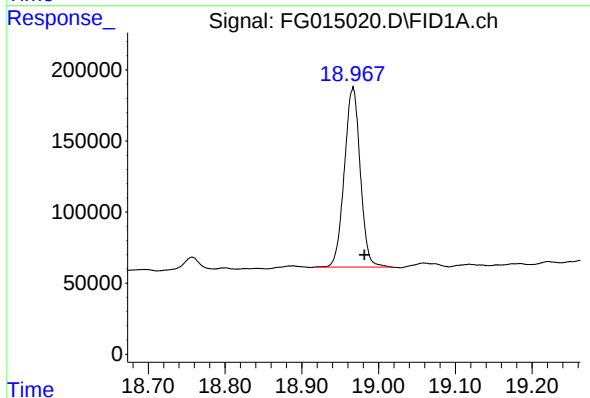
#13 N-TRIACONTANE

R.T.: 18.132 min  
Delta R.T.: -0.012 min  
Response: 1795413  
Conc: 12.18 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

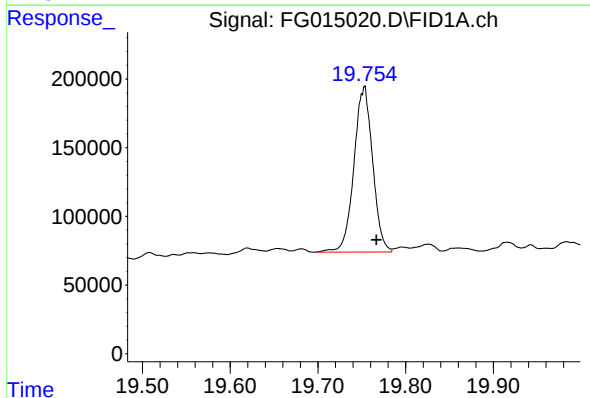
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



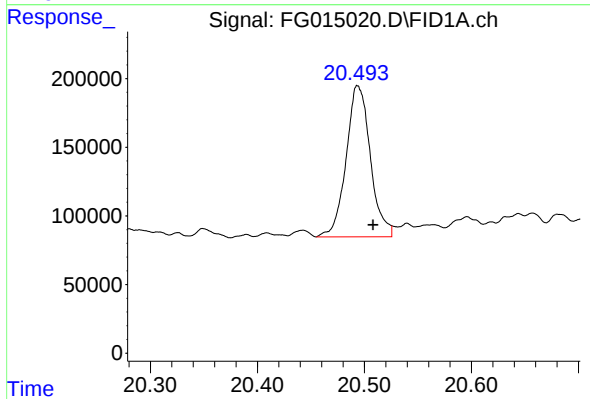
#14 N-DOTRIACONTANE

R.T.: 18.967 min  
Delta R.T.: -0.015 min  
Response: 1815327  
Conc: 12.58 ug/ml



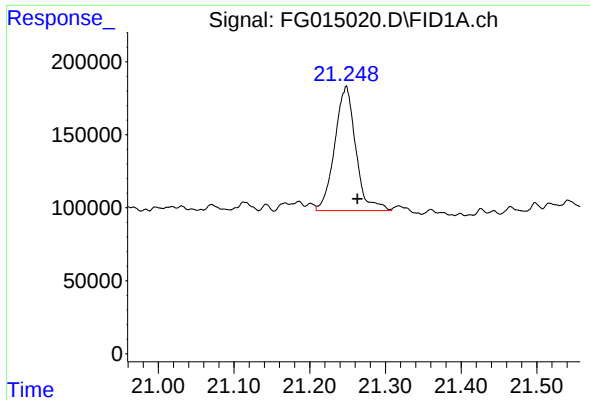
#15 N-TETRATRIACONTANE

R.T.: 19.754 min  
Delta R.T.: -0.013 min  
Response: 1786002  
Conc: 13.75 ug/ml m



#16 N-HEXATRIACONTANE

R.T.: 20.493 min  
Delta R.T.: -0.015 min  
Response: 1732422  
Conc: 15.51 ug/ml m



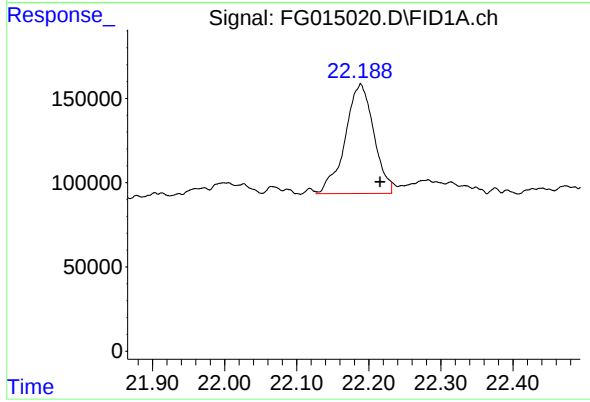
#17 N-OCTATRIACONTANE

R.T.: 21.248 min  
Delta R.T.: -0.015 min  
Response: 1637479  
Conc: 16.01 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024



#18 N-TETRACONTANE

R.T.: 22.188 min  
Delta R.T.: -0.028 min  
Response: 1786173  
Conc: 18.63 ug/ml m

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG015020.D  
Data File : FG015020.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 13:23  
Sample : P5361-02MS  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak # | R.T. min | Start min | End min | PK TY | peak height | peak area | peak % max. | % of total |
|--------|----------|-----------|---------|-------|-------------|-----------|-------------|------------|
| 1      | 1.909    | 1.900     | 1.931   | BV    | 189         | 1292      | 0.05%       | 0.002%     |
| 2      | 1.936    | 1.931     | 1.941   | PV    | 72          | 251       | 0.01%       | 0.000%     |
| 3      | 1.956    | 1.941     | 1.973   | PV    | 220         | 2237      | 0.09%       | 0.004%     |
| 4      | 1.977    | 1.973     | 1.982   | VV    | 122         | 239       | 0.01%       | 0.000%     |
| 5      | 2.017    | 1.982     | 2.086   | PV    | 112550      | 1352134   | 55.51%      | 2.481%     |
| 6      | 2.091    | 2.086     | 2.163   | VV    | 198         | 4908      | 0.20%       | 0.009%     |
| 7      | 2.166    | 2.163     | 2.170   | VV    | 114         | 293       | 0.01%       | 0.001%     |
| 8      | 2.174    | 2.170     | 2.180   | PV    | 150         | 341       | 0.01%       | 0.001%     |
| 9      | 2.209    | 2.180     | 2.239   | VV    | 371         | 7689      | 0.32%       | 0.014%     |
| 10     | 2.251    | 2.239     | 2.282   | VV    | 552         | 8568      | 0.35%       | 0.016%     |
| 11     | 2.294    | 2.282     | 2.299   | VV    | 215         | 1632      | 0.07%       | 0.003%     |
| 12     | 2.314    | 2.299     | 2.412   | VV    | 1590        | 29258     | 1.20%       | 0.054%     |
| 13     | 2.414    | 2.412     | 2.428   | VV    | 131         | 935       | 0.04%       | 0.002%     |
| 14     | 2.439    | 2.428     | 2.445   | VV    | 192         | 1511      | 0.06%       | 0.003%     |
| 15     | 2.456    | 2.445     | 2.468   | VV    | 286         | 2661      | 0.11%       | 0.005%     |
| 16     | 2.490    | 2.468     | 2.500   | VV    | 287         | 4606      | 0.19%       | 0.008%     |
| 17     | 2.506    | 2.500     | 2.570   | VV    | 280         | 4565      | 0.19%       | 0.008%     |
| 18     | 2.584    | 2.570     | 2.589   | VV    | 137         | 846       | 0.03%       | 0.002%     |
| 19     | 2.595    | 2.589     | 2.603   | VV    | 119         | 890       | 0.04%       | 0.002%     |
| 20     | 2.607    | 2.603     | 2.611   | VV    | 151         | 596       | 0.02%       | 0.001%     |
| 21     | 2.619    | 2.611     | 2.634   | VV    | 148         | 1521      | 0.06%       | 0.003%     |
| 22     | 2.647    | 2.634     | 2.657   | PV    | 221         | 1784      | 0.07%       | 0.003%     |
| 23     | 2.664    | 2.657     | 2.691   | VV    | 198         | 2429      | 0.10%       | 0.004%     |
| 24     | 2.697    | 2.691     | 2.706   | VV    | 115         | 607       | 0.02%       | 0.001%     |
| 25     | 2.721    | 2.706     | 2.757   | VV    | 320         | 6088      | 0.25%       | 0.011%     |
| 26     | 2.765    | 2.757     | 2.777   | VV    | 99          | 1104      | 0.05%       | 0.002%     |
| 27     | 2.789    | 2.777     | 2.814   | VV    | 202         | 3237      | 0.13%       | 0.006%     |
| 28     | 2.831    | 2.814     | 2.835   | VV    | 208         | 1950      | 0.08%       | 0.004%     |
| 29     | 2.840    | 2.835     | 2.852   | VV    | 255         | 1938      | 0.08%       | 0.004%     |
| 30     | 2.857    | 2.852     | 2.862   | VV    | 229         | 1150      | 0.05%       | 0.002%     |
| 31     | 2.865    | 2.862     | 2.883   | VV    | 197         | 1859      | 0.08%       | 0.003%     |

|    |       |       |       |    |        |         |        |        |
|----|-------|-------|-------|----|--------|---------|--------|--------|
| 32 | 2.933 | 2.883 | 2.997 | VV | 5610   | 109050  | 4.48%  | 0.200% |
| 33 | 3.007 | 2.997 | 3.054 | VV | 733    | 1657    |        |        |
| 34 | 3.058 | 3.054 | 3.081 | VV | 355    | 468     |        |        |
| 35 | 3.090 | 3.081 | 3.105 | VV | 379    | 426     |        |        |
| 36 | 3.126 | 3.105 | 3.147 | VV | 563    | 1108    |        |        |
| 37 | 3.162 | 3.147 | 3.203 | VV | 944    | 19820   | 0.81%  | 0.036% |
| 38 | 3.210 | 3.203 | 3.229 | VV | 359    | 4029    | 0.17%  | 0.007% |
| 39 | 3.244 | 3.229 | 3.256 | VV | 256    | 3533    | 0.15%  | 0.006% |
| 40 | 3.270 | 3.256 | 3.275 | VV | 363    | 2808    | 0.12%  | 0.005% |
| 41 | 3.281 | 3.275 | 3.301 | VV | 311    | 4057    | 0.17%  | 0.007% |
| 42 | 3.306 | 3.301 | 3.314 | VV | 254    | 1798    | 0.07%  | 0.003% |
| 43 | 3.338 | 3.314 | 3.362 | VV | 238    | 4902    | 0.20%  | 0.009% |
| 44 | 3.367 | 3.362 | 3.380 | VV | 153    | 1437    | 0.06%  | 0.003% |
| 45 | 3.396 | 3.380 | 3.430 | VV | 194    | 3986    | 0.16%  | 0.007% |
| 46 | 3.473 | 3.430 | 3.505 | VV | 258    | 7412    | 0.30%  | 0.014% |
| 47 | 3.512 | 3.505 | 3.520 | VV | 225    | 1575    | 0.06%  | 0.003% |
| 48 | 3.531 | 3.520 | 3.536 | VV | 223    | 1781    | 0.07%  | 0.003% |
| 49 | 3.544 | 3.536 | 3.550 | VV | 245    | 1530    | 0.06%  | 0.003% |
| 50 | 3.575 | 3.550 | 3.622 | VV | 314    | 8713    | 0.36%  | 0.016% |
| 51 | 3.649 | 3.622 | 3.677 | VV | 294    | 6752    | 0.28%  | 0.012% |
| 52 | 3.699 | 3.677 | 3.703 | VV | 216    | 2369    | 0.10%  | 0.004% |
| 53 | 3.710 | 3.703 | 3.745 | VV | 313    | 5910    | 0.24%  | 0.011% |
| 54 | 3.749 | 3.745 | 3.760 | VV | 246    | 1411    | 0.06%  | 0.003% |
| 55 | 3.771 | 3.760 | 3.777 | VV | 206    | 1688    | 0.07%  | 0.003% |
| 56 | 3.783 | 3.777 | 3.810 | VV | 210    | 2951    | 0.12%  | 0.005% |
| 57 | 3.813 | 3.810 | 3.837 | VV | 137    | 1953    | 0.08%  | 0.004% |
| 58 | 3.866 | 3.837 | 3.916 | VV | 269    | 7169    | 0.29%  | 0.013% |
| 59 | 3.919 | 3.916 | 3.942 | VV | 214    | 1684    | 0.07%  | 0.003% |
| 60 | 3.959 | 3.942 | 3.990 | VV | 426    | 6226    | 0.26%  | 0.011% |
| 61 | 4.011 | 3.990 | 4.039 | VV | 276    | 4077    | 0.17%  | 0.007% |
| 62 | 4.050 | 4.039 | 4.056 | VV | 185    | 1090    | 0.04%  | 0.002% |
| 63 | 4.087 | 4.056 | 4.130 | VV | 7429   | 78751   | 3.23%  | 0.144% |
| 64 | 4.142 | 4.130 | 4.175 | VV | 530    | 8679    | 0.36%  | 0.016% |
| 65 | 4.194 | 4.175 | 4.223 | VV | 241    | 4545    | 0.19%  | 0.008% |
| 66 | 4.256 | 4.223 | 4.282 | PV | 2785   | 46416   | 1.91%  | 0.085% |
| 67 | 4.294 | 4.282 | 4.376 | VV | 1161   | 29648   | 1.22%  | 0.054% |
| 68 | 4.395 | 4.376 | 4.412 | VV | 415    | 6435    | 0.26%  | 0.012% |
| 69 | 4.415 | 4.412 | 4.432 | VV | 295    | 2485    | 0.10%  | 0.005% |
| 70 | 4.443 | 4.432 | 4.460 | VV | 249    | 3116    | 0.13%  | 0.006% |
| 71 | 4.463 | 4.460 | 4.468 | VV | 173    | 771     | 0.03%  | 0.001% |
| 72 | 4.472 | 4.468 | 4.477 | VV | 232    | 822     | 0.03%  | 0.002% |
| 73 | 4.487 | 4.477 | 4.490 | VV | 200    | 1297    | 0.05%  | 0.002% |
| 74 | 4.499 | 4.490 | 4.519 | VV | 261    | 3288    | 0.13%  | 0.006% |
| 75 | 4.553 | 4.519 | 4.621 | VV | 163506 | 1680179 | 68.98% | 3.083% |
| 76 | 4.626 | 4.621 | 4.648 | VV | 266    | 3559    | 0.15%  | 0.007% |
| 77 | 4.652 | 4.648 | 4.666 | VV | 324    | 2566    | 0.11%  | 0.005% |
| 78 | 4.680 | 4.666 | 4.702 | VV | 565    | 7741    | 0.32%  | 0.014% |
| 79 | 4.723 | 4.702 | 4.763 | VV | 1464   | 20292   | 0.83%  | 0.037% |

Instrument :

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ClientSampleId :

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Manual IntegrationsAPPROVED

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Supervised By :Ankita Jodhani 12/27/2024

|     |       |       |       |    |      |       |       |        |
|-----|-------|-------|-------|----|------|-------|-------|--------|
| 80  | 4.782 | 4.763 | 4.831 | VV | 2156 | 32751 | 1.34% | 0.060% |
| 81  | 4.836 | 4.831 | 4.845 | VV | 294  | 212   |       |        |
| 82  | 4.850 | 4.845 | 4.894 | VV | 248  | 598   |       |        |
| 83  | 4.900 | 4.894 | 4.908 | VV | 230  | 179   |       |        |
| 84  | 4.943 | 4.908 | 4.957 | VV | 543  | 1173  |       |        |
| 85  | 4.967 | 4.957 | 4.996 | VV | 425  | 7201  | 0.30% | 0.013% |
| 86  | 5.003 | 4.996 | 5.036 | VV | 250  | 4217  | 0.17% | 0.008% |
| 87  | 5.056 | 5.036 | 5.082 | VV | 239  | 4836  | 0.20% | 0.009% |
| 88  | 5.090 | 5.082 | 5.094 | VV | 195  | 1141  | 0.05% | 0.002% |
| 89  | 5.101 | 5.094 | 5.114 | VV | 182  | 1963  | 0.08% | 0.004% |
| 90  | 5.115 | 5.114 | 5.140 | VV | 206  | 2162  | 0.09% | 0.004% |
| 91  | 5.143 | 5.140 | 5.155 | VV | 199  | 1504  | 0.06% | 0.003% |
| 92  | 5.158 | 5.155 | 5.167 | VV | 154  | 880   | 0.04% | 0.002% |
| 93  | 5.171 | 5.167 | 5.176 | VV | 181  | 806   | 0.03% | 0.001% |
| 94  | 5.207 | 5.176 | 5.234 | VV | 408  | 9389  | 0.39% | 0.017% |
| 95  | 5.241 | 5.234 | 5.259 | VV | 630  | 2587  | 0.11% | 0.005% |
| 96  | 5.265 | 5.259 | 5.280 | VV | 138  | 1444  | 0.06% | 0.003% |
| 97  | 5.283 | 5.280 | 5.297 | VV | 144  | 1113  | 0.05% | 0.002% |
| 98  | 5.313 | 5.297 | 5.337 | VV | 311  | 4354  | 0.18% | 0.008% |
| 99  | 5.341 | 5.337 | 5.344 | VV | 62   | 209   | 0.01% | 0.000% |
| 100 | 5.379 | 5.344 | 5.386 | VV | 283  | 4157  | 0.17% | 0.008% |
| 101 | 5.399 | 5.386 | 5.425 | VV | 489  | 6537  | 0.27% | 0.012% |
| 102 | 5.442 | 5.425 | 5.457 | VV | 454  | 5580  | 0.23% | 0.010% |
| 103 | 5.460 | 5.457 | 5.477 | VV | 335  | 2594  | 0.11% | 0.005% |
| 104 | 5.500 | 5.477 | 5.528 | VV | 965  | 14648 | 0.60% | 0.027% |
| 105 | 5.538 | 5.528 | 5.550 | VV | 343  | 2109  | 0.09% | 0.004% |
| 106 | 5.563 | 5.550 | 5.584 | VV | 324  | 3807  | 0.16% | 0.007% |
| 107 | 5.604 | 5.584 | 5.616 | VV | 400  | 4435  | 0.18% | 0.008% |
| 108 | 5.629 | 5.616 | 5.671 | VV | 378  | 5762  | 0.24% | 0.011% |
| 109 | 5.677 | 5.671 | 5.681 | VV | 50   | 214   | 0.01% | 0.000% |
| 110 | 5.698 | 5.681 | 5.713 | PV | 555  | 5974  | 0.25% | 0.011% |
| 111 | 5.733 | 5.713 | 5.794 | VV | 7119 | 81441 | 3.34% | 0.149% |
| 112 | 5.810 | 5.794 | 5.841 | VV | 431  | 6539  | 0.27% | 0.012% |
| 113 | 5.845 | 5.841 | 5.851 | VV | 150  | 529   | 0.02% | 0.001% |
| 114 | 5.859 | 5.851 | 5.873 | VV | 166  | 1380  | 0.06% | 0.003% |
| 115 | 5.890 | 5.873 | 5.904 | VV | 194  | 1306  | 0.05% | 0.002% |
| 116 | 5.913 | 5.904 | 5.939 | VV | 101  | 1336  | 0.05% | 0.002% |
| 117 | 5.969 | 5.939 | 5.980 | VV | 704  | 10219 | 0.42% | 0.019% |
| 118 | 6.002 | 5.980 | 6.025 | VV | 1765 | 26293 | 1.08% | 0.048% |
| 119 | 6.028 | 6.025 | 6.050 | VV | 694  | 7238  | 0.30% | 0.013% |
| 120 | 6.069 | 6.050 | 6.090 | VV | 528  | 8745  | 0.36% | 0.016% |
| 121 | 6.094 | 6.090 | 6.100 | VV | 201  | 1198  | 0.05% | 0.002% |
| 122 | 6.116 | 6.100 | 6.130 | VV | 300  | 3688  | 0.15% | 0.007% |
| 123 | 6.134 | 6.130 | 6.157 | VV | 222  | 2793  | 0.11% | 0.005% |
| 124 | 6.170 | 6.157 | 6.178 | VV | 263  | 2650  | 0.11% | 0.005% |
| 125 | 6.182 | 6.178 | 6.195 | VV | 264  | 2202  | 0.09% | 0.004% |
| 126 | 6.210 | 6.195 | 6.224 | VV | 450  | 5726  | 0.24% | 0.011% |

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|     |       |       |       |    |        |         |        |        |
|-----|-------|-------|-------|----|--------|---------|--------|--------|
| 127 | 6.235 | 6.224 | 6.246 | VV | 479    | 4804    | 0.20%  | 0.009% |
| 128 | 6.273 | 6.246 | 6.314 | VV | 705    | 1645    |        |        |
| 129 | 6.316 | 6.314 | 6.319 | VV | 315    | 88      |        |        |
| 130 | 6.324 | 6.319 | 6.345 | VV | 350    | 350     |        |        |
| 131 | 6.378 | 6.345 | 6.383 | VV | 399    | 691     |        |        |
| 132 | 6.388 | 6.383 | 6.412 | VV | 365    | 4655    | 0.19%  | 0.009% |
| 133 | 6.425 | 6.412 | 6.431 | VV | 394    | 3490    | 0.14%  | 0.006% |
| 134 | 6.448 | 6.431 | 6.479 | VV | 1465   | 18865   | 0.77%  | 0.035% |
| 135 | 6.500 | 6.479 | 6.531 | VV | 401    | 7372    | 0.30%  | 0.014% |
| 136 | 6.539 | 6.531 | 6.551 | VV | 262    | 2589    | 0.11%  | 0.005% |
| 137 | 6.573 | 6.551 | 6.610 | VV | 689    | 13605   | 0.56%  | 0.025% |
| 138 | 6.625 | 6.610 | 6.639 | VV | 350    | 4393    | 0.18%  | 0.008% |
| 139 | 6.641 | 6.639 | 6.648 | VV | 263    | 1205    | 0.05%  | 0.002% |
| 140 | 6.649 | 6.648 | 6.667 | VV | 327    | 2277    | 0.09%  | 0.004% |
| 141 | 6.692 | 6.667 | 6.707 | VV | 756    | 10832   | 0.44%  | 0.020% |
| 142 | 6.735 | 6.707 | 6.787 | VV | 178969 | 1788576 | 73.43% | 3.282% |
| 143 | 6.812 | 6.787 | 6.870 | VV | 2488   | 31000   | 1.27%  | 0.057% |
| 144 | 6.893 | 6.870 | 6.901 | VV | 211    | 3102    | 0.13%  | 0.006% |
| 145 | 6.937 | 6.901 | 6.954 | VV | 326    | 6213    | 0.26%  | 0.011% |
| 146 | 6.963 | 6.954 | 6.976 | VV | 296    | 3052    | 0.13%  | 0.006% |
| 147 | 6.979 | 6.976 | 6.987 | VV | 121    | 691     | 0.03%  | 0.001% |
| 148 | 7.009 | 6.987 | 7.021 | VV | 259    | 3689    | 0.15%  | 0.007% |
| 149 | 7.026 | 7.021 | 7.030 | VV | 222    | 1000    | 0.04%  | 0.002% |
| 150 | 7.053 | 7.030 | 7.071 | VV | 270    | 5944    | 0.24%  | 0.011% |
| 151 | 7.073 | 7.071 | 7.081 | VV | 306    | 1181    | 0.05%  | 0.002% |
| 152 | 7.108 | 7.081 | 7.128 | VV | 724    | 11490   | 0.47%  | 0.021% |
| 153 | 7.135 | 7.128 | 7.161 | VV | 368    | 4859    | 0.20%  | 0.009% |
| 154 | 7.175 | 7.161 | 7.205 | VV | 417    | 8610    | 0.35%  | 0.016% |
| 155 | 7.224 | 7.205 | 7.249 | VV | 764    | 14674   | 0.60%  | 0.027% |
| 156 | 7.268 | 7.249 | 7.300 | VV | 756    | 19833   | 0.81%  | 0.036% |
| 157 | 7.335 | 7.300 | 7.356 | VV | 1104   | 29647   | 1.22%  | 0.054% |
| 158 | 7.362 | 7.356 | 7.369 | VV | 745    | 5870    | 0.24%  | 0.011% |
| 159 | 7.400 | 7.369 | 7.427 | VV | 2217   | 42835   | 1.76%  | 0.079% |
| 160 | 7.437 | 7.427 | 7.452 | VV | 756    | 9449    | 0.39%  | 0.017% |
| 161 | 7.458 | 7.452 | 7.482 | VV | 631    | 6326    | 0.26%  | 0.012% |
| 162 | 7.486 | 7.482 | 7.499 | VV | 176    | 1459    | 0.06%  | 0.003% |
| 163 | 7.501 | 7.499 | 7.510 | VV | 205    | 808     | 0.03%  | 0.001% |
| 164 | 7.514 | 7.510 | 7.539 | VV | 161    | 1810    | 0.07%  | 0.003% |
| 165 | 7.571 | 7.539 | 7.595 | VV | 269    | 5199    | 0.21%  | 0.010% |
| 166 | 7.606 | 7.595 | 7.616 | VV | 335    | 2936    | 0.12%  | 0.005% |
| 167 | 7.629 | 7.616 | 7.651 | VV | 381    | 5386    | 0.22%  | 0.010% |
| 168 | 7.656 | 7.651 | 7.661 | VV | 231    | 1061    | 0.04%  | 0.002% |
| 169 | 7.687 | 7.661 | 7.709 | VV | 1519   | 18964   | 0.78%  | 0.035% |
| 170 | 7.722 | 7.709 | 7.729 | VV | 165    | 1534    | 0.06%  | 0.003% |
| 171 | 7.748 | 7.729 | 7.753 | VV | 253    | 2795    | 0.11%  | 0.005% |
| 172 | 7.758 | 7.753 | 7.764 | VV | 239    | 1328    | 0.05%  | 0.002% |
| 173 | 7.776 | 7.764 | 7.790 | VV | 291    | 3535    | 0.15%  | 0.006% |
| 174 | 7.810 | 7.790 | 7.834 | VV | 392    | 7062    | 0.29%  | 0.013% |

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|     |       |       |       |    |        |         |        |        |
|-----|-------|-------|-------|----|--------|---------|--------|--------|
| 175 | 7.860 | 7.834 | 7.885 | VV | 613    | 10260   | 0.42%  | 0.019% |
| 176 | 7.903 | 7.885 | 7.915 | VV | 207    | 233     |        |        |
| 177 | 7.935 | 7.915 | 7.941 | VV | 325    | 355     |        |        |
| 178 | 7.956 | 7.941 | 7.996 | VV | 559    | 1203    |        |        |
| 179 | 8.004 | 7.996 | 8.023 | VV | 325    | 341     |        |        |
| 180 | 8.037 | 8.023 | 8.043 | PV | 143    | 1234    | 0.05%  | 0.002% |
| 181 | 8.050 | 8.043 | 8.065 | VV | 194    | 1984    | 0.08%  | 0.004% |
| 182 | 8.086 | 8.065 | 8.092 | VV | 303    | 3415    | 0.14%  | 0.006% |
| 183 | 8.111 | 8.092 | 8.130 | VV | 501    | 8667    | 0.36%  | 0.016% |
| 184 | 8.172 | 8.130 | 8.200 | VV | 955    | 25741   | 1.06%  | 0.047% |
| 185 | 8.217 | 8.200 | 8.240 | VV | 520    | 9744    | 0.40%  | 0.018% |
| 186 | 8.263 | 8.240 | 8.281 | VV | 1876   | 24039   | 0.99%  | 0.044% |
| 187 | 8.296 | 8.281 | 8.312 | VV | 1078   | 16156   | 0.66%  | 0.030% |
| 188 | 8.331 | 8.312 | 8.353 | VV | 3200   | 41870   | 1.72%  | 0.077% |
| 189 | 8.360 | 8.353 | 8.372 | VV | 613    | 6066    | 0.25%  | 0.011% |
| 190 | 8.393 | 8.372 | 8.423 | VV | 2443   | 35878   | 1.47%  | 0.066% |
| 191 | 8.441 | 8.423 | 8.488 | VV | 1177   | 24862   | 1.02%  | 0.046% |
| 192 | 8.507 | 8.488 | 8.520 | VV | 440    | 6100    | 0.25%  | 0.011% |
| 193 | 8.572 | 8.520 | 8.611 | VV | 181608 | 1966246 | 80.72% | 3.608% |
| 194 | 8.624 | 8.611 | 8.645 | VV | 410    | 7078    | 0.29%  | 0.013% |
| 195 | 8.677 | 8.645 | 8.760 | VV | 7614   | 112845  | 4.63%  | 0.207% |
| 196 | 8.770 | 8.760 | 8.778 | VV | 338    | 2739    | 0.11%  | 0.005% |
| 197 | 8.804 | 8.778 | 8.814 | VV | 289    | 5387    | 0.22%  | 0.010% |
| 198 | 8.841 | 8.814 | 8.879 | VV | 1319   | 21295   | 0.87%  | 0.039% |
| 199 | 8.897 | 8.879 | 8.917 | VV | 464    | 6910    | 0.28%  | 0.013% |
| 200 | 8.936 | 8.917 | 8.955 | VV | 477    | 6698    | 0.27%  | 0.012% |
| 201 | 8.973 | 8.955 | 8.988 | VV | 684    | 10268   | 0.42%  | 0.019% |
| 202 | 8.997 | 8.988 | 9.009 | VV | 609    | 6642    | 0.27%  | 0.012% |
| 203 | 9.025 | 9.009 | 9.036 | VV | 927    | 11477   | 0.47%  | 0.021% |
| 204 | 9.055 | 9.036 | 9.095 | VV | 1544   | 31644   | 1.30%  | 0.058% |
| 205 | 9.117 | 9.095 | 9.146 | VV | 1392   | 22144   | 0.91%  | 0.041% |
| 206 | 9.178 | 9.146 | 9.217 | VV | 788    | 24043   | 0.99%  | 0.044% |
| 207 | 9.231 | 9.217 | 9.244 | VV | 550    | 7018    | 0.29%  | 0.013% |
| 208 | 9.290 | 9.244 | 9.321 | VV | 1469   | 29929   | 1.23%  | 0.055% |
| 209 | 9.340 | 9.321 | 9.376 | VV | 920    | 18701   | 0.77%  | 0.034% |
| 210 | 9.402 | 9.376 | 9.442 | VV | 1521   | 25241   | 1.04%  | 0.046% |
| 211 | 9.476 | 9.442 | 9.480 | VV | 642    | 10596   | 0.44%  | 0.019% |
| 212 | 9.486 | 9.480 | 9.517 | VV | 700    | 9874    | 0.41%  | 0.018% |
| 213 | 9.535 | 9.517 | 9.560 | VV | 614    | 7746    | 0.32%  | 0.014% |
| 214 | 9.580 | 9.560 | 9.597 | PV | 501    | 6725    | 0.28%  | 0.012% |
| 215 | 9.632 | 9.597 | 9.651 | VV | 1556   | 26713   | 1.10%  | 0.049% |
| 216 | 9.664 | 9.651 | 9.687 | VV | 923    | 14544   | 0.60%  | 0.027% |
| 217 | 9.729 | 9.687 | 9.741 | VV | 1755   | 28275   | 1.16%  | 0.052% |
| 218 | 9.747 | 9.741 | 9.765 | VV | 1000   | 12121   | 0.50%  | 0.022% |
| 219 | 9.783 | 9.765 | 9.801 | VV | 995    | 15867   | 0.65%  | 0.029% |
| 220 | 9.825 | 9.801 | 9.851 | VV | 1044   | 20644   | 0.85%  | 0.038% |
| 221 | 9.854 | 9.851 | 9.884 | VV | 399    | 6258    | 0.26%  | 0.011% |

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|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 222 | 9.910  | 9.884  | 9.944  | VV | 1504   | 23594   | 0.97%  | 0.043% |
| 223 | 9.966  | 9.944  | 9.977  | VV | 622    | 895     |        |        |
| 224 | 9.987  | 9.977  | 10.007 | VV | 755    | 1087    |        |        |
| 225 | 10.049 | 10.007 | 10.095 | VV | 77034  | 83026   |        |        |
| 226 | 10.110 | 10.095 | 10.132 | VV | 999    | 1486    |        |        |
| 227 | 10.187 | 10.132 | 10.224 | VV | 179036 | 1953053 | 80.18% | 3.584% |
| 228 | 10.236 | 10.224 | 10.271 | VV | 750    | 15255   | 0.63%  | 0.028% |
| 229 | 10.280 | 10.271 | 10.301 | VV | 408    | 5538    | 0.23%  | 0.010% |
| 230 | 10.326 | 10.301 | 10.342 | VV | 316    | 5845    | 0.24%  | 0.011% |
| 231 | 10.353 | 10.342 | 10.374 | VV | 349    | 4944    | 0.20%  | 0.009% |
| 232 | 10.378 | 10.374 | 10.383 | VV | 254    | 1194    | 0.05%  | 0.002% |
| 233 | 10.391 | 10.383 | 10.420 | VV | 291    | 4871    | 0.20%  | 0.009% |
| 234 | 10.432 | 10.420 | 10.440 | VV | 249    | 2477    | 0.10%  | 0.005% |
| 235 | 10.459 | 10.440 | 10.476 | VV | 627    | 8272    | 0.34%  | 0.015% |
| 236 | 10.493 | 10.476 | 10.499 | VV | 445    | 4688    | 0.19%  | 0.009% |
| 237 | 10.524 | 10.499 | 10.546 | VV | 1869   | 26565   | 1.09%  | 0.049% |
| 238 | 10.577 | 10.546 | 10.596 | VV | 465    | 10601   | 0.44%  | 0.019% |
| 239 | 10.606 | 10.596 | 10.612 | VV | 350    | 2914    | 0.12%  | 0.005% |
| 240 | 10.632 | 10.612 | 10.684 | VV | 1422   | 25514   | 1.05%  | 0.047% |
| 241 | 10.701 | 10.684 | 10.734 | VV | 605    | 11676   | 0.48%  | 0.021% |
| 242 | 10.748 | 10.734 | 10.765 | VV | 491    | 6309    | 0.26%  | 0.012% |
| 243 | 10.783 | 10.765 | 10.801 | VV | 430    | 6737    | 0.28%  | 0.012% |
| 244 | 10.825 | 10.801 | 10.841 | VV | 936    | 13044   | 0.54%  | 0.024% |
| 245 | 10.853 | 10.841 | 10.867 | VV | 505    | 6234    | 0.26%  | 0.011% |
| 246 | 10.895 | 10.867 | 10.916 | VV | 1663   | 29318   | 1.20%  | 0.054% |
| 247 | 10.930 | 10.916 | 10.952 | VV | 692    | 11924   | 0.49%  | 0.022% |
| 248 | 10.973 | 10.952 | 10.996 | VV | 2579   | 33883   | 1.39%  | 0.062% |
| 249 | 11.004 | 10.996 | 11.009 | VV | 500    | 3665    | 0.15%  | 0.007% |
| 250 | 11.013 | 11.009 | 11.035 | VV | 500    | 5888    | 0.24%  | 0.011% |
| 251 | 11.056 | 11.035 | 11.080 | VV | 1463   | 22610   | 0.93%  | 0.041% |
| 252 | 11.086 | 11.080 | 11.111 | VV | 643    | 8447    | 0.35%  | 0.015% |
| 253 | 11.123 | 11.111 | 11.139 | VV | 356    | 4614    | 0.19%  | 0.008% |
| 254 | 11.152 | 11.139 | 11.167 | VV | 440    | 5930    | 0.24%  | 0.011% |
| 255 | 11.202 | 11.167 | 11.225 | VV | 1085   | 22935   | 0.94%  | 0.042% |
| 256 | 11.256 | 11.225 | 11.288 | VV | 2192   | 34743   | 1.43%  | 0.064% |
| 257 | 11.303 | 11.288 | 11.339 | VV | 415    | 7242    | 0.30%  | 0.013% |
| 258 | 11.359 | 11.339 | 11.375 | VV | 200    | 2824    | 0.12%  | 0.005% |
| 259 | 11.390 | 11.375 | 11.402 | VV | 269    | 2439    | 0.10%  | 0.004% |
| 260 | 11.406 | 11.402 | 11.411 | VV | 139    | 799     | 0.03%  | 0.001% |
| 261 | 11.439 | 11.411 | 11.476 | VV | 1954   | 27463   | 1.13%  | 0.050% |
| 262 | 11.481 | 11.476 | 11.485 | VV | 314    | 1241    | 0.05%  | 0.002% |
| 263 | 11.506 | 11.485 | 11.528 | VV | 626    | 9149    | 0.38%  | 0.017% |
| 264 | 11.553 | 11.528 | 11.579 | PV | 1098   | 16296   | 0.67%  | 0.030% |
| 265 | 11.584 | 11.579 | 11.596 | VV | 383    | 3365    | 0.14%  | 0.006% |
| 266 | 11.637 | 11.596 | 11.674 | VV | 178376 | 2002770 | 82.22% | 3.675% |
| 267 | 11.686 | 11.674 | 11.701 | VV | 839    | 10764   | 0.44%  | 0.020% |
| 268 | 11.717 | 11.701 | 11.754 | VV | 1164   | 22756   | 0.93%  | 0.042% |
| 269 | 11.768 | 11.754 | 11.784 | VV | 723    | 9037    | 0.37%  | 0.017% |

Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-9.0-9.5MS

Manual IntegrationsAPPROVED

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Supervised By :Ankita Jodhani 12/27/2024

|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 270 | 11.794 | 11.784 | 11.799 | VV | 384    | 3103    | 0.13%  | 0.006% |
| 271 | 11.822 | 11.799 | 11.844 | VV | 1004   | 1468    |        |        |
| 272 | 11.862 | 11.844 | 11.875 | VV | 523    | 634     |        |        |
| 273 | 11.892 | 11.875 | 11.916 | VV | 746    | 973     |        |        |
| 274 | 11.939 | 11.916 | 11.957 | VV | 318    | 456     |        |        |
| 275 | 11.988 | 11.957 | 12.013 | VV | 5380   | 60616   | 2.49%  | 0.111% |
| 276 | 12.054 | 12.013 | 12.074 | VV | 1329   | 22012   | 0.90%  | 0.040% |
| 277 | 12.087 | 12.074 | 12.099 | VV | 583    | 7014    | 0.29%  | 0.013% |
| 278 | 12.121 | 12.099 | 12.147 | VV | 2123   | 28203   | 1.16%  | 0.052% |
| 279 | 12.166 | 12.147 | 12.191 | VV | 544    | 7185    | 0.29%  | 0.013% |
| 280 | 12.195 | 12.191 | 12.216 | VV | 207    | 1501    | 0.06%  | 0.003% |
| 281 | 12.234 | 12.216 | 12.264 | VV | 943    | 13475   | 0.55%  | 0.025% |
| 282 | 12.298 | 12.264 | 12.316 | PV | 3092   | 49156   | 2.02%  | 0.090% |
| 283 | 12.327 | 12.316 | 12.362 | VV | 2345   | 32815   | 1.35%  | 0.060% |
| 284 | 12.373 | 12.362 | 12.386 | VV | 497    | 5888    | 0.24%  | 0.011% |
| 285 | 12.403 | 12.386 | 12.421 | VV | 1684   | 23767   | 0.98%  | 0.044% |
| 286 | 12.444 | 12.421 | 12.455 | VV | 817    | 14043   | 0.58%  | 0.026% |
| 287 | 12.470 | 12.455 | 12.497 | VV | 941    | 16138   | 0.66%  | 0.030% |
| 288 | 12.517 | 12.497 | 12.531 | VV | 1042   | 12502   | 0.51%  | 0.023% |
| 289 | 12.556 | 12.531 | 12.584 | VV | 30423  | 339689  | 13.95% | 0.623% |
| 290 | 12.604 | 12.584 | 12.621 | VV | 1947   | 33608   | 1.38%  | 0.062% |
| 291 | 12.636 | 12.621 | 12.655 | VV | 2195   | 30626   | 1.26%  | 0.056% |
| 292 | 12.664 | 12.655 | 12.676 | VV | 977    | 10353   | 0.43%  | 0.019% |
| 293 | 12.691 | 12.676 | 12.702 | VV | 899    | 13301   | 0.55%  | 0.024% |
| 294 | 12.716 | 12.702 | 12.754 | VV | 1024   | 21492   | 0.88%  | 0.039% |
| 295 | 12.776 | 12.754 | 12.789 | VV | 1150   | 16699   | 0.69%  | 0.031% |
| 296 | 12.798 | 12.789 | 12.812 | VV | 890    | 10001   | 0.41%  | 0.018% |
| 297 | 12.837 | 12.812 | 12.857 | VV | 1962   | 30939   | 1.27%  | 0.057% |
| 298 | 12.885 | 12.857 | 12.902 | VV | 1973   | 31123   | 1.28%  | 0.057% |
| 299 | 12.953 | 12.902 | 12.992 | VV | 174815 | 2064058 | 84.74% | 3.787% |
| 300 | 13.024 | 12.992 | 13.066 | VV | 4668   | 80450   | 3.30%  | 0.148% |
| 301 | 13.083 | 13.066 | 13.087 | PV | 237    | 2010    | 0.08%  | 0.004% |
| 302 | 13.105 | 13.087 | 13.121 | VV | 611    | 8829    | 0.36%  | 0.016% |
| 303 | 13.142 | 13.121 | 13.177 | VV | 3565   | 51509   | 2.11%  | 0.095% |
| 304 | 13.193 | 13.177 | 13.216 | VV | 1247   | 20391   | 0.84%  | 0.037% |
| 305 | 13.247 | 13.216 | 13.277 | VV | 1684   | 29392   | 1.21%  | 0.054% |
| 306 | 13.304 | 13.277 | 13.327 | VV | 2760   | 34430   | 1.41%  | 0.063% |
| 307 | 13.351 | 13.327 | 13.381 | VV | 1219   | 26841   | 1.10%  | 0.049% |
| 308 | 13.396 | 13.381 | 13.437 | VV | 705    | 16037   | 0.66%  | 0.029% |
| 309 | 13.491 | 13.437 | 13.520 | VV | 1060   | 23736   | 0.97%  | 0.044% |
| 310 | 13.541 | 13.520 | 13.554 | VV | 717    | 9772    | 0.40%  | 0.018% |
| 311 | 13.585 | 13.554 | 13.624 | VV | 1227   | 28814   | 1.18%  | 0.053% |
| 312 | 13.638 | 13.624 | 13.656 | VV | 496    | 6558    | 0.27%  | 0.012% |
| 313 | 13.695 | 13.656 | 13.705 | VV | 442    | 8087    | 0.33%  | 0.015% |
| 314 | 13.717 | 13.705 | 13.741 | VV | 583    | 9913    | 0.41%  | 0.018% |
| 315 | 13.758 | 13.741 | 13.777 | VV | 1519   | 20427   | 0.84%  | 0.037% |
| 316 | 13.793 | 13.777 | 13.824 | VV | 1339   | 18938   | 0.78%  | 0.035% |

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|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 317 | 13.838 | 13.824 | 13.861 | VV | 236    | 3376    | 0.14%  | 0.006% |
| 318 | 13.897 | 13.861 | 13.912 | PV | 672    | 1096    |        |        |
| 319 | 13.939 | 13.912 | 13.986 | VV | 1619   | 3633    |        |        |
| 320 | 13.999 | 13.986 | 14.023 | VV | 660    | 1081    |        |        |
| 321 | 14.044 | 14.023 | 14.083 | VV | 1202   | 1916    |        |        |
| 322 | 14.157 | 14.083 | 14.192 | PV | 155574 | 1982753 | 81.40% | 3.638% |
| 323 | 14.212 | 14.192 | 14.228 | VV | 1026   | 13472   | 0.55%  | 0.025% |
| 324 | 14.244 | 14.228 | 14.265 | VV | 1221   | 16081   | 0.66%  | 0.030% |
| 325 | 14.285 | 14.265 | 14.316 | VV | 1098   | 15526   | 0.64%  | 0.028% |
| 326 | 14.328 | 14.316 | 14.352 | VV | 207    | 2248    | 0.09%  | 0.004% |
| 327 | 14.372 | 14.352 | 14.401 | PV | 229    | 3142    | 0.13%  | 0.006% |
| 328 | 14.431 | 14.401 | 14.467 | VV | 663    | 14532   | 0.60%  | 0.027% |
| 329 | 14.490 | 14.467 | 14.503 | VV | 656    | 8831    | 0.36%  | 0.016% |
| 330 | 14.547 | 14.503 | 14.591 | VV | 1327   | 37733   | 1.55%  | 0.069% |
| 331 | 14.599 | 14.591 | 14.617 | VV | 377    | 3658    | 0.15%  | 0.007% |
| 332 | 14.639 | 14.617 | 14.657 | VV | 994    | 14249   | 0.58%  | 0.026% |
| 333 | 14.666 | 14.657 | 14.682 | VV | 618    | 6599    | 0.27%  | 0.012% |
| 334 | 14.723 | 14.682 | 14.745 | VV | 1992   | 38109   | 1.56%  | 0.070% |
| 335 | 14.773 | 14.745 | 14.801 | VV | 7489   | 97754   | 4.01%  | 0.179% |
| 336 | 14.832 | 14.801 | 14.862 | VV | 1506   | 34334   | 1.41%  | 0.063% |
| 337 | 14.880 | 14.862 | 14.907 | VV | 939    | 17674   | 0.73%  | 0.032% |
| 338 | 14.935 | 14.907 | 14.969 | VV | 1408   | 27356   | 1.12%  | 0.050% |
| 339 | 15.006 | 14.969 | 15.012 | VV | 633    | 11960   | 0.49%  | 0.022% |
| 340 | 15.018 | 15.012 | 15.024 | VV | 633    | 3989    | 0.16%  | 0.007% |
| 341 | 15.059 | 15.024 | 15.100 | VV | 91674  | 1278514 | 52.49% | 2.346% |
| 342 | 15.106 | 15.100 | 15.121 | VV | 1169   | 12370   | 0.51%  | 0.023% |
| 343 | 15.143 | 15.121 | 15.168 | VV | 4081   | 57438   | 2.36%  | 0.105% |
| 344 | 15.191 | 15.168 | 15.204 | VV | 1307   | 21886   | 0.90%  | 0.040% |
| 345 | 15.263 | 15.204 | 15.296 | VV | 154095 | 1975102 | 81.08% | 3.624% |
| 346 | 15.305 | 15.296 | 15.324 | VV | 1250   | 17985   | 0.74%  | 0.033% |
| 347 | 15.348 | 15.324 | 15.396 | VV | 1744   | 51022   | 2.09%  | 0.094% |
| 348 | 15.423 | 15.396 | 15.437 | VV | 1013   | 22341   | 0.92%  | 0.041% |
| 349 | 15.449 | 15.437 | 15.466 | VV | 1069   | 16063   | 0.66%  | 0.029% |
| 350 | 15.469 | 15.466 | 15.480 | VV | 821    | 6554    | 0.27%  | 0.012% |
| 351 | 15.501 | 15.480 | 15.516 | VV | 1031   | 18137   | 0.74%  | 0.033% |
| 352 | 15.535 | 15.516 | 15.552 | VV | 875    | 17451   | 0.72%  | 0.032% |
| 353 | 15.558 | 15.552 | 15.562 | VV | 719    | 3942    | 0.16%  | 0.007% |
| 354 | 15.568 | 15.562 | 15.574 | VV | 718    | 5107    | 0.21%  | 0.009% |
| 355 | 15.601 | 15.574 | 15.612 | VV | 1002   | 20084   | 0.82%  | 0.037% |
| 356 | 15.641 | 15.612 | 15.729 | VV | 33458  | 572679  | 23.51% | 1.051% |
| 357 | 15.735 | 15.729 | 15.744 | VV | 755    | 6188    | 0.25%  | 0.011% |
| 358 | 15.750 | 15.744 | 15.760 | VV | 659    | 5574    | 0.23%  | 0.010% |
| 359 | 15.787 | 15.760 | 15.816 | VV | 1353   | 31097   | 1.28%  | 0.057% |
| 360 | 15.858 | 15.816 | 15.889 | VV | 1104   | 27418   | 1.13%  | 0.050% |
| 361 | 15.904 | 15.889 | 15.911 | PV | 272    | 1695    | 0.07%  | 0.003% |
| 362 | 15.914 | 15.911 | 15.939 | VV | 233    | 2028    | 0.08%  | 0.004% |
| 363 | 15.976 | 15.939 | 15.988 | VV | 388    | 7604    | 0.31%  | 0.014% |
| 364 | 16.006 | 15.988 | 16.018 | VV | 700    | 8317    | 0.34%  | 0.015% |

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|     |        |        |        |    |        |                                                                       |                             |        |
|-----|--------|--------|--------|----|--------|-----------------------------------------------------------------------|-----------------------------|--------|
|     |        |        |        |    |        | Instrument :<br>FID_G<br>ClientSampleId :<br>SB-01-20241219-9.0-9.5MS |                             |        |
| 365 | 16.022 | 16.018 | 16.057 | VV | 617    | 6751                                                                  | 0.28%                       | 0.012% |
| 366 | 16.078 | 16.057 | 16.090 | VV | 404    | 469                                                                   | Manual IntegrationsAPPROVED |        |
| 367 | 16.106 | 16.090 | 16.132 | VV | 358    | 532                                                                   |                             |        |
| 368 | 16.165 | 16.132 | 16.184 | PV | 920    | 1653                                                                  |                             |        |
| 369 | 16.207 | 16.184 | 16.224 | VV | 921    | 1536                                                                  |                             |        |
| 370 | 16.289 | 16.224 | 16.325 | VV | 142062 | 1911526                                                               | 78.47%                      | 3.507% |
| 371 | 16.385 | 16.325 | 16.396 | VV | 647    | 21643                                                                 | 0.89%                       | 0.040% |
| 372 | 16.398 | 16.396 | 16.400 | VV | 586    | 1550                                                                  | 0.06%                       | 0.003% |
| 373 | 16.441 | 16.400 | 16.454 | VV | 992    | 26039                                                                 | 1.07%                       | 0.048% |
| 374 | 16.507 | 16.454 | 16.518 | VV | 1207   | 40033                                                                 | 1.64%                       | 0.073% |
| 375 | 16.587 | 16.518 | 16.597 | VV | 1458   | 57580                                                                 | 2.36%                       | 0.106% |
| 376 | 16.663 | 16.597 | 16.701 | VV | 4451   | 142942                                                                | 5.87%                       | 0.262% |
| 377 | 16.750 | 16.701 | 16.765 | VV | 4408   | 103790                                                                | 4.26%                       | 0.190% |
| 378 | 16.772 | 16.765 | 16.809 | VV | 3485   | 57692                                                                 | 2.37%                       | 0.106% |
| 379 | 16.853 | 16.809 | 16.862 | VV | 2243   | 52710                                                                 | 2.16%                       | 0.097% |
| 380 | 16.883 | 16.862 | 16.939 | VV | 4434   | 112900                                                                | 4.63%                       | 0.207% |
| 381 | 16.945 | 16.939 | 16.948 | VV | 1384   | 7186                                                                  | 0.30%                       | 0.013% |
| 382 | 16.958 | 16.948 | 16.991 | VV | 1326   | 27569                                                                 | 1.13%                       | 0.051% |
| 383 | 17.026 | 16.991 | 17.039 | VV | 1269   | 28216                                                                 | 1.16%                       | 0.052% |
| 384 | 17.070 | 17.039 | 17.096 | VV | 4357   | 80811                                                                 | 3.32%                       | 0.148% |
| 385 | 17.129 | 17.096 | 17.177 | VV | 4506   | 82197                                                                 | 3.37%                       | 0.151% |
| 386 | 17.242 | 17.177 | 17.271 | VV | 131372 | 1876940                                                               | 77.05%                      | 3.444% |
| 387 | 17.289 | 17.271 | 17.350 | VV | 7008   | 102823                                                                | 4.22%                       | 0.189% |
| 388 | 17.380 | 17.350 | 17.402 | PV | 468    | 7245                                                                  | 0.30%                       | 0.013% |
| 389 | 17.406 | 17.402 | 17.413 | VV | 171    | 517                                                                   | 0.02%                       | 0.001% |
| 390 | 17.439 | 17.413 | 17.444 | PV | 203    | 1085                                                                  | 0.04%                       | 0.002% |
| 391 | 17.506 | 17.444 | 17.531 | VV | 1173   | 28820                                                                 | 1.18%                       | 0.053% |
| 392 | 17.536 | 17.531 | 17.552 | VV | 849    | 7988                                                                  | 0.33%                       | 0.015% |
| 393 | 17.608 | 17.552 | 17.634 | VV | 2490   | 66361                                                                 | 2.72%                       | 0.122% |
| 394 | 17.655 | 17.634 | 17.667 | VV | 2000   | 37015                                                                 | 1.52%                       | 0.068% |
| 395 | 17.690 | 17.667 | 17.732 | VV | 3768   | 76795                                                                 | 3.15%                       | 0.141% |
| 396 | 17.752 | 17.732 | 17.764 | VV | 995    | 18112                                                                 | 0.74%                       | 0.033% |
| 397 | 17.789 | 17.764 | 17.814 | VV | 1664   | 31602                                                                 | 1.30%                       | 0.058% |
| 398 | 17.833 | 17.814 | 17.846 | VV | 1014   | 13614                                                                 | 0.56%                       | 0.025% |
| 399 | 17.899 | 17.846 | 17.923 | VV | 1232   | 38574                                                                 | 1.58%                       | 0.071% |
| 400 | 17.941 | 17.923 | 17.959 | VV | 568    | 8187                                                                  | 0.34%                       | 0.015% |
| 401 | 18.023 | 17.959 | 18.046 | VV | 1930   | 47909                                                                 | 1.97%                       | 0.088% |
| 402 | 18.083 | 18.046 | 18.095 | VV | 1660   | 42257                                                                 | 1.73%                       | 0.078% |
| 403 | 18.132 | 18.095 | 18.165 | VV | 130143 | 1859574                                                               | 76.34%                      | 3.412% |
| 404 | 18.174 | 18.165 | 18.204 | VV | 1730   | 28403                                                                 | 1.17%                       | 0.052% |
| 405 | 18.221 | 18.204 | 18.242 | VV | 1720   | 25527                                                                 | 1.05%                       | 0.047% |
| 406 | 18.285 | 18.242 | 18.298 | VV | 1030   | 29027                                                                 | 1.19%                       | 0.053% |
| 407 | 18.316 | 18.298 | 18.331 | VV | 924    | 13825                                                                 | 0.57%                       | 0.025% |
| 408 | 18.359 | 18.331 | 18.381 | VV | 1137   | 19551                                                                 | 0.80%                       | 0.036% |
| 409 | 18.408 | 18.381 | 18.427 | VV | 1169   | 17469                                                                 | 0.72%                       | 0.032% |
| 410 | 18.444 | 18.427 | 18.456 | VV | 713    | 7571                                                                  | 0.31%                       | 0.014% |
| 411 | 18.554 | 18.527 | 18.587 | VV | 5550   | 114929                                                                | 4.72%                       | 0.211% |

|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 412 | 18.640 | 18.587 | 18.654 | VV | 2954   | 69830   | 2.87%  | 0.128% |
| 413 | 18.661 | 18.654 | 18.676 | VV | 2353   | 2797    |        |        |
| 414 | 18.695 | 18.676 | 18.712 | VV | 2173   | 3951    |        |        |
| 415 | 18.800 | 18.787 | 18.816 | VV | 2266   | 3059    |        |        |
| 416 | 18.826 | 18.816 | 18.834 | VV | 1451   | 1476    |        |        |
| 417 | 18.841 | 18.834 | 18.852 | VV | 1500   | 14482   | 0.59%  | 0.027% |
| 418 | 18.889 | 18.852 | 18.911 | VV | 2796   | 69613   | 2.86%  | 0.128% |
| 419 | 18.967 | 18.911 | 19.029 | VV | 127967 | 1893276 | 77.72% | 3.474% |
| 420 | 19.059 | 19.029 | 19.092 | VV | 3104   | 65230   | 2.68%  | 0.120% |
| 421 | 19.118 | 19.092 | 19.142 | PV | 1634   | 29486   | 1.21%  | 0.054% |
| 422 | 19.155 | 19.142 | 19.160 | VV | 760    | 6222    | 0.26%  | 0.011% |
| 423 | 19.185 | 19.160 | 19.200 | VV | 1423   | 24640   | 1.01%  | 0.045% |
| 424 | 19.221 | 19.200 | 19.238 | VV | 2491   | 37402   | 1.54%  | 0.069% |
| 425 | 19.270 | 19.238 | 19.284 | VV | 3550   | 70546   | 2.90%  | 0.129% |
| 426 | 19.412 | 19.401 | 19.418 | VV | 5752   | 52021   | 2.14%  | 0.095% |
| 427 | 19.440 | 19.418 | 19.457 | VV | 6875   | 144914  | 5.95%  | 0.266% |
| 428 | 19.465 | 19.457 | 19.478 | VV | 6020   | 67614   | 2.78%  | 0.124% |
| 429 | 19.483 | 19.478 | 19.490 | VV | 4097   | 27980   | 1.15%  | 0.051% |
| 430 | 19.536 | 19.526 | 19.542 | VV | 6265   | 52456   | 2.15%  | 0.096% |
| 431 | 19.558 | 19.542 | 19.567 | VV | 7224   | 102942  | 4.23%  | 0.189% |
| 432 | 19.576 | 19.567 | 19.597 | VV | 6926   | 112574  | 4.62%  | 0.207% |
| 433 | 19.654 | 19.641 | 19.670 | VV | 9308   | 148735  | 6.11%  | 0.273% |
| 434 | 19.681 | 19.670 | 19.696 | VV | 8749   | 119502  | 4.91%  | 0.219% |
| 435 | 19.753 | 19.696 | 19.785 | VV | 125660 | 2091894 | 85.88% | 3.838% |
| 436 | 19.796 | 19.785 | 19.805 | VV | 8862   | 102224  | 4.20%  | 0.188% |
| 437 | 19.826 | 19.805 | 19.842 | VV | 10700  | 193168  | 7.93%  | 0.354% |
| 438 | 19.916 | 19.886 | 19.932 | VV | 11143  | 222065  | 9.12%  | 0.407% |
| 439 | 19.943 | 19.932 | 19.953 | VV | 9056   | 93402   | 3.83%  | 0.171% |
| 440 | 19.960 | 19.953 | 19.966 | VV | 6302   | 48408   | 1.99%  | 0.089% |
| 441 | 19.984 | 19.966 | 20.001 | VV | 10858  | 191269  | 7.85%  | 0.351% |
| 442 | 20.031 | 20.001 | 20.048 | VV | 12105  | 297827  | 12.23% | 0.546% |
| 443 | 20.145 | 20.131 | 20.161 | VV | 14619  | 225689  | 9.27%  | 0.414% |
| 444 | 20.183 | 20.161 | 20.191 | VV | 12051  | 203389  | 8.35%  | 0.373% |
| 445 | 20.195 | 20.191 | 20.205 | VV | 10766  | 89384   | 3.67%  | 0.164% |
| 446 | 20.280 | 20.248 | 20.286 | VV | 16781  | 325175  | 13.35% | 0.597% |
| 447 | 20.307 | 20.303 | 20.318 | VV | 14127  | 120682  | 4.95%  | 0.221% |
| 448 | 20.326 | 20.318 | 20.336 | VV | 13432  | 131404  | 5.39%  | 0.241% |
| 449 | 20.390 | 20.375 | 20.397 | VV | 11532  | 138516  | 5.69%  | 0.254% |
| 450 | 20.409 | 20.397 | 20.428 | VV | 12470  | 206096  | 8.46%  | 0.378% |
| 451 | 20.442 | 20.428 | 20.455 | VV | 14005  | 192530  | 7.90%  | 0.353% |
| 452 | 20.494 | 20.455 | 20.532 | VV | 118671 | 2158074 | 88.60% | 3.960% |
| 453 | 20.540 | 20.532 | 20.547 | VV | 18140  | 156845  | 6.44%  | 0.288% |
| 454 | 20.565 | 20.547 | 20.575 | VV | 16706  | 265883  | 10.92% | 0.488% |
| 455 | 20.596 | 20.575 | 20.612 | VV | 22284  | 417862  | 17.15% | 0.767% |
| 456 | 20.644 | 20.612 | 20.650 | VV | 24095  | 470579  | 19.32% | 0.863% |
| 457 | 20.657 | 20.650 | 20.670 | VV | 24213  | 260057  | 10.68% | 0.477% |
| 458 | 20.702 | 20.695 | 20.712 | VV | 19261  | 183157  | 7.52%  | 0.336% |
| 459 | 20.731 | 20.712 | 20.750 | VV | 22839  | 463782  | 19.04% | 0.851% |

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|     |        |        |        |     |       |         |         |        |
|-----|--------|--------|--------|-----|-------|---------|---------|--------|
|     |        |        |        |     | rtres |         |         |        |
| 460 | 20.800 | 20.777 | 20.807 | VV  | 20849 | 329267  | 13.52%  | 0.604% |
| 461 | 20.815 | 20.807 | 20.824 | VV  | 23016 | 21011   |         |        |
| 462 | 20.860 | 20.849 | 20.863 | VV  | 23048 | 18197   |         |        |
| 463 | 20.872 | 20.863 | 20.880 | VV  | 24838 | 23202   |         |        |
| 464 | 20.885 | 20.880 | 20.899 | VV  | 23798 | 25128   |         |        |
| 465 | 20.931 | 20.913 | 20.939 | VV  | 20910 | 302396  | 12.41%  | 0.555% |
| 466 | 20.944 | 20.939 | 20.951 | VV  | 20654 | 147588  | 6.06%   | 0.271% |
| 467 | 20.959 | 20.951 | 20.977 | VV  | 19772 | 293333  | 12.04%  | 0.538% |
| 468 | 20.983 | 20.977 | 20.988 | VV  | 17858 | 114331  | 4.69%   | 0.210% |
| 469 | 20.996 | 20.988 | 21.006 | VV  | 19196 | 191706  | 7.87%   | 0.352% |
| 470 | 21.018 | 21.006 | 21.024 | VV  | 19311 | 206084  | 8.46%   | 0.378% |
| 471 | 21.031 | 21.024 | 21.040 | VV  | 19637 | 172599  | 7.09%   | 0.317% |
| 472 | 21.044 | 21.040 | 21.052 | VV  | 17346 | 120456  | 4.95%   | 0.221% |
| 473 | 21.113 | 21.095 | 21.133 | VV  | 21297 | 418601  | 17.18%  | 0.768% |
| 474 | 21.168 | 21.153 | 21.173 | VV  | 20254 | 223269  | 9.17%   | 0.410% |
| 475 | 21.186 | 21.173 | 21.194 | VV  | 21073 | 245795  | 10.09%  | 0.451% |
| 476 | 21.201 | 21.194 | 21.210 | VV  | 19558 | 177466  | 7.29%   | 0.326% |
| 477 | 21.248 | 21.210 | 21.306 | VV  | 99680 | 2435867 | 100.00% | 4.470% |
| 478 | 21.360 | 21.348 | 21.369 | VV  | 13689 | 155219  | 6.37%   | 0.285% |
| 479 | 21.375 | 21.369 | 21.392 | VV  | 11359 | 141004  | 5.79%   | 0.259% |
| 480 | 21.399 | 21.392 | 21.406 | VV  | 10577 | 80608   | 3.31%   | 0.148% |
| 481 | 21.465 | 21.452 | 21.485 | VV  | 14489 | 239339  | 9.83%   | 0.439% |
| 482 | 21.498 | 21.485 | 21.508 | VV  | 16944 | 189746  | 7.79%   | 0.348% |
| 483 | 21.517 | 21.508 | 21.531 | VV  | 16203 | 207808  | 8.53%   | 0.381% |
| 484 | 21.541 | 21.531 | 21.566 | VV  | 18227 | 323730  | 13.29%  | 0.594% |
| 485 | 21.571 | 21.566 | 21.578 | VV  | 14014 | 96922   | 3.98%   | 0.178% |
| 486 | 21.618 | 21.606 | 21.636 | VV  | 11365 | 180157  | 7.40%   | 0.331% |
| 487 | 21.642 | 21.636 | 21.648 | VV  | 7935  | 56397   | 2.32%   | 0.103% |
| 488 | 21.661 | 21.648 | 21.674 | VV  | 9999  | 135935  | 5.58%   | 0.249% |
| 489 | 21.710 | 21.702 | 21.718 | VV  | 11474 | 97901   | 4.02%   | 0.180% |
| 490 | 21.724 | 21.718 | 21.738 | VV  | 11090 | 129277  | 5.31%   | 0.237% |
| 491 | 21.765 | 21.759 | 21.792 | VV  | 9521  | 136801  | 5.62%   | 0.251% |
| 492 | 21.803 | 21.792 | 21.812 | VV  | 5101  | 44810   | 1.84%   | 0.082% |
| 493 | 21.819 | 21.812 | 21.824 | VV  | 3908  | 25669   | 1.05%   | 0.047% |
| 494 | 21.832 | 21.824 | 21.841 | VV  | 4788  | 38231   | 1.57%   | 0.070% |
| 495 | 21.853 | 21.841 | 21.869 | VV  | 6456  | 65311   | 2.68%   | 0.120% |
| 496 | 21.878 | 21.869 | 21.886 | PV  | 1781  | 10737   | 0.44%   | 0.020% |
| 497 | 21.903 | 21.886 | 21.908 | VV  | 3151  | 25864   | 1.06%   | 0.047% |
| 498 | 21.913 | 21.908 | 21.924 | VV  | 2921  | 20820   | 0.85%   | 0.038% |
| 499 | 22.005 | 21.979 | 22.016 | VV  | 8038  | 154737  | 6.35%   | 0.284% |
| 500 | 22.065 | 22.052 | 22.080 | VV  | 5103  | 61741   | 2.53%   | 0.113% |
| 501 | 22.087 | 22.080 | 22.105 | VV  | 3327  | 28191   | 1.16%   | 0.052% |
| 502 | 22.118 | 22.105 | 22.130 | PV  | 3212  | 23240   | 0.95%   | 0.043% |
| 503 | 22.189 | 22.130 | 22.241 | VV  | 62834 | 1663827 | 68.31%  | 3.053% |
| 504 | 22.282 | 22.241 | 22.290 | PV  | 2521  | 35317   | 1.45%   | 0.065% |
| 505 | 22.293 | 22.290 | 22.301 | VBA | 900   | 37296   | 1.53%   | 0.068% |

Sum of corrected areas: 54499535  
Page 11

Instrument :  
FID\_G

ClientSampleId :  
SB-01-20241219-9.0-9.5MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

rteres

FG121924.M Tue Dec 24 02:24:17 2024

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MS

Manual IntegrationsAPPROVED

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Supervised By :Ankita Jodhani 12/27/2024

## Report of Analysis

|                    |                                                 |                    |          |
|--------------------|-------------------------------------------------|--------------------|----------|
| Client:            | PARSONS Engineering of New York, Inc.           | Date Collected:    | 12/19/24 |
| Project:           | Con Edison Non-MGP - East River 453648.60024.03 | Date Received:     | 12/19/24 |
| Client Sample ID:  | SB-01-20241219-9.0-9.5MSD                       | SDG No.:           | P5361    |
| Lab Sample ID:     | P5361-02MSD                                     | Matrix:            | SOIL     |
| Analytical Method: | 8015D TPH                                       | % Solid:           | 87.1     |
| Sample Wt/Vol:     | 30.06 Units: g                                  | Final Vol:         | 1 mL     |
| Soil Aliquot Vol:  | uL                                              | Test:              | TPH GC   |
| Extraction Type:   |                                                 | Injection Volume : |          |
| GPC Factor :       | PH :                                            |                    |          |
| Prep Method :      | SW3541                                          |                    |          |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| FG015026.D        | 1         | 12/23/24 08:35 | 12/23/24 16:41 | PB165807      |

| CAS Number        | Parameter              | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|-------------------|------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>    |                        |       |           |          |            |                   |
| PHC               | Petroleum Hydrocarbons | 15300 |           | 365      | 3250       | ug/kg             |
| <b>SURROGATES</b> |                        |       |           |          |            |                   |
| 16416-32-3        | TETRACOSANE-d50        | 9.36  |           | 37 - 130 | 47%        | SPK: 20           |

### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015026.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 16:41  
Operator : YP\AJ  
Sample : P5361-02MSD  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

Manual Integrations  
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Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:30:05 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um

| Compound                      | R.T.   | Response | Conc Units    |
|-------------------------------|--------|----------|---------------|
| -----                         |        |          |               |
| System Monitoring Compounds   |        |          |               |
| 9) S TETRACOSANE-d50 (SURR... | 15.057 | 1251367  | 9.363 ug/ml   |
| Target Compounds              |        |          |               |
| 1) N-OCTANE                   | 2.015  | 1349230  | 10.983 ug/ml  |
| 2) N-DECANE                   | 4.551  | 1663571  | 13.123 ug/ml  |
| 3) N-DODECANE                 | 6.733  | 1774674  | 13.235 ug/ml  |
| 4) N-TETRADECANE              | 8.569  | 1941892  | 14.468 ug/ml  |
| 5) N-HEXADECANE               | 10.185 | 1929459  | 13.768 ug/ml  |
| 6) N-OCTADECANE               | 11.634 | 1987099  | 13.457 ug/ml  |
| 7) N-EICOSANE                 | 12.950 | 2015400  | 13.719 ug/ml  |
| 8) N-DOCOSANE                 | 14.153 | 1940678  | 13.194 ug/ml  |
| 10) N-TETRACOSANE             | 15.261 | 1913504  | 12.929 ug/ml  |
| 11) N-HEXACOSANE              | 16.286 | 1900296  | 12.943 ug/ml  |
| 12) N-OCTACOSANE              | 17.240 | 1829648  | 12.494 ug/ml  |
| 13) N-TRIACONTANE             | 18.130 | 1824791  | 12.376 ug/ml  |
| 14) N-DOTRIACONTANE           | 18.965 | 1788686  | 12.395 ug/ml  |
| 15) N-TETRATRIACONTANE        | 19.751 | 1689301  | 13.005 ug/ml  |
| 16) N-HEXATRIACONTANE         | 20.493 | 1559795  | 13.968 ug/ml  |
| 17) N-OCTATRIACONTANE         | 21.244 | 1518003  | 14.842 ug/mlm |
| 18) N-TETRACONTANE            | 22.187 | 1504576  | 15.695 ug/ml  |
| -----                         |        |          |               |

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG122324\  
Data File : FG015026.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 16:41  
Operator : YP\AJ  
Sample : P5361-02MSD  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

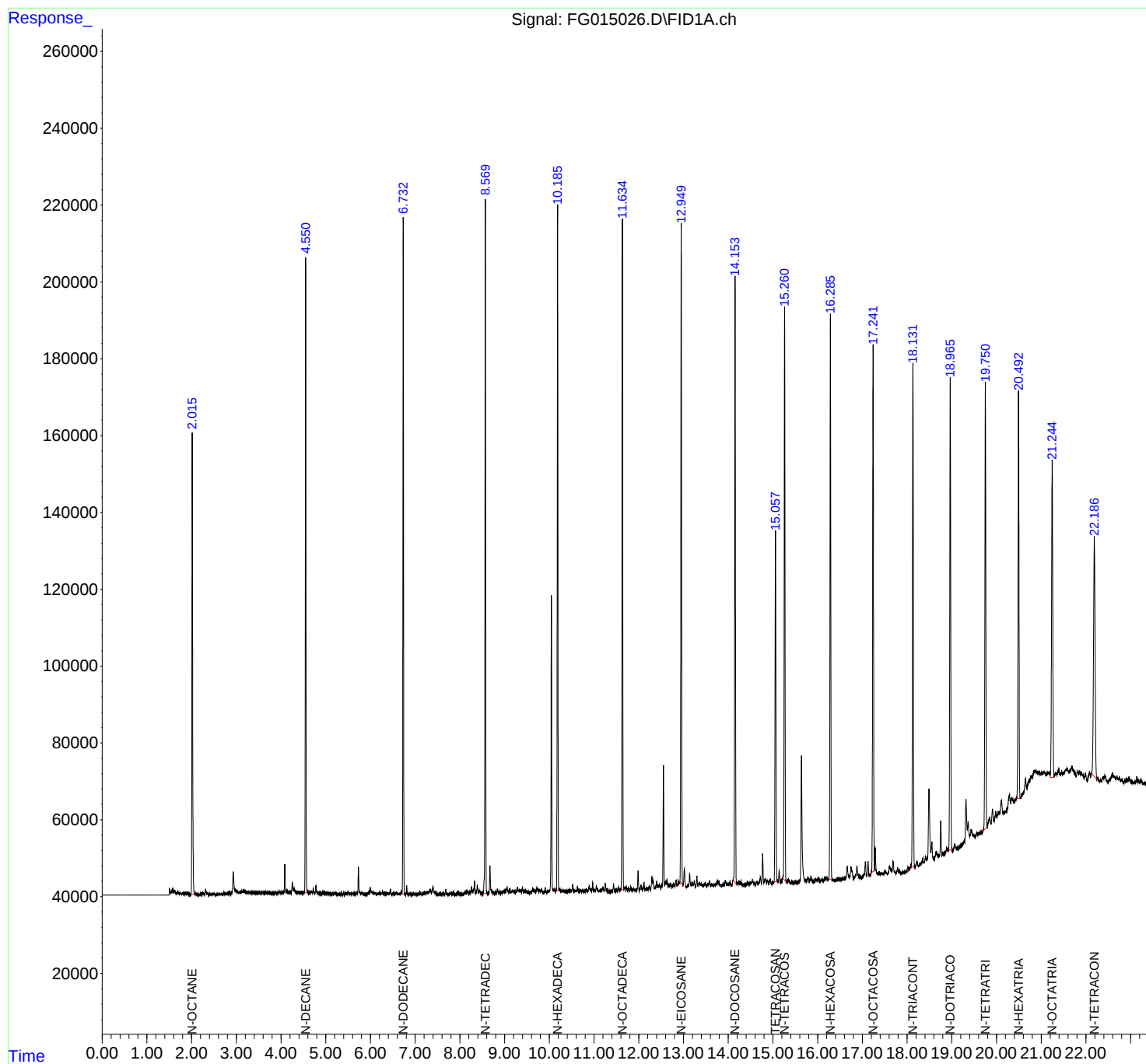
Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

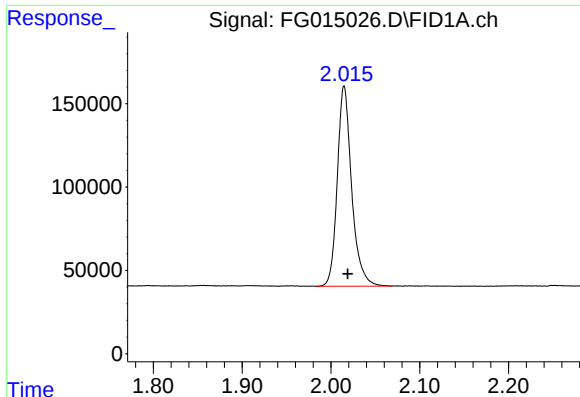
Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

Integration File: autoint1.e  
Quant Time: Dec 24 00:30:05 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Quant Title :  
QLast Update : Thu Dec 19 16:42:40 2024  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1uL  
Signal Phase : Rxi-1ms  
Signal Info : 20mx0.18mmx0.18um





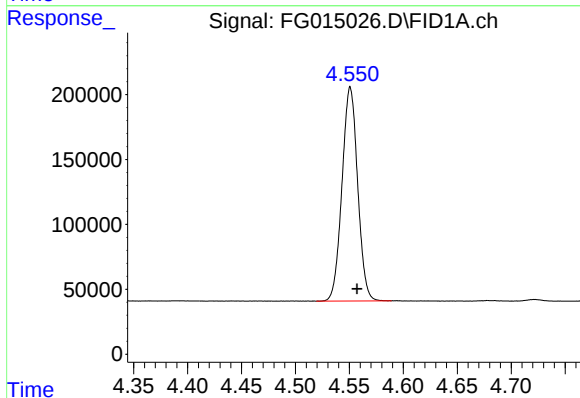
#1 N-OCTANE

R.T.: 2.015 min  
Delta R.T.: -0.004 min  
Response: 1349230  
Conc: 10.98 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

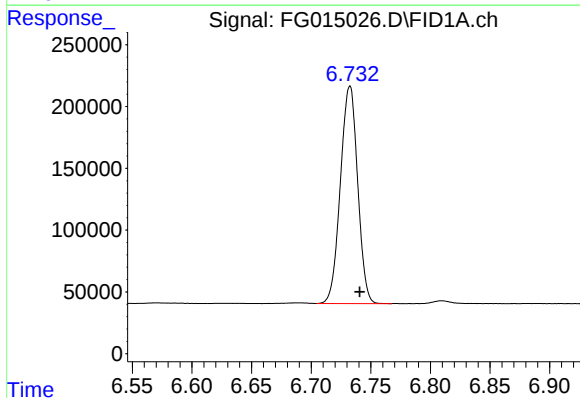
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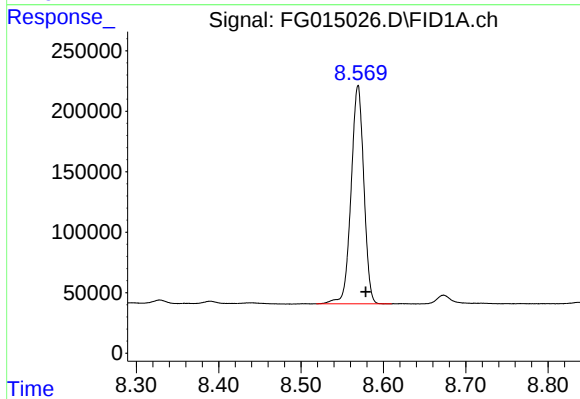
#2 N-DECANE

R.T.: 4.551 min  
Delta R.T.: -0.006 min  
Response: 1663571  
Conc: 13.12 ug/ml



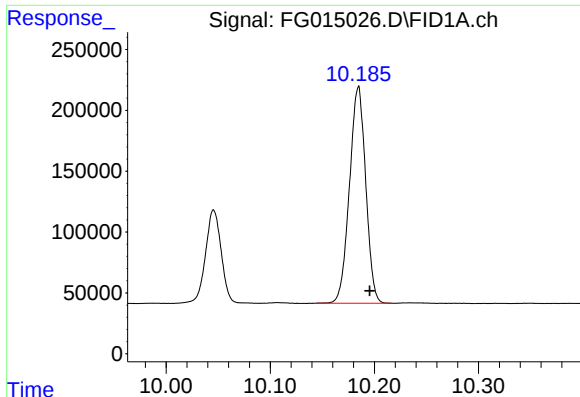
#3 N-DODECANE

R.T.: 6.733 min  
Delta R.T.: -0.008 min  
Response: 1774674  
Conc: 13.24 ug/ml



#4 N-TETRADECANE

R.T.: 8.569 min  
Delta R.T.: -0.009 min  
Response: 1941892  
Conc: 14.47 ug/ml



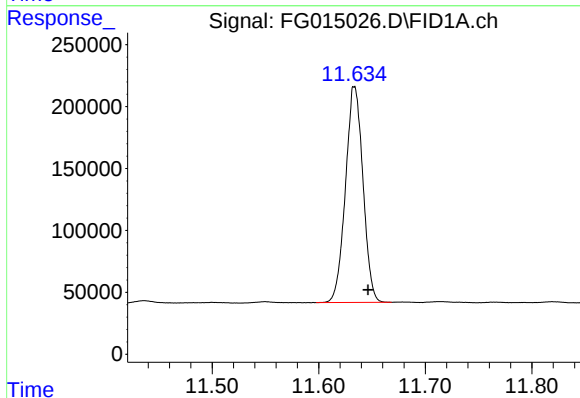
#5 N-HEXADECANE

R.T.: 10.185 min  
Delta R.T.: -0.011 min  
Response: 1929459  
Conc: 13.77 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

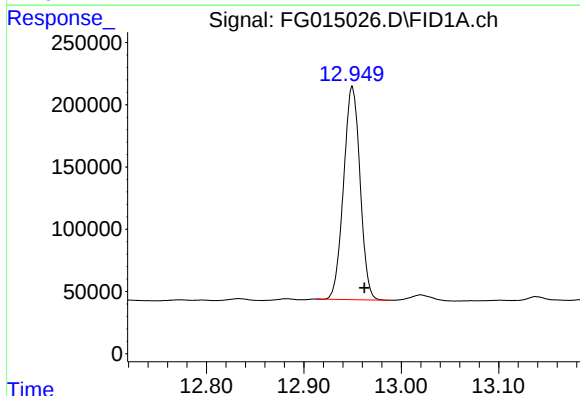
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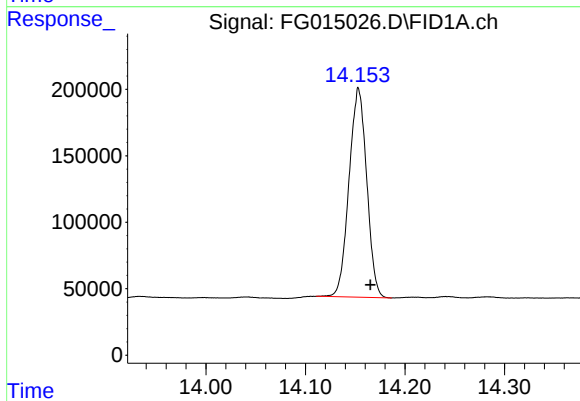
#6 N-OCTADECANE

R.T.: 11.634 min  
Delta R.T.: -0.013 min  
Response: 1987099  
Conc: 13.46 ug/ml



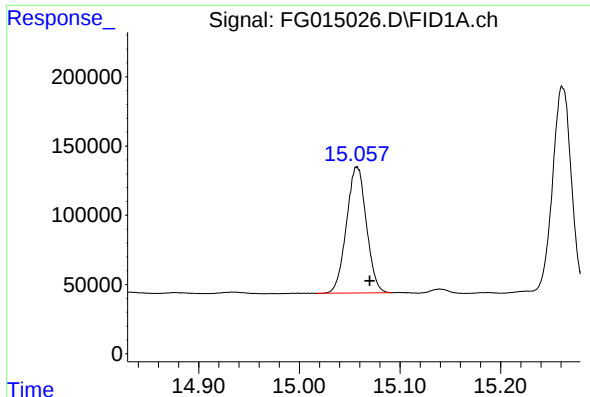
#7 N-EICOSANE

R.T.: 12.950 min  
Delta R.T.: -0.013 min  
Response: 2015400  
Conc: 13.72 ug/ml



#8 N-DOCOSANE

R.T.: 14.153 min  
Delta R.T.: -0.012 min  
Response: 1940678  
Conc: 13.19 ug/ml



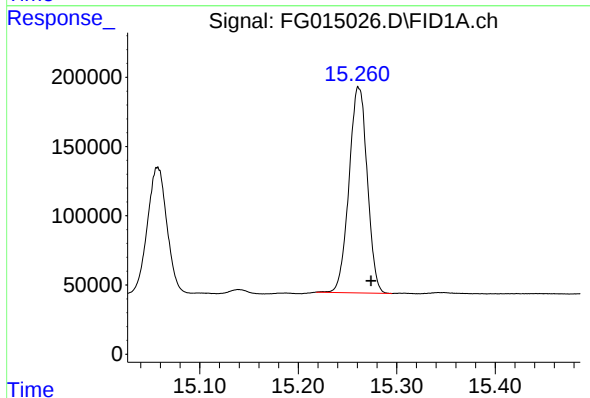
#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.057 min  
Delta R.T.: -0.013 min  
Response: 1251367  
Conc: 9.36 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

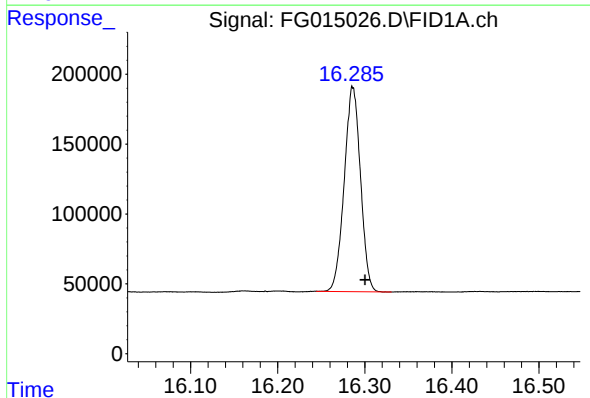
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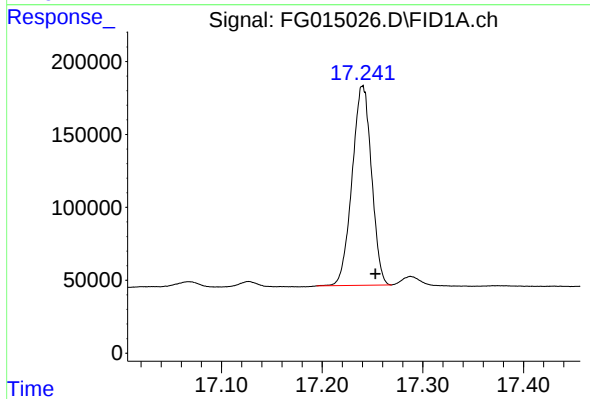
#10 N-TETRACOSANE

R.T.: 15.261 min  
Delta R.T.: -0.013 min  
Response: 1913504  
Conc: 12.93 ug/ml



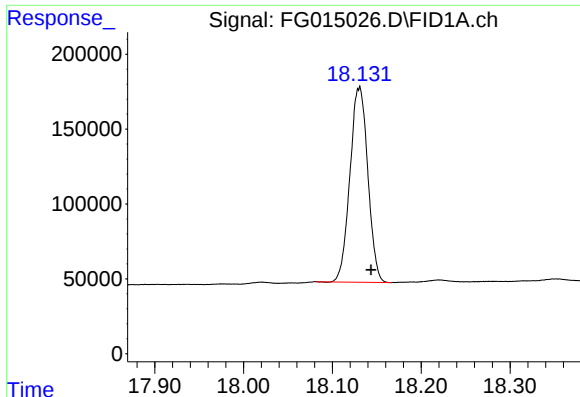
#11 N-HEXACOSANE

R.T.: 16.286 min  
Delta R.T.: -0.014 min  
Response: 1900296  
Conc: 12.94 ug/ml



#12 N-OCTACOSANE

R.T.: 17.240 min  
Delta R.T.: -0.013 min  
Response: 1829648  
Conc: 12.49 ug/ml



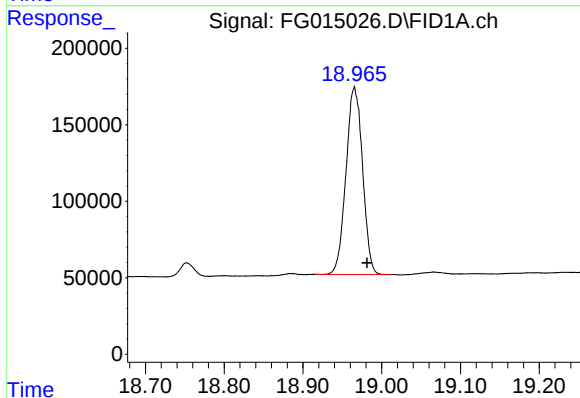
#13 N-TRIACONTANE

R.T.: 18.130 min  
Delta R.T.: -0.013 min  
Response: 1824791  
Conc: 12.38 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

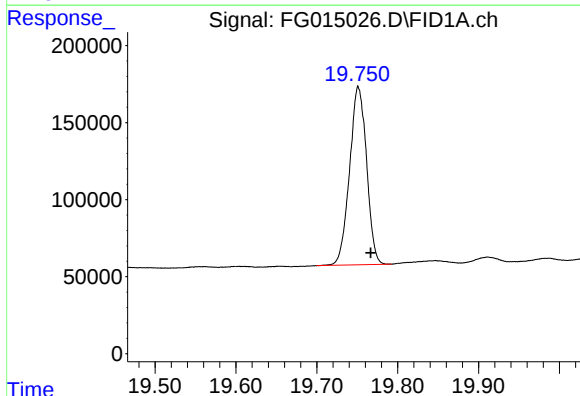
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Supervised By :Ankita Jodhani 12/27/2024



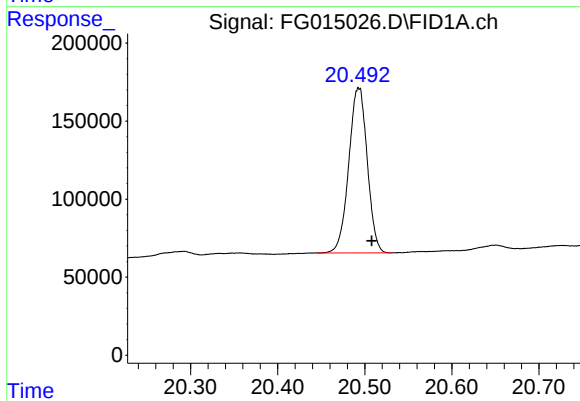
#14 N-DOTRIACONTANE

R.T.: 18.965 min  
Delta R.T.: -0.016 min  
Response: 1788686  
Conc: 12.40 ug/ml



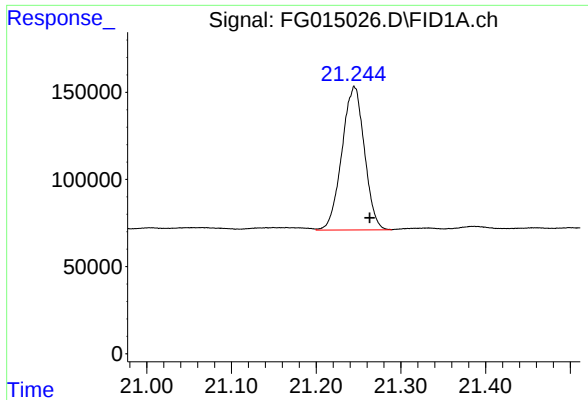
#15 N-TETRATRIACONTANE

R.T.: 19.751 min  
Delta R.T.: -0.016 min  
Response: 1689301  
Conc: 13.00 ug/ml



#16 N-HEXATRIACONTANE

R.T.: 20.493 min  
Delta R.T.: -0.015 min  
Response: 1559795  
Conc: 13.97 ug/ml



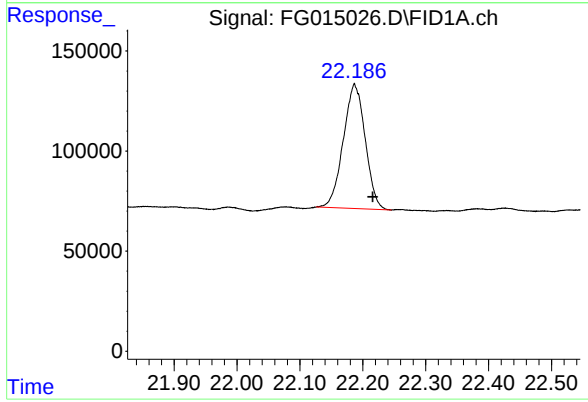
#17 N-OCTATRIACONTANE

R.T.: 21.244 min  
Delta R.T.: -0.019 min  
Response: 1518003  
Conc: 14.84 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

Manual Integrations  
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Supervised By :Ankita Jodhani 12/27/2024



#18 N-TETRACONTANE

R.T.: 22.187 min  
Delta R.T.: -0.029 min  
Response: 1504576  
Conc: 15.69 ug/ml

Instrument :  
FID\_G  
ClientSampleId :  
SB-01-20241219-9.0-9.5MSD

nteres

Area Percent Report

Manual IntegrationsAPPROVED

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Supervised By :Ankita Jodhani 12/27/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID\_G\Data\FG015026.D  
Data File : FG015026.D  
Signal(s) : FID1A.ch  
Acq On : 23 Dec 2024 16:41  
Sample : P5361-02MSD  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID\_G\Method\FG121924.M  
Title :

Signal : FID1A.ch

| peak<br># | R.T.<br>min | Start<br>min | End<br>min | PK<br>TY | peak<br>height | peak<br>area | peak<br>% max. | % of<br>total |
|-----------|-------------|--------------|------------|----------|----------------|--------------|----------------|---------------|
| 1         | 1.955       | 1.929        | 1.984      | BV       | 191            | 907          | 0.04%          | 0.002%        |
| 2         | 2.015       | 1.984        | 2.080      | PV       | 120274         | 1353823      | 61.26%         | 2.468%        |
| 3         | 2.089       | 2.080        | 2.102      | VV       | 248            | 2040         | 0.09%          | 0.004%        |
| 4         | 2.108       | 2.102        | 2.127      | VV       | 212            | 1772         | 0.08%          | 0.003%        |
| 5         | 2.130       | 2.127        | 2.148      | VV       | 135            | 788          | 0.04%          | 0.001%        |
| 6         | 2.161       | 2.148        | 2.172      | VV       | 134            | 871          | 0.04%          | 0.002%        |
| 7         | 2.209       | 2.172        | 2.242      | PV       | 336            | 7171         | 0.32%          | 0.013%        |
| 8         | 2.252       | 2.242        | 2.276      | VV       | 585            | 6357         | 0.29%          | 0.012%        |
| 9         | 2.280       | 2.276        | 2.302      | VV       | 174            | 1944         | 0.09%          | 0.004%        |
| 10        | 2.313       | 2.302        | 2.396      | VV       | 1466           | 25830        | 1.17%          | 0.047%        |
| 11        | 2.416       | 2.396        | 2.421      | VV       | 157            | 1179         | 0.05%          | 0.002%        |
| 12        | 2.442       | 2.421        | 2.449      | VV       | 217            | 2423         | 0.11%          | 0.004%        |
| 13        | 2.453       | 2.449        | 2.469      | VV       | 220            | 1599         | 0.07%          | 0.003%        |
| 14        | 2.487       | 2.469        | 2.492      | VV       | 327            | 3095         | 0.14%          | 0.006%        |
| 15        | 2.495       | 2.492        | 2.514      | VV       | 303            | 2353         | 0.11%          | 0.004%        |
| 16        | 2.519       | 2.514        | 2.527      | VV       | 141            | 691          | 0.03%          | 0.001%        |
| 17        | 2.533       | 2.527        | 2.541      | VV       | 99             | 575          | 0.03%          | 0.001%        |
| 18        | 2.551       | 2.541        | 2.563      | PV       | 139            | 1066         | 0.05%          | 0.002%        |
| 19        | 2.577       | 2.563        | 2.588      | VV       | 152            | 1257         | 0.06%          | 0.002%        |
| 20        | 2.601       | 2.588        | 2.606      | VV       | 176            | 1432         | 0.06%          | 0.003%        |
| 21        | 2.612       | 2.606        | 2.626      | VV       | 195            | 1673         | 0.08%          | 0.003%        |
| 22        | 2.636       | 2.626        | 2.663      | VV       | 265            | 3632         | 0.16%          | 0.007%        |
| 23        | 2.667       | 2.663        | 2.681      | VV       | 183            | 1375         | 0.06%          | 0.003%        |
| 24        | 2.685       | 2.681        | 2.693      | VV       | 174            | 883          | 0.04%          | 0.002%        |
| 25        | 2.720       | 2.693        | 2.757      | VV       | 413            | 9284         | 0.42%          | 0.017%        |
| 26        | 2.761       | 2.757        | 2.767      | VV       | 216            | 951          | 0.04%          | 0.002%        |
| 27        | 2.778       | 2.767        | 2.800      | VV       | 367            | 5000         | 0.23%          | 0.009%        |
| 28        | 2.830       | 2.800        | 2.846      | VV       | 443            | 8868         | 0.40%          | 0.016%        |
| 29        | 2.857       | 2.846        | 2.883      | VV       | 463            | 7862         | 0.36%          | 0.014%        |
| 30        | 2.930       | 2.883        | 2.995      | VV       | 5946           | 128954       | 5.84%          | 0.235%        |
| 31        | 3.001       | 2.995        | 3.048      | VV       | 1044           | 25848        | 1.17%          | 0.047%        |

Page 1

|    |       |       |       |    |      |       |       |        |
|----|-------|-------|-------|----|------|-------|-------|--------|
| 32 | 3.052 | 3.048 | 3.071 | VV | 621  | 8481  | 0.38% | 0.015% |
| 33 | 3.120 | 3.071 | 3.123 | VV | 932  | 2162  |       |        |
| 34 | 3.128 | 3.123 | 3.147 | VV | 881  | 1124  |       |        |
| 35 | 3.162 | 3.147 | 3.247 | VV | 1262 | 4696  |       |        |
| 36 | 3.261 | 3.247 | 3.269 | VV | 690  | 812   |       |        |
| 37 | 3.275 | 3.269 | 3.321 | VV | 733  | 19374 | 0.88% | 0.035% |
| 38 | 3.327 | 3.321 | 3.334 | VV | 636  | 4620  | 0.21% | 0.008% |
| 39 | 3.338 | 3.334 | 3.344 | VV | 569  | 3296  | 0.15% | 0.006% |
| 40 | 3.362 | 3.344 | 3.369 | VV | 614  | 8286  | 0.37% | 0.015% |
| 41 | 3.373 | 3.369 | 3.388 | VV | 599  | 6243  | 0.28% | 0.011% |
| 42 | 3.391 | 3.388 | 3.402 | VV | 585  | 4736  | 0.21% | 0.009% |
| 43 | 3.405 | 3.402 | 3.418 | VV | 608  | 5518  | 0.25% | 0.010% |
| 44 | 3.421 | 3.418 | 3.425 | VV | 578  | 2089  | 0.09% | 0.004% |
| 45 | 3.430 | 3.425 | 3.443 | VV | 567  | 5786  | 0.26% | 0.011% |
| 46 | 3.462 | 3.443 | 3.500 | VV | 655  | 19752 | 0.89% | 0.036% |
| 47 | 3.505 | 3.500 | 3.516 | VV | 595  | 5457  | 0.25% | 0.010% |
| 48 | 3.522 | 3.516 | 3.529 | VV | 657  | 4431  | 0.20% | 0.008% |
| 49 | 3.535 | 3.529 | 3.540 | VV | 649  | 3513  | 0.16% | 0.006% |
| 50 | 3.549 | 3.540 | 3.564 | VV | 634  | 7874  | 0.36% | 0.014% |
| 51 | 3.571 | 3.564 | 3.622 | VV | 623  | 17432 | 0.79% | 0.032% |
| 52 | 3.645 | 3.622 | 3.690 | VV | 622  | 20528 | 0.93% | 0.037% |
| 53 | 3.714 | 3.690 | 3.733 | VV | 626  | 12512 | 0.57% | 0.023% |
| 54 | 3.738 | 3.733 | 3.741 | VV | 447  | 2145  | 0.10% | 0.004% |
| 55 | 3.744 | 3.741 | 3.784 | VV | 519  | 10848 | 0.49% | 0.020% |
| 56 | 3.790 | 3.784 | 3.801 | VV | 469  | 4161  | 0.19% | 0.008% |
| 57 | 3.806 | 3.801 | 3.810 | VV | 448  | 2100  | 0.10% | 0.004% |
| 58 | 3.814 | 3.810 | 3.823 | VV | 445  | 3101  | 0.14% | 0.006% |
| 59 | 3.828 | 3.823 | 3.840 | VV | 432  | 4138  | 0.19% | 0.008% |
| 60 | 3.862 | 3.840 | 3.876 | VV | 567  | 9949  | 0.45% | 0.018% |
| 61 | 3.882 | 3.876 | 3.892 | VV | 544  | 4669  | 0.21% | 0.009% |
| 62 | 3.897 | 3.892 | 3.903 | VV | 513  | 2902  | 0.13% | 0.005% |
| 63 | 3.908 | 3.903 | 3.915 | VV | 476  | 3177  | 0.14% | 0.006% |
| 64 | 3.953 | 3.915 | 3.992 | VV | 828  | 25392 | 1.15% | 0.046% |
| 65 | 4.005 | 3.992 | 4.027 | VV | 681  | 12393 | 0.56% | 0.023% |
| 66 | 4.031 | 4.027 | 4.036 | VV | 557  | 2893  | 0.13% | 0.005% |
| 67 | 4.044 | 4.036 | 4.048 | VV | 579  | 3764  | 0.17% | 0.007% |
| 68 | 4.052 | 4.048 | 4.058 | VV | 548  | 3331  | 0.15% | 0.006% |
| 69 | 4.084 | 4.058 | 4.128 | VV | 7954 | 97798 | 4.43% | 0.178% |
| 70 | 4.138 | 4.128 | 4.173 | VV | 982  | 20172 | 0.91% | 0.037% |
| 71 | 4.175 | 4.173 | 4.188 | VV | 664  | 6039  | 0.27% | 0.011% |
| 72 | 4.195 | 4.188 | 4.225 | VV | 687  | 12330 | 0.56% | 0.022% |
| 73 | 4.253 | 4.225 | 4.277 | VV | 3201 | 57572 | 2.61% | 0.105% |
| 74 | 4.292 | 4.277 | 4.357 | VV | 1612 | 44047 | 1.99% | 0.080% |
| 75 | 4.365 | 4.357 | 4.382 | VV | 592  | 8109  | 0.37% | 0.015% |
| 76 | 4.388 | 4.382 | 4.418 | VV | 678  | 12400 | 0.56% | 0.023% |
| 77 | 4.426 | 4.418 | 4.435 | VV | 503  | 4889  | 0.22% | 0.009% |
| 78 | 4.441 | 4.435 | 4.457 | VV | 584  | 6398  | 0.29% | 0.012% |
| 79 | 4.467 | 4.457 | 4.481 | VV | 521  | 6839  | 0.31% | 0.012% |

Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-9.0-9.5MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

|                                                                        |       |       |       |    |        |        |                                                                                                                     |
|------------------------------------------------------------------------|-------|-------|-------|----|--------|--------|---------------------------------------------------------------------------------------------------------------------|
| Instrument :<br>FID_G<br>ClientSampleId :<br>SB-01-20241219-9.0-9.5MSD |       |       |       |    |        |        |                                                                                                                     |
| 80                                                                     | 4.497 | 4.481 | 4.506 | VV | 532    | 6961   | 0.31% 0.013%                                                                                                        |
| 81                                                                     | 4.551 | 4.506 | 4.612 | VV | 165472 | 169926 | Manual IntegrationsAPPROVED<br><br>Reviewed By :Yogesh Patel 12/26/2024<br>Supervised By :Ankita Jodhani 12/27/2024 |
| 82                                                                     | 4.617 | 4.612 | 4.639 | VV | 648    | 831    |                                                                                                                     |
| 83                                                                     | 4.653 | 4.639 | 4.663 | VV | 556    | 733    |                                                                                                                     |
| 84                                                                     | 4.678 | 4.663 | 4.703 | VV | 900    | 1504   |                                                                                                                     |
| 85                                                                     | 4.722 | 4.703 | 4.755 | VV | 1696   | 25803  |                                                                                                                     |
| 86                                                                     | 4.780 | 4.755 | 4.818 | VV | 2343   | 39003  | 1.76% 0.071%                                                                                                        |
| 87                                                                     | 4.822 | 4.818 | 4.843 | VV | 436    | 5678   | 0.26% 0.010%                                                                                                        |
| 88                                                                     | 4.847 | 4.843 | 4.852 | VV | 430    | 2261   | 0.10% 0.004%                                                                                                        |
| 89                                                                     | 4.859 | 4.852 | 4.868 | VV | 398    | 3376   | 0.15% 0.006%                                                                                                        |
| 90                                                                     | 4.888 | 4.868 | 4.893 | VV | 433    | 4900   | 0.22% 0.009%                                                                                                        |
| 91                                                                     | 4.897 | 4.893 | 4.909 | VV | 329    | 3155   | 0.14% 0.006%                                                                                                        |
| 92                                                                     | 4.941 | 4.909 | 4.963 | VV | 687    | 16137  | 0.73% 0.029%                                                                                                        |
| 93                                                                     | 4.967 | 4.963 | 4.993 | VV | 561    | 7448   | 0.34% 0.014%                                                                                                        |
| 94                                                                     | 4.998 | 4.993 | 5.019 | VV | 358    | 4703   | 0.21% 0.009%                                                                                                        |
| 95                                                                     | 5.022 | 5.019 | 5.041 | VV | 371    | 3722   | 0.17% 0.007%                                                                                                        |
| 96                                                                     | 5.047 | 5.041 | 5.101 | VV | 406    | 10046  | 0.45% 0.018%                                                                                                        |
| 97                                                                     | 5.105 | 5.101 | 5.123 | VV | 326    | 3242   | 0.15% 0.006%                                                                                                        |
| 98                                                                     | 5.138 | 5.123 | 5.171 | VV | 261    | 5023   | 0.23% 0.009%                                                                                                        |
| 99                                                                     | 5.197 | 5.171 | 5.204 | VV | 377    | 4944   | 0.22% 0.009%                                                                                                        |
| 100                                                                    | 5.213 | 5.204 | 5.259 | VV | 434    | 6317   | 0.29% 0.012%                                                                                                        |
| 101                                                                    | 5.270 | 5.259 | 5.285 | VV | 152    | 1345   | 0.06% 0.002%                                                                                                        |
| 102                                                                    | 5.291 | 5.285 | 5.295 | VV | 159    | 419    | 0.02% 0.001%                                                                                                        |
| 103                                                                    | 5.311 | 5.295 | 5.337 | VV | 292    | 3981   | 0.18% 0.007%                                                                                                        |
| 104                                                                    | 5.344 | 5.337 | 5.366 | VV | 650    | 2218   | 0.10% 0.004%                                                                                                        |
| 105                                                                    | 5.377 | 5.366 | 5.382 | VV | 262    | 1734   | 0.08% 0.003%                                                                                                        |
| 106                                                                    | 5.398 | 5.382 | 5.420 | VV | 418    | 5149   | 0.23% 0.009%                                                                                                        |
| 107                                                                    | 5.438 | 5.420 | 5.470 | PV | 393    | 7287   | 0.33% 0.013%                                                                                                        |
| 108                                                                    | 5.498 | 5.470 | 5.526 | VV | 924    | 14722  | 0.67% 0.027%                                                                                                        |
| 109                                                                    | 5.535 | 5.526 | 5.546 | VV | 233    | 2056   | 0.09% 0.004%                                                                                                        |
| 110                                                                    | 5.560 | 5.546 | 5.584 | VV | 379    | 4872   | 0.22% 0.009%                                                                                                        |
| 111                                                                    | 5.602 | 5.584 | 5.615 | VV | 456    | 5476   | 0.25% 0.010%                                                                                                        |
| 112                                                                    | 5.627 | 5.615 | 5.651 | VV | 394    | 6702   | 0.30% 0.012%                                                                                                        |
| 113                                                                    | 5.655 | 5.651 | 5.660 | VV | 219    | 980    | 0.04% 0.002%                                                                                                        |
| 114                                                                    | 5.663 | 5.660 | 5.676 | VV | 181    | 1409   | 0.06% 0.003%                                                                                                        |
| 115                                                                    | 5.696 | 5.676 | 5.712 | VV | 650    | 8559   | 0.39% 0.016%                                                                                                        |
| 116                                                                    | 5.731 | 5.712 | 5.784 | VV | 7221   | 84195  | 3.81% 0.153%                                                                                                        |
| 117                                                                    | 5.809 | 5.784 | 5.837 | VV | 478    | 9191   | 0.42% 0.017%                                                                                                        |
| 118                                                                    | 5.842 | 5.837 | 5.846 | VV | 192    | 852    | 0.04% 0.002%                                                                                                        |
| 119                                                                    | 5.849 | 5.846 | 5.873 | VV | 191    | 2125   | 0.10% 0.004%                                                                                                        |
| 120                                                                    | 5.884 | 5.873 | 5.902 | VV | 164    | 1831   | 0.08% 0.003%                                                                                                        |
| 121                                                                    | 5.909 | 5.902 | 5.930 | VV | 170    | 1700   | 0.08% 0.003%                                                                                                        |
| 122                                                                    | 5.966 | 5.930 | 5.981 | VV | 808    | 14290  | 0.65% 0.026%                                                                                                        |
| 123                                                                    | 5.998 | 5.981 | 6.016 | VV | 1891   | 25689  | 1.16% 0.047%                                                                                                        |
| 124                                                                    | 6.029 | 6.016 | 6.054 | VV | 799    | 13391  | 0.61% 0.024%                                                                                                        |
| 125                                                                    | 6.069 | 6.054 | 6.107 | VV | 576    | 13540  | 0.61% 0.025%                                                                                                        |
| 126                                                                    | 6.111 | 6.107 | 6.155 | VV | 346    | 6326   | 0.29% 0.012%                                                                                                        |

|     |       |       |       |    |        |         |        |        |
|-----|-------|-------|-------|----|--------|---------|--------|--------|
| 127 | 6.173 | 6.155 | 6.184 | VV | 307    | 4050    | 0.18%  | 0.007% |
| 128 | 6.206 | 6.184 | 6.219 | VV | 435    | 593     |        |        |
| 129 | 6.230 | 6.219 | 6.250 | VV | 441    | 576     |        |        |
| 130 | 6.271 | 6.250 | 6.309 | VV | 678    | 1406    |        |        |
| 131 | 6.317 | 6.309 | 6.340 | VV | 282    | 404     |        |        |
| 132 | 6.345 | 6.340 | 6.350 | VV | 249    | 1126    | 0.05%  | 0.002% |
| 133 | 6.377 | 6.350 | 6.400 | VV | 369    | 8574    | 0.39%  | 0.016% |
| 134 | 6.418 | 6.400 | 6.429 | VV | 386    | 4870    | 0.22%  | 0.009% |
| 135 | 6.446 | 6.429 | 6.483 | VV | 1438   | 19067   | 0.86%  | 0.035% |
| 136 | 6.496 | 6.483 | 6.514 | VV | 355    | 4570    | 0.21%  | 0.008% |
| 137 | 6.537 | 6.514 | 6.544 | VV | 251    | 3736    | 0.17%  | 0.007% |
| 138 | 6.549 | 6.544 | 6.554 | VV | 216    | 1085    | 0.05%  | 0.002% |
| 139 | 6.570 | 6.554 | 6.608 | VV | 613    | 12432   | 0.56%  | 0.023% |
| 140 | 6.623 | 6.608 | 6.649 | VV | 277    | 5230    | 0.24%  | 0.010% |
| 141 | 6.653 | 6.649 | 6.659 | VV | 119    | 653     | 0.03%  | 0.001% |
| 142 | 6.689 | 6.659 | 6.704 | VV | 696    | 10237   | 0.46%  | 0.019% |
| 143 | 6.732 | 6.704 | 6.792 | VV | 176129 | 1779582 | 80.52% | 3.244% |
| 144 | 6.810 | 6.792 | 6.849 | VV | 2372   | 25545   | 1.16%  | 0.047% |
| 145 | 6.850 | 6.849 | 6.865 | VV | 128    | 638     | 0.03%  | 0.001% |
| 146 | 6.870 | 6.865 | 6.874 | VV | 97     | 220     | 0.01%  | 0.000% |
| 147 | 6.882 | 6.874 | 6.902 | VV | 154    | 1456    | 0.07%  | 0.003% |
| 148 | 6.909 | 6.902 | 6.923 | PV | 83     | 607     | 0.03%  | 0.001% |
| 149 | 6.933 | 6.923 | 6.954 | VV | 254    | 3152    | 0.14%  | 0.006% |
| 150 | 6.957 | 6.954 | 6.974 | VV | 218    | 1599    | 0.07%  | 0.003% |
| 151 | 6.979 | 6.974 | 7.006 | VV | 78     | 1168    | 0.05%  | 0.002% |
| 152 | 7.011 | 7.006 | 7.019 | VV | 223    | 997     | 0.05%  | 0.002% |
| 153 | 7.046 | 7.019 | 7.072 | VV | 188    | 4465    | 0.20%  | 0.008% |
| 154 | 7.079 | 7.072 | 7.084 | VV | 171    | 899     | 0.04%  | 0.002% |
| 155 | 7.103 | 7.084 | 7.159 | VV | 619    | 11260   | 0.51%  | 0.021% |
| 156 | 7.172 | 7.159 | 7.185 | VV | 273    | 3467    | 0.16%  | 0.006% |
| 157 | 7.191 | 7.185 | 7.205 | VV | 328    | 2994    | 0.14%  | 0.005% |
| 158 | 7.217 | 7.205 | 7.244 | VV | 625    | 10657   | 0.48%  | 0.019% |
| 159 | 7.263 | 7.244 | 7.284 | VV | 585    | 12323   | 0.56%  | 0.022% |
| 160 | 7.289 | 7.284 | 7.295 | VV | 571    | 3223    | 0.15%  | 0.006% |
| 161 | 7.332 | 7.295 | 7.363 | VV | 1114   | 32060   | 1.45%  | 0.058% |
| 162 | 7.397 | 7.363 | 7.427 | VV | 2180   | 44016   | 1.99%  | 0.080% |
| 163 | 7.437 | 7.427 | 7.447 | VV | 759    | 7082    | 0.32%  | 0.013% |
| 164 | 7.454 | 7.447 | 7.482 | VV | 584    | 6938    | 0.31%  | 0.013% |
| 165 | 7.489 | 7.482 | 7.494 | VV | 202    | 1152    | 0.05%  | 0.002% |
| 166 | 7.498 | 7.494 | 7.530 | VV | 219    | 2732    | 0.12%  | 0.005% |
| 167 | 7.568 | 7.530 | 7.589 | VV | 253    | 4433    | 0.20%  | 0.008% |
| 168 | 7.605 | 7.589 | 7.615 | VV | 260    | 2569    | 0.12%  | 0.005% |
| 169 | 7.628 | 7.615 | 7.657 | VV | 366    | 5140    | 0.23%  | 0.009% |
| 170 | 7.683 | 7.657 | 7.720 | VV | 1435   | 17155   | 0.78%  | 0.031% |
| 171 | 7.731 | 7.720 | 7.736 | VV | 135    | 730     | 0.03%  | 0.001% |
| 172 | 7.743 | 7.736 | 7.765 | VV | 124    | 1989    | 0.09%  | 0.004% |
| 173 | 7.780 | 7.765 | 7.785 | VV | 175    | 1654    | 0.07%  | 0.003% |
| 174 | 7.805 | 7.785 | 7.832 | VV | 324    | 6094    | 0.28%  | 0.011% |

Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-9.0-9.5MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

|     |       |       |       |    |        |         |        |        |
|-----|-------|-------|-------|----|--------|---------|--------|--------|
| 175 | 7.857 | 7.832 | 7.884 | VV | 535    | 9094    | 0.41%  | 0.017% |
| 176 | 7.901 | 7.884 | 7.912 | VV | 188    | 212     |        |        |
| 177 | 7.953 | 7.912 | 7.985 | VV | 550    | 1285    |        |        |
| 178 | 8.002 | 7.985 | 8.027 | VV | 305    | 445     |        |        |
| 179 | 8.033 | 8.027 | 8.046 | PV | 136    | 98      |        |        |
| 180 | 8.054 | 8.046 | 8.061 | VV | 154    | 1018    | 0.05%  | 0.002% |
| 181 | 8.113 | 8.061 | 8.125 | VV | 520    | 11266   | 0.51%  | 0.021% |
| 182 | 8.151 | 8.125 | 8.157 | VV | 681    | 10511   | 0.48%  | 0.019% |
| 183 | 8.169 | 8.157 | 8.202 | VV | 986    | 17689   | 0.80%  | 0.032% |
| 184 | 8.213 | 8.202 | 8.239 | VV | 613    | 10498   | 0.48%  | 0.019% |
| 185 | 8.260 | 8.239 | 8.275 | VV | 1949   | 24653   | 1.12%  | 0.045% |
| 186 | 8.295 | 8.275 | 8.307 | VV | 1117   | 17229   | 0.78%  | 0.031% |
| 187 | 8.329 | 8.307 | 8.352 | VV | 3399   | 45204   | 2.05%  | 0.082% |
| 188 | 8.359 | 8.352 | 8.370 | VV | 691    | 6190    | 0.28%  | 0.011% |
| 189 | 8.390 | 8.370 | 8.422 | VV | 2371   | 34553   | 1.56%  | 0.063% |
| 190 | 8.440 | 8.422 | 8.488 | VV | 1052   | 20080   | 0.91%  | 0.037% |
| 191 | 8.505 | 8.488 | 8.512 | VV | 322    | 2860    | 0.13%  | 0.005% |
| 192 | 8.569 | 8.512 | 8.606 | VV | 180695 | 1954187 | 88.42% | 3.562% |
| 193 | 8.624 | 8.606 | 8.643 | VV | 345    | 5255    | 0.24%  | 0.010% |
| 194 | 8.673 | 8.643 | 8.708 | VV | 7386   | 94618   | 4.28%  | 0.172% |
| 195 | 8.719 | 8.708 | 8.744 | VV | 715    | 10882   | 0.49%  | 0.020% |
| 196 | 8.750 | 8.744 | 8.760 | VV | 355    | 2768    | 0.13%  | 0.005% |
| 197 | 8.768 | 8.760 | 8.788 | VV | 359    | 4823    | 0.22%  | 0.009% |
| 198 | 8.800 | 8.788 | 8.809 | VV | 349    | 3422    | 0.15%  | 0.006% |
| 199 | 8.837 | 8.809 | 8.857 | VV | 1331   | 19544   | 0.88%  | 0.036% |
| 200 | 8.863 | 8.857 | 8.873 | VV | 366    | 2786    | 0.13%  | 0.005% |
| 201 | 8.899 | 8.873 | 8.914 | VV | 536    | 8206    | 0.37%  | 0.015% |
| 202 | 8.934 | 8.914 | 8.952 | VV | 548    | 8129    | 0.37%  | 0.015% |
| 203 | 8.967 | 8.952 | 8.985 | VV | 650    | 11109   | 0.50%  | 0.020% |
| 204 | 8.990 | 8.985 | 9.005 | VV | 642    | 6820    | 0.31%  | 0.012% |
| 205 | 9.021 | 9.005 | 9.032 | VV | 901    | 11748   | 0.53%  | 0.021% |
| 206 | 9.053 | 9.032 | 9.092 | VV | 1680   | 34723   | 1.57%  | 0.063% |
| 207 | 9.113 | 9.092 | 9.142 | VV | 1463   | 24761   | 1.12%  | 0.045% |
| 208 | 9.174 | 9.142 | 9.182 | VV | 833    | 15132   | 0.68%  | 0.028% |
| 209 | 9.186 | 9.182 | 9.211 | VV | 787    | 11635   | 0.53%  | 0.021% |
| 210 | 9.230 | 9.211 | 9.246 | VV | 645    | 10280   | 0.47%  | 0.019% |
| 211 | 9.287 | 9.246 | 9.320 | VV | 1595   | 35953   | 1.63%  | 0.066% |
| 212 | 9.335 | 9.320 | 9.378 | VV | 1089   | 24227   | 1.10%  | 0.044% |
| 213 | 9.400 | 9.378 | 9.435 | VV | 1548   | 28110   | 1.27%  | 0.051% |
| 214 | 9.445 | 9.435 | 9.455 | VV | 480    | 5462    | 0.25%  | 0.010% |
| 215 | 9.487 | 9.455 | 9.514 | VV | 810    | 19850   | 0.90%  | 0.036% |
| 216 | 9.533 | 9.514 | 9.558 | VV | 539    | 7036    | 0.32%  | 0.013% |
| 217 | 9.576 | 9.558 | 9.594 | PV | 437    | 5087    | 0.23%  | 0.009% |
| 218 | 9.628 | 9.594 | 9.647 | VV | 1470   | 23091   | 1.04%  | 0.042% |
| 219 | 9.662 | 9.647 | 9.681 | VV | 806    | 12678   | 0.57%  | 0.023% |
| 220 | 9.694 | 9.681 | 9.699 | VV | 472    | 4647    | 0.21%  | 0.008% |
| 221 | 9.724 | 9.699 | 9.737 | VV | 1487   | 21924   | 0.99%  | 0.040% |

Instrument :

FID\_G

ClientSampleId :

SB-01-20241219-9.0-9.5MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/26/2024  
Supervised By :Ankita Jodhani 12/27/2024

|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 222 | 9.744  | 9.737  | 9.762  | VV | 1058   | 12040   | 0.54%  | 0.022% |
| 223 | 9.780  | 9.762  | 9.804  | VV | 965    | 1632    |        |        |
| 224 | 9.822  | 9.804  | 9.857  | VV | 978    | 1875    |        |        |
| 225 | 9.860  | 9.857  | 9.867  | VV | 314    | 155     |        |        |
| 226 | 9.874  | 9.867  | 9.882  | VV | 243    | 176     |        |        |
| 227 | 9.907  | 9.882  | 9.937  | VV | 1336   | 19403   | 0.88%  | 0.035% |
| 228 | 9.963  | 9.937  | 9.972  | VV | 511    | 7001    | 0.32%  | 0.013% |
| 229 | 9.988  | 9.972  | 10.001 | VV | 651    | 8965    | 0.41%  | 0.016% |
| 230 | 10.046 | 10.001 | 10.092 | VV | 77272  | 831061  | 37.60% | 1.515% |
| 231 | 10.107 | 10.092 | 10.135 | VV | 1093   | 18236   | 0.83%  | 0.033% |
| 232 | 10.185 | 10.135 | 10.217 | VV | 180318 | 1956981 | 88.55% | 3.567% |
| 233 | 10.235 | 10.217 | 10.273 | VV | 898    | 21674   | 0.98%  | 0.040% |
| 234 | 10.282 | 10.273 | 10.297 | VV | 532    | 6044    | 0.27%  | 0.011% |
| 235 | 10.306 | 10.297 | 10.310 | VV | 370    | 2510    | 0.11%  | 0.005% |
| 236 | 10.317 | 10.310 | 10.331 | VV | 427    | 4612    | 0.21%  | 0.008% |
| 237 | 10.349 | 10.331 | 10.364 | VV | 550    | 7806    | 0.35%  | 0.014% |
| 238 | 10.387 | 10.364 | 10.401 | VV | 432    | 7838    | 0.35%  | 0.014% |
| 239 | 10.408 | 10.401 | 10.436 | VV | 305    | 6159    | 0.28%  | 0.011% |
| 240 | 10.457 | 10.436 | 10.475 | VV | 823    | 11872   | 0.54%  | 0.022% |
| 241 | 10.491 | 10.475 | 10.497 | VV | 578    | 6032    | 0.27%  | 0.011% |
| 242 | 10.521 | 10.497 | 10.547 | VV | 2117   | 30439   | 1.38%  | 0.055% |
| 243 | 10.568 | 10.547 | 10.593 | VV | 498    | 11735   | 0.53%  | 0.021% |
| 244 | 10.628 | 10.593 | 10.665 | VV | 1422   | 27807   | 1.26%  | 0.051% |
| 245 | 10.673 | 10.665 | 10.679 | VV | 279    | 2058    | 0.09%  | 0.004% |
| 246 | 10.694 | 10.679 | 10.727 | VV | 562    | 11190   | 0.51%  | 0.020% |
| 247 | 10.742 | 10.727 | 10.769 | VV | 415    | 7406    | 0.34%  | 0.013% |
| 248 | 10.776 | 10.769 | 10.797 | VV | 405    | 4705    | 0.21%  | 0.009% |
| 249 | 10.821 | 10.797 | 10.841 | VV | 917    | 12607   | 0.57%  | 0.023% |
| 250 | 10.850 | 10.841 | 10.863 | VV | 456    | 5116    | 0.23%  | 0.009% |
| 251 | 10.892 | 10.863 | 10.917 | VV | 1626   | 29517   | 1.34%  | 0.054% |
| 252 | 10.927 | 10.917 | 10.946 | VV | 609    | 8587    | 0.39%  | 0.016% |
| 253 | 10.969 | 10.946 | 10.997 | VV | 2447   | 33452   | 1.51%  | 0.061% |
| 254 | 11.003 | 10.997 | 11.028 | VV | 466    | 7568    | 0.34%  | 0.014% |
| 255 | 11.054 | 11.028 | 11.070 | VV | 1447   | 21440   | 0.97%  | 0.039% |
| 256 | 11.084 | 11.070 | 11.104 | VV | 694    | 9894    | 0.45%  | 0.018% |
| 257 | 11.134 | 11.104 | 11.139 | VV | 365    | 6070    | 0.27%  | 0.011% |
| 258 | 11.155 | 11.139 | 11.160 | VV | 447    | 4631    | 0.21%  | 0.008% |
| 259 | 11.197 | 11.160 | 11.222 | VV | 998    | 23070   | 1.04%  | 0.042% |
| 260 | 11.252 | 11.222 | 11.282 | VV | 2186   | 33005   | 1.49%  | 0.060% |
| 261 | 11.301 | 11.282 | 11.319 | VV | 430    | 5231    | 0.24%  | 0.010% |
| 262 | 11.327 | 11.319 | 11.337 | VV | 138    | 1002    | 0.05%  | 0.002% |
| 263 | 11.341 | 11.337 | 11.348 | PV | 67     | 375     | 0.02%  | 0.001% |
| 264 | 11.359 | 11.348 | 11.374 | VV | 182    | 1308    | 0.06%  | 0.002% |
| 265 | 11.403 | 11.374 | 11.417 | VV | 192    | 3557    | 0.16%  | 0.006% |
| 266 | 11.436 | 11.417 | 11.466 | VV | 1961   | 24604   | 1.11%  | 0.045% |
| 267 | 11.500 | 11.466 | 11.527 | VV | 628    | 10188   | 0.46%  | 0.019% |
| 268 | 11.550 | 11.527 | 11.585 | VV | 1140   | 17223   | 0.78%  | 0.031% |
| 269 | 11.634 | 11.585 | 11.668 | VV | 174576 | 2009637 | 90.93% | 3.663% |

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|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 270 | 11.679 | 11.668 | 11.696 | VV | 757    | 10424   | 0.47%  | 0.019% |
| 271 | 11.715 | 11.696 | 11.748 | VV | 1077   | 2075    |        |        |
| 272 | 11.765 | 11.748 | 11.782 | VV | 630    | 834     |        |        |
| 273 | 11.792 | 11.782 | 11.800 | VV | 373    | 315     |        |        |
| 274 | 11.819 | 11.800 | 11.842 | VV | 1021   | 1293    |        |        |
| 275 | 11.857 | 11.842 | 11.871 | VV | 463    | 5118    | 0.23%  | 0.009% |
| 276 | 11.892 | 11.871 | 11.910 | VV | 599    | 8115    | 0.37%  | 0.015% |
| 277 | 11.916 | 11.910 | 11.920 | VV | 94     | 309     | 0.01%  | 0.001% |
| 278 | 11.939 | 11.920 | 11.958 | VV | 291    | 3949    | 0.18%  | 0.007% |
| 279 | 11.985 | 11.958 | 12.009 | VV | 5120   | 60271   | 2.73%  | 0.110% |
| 280 | 12.049 | 12.009 | 12.070 | PV | 1299   | 20792   | 0.94%  | 0.038% |
| 281 | 12.081 | 12.070 | 12.097 | VV | 548    | 7012    | 0.32%  | 0.013% |
| 282 | 12.117 | 12.097 | 12.145 | VV | 2189   | 27711   | 1.25%  | 0.051% |
| 283 | 12.161 | 12.145 | 12.185 | VV | 571    | 7601    | 0.34%  | 0.014% |
| 284 | 12.196 | 12.185 | 12.207 | VV | 238    | 2535    | 0.11%  | 0.005% |
| 285 | 12.231 | 12.207 | 12.262 | VV | 876    | 15674   | 0.71%  | 0.029% |
| 286 | 12.294 | 12.262 | 12.311 | VV | 3460   | 52349   | 2.37%  | 0.095% |
| 287 | 12.323 | 12.311 | 12.357 | VV | 2471   | 37969   | 1.72%  | 0.069% |
| 288 | 12.371 | 12.357 | 12.382 | VV | 757    | 8627    | 0.39%  | 0.016% |
| 289 | 12.399 | 12.382 | 12.417 | VV | 2120   | 28111   | 1.27%  | 0.051% |
| 290 | 12.441 | 12.417 | 12.450 | VV | 1012   | 18143   | 0.82%  | 0.033% |
| 291 | 12.464 | 12.450 | 12.496 | VV | 1139   | 21614   | 0.98%  | 0.039% |
| 292 | 12.513 | 12.496 | 12.529 | VV | 1250   | 16158   | 0.73%  | 0.029% |
| 293 | 12.553 | 12.529 | 12.580 | VV | 32350  | 355481  | 16.09% | 0.648% |
| 294 | 12.599 | 12.580 | 12.618 | VV | 2081   | 37665   | 1.70%  | 0.069% |
| 295 | 12.633 | 12.618 | 12.652 | VV | 2333   | 33834   | 1.53%  | 0.062% |
| 296 | 12.661 | 12.652 | 12.676 | VV | 1116   | 14785   | 0.67%  | 0.027% |
| 297 | 12.687 | 12.676 | 12.700 | VV | 1146   | 15206   | 0.69%  | 0.028% |
| 298 | 12.719 | 12.700 | 12.751 | VV | 1202   | 27493   | 1.24%  | 0.050% |
| 299 | 12.774 | 12.751 | 12.786 | VV | 1340   | 21369   | 0.97%  | 0.039% |
| 300 | 12.795 | 12.786 | 12.807 | VV | 1176   | 12606   | 0.57%  | 0.023% |
| 301 | 12.833 | 12.807 | 12.855 | VV | 2264   | 39627   | 1.79%  | 0.072% |
| 302 | 12.882 | 12.855 | 12.899 | VV | 2177   | 37219   | 1.68%  | 0.068% |
| 303 | 12.912 | 12.899 | 12.920 | VV | 1906   | 20943   | 0.95%  | 0.038% |
| 304 | 12.950 | 12.920 | 12.990 | VV | 172355 | 2070105 | 93.67% | 3.773% |
| 305 | 13.020 | 12.990 | 13.060 | VV | 5237   | 89447   | 4.05%  | 0.163% |
| 306 | 13.072 | 13.060 | 13.080 | VV | 499    | 4542    | 0.21%  | 0.008% |
| 307 | 13.102 | 13.080 | 13.118 | VV | 869    | 14171   | 0.64%  | 0.026% |
| 308 | 13.138 | 13.118 | 13.173 | VV | 3747   | 57472   | 2.60%  | 0.105% |
| 309 | 13.188 | 13.173 | 13.214 | VV | 1465   | 26474   | 1.20%  | 0.048% |
| 310 | 13.242 | 13.214 | 13.265 | VV | 1894   | 33893   | 1.53%  | 0.062% |
| 311 | 13.300 | 13.265 | 13.323 | VV | 3099   | 43399   | 1.96%  | 0.079% |
| 312 | 13.354 | 13.323 | 13.379 | VV | 1416   | 34160   | 1.55%  | 0.062% |
| 313 | 13.393 | 13.379 | 13.430 | VV | 983    | 23103   | 1.05%  | 0.042% |
| 314 | 13.447 | 13.430 | 13.450 | VV | 556    | 6064    | 0.27%  | 0.011% |
| 315 | 13.489 | 13.450 | 13.515 | VV | 1271   | 30102   | 1.36%  | 0.055% |
| 316 | 13.536 | 13.515 | 13.554 | VV | 952    | 16376   | 0.74%  | 0.030% |

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|     |        |        |        |    |        |         |        |        |
|-----|--------|--------|--------|----|--------|---------|--------|--------|
| 317 | 13.581 | 13.554 | 13.607 | VV | 1507   | 31157   | 1.41%  | 0.057% |
| 318 | 13.631 | 13.607 | 13.660 | VV | 754    | 1659    |        |        |
| 319 | 13.694 | 13.660 | 13.700 | VV | 658    | 1239    |        |        |
| 320 | 13.715 | 13.700 | 13.730 | VV | 738    | 1176    |        |        |
| 321 | 13.755 | 13.730 | 13.775 | VV | 1804   | 2881    |        |        |
| 322 | 13.788 | 13.775 | 13.825 | VV | 1597   | 25256   | 1.14%  | 0.046% |
| 323 | 13.834 | 13.825 | 13.859 | VV | 395    | 5995    | 0.27%  | 0.011% |
| 324 | 13.891 | 13.859 | 13.906 | VV | 722    | 13327   | 0.60%  | 0.024% |
| 325 | 13.933 | 13.906 | 13.985 | VV | 1617   | 41991   | 1.90%  | 0.077% |
| 326 | 13.998 | 13.985 | 14.017 | VV | 714    | 10414   | 0.47%  | 0.019% |
| 327 | 14.041 | 14.017 | 14.082 | VV | 1135   | 20476   | 0.93%  | 0.037% |
| 328 | 14.153 | 14.082 | 14.187 | VV | 157582 | 2000598 | 90.52% | 3.646% |
| 329 | 14.208 | 14.187 | 14.223 | VV | 874    | 13817   | 0.63%  | 0.025% |
| 330 | 14.242 | 14.223 | 14.263 | VV | 1294   | 19772   | 0.89%  | 0.036% |
| 331 | 14.282 | 14.263 | 14.315 | VV | 1130   | 17840   | 0.81%  | 0.033% |
| 332 | 14.323 | 14.315 | 14.344 | VV | 283    | 3622    | 0.16%  | 0.007% |
| 333 | 14.363 | 14.344 | 14.387 | VV | 315    | 4880    | 0.22%  | 0.009% |
| 334 | 14.424 | 14.387 | 14.463 | VV | 708    | 18928   | 0.86%  | 0.034% |
| 335 | 14.487 | 14.463 | 14.502 | VV | 711    | 11044   | 0.50%  | 0.020% |
| 336 | 14.514 | 14.502 | 14.525 | VV | 727    | 9433    | 0.43%  | 0.017% |
| 337 | 14.542 | 14.525 | 14.585 | VV | 1409   | 30322   | 1.37%  | 0.055% |
| 338 | 14.590 | 14.585 | 14.611 | VV | 475    | 4899    | 0.22%  | 0.009% |
| 339 | 14.634 | 14.611 | 14.654 | VV | 923    | 14599   | 0.66%  | 0.027% |
| 340 | 14.660 | 14.654 | 14.679 | VV | 623    | 7034    | 0.32%  | 0.013% |
| 341 | 14.719 | 14.679 | 14.743 | VV | 2054   | 40081   | 1.81%  | 0.073% |
| 342 | 14.770 | 14.743 | 14.797 | VV | 8070   | 104671  | 4.74%  | 0.191% |
| 343 | 14.824 | 14.797 | 14.860 | VV | 1545   | 35908   | 1.62%  | 0.065% |
| 344 | 14.876 | 14.860 | 14.910 | VV | 1088   | 18818   | 0.85%  | 0.034% |
| 345 | 14.934 | 14.910 | 14.967 | VV | 1342   | 24847   | 1.12%  | 0.045% |
| 346 | 14.999 | 14.967 | 15.018 | VV | 532    | 11047   | 0.50%  | 0.020% |
| 347 | 15.057 | 15.018 | 15.093 | VV | 91555  | 1279802 | 57.91% | 2.333% |
| 348 | 15.099 | 15.093 | 15.118 | VV | 954    | 11967   | 0.54%  | 0.022% |
| 349 | 15.139 | 15.118 | 15.164 | VV | 3453   | 46863   | 2.12%  | 0.085% |
| 350 | 15.187 | 15.164 | 15.204 | VV | 914    | 14146   | 0.64%  | 0.026% |
| 351 | 15.261 | 15.204 | 15.296 | VV | 148675 | 1969180 | 89.10% | 3.589% |
| 352 | 15.304 | 15.296 | 15.324 | VV | 715    | 9141    | 0.41%  | 0.017% |
| 353 | 15.343 | 15.324 | 15.404 | VV | 1177   | 27230   | 1.23%  | 0.050% |
| 354 | 15.423 | 15.404 | 15.435 | VV | 401    | 5458    | 0.25%  | 0.010% |
| 355 | 15.442 | 15.435 | 15.475 | VV | 399    | 5575    | 0.25%  | 0.010% |
| 356 | 15.494 | 15.475 | 15.518 | PV | 396    | 6504    | 0.29%  | 0.012% |
| 357 | 15.532 | 15.518 | 15.568 | VV | 393    | 6256    | 0.28%  | 0.011% |
| 358 | 15.639 | 15.568 | 15.714 | VV | 32899  | 559046  | 25.30% | 1.019% |
| 359 | 15.720 | 15.714 | 15.747 | VV | 540    | 9432    | 0.43%  | 0.017% |
| 360 | 15.784 | 15.747 | 15.816 | VV | 1252   | 28902   | 1.31%  | 0.053% |
| 361 | 15.856 | 15.816 | 15.885 | VV | 1191   | 26086   | 1.18%  | 0.048% |
| 362 | 15.914 | 15.885 | 15.929 | VV | 338    | 5962    | 0.27%  | 0.011% |
| 363 | 15.966 | 15.929 | 15.985 | VV | 566    | 12890   | 0.58%  | 0.023% |
| 364 | 16.004 | 15.985 | 16.054 | VV | 770    | 20963   | 0.95%  | 0.038% |

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|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
|-----|--------|--------|--------|----|--------|------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------|--|
|     |        |        |        |    |        | Instrument :<br>FID_G<br>ClientSampleId :<br>SB-01-20241219-9.0-9.5MSD |                                                                                  |        |  |
| 365 | 16.072 | 16.054 | 16.092 | VV | 441    | 7788                                                                   | 0.35%                                                                            | 0.014% |  |
|     |        |        |        |    |        | Manual IntegrationsAPPROVED                                            |                                                                                  |        |  |
| 366 | 16.102 | 16.092 | 16.129 | VV | 311    | 468                                                                    | Reviewed By :Yogesh Patel 12/26/2024<br>Supervised By :Ankita Jodhani 12/27/2024 |        |  |
| 367 | 16.162 | 16.129 | 16.179 | PV | 974    | 1545                                                                   |                                                                                  |        |  |
| 368 | 16.201 | 16.179 | 16.224 | VV | 846    | 1598                                                                   |                                                                                  |        |  |
| 369 | 16.286 | 16.224 | 16.332 | VV | 146617 | 192316                                                                 |                                                                                  |        |  |
| 370 | 16.359 | 16.332 | 16.402 | VV | 282    | 5538                                                                   | 0.25%                                                                            | 0.010% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 371 | 16.432 | 16.402 | 16.454 | PV | 418    | 5388                                                                   | 0.24%                                                                            | 0.010% |  |
| 372 | 16.498 | 16.454 | 16.542 | VV | 254    | 9068                                                                   | 0.41%                                                                            | 0.017% |  |
| 373 | 16.579 | 16.542 | 16.592 | VV | 375    | 7535                                                                   | 0.34%                                                                            | 0.014% |  |
| 374 | 16.660 | 16.592 | 16.700 | VV | 3333   | 74481                                                                  | 3.37%                                                                            | 0.136% |  |
| 375 | 16.748 | 16.700 | 16.803 | VV | 3164   | 83955                                                                  | 3.80%                                                                            | 0.153% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 376 | 16.851 | 16.803 | 16.859 | PV | 1080   | 15437                                                                  | 0.70%                                                                            | 0.028% |  |
| 377 | 16.880 | 16.859 | 16.943 | VV | 3259   | 62227                                                                  | 2.82%                                                                            | 0.113% |  |
| 378 | 16.963 | 16.943 | 16.986 | VV | 276    | 4492                                                                   | 0.20%                                                                            | 0.008% |  |
| 379 | 17.068 | 16.986 | 17.100 | VV | 4059   | 83127                                                                  | 3.76%                                                                            | 0.152% |  |
| 380 | 17.127 | 17.100 | 17.177 | VV | 4120   | 65634                                                                  | 2.97%                                                                            | 0.120% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 381 | 17.240 | 17.177 | 17.270 | VV | 138096 | 1895206                                                                | 85.76%                                                                           | 3.454% |  |
| 382 | 17.288 | 17.270 | 17.349 | VV | 7353   | 123224                                                                 | 5.58%                                                                            | 0.225% |  |
| 383 | 17.374 | 17.349 | 17.420 | VV | 931    | 28117                                                                  | 1.27%                                                                            | 0.051% |  |
| 384 | 17.431 | 17.420 | 17.447 | VV | 548    | 6900                                                                   | 0.31%                                                                            | 0.013% |  |
| 385 | 17.500 | 17.447 | 17.520 | VV | 1035   | 28380                                                                  | 1.28%                                                                            | 0.052% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 386 | 17.531 | 17.520 | 17.551 | VV | 764    | 10728                                                                  | 0.49%                                                                            | 0.020% |  |
| 387 | 17.607 | 17.551 | 17.665 | VV | 2175   | 77677                                                                  | 3.51%                                                                            | 0.142% |  |
| 388 | 17.688 | 17.665 | 17.735 | VV | 3203   | 61329                                                                  | 2.78%                                                                            | 0.112% |  |
| 389 | 17.741 | 17.735 | 17.759 | VV | 485    | 4403                                                                   | 0.20%                                                                            | 0.008% |  |
| 390 | 17.787 | 17.759 | 17.813 | VV | 1475   | 26118                                                                  | 1.18%                                                                            | 0.048% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 391 | 17.830 | 17.813 | 17.882 | VV | 782    | 14152                                                                  | 0.64%                                                                            | 0.026% |  |
| 392 | 17.903 | 17.882 | 17.917 | VV | 265    | 3949                                                                   | 0.18%                                                                            | 0.007% |  |
| 393 | 17.936 | 17.917 | 17.956 | VV | 263    | 3877                                                                   | 0.18%                                                                            | 0.007% |  |
| 394 | 17.976 | 17.956 | 17.995 | PV | 393    | 6109                                                                   | 0.28%                                                                            | 0.011% |  |
| 395 | 18.021 | 17.995 | 18.039 | VV | 1387   | 22145                                                                  | 1.00%                                                                            | 0.040% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 396 | 18.082 | 18.039 | 18.095 | VV | 1429   | 30574                                                                  | 1.38%                                                                            | 0.056% |  |
| 397 | 18.130 | 18.095 | 18.167 | VV | 130444 | 1858571                                                                | 84.10%                                                                           | 3.387% |  |
| 398 | 18.220 | 18.167 | 18.254 | VV | 1958   | 51700                                                                  | 2.34%                                                                            | 0.094% |  |
| 399 | 18.281 | 18.254 | 18.297 | VV | 729    | 17301                                                                  | 0.78%                                                                            | 0.032% |  |
| 400 | 18.352 | 18.297 | 18.381 | VV | 2062   | 59551                                                                  | 2.69%                                                                            | 0.109% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 401 | 18.409 | 18.381 | 18.425 | VV | 2153   | 39251                                                                  | 1.78%                                                                            | 0.072% |  |
| 402 | 18.448 | 18.425 | 18.459 | VV | 1730   | 31067                                                                  | 1.41%                                                                            | 0.057% |  |
| 403 | 18.489 | 18.459 | 18.534 | VV | 19457  | 414035                                                                 | 18.73%                                                                           | 0.755% |  |
| 404 | 18.553 | 18.534 | 18.612 | VV | 5324   | 112361                                                                 | 5.08%                                                                            | 0.205% |  |
| 405 | 18.642 | 18.612 | 18.650 | VV | 2130   | 34526                                                                  | 1.56%                                                                            | 0.063% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 406 | 18.663 | 18.650 | 18.685 | VV | 2072   | 37444                                                                  | 1.69%                                                                            | 0.068% |  |
| 407 | 18.694 | 18.685 | 18.725 | VV | 1376   | 28126                                                                  | 1.27%                                                                            | 0.051% |  |
| 408 | 18.753 | 18.725 | 18.781 | VV | 10010  | 143370                                                                 | 6.49%                                                                            | 0.261% |  |
| 409 | 18.801 | 18.781 | 18.821 | VV | 1409   | 29351                                                                  | 1.33%                                                                            | 0.053% |  |
| 410 | 18.843 | 18.821 | 18.857 | VV | 1233   | 24048                                                                  | 1.09%                                                                            | 0.044% |  |
|     |        |        |        |    |        |                                                                        |                                                                                  |        |  |
| 411 | 18.886 | 18.857 | 18.903 | VV | 2397   | 47659                                                                  | 2.16%                                                                            | 0.087% |  |



riteres  
Sum of corrected areas:

FG121924.M Tue Dec 24 01:59:54 2024

|                                          |  |
|------------------------------------------|--|
| Instrument :                             |  |
| FID_G                                    |  |
| ClientSampleId :                         |  |
| SB-01-20241219-9.0-9.5MSD                |  |
| 54865850                                 |  |
| Manual IntegrationsAPPROVED              |  |
| Reviewed By :Yogesh Patel 12/26/2024     |  |
| Supervised By :Ankita Jodhani 12/27/2024 |  |

### Manual Integration Report

| Sample ID       | ClientID ID | File ID    | Sequence ID | Parameter                | Supervised By | Supervised On         | Reason                                  |
|-----------------|-------------|------------|-------------|--------------------------|---------------|-----------------------|-----------------------------------------|
| .BLK            |             | FG015014.D | FG122324    | TETRACOSANE-d50 (SURROGA | Ankita        | 12/27/2024 7:53:18 AM | Peak Integrated by Software incorrectly |
| 50 PPM TRPH STD |             | FG015015.D | FG122324    | TETRACOSANE-d50 (SURROGA | Ankita        | 12/27/2024 7:53:20 AM | Peak Integrated by Software incorrectly |
| P5361-01        |             | FG015018.D | FG122324    | TETRACOSANE-d50 (SURROGA | Ankita        | 12/27/2024 7:53:21 AM | Peak Integrated by Software incorrectly |
| P5361-02MS      |             | FG015020.D | FG122324    | N-HEXATRIACONTANE        | Ankita        | 12/27/2024 7:53:23 AM | Peak Integrated by Software incorrectly |
| P5361-02MS      |             | FG015020.D | FG122324    | N-OCTATRIACONTANE        | Ankita        | 12/27/2024 7:53:23 AM | Peak Integrated by Software incorrectly |
| P5361-02MS      |             | FG015020.D | FG122324    | N-TETRACONTANE           | Ankita        | 12/27/2024 7:53:23 AM | Peak Integrated by Software incorrectly |
| P5361-02MS      |             | FG015020.D | FG122324    | N-TETRATRIACONTANE       | Ankita        | 12/27/2024 7:53:23 AM | Peak Integrated by Software incorrectly |
| P5361-02MS      |             | FG015020.D | FG122324    | TETRACOSANE-d50 (SURROGA | Ankita        | 12/27/2024 7:53:23 AM | Peak Integrated by Software incorrectly |
| PB165807BS      |             | FG015025.D | FG122324    | N-OCTATRIACONTANE        | Ankita        | 12/27/2024 7:53:25 AM | Peak Integrated by Software incorrectly |
| P5361-02MSD     |             | FG015026.D | FG122324    | N-OCTATRIACONTANE        | Ankita        | 12/27/2024 7:53:26 AM | Peak Integrated by Software incorrectly |
| P5318-01        |             | FG015027.D | FG122324    | TETRACOSANE-d50 (SURROGA | Ankita        | 12/27/2024 7:53:28 AM | Peak Integrated by Software incorrectly |
|                 |             |            |             |                          |               |                       |                                         |

Instrument ID: FID\_G

**Daily Analysis Runlog For Sequence/QC Batch ID # FG121924**

|                                                                    |                                         |                   |                               |
|--------------------------------------------------------------------|-----------------------------------------|-------------------|-------------------------------|
| Review By                                                          | yogesh                                  | Review On         | 12/19/2024 3:48:56 PM         |
| Supervise By                                                       | Ankita                                  | Supervise On      | 12/20/2024 10:41:50 AM        |
| SubDirectory                                                       | FG121924                                | HP Acquire Method | HP Processing Method FG121924 |
| <b>STD. NAME</b>                                                   | <b>STD REF.#</b>                        |                   |                               |
| Tune/Reschk<br>Initial Calibration Stds                            | PP23961,PP23963,PP23964,PP23965,PP23966 |                   |                               |
| CCC<br>Internal Standard/PEM                                       | PP23963                                 |                   |                               |
| ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | PP23962,PP23967                         |                   |                               |

| Sr# | SampleId     | Data File Name | Date-Time         | Operator | Status |
|-----|--------------|----------------|-------------------|----------|--------|
| 1   | MECL2        | FG014985.D     | 19 Dec 2024 13:06 | YP\AJ    | Ok     |
| 2   | I.BLK        | FG014986.D     | 19 Dec 2024 14:03 | YP\AJ    | Ok     |
| 3   | 100 TRPH STD | FG014987.D     | 19 Dec 2024 14:32 | YP\AJ    | Ok     |
| 4   | 50 TRPH STD  | FG014988.D     | 19 Dec 2024 15:01 | YP\AJ    | Ok     |
| 5   | 20 TRPH STD  | FG014989.D     | 19 Dec 2024 15:29 | YP\AJ    | Ok     |
| 6   | 10 TRPH STD  | FG014990.D     | 19 Dec 2024 15:57 | YP\AJ    | Ok     |
| 7   | 5 TRPH STD   | FG014991.D     | 19 Dec 2024 16:26 | YP\AJ    | Ok     |
| 8   | FG121924ICV  | FG014992.D     | 19 Dec 2024 16:54 | YP\AJ    | Ok     |

M : Manual Integration

Instrument ID: FID\_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG122324

|                                                                    |                                         |                   |                               |
|--------------------------------------------------------------------|-----------------------------------------|-------------------|-------------------------------|
| Review By                                                          | yogesh                                  | Review On         | 12/23/2024 11:51:29 AM        |
| Supervise By                                                       | Ankita                                  | Supervise On      | 12/27/2024 7:53:40 AM         |
| SubDirectory                                                       | FG122324                                | HP Acquire Method | HP Processing Method FG121924 |
| <b>STD. NAME</b>                                                   | <b>STD REF.#</b>                        |                   |                               |
| Tune/Reschk<br>Initial Calibration Stds                            | PP23961,PP23963,PP23964,PP23965,PP23966 |                   |                               |
| CCC<br>Internal Standard/PEM                                       | PP23963                                 |                   |                               |
| ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | PP23962,PP23967                         |                   |                               |

| Sr# | SampleId        | Data File Name | Date-Time         | Operator | Status |
|-----|-----------------|----------------|-------------------|----------|--------|
| 1   | MECL2           | FG015013.D     | 23 Dec 2024 10:06 | YP\AJ    | Ok     |
| 2   | I.BLK           | FG015014.D     | 23 Dec 2024 10:34 | YP\AJ    | Ok,M   |
| 3   | 50 PPM TRPH STD | FG015015.D     | 23 Dec 2024 11:02 | YP\AJ    | Ok,M   |
| 4   | RT MARKER       | FG015016.D     | 23 Dec 2024 11:30 | YP\AJ    | Ok     |
| 5   | P5318-01        | FG015017.D     | 23 Dec 2024 11:58 | YP\AJ    | Ok     |
| 6   | P5361-01        | FG015018.D     | 23 Dec 2024 12:26 | YP\AJ    | Ok,M   |
| 7   | P5361-02        | FG015019.D     | 23 Dec 2024 12:54 | YP\AJ    | Ok     |
| 8   | P5361-02MS      | FG015020.D     | 23 Dec 2024 13:23 | YP\AJ    | Ok,M   |
| 9   | I.BLK           | FG015021.D     | 23 Dec 2024 13:51 | YP\AJ    | Ok     |
| 10  | 50 PPM TRPH STD | FG015022.D     | 23 Dec 2024 14:19 | YP\AJ    | Ok     |
| 11  | P5362-01        | FG015023.D     | 23 Dec 2024 15:16 | YP\AJ    | Ok     |
| 12  | PB165807BL      | FG015024.D     | 23 Dec 2024 15:44 | YP\AJ    | Ok     |
| 13  | PB165807BS      | FG015025.D     | 23 Dec 2024 16:12 | YP\AJ    | Ok,M   |
| 14  | P5361-02MSD     | FG015026.D     | 23 Dec 2024 16:41 | YP\AJ    | Ok,M   |
| 15  | P5318-01        | FG015027.D     | 23 Dec 2024 17:09 | YP\AJ    | Not Ok |
| 16  | I.BLK           | FG015028.D     | 23 Dec 2024 17:37 | YP\AJ    | Ok     |
| 17  | 50 PPM TRPH STD | FG015029.D     | 23 Dec 2024 18:34 | YP\AJ    | Ok     |

M : Manual Integration

Instrument ID: FID\_G

**Daily Analysis Runlog For Sequence/QC Batch ID # FG121924**

|              |          |                   |                               |
|--------------|----------|-------------------|-------------------------------|
| Review By    | yogesh   | Review On         | 12/19/2024 3:48:56 PM         |
| Supervise By | Ankita   | Supervise On      | 12/20/2024 10:41:50 AM        |
| SubDirectory | FG121924 | HP Acquire Method | HP Processing Method FG121924 |

| STD. NAME                               | STD REF.#                               |
|-----------------------------------------|-----------------------------------------|
| Tune/Reschk<br>Initial Calibration Stds | PP23961,PP23963,PP23964,PP23965,PP23966 |
| CCC                                     | PP23963                                 |
| Internal Standard/PEM                   |                                         |
| ICV/I.BLK                               | PP23962,PP23967                         |
| Surrogate Standard                      |                                         |
| MS/MSD Standard                         |                                         |
| LCS Standard                            |                                         |

| Sr# | SampleID     | ClientID | Data File Name | Date-Time         | Comment | Operator | Status |
|-----|--------------|----------|----------------|-------------------|---------|----------|--------|
| 1   | MECL2        |          | FG014985.D     | 19 Dec 2024 13:06 |         | YP\AJ    | Ok     |
| 2   | I.BLK        |          | FG014986.D     | 19 Dec 2024 14:03 |         | YP\AJ    | Ok     |
| 3   | 100 TRPH STD |          | FG014987.D     | 19 Dec 2024 14:32 |         | YP\AJ    | Ok     |
| 4   | 50 TRPH STD  |          | FG014988.D     | 19 Dec 2024 15:01 |         | YP\AJ    | Ok     |
| 5   | 20 TRPH STD  |          | FG014989.D     | 19 Dec 2024 15:29 |         | YP\AJ    | Ok     |
| 6   | 10 TRPH STD  |          | FG014990.D     | 19 Dec 2024 15:57 |         | YP\AJ    | Ok     |
| 7   | 5 TRPH STD   |          | FG014991.D     | 19 Dec 2024 16:26 |         | YP\AJ    | Ok     |
| 8   | FG121924ICV  |          | FG014992.D     | 19 Dec 2024 16:54 |         | YP\AJ    | Ok     |

M : Manual Integration

Instrument ID: FID\_G

**Daily Analysis Runlog For Sequence/QC Batch ID # FG122324**

|                                         |                                         |                   |                               |
|-----------------------------------------|-----------------------------------------|-------------------|-------------------------------|
| Review By                               | yogesh                                  | Review On         | 12/23/2024 11:51:29 AM        |
| Supervise By                            | Ankita                                  | Supervise On      | 12/27/2024 7:53:40 AM         |
| SubDirectory                            | FG122324                                | HP Acquire Method | HP Processing Method FG121924 |
| <b>STD. NAME</b>                        | <b>STD REF.#</b>                        |                   |                               |
| Tune/Reschk<br>Initial Calibration Stds | PP23961,PP23963,PP23964,PP23965,PP23966 |                   |                               |
| CCC                                     | PP23963                                 |                   |                               |
| Internal Standard/PEM                   | PP23962,PP23967                         |                   |                               |
| ICV/I.BLK                               |                                         |                   |                               |
| Surrogate Standard                      |                                         |                   |                               |
| MS/MSD Standard                         |                                         |                   |                               |
| LCS Standard                            |                                         |                   |                               |

| Sr# | SampleID        | ClientID | Data File Name | Date-Time         | Comment      | Operator | Status |
|-----|-----------------|----------|----------------|-------------------|--------------|----------|--------|
| 1   | MECL2           |          | FG015013.D     | 23 Dec 2024 10:06 |              | YPIAJ    | Ok     |
| 2   | I.BLK           |          | FG015014.D     | 23 Dec 2024 10:34 |              | YPIAJ    | Ok,M   |
| 3   | 50 PPM TRPH STD |          | FG015015.D     | 23 Dec 2024 11:02 |              | YPIAJ    | Ok,M   |
| 4   | RT MARKER       |          | FG015016.D     | 23 Dec 2024 11:30 |              | YPIAJ    | Ok     |
| 5   | P5318-01        |          | FG015017.D     | 23 Dec 2024 11:58 |              | YPIAJ    | Ok     |
| 6   | P5361-01        |          | FG015018.D     | 23 Dec 2024 12:26 |              | YPIAJ    | Ok,M   |
| 7   | P5361-02        |          | FG015019.D     | 23 Dec 2024 12:54 |              | YPIAJ    | Ok     |
| 8   | P5361-02MS      |          | FG015020.D     | 23 Dec 2024 13:23 |              | YPIAJ    | Ok,M   |
| 9   | I.BLK           |          | FG015021.D     | 23 Dec 2024 13:51 |              | YPIAJ    | Ok     |
| 10  | 50 PPM TRPH STD |          | FG015022.D     | 23 Dec 2024 14:19 |              | YPIAJ    | Ok     |
| 11  | P5362-01        |          | FG015023.D     | 23 Dec 2024 15:16 |              | YPIAJ    | Ok     |
| 12  | PB165807BL      |          | FG015024.D     | 23 Dec 2024 15:44 |              | YPIAJ    | Ok     |
| 13  | PB165807BS      |          | FG015025.D     | 23 Dec 2024 16:12 |              | YPIAJ    | Ok,M   |
| 14  | P5361-02MSD     |          | FG015026.D     | 23 Dec 2024 16:41 |              | YPIAJ    | Ok,M   |
| 15  | P5318-01        |          | FG015027.D     | 23 Dec 2024 17:09 | not required | YPIAJ    | Not Ok |
| 16  | I.BLK           |          | FG015028.D     | 23 Dec 2024 17:37 |              | YPIAJ    | Ok     |
| 17  | 50 PPM TRPH STD |          | FG015029.D     | 23 Dec 2024 18:34 |              | YPIAJ    | Ok     |

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/23/2024

OVENTEMP IN Celsius(°C): 106  
Time IN: 16:30  
In Date: 12/20/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:27  
Out Date: 12/21/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB134046

| Lab ID   | Client SampleID               | Dish # | Dish Wt(g) (A) | Sample Wt(g) | Dish + Sample Wt(g) (B) | Dish+Dry Sample Wt(g) (C) | % Solid | Comments    |
|----------|-------------------------------|--------|----------------|--------------|-------------------------|---------------------------|---------|-------------|
| P5318-01 | AU-06-122024                  | 15     | 1.15           | 8.84         | 9.99                    | 8.77                      | 86.2    |             |
| P5319-01 | AUD-1617                      | 16     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | wipe sample |
| P5361-01 | SB-01-20241219-7.0-7.5        | 1      | 1.14           | 8.41         | 9.55                    | 8.85                      | 91.7    |             |
| P5361-02 | SB-01-20241219-9.0-9.5        | 2      | 1.19           | 8.48         | 9.67                    | 8.58                      | 87.1    |             |
| P5362-01 | WC-SOIL-20241219              | 3      | 1.13           | 8.70         | 9.83                    | 9.13                      | 92.0    |             |
| P5365-01 | TAPFTA-SB01I-4.5-121924-00-T1 | 4      | 1.13           | 8.56         | 9.69                    | 8.84                      | 90.1    |             |
| P5369-05 | SVOC-GPC-BLANK                | 5      | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-06 | PEST-GPC-BLANK                | 6      | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-07 | PEST-GPC-BLANK-SPIKE          | 7      | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-08 | PCB-GPC-BLANK                 | 8      | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-09 | PCB-GPC-BLANK-SPIKE           | 9      | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-10 | SVOC-GPC2-BLANK               | 10     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-11 | PEST-GPC2-BLANK               | 11     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-12 | PEST-GPC2-BLANK-SPIKE         | 12     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-13 | PCB-GPC2-BLANK                | 13     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5369-14 | PCB-GPC2-BLANK-SPIKE          | 14     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   |             |
| P5377-01 | GAS-TRE-1119                  | 17     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | wipe sample |

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

## WORKLIST(Hardcopy Internal Chain)

V334046

WorkList Name : %1-122024

WorkList ID : 186509

Department : Wet-Chemistry

Date : 12-20-2024 08:05:45

| Sample   | Customer Sample             | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P5318-01 | AU-06-122024                | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | N31                         | 12/20/2024   | Chemtech -SO |
| P5319-01 | AUD-1617                    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | N31                         | 12/20/2024   | Chemtech -SO |
| P5361-01 | SB-01-20241219-7.0-7.5      | Solid  | Percent Solids | Cool 4 deg C | PARS02   | N12                         | 12/20/2024   | Chemtech -SO |
| P5361-02 | SB-01-20241219-9.0-9.5      | Solid  | Percent Solids | Cool 4 deg C | PARS02   | N12                         | 12/20/2024   | Chemtech -SO |
| P5362-01 | WC-SOIL-20241219            | Solid  | Percent Solids | Cool 4 deg C | PARS02   | N12                         | 12/20/2024   | Chemtech -SO |
| P5365-01 | TAPFTA-SB01I-4.5-121924-00- | Solid  | Percent Solids | Cool 4 deg C | PARS02   | N21                         | 12/19/2024   | Chemtech -SO |
| P5369-05 | SVOC-GPC-BLANK              | Solid  | Percent Solids | Cool 4 deg C | WEST04   | N21                         | 12/19/2024   | Chemtech -SO |
| P5369-06 | PEST-GPC-BLANK              | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-07 | PEST-GPC-BLANK-SPIKE        | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-08 | PCB-GPC-BLANK               | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-09 | PCB-GPC-BLANK-SPIKE         | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-10 | SVOC-GPC2-BLANK             | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-11 | PEST-GPC2-BLANK             | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-12 | PEST-GPC2-BLANK-SPIKE       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-13 | PCB-GPC2-BLANK              | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5369-14 | PCB-GPC2-BLANK-SPIKE        | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | N22                         | 12/13/2024   | Chemtech -SO |
| P5377-01 | GAS-TRE-1119                | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | N13                         | 12/20/2024   | Chemtech -SO |

Date/Time 12/20/24 16:15

Raw Sample Received by: JB GOC

Raw Sample Relinquished by: CB GR

Date/Time 12/20/24

Raw Sample Received by: CB GR

Raw Sample Relinquished by: CB GR

**SOP ID:** M3541-ASE Extraction-14

**Clean Up SOP #:** N/A

**Matrix :** Solid

**Welgh By:** EH

**Balance check:** RJ

**Balance ID:** EX-SC-2

**pH Strip Lot#:** N/A

**Extraction By:** RS

**Filter By:** RJ

**pH Meter ID:** N/A

**Hood ID:** 3,7

**Extraction Start Date :** 12/23/2024

**Extraction Start Time :** 08:35

**Extraction End Date :** 12/23/2024

**Extraction End Time :** 11:35

**Concentration By:** EH

**Supervisor By :** rajesh

**Extraction Method:** ☐ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☒ Soxhlet

| Standard Name | MLS USED | Concentration ug/mL | STD REF. # FROM LOG |
|---------------|----------|---------------------|---------------------|
| Surrogate     | 1.0ML    | 20 PPM              | PP23935             |
| Spike Sol 1   | 1.0ML    | 20 PPM              | PP23913             |
| N/A           | N/A      | N/A                 | N/A                 |
| N/A           | N/A      | N/A                 | N/A                 |
| N/A           | N/A      | N/A                 | N/A                 |

| Chemical Used      | ML/SAMPLE USED | Lot Number |
|--------------------|----------------|------------|
| MeCl2/Acetone/1:1  | N/A            | EP2560     |
| Baked Na2SO4       | N/A            | EP2573     |
| Sand               | N/A            | E2865      |
| Methylene Chloride | N/A            | E3848      |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |

**Extraction Conformance/Non-Conformance Comments:**

1.5 ML Vial lot# 2210673.

**KD Bath ID:** N/A

**KD Bath Temperature:** N/A

**Envap ID:** NEVAP-02

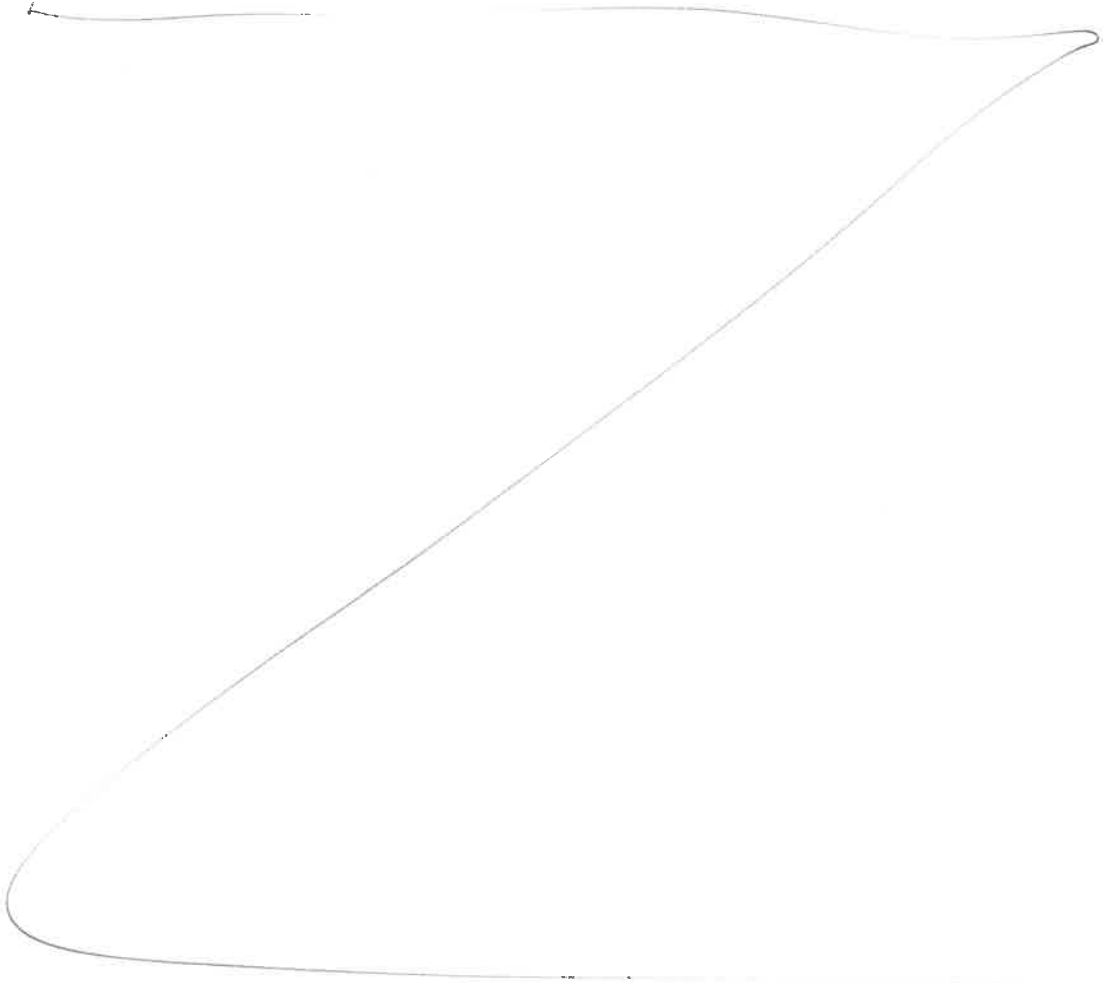
**Envap Temperature:** 40 °C

| Date / Time | Prepped Sample Relinquished By/Location | Received By/Location |
|-------------|-----------------------------------------|----------------------|
| 12/23/24    | RP (Ext Lab)                            | Y.P. Pest/PCB        |
| 11:40       | Preparation Group                       | Analysis Group       |

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 12/23/2024

| Sample ID       | Client Sample ID              | Test   | g / mL | PH  | Surr/Spike By: |            | Final Vol.<br>(mL) | JarID | Comments | Prep<br>Pos |
|-----------------|-------------------------------|--------|--------|-----|----------------|------------|--------------------|-------|----------|-------------|
|                 |                               |        |        |     | AddedBy        | VerifiedBy |                    |       |          |             |
| PB165807BL      | PB165807BL                    | TPH GC | 30.01  | N/A | ritesh         | Evelyn     | 1                  |       |          | U4-1        |
| PB165807BS      | PB165807BS                    | TPH GC | 30.02  | N/A | ritesh         | Evelyn     | 1                  |       |          | 2           |
| P5318-01        | AU-06-122024                  | TPH GC | 30.04  | N/A | ritesh         | Evelyn     | 1                  | E     |          | 3           |
| P5361-01        | SB-01-20241219-7.0-7.5        | TPH GC | 30.07  | N/A | ritesh         | Evelyn     | 1                  | B     |          | 4           |
| P5361-02        | SB-01-20241219-9.0-9.5        | TPH GC | 30.05  | N/A | ritesh         | Evelyn     | 1                  | B     |          | 5           |
| P5361-02MS      | SB-01-20241219-9.0-9.5<br>MS  | TPH GC | 30.03  | N/A | ritesh         | Evelyn     | 1                  | B     |          | 6           |
| P5361-02MS<br>D | SB-01-20241219-9.0-9.5<br>MSD | TPH GC | 30.06  | N/A | ritesh         | Evelyn     | 1                  | B     |          | U3-1        |
| P5362-01        | WC-SOIL-20241219              | TPH GC | 30.05  | N/A | ritesh         | Evelyn     | 1                  | E     |          | 2           |



\* Extracts relinquished on the same date as received.

*Handwritten signature*  
12/23/24

WORKLIST(Hardcopy Internal Chain)

WorkList Name : P5355N      WorkList ID : 186560      Department : Extraction      Date : 12-23-2024 08:31:16

| Sample   | Customer Sample        | Matrix | Test   | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|------------------------|--------|--------|--------------|----------|-----------------------------|--------------|--------|
| P5318-01 | AU-06-122024           | Solid  | TPH GC | Cool 4 deg C | PSEG05   | N31                         | 12/20/2024   | 8015D  |
| P5361-01 | SB-01-20241219-7.0-7.5 | Solid  | TPH GC | Cool 4 deg C | PARS02   | N12                         | 12/20/2024   | 8015D  |
| P5361-02 | SB-01-20241219-9.0-9.5 | Solid  | TPH GC | Cool 4 deg C | PARS02   | N12                         | 12/20/2024   | 8015D  |
| P5362-01 | WC-SOIL-20241219       | Solid  | TPH GC | Cool 4 deg C | PARS02   | N21                         | 12/19/2024   | 8015D  |

Date/Time 12/23/24 8:33  
Raw Sample Received by: RJ Let 144  
Raw Sample Relinquished by: JD (SM)

Date/Time 12/24/24 8:55  
Raw Sample Received by: JD (SM)  
Raw Sample Relinquished by: RJ Let 144

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## Prep Standard - Chemical Standard Summary

**Order ID :** P5361

**Test :** TPH GC

**Prepbatch ID :** PB165807,

**Sequence ID/Qc Batch ID:** FG122324,

**Standard ID :**

EP2560,EP2573,PP23913,PP23935,PP23961,PP23962,PP23963,PP23964,PP23965,PP23966,PP23967,

**Chemical ID :**

E2865,E3551,E3822,E3827,E3828,E3848,P11958,P11959,P13104,P13109,P13213,P13218,P13219,P13492,P13493,P13494,P13495,

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## Extractions STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                    | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>           |
|------------------|--------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|--------------------------------|
| 2017             | 1:1 ACETONE/METHYLENE CHLORIDE | <a href="#">EP2560</a> | 11/14/2024       | 05/08/2025             | Rajesh Parikh      | None           | None             | RUPESHKUMAR SHAH<br>11/14/2024 |

**FROM** 8000.00000ml of E3827 + 8000.00000ml of E3828 = Final Quantity: 16000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>          | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|------------------|----------------------|------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 3923             | Baked Sodium Sulfate | <a href="#">EP2573</a> | 12/16/2024       | 06/16/2025             | Rajesh Parikh      | Extraction_SC ALE_2<br>(EX-SC-2) | None             | RUPESHKUMAR SHAH<br>12/16/2024 |

**FROM** 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

## Pest/Pcb STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                        | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3609             | 20 PPM DRO SPIKE SOLUTION (RESTEK) | <a href="#">PP23913</a> | 10/25/2024       | 04/23/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
|                  |                                    |                         |                  |                        |                    |                |                  | 10/25/2024           |

**FROM** 1.00000ml of P13104 + 1.00000ml of P13109 + 48.00000ml of E3822 = Final Quantity: 50.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 147              | 20 PPM DRO Surrogate Spike Solution | <a href="#">PP23935</a> | 11/01/2024       | 04/23/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
|                  |                                     |                         |                  |                        |                    |                |                  | 11/04/2024           |

**FROM** 1.00000ml of P13492 + 1.00000ml of P13493 + 1.00000ml of P13494 + 1.00000ml of P13495 + 196.00000ml of E3822 = Final Quantity: 200.000 ml

## Pest/Pcb STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                                                             | <u>NAME</u>              | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>         |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 433                                                                                                                          | 100/100 PPM DRO (Restek) | <a href="#">PP23961</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani<br>11/13/2024 |
| <b>FROM</b> 1.00000ml of P11958 + 1.00000ml of P11959 + 1.00000ml of P13213 + 7.00000ml of E3828 = Final Quantity: 10.000 ml |                          |                         |                  |                        |                    |                |                  |                              |

| <u>Recipe ID</u>                                                                                                             | <u>NAME</u>               | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>         |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 3796                                                                                                                         | 100/100 PPM DRO STD (CPI) | <a href="#">PP23962</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani<br>11/13/2024 |
| <b>FROM</b> 1.00000ml of P13213 + 1.00000ml of P13218 + 1.00000ml of P13219 + 7.00000ml of E3828 = Final Quantity: 10.000 ml |                           |                         |                  |                        |                    |                |                  |                              |

## Pest/Pcb STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 435              | 50 PPM ICC DRO STD (Restek) | <a href="#">PP23963</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
| 11/13/2024       |                             |                         |                  |                        |                    |                |                  |                      |

**FROM** 0.50000ml of E3828 + 0.50000ml of PP23961 = Final Quantity: 1.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 437              | 20 PPM ICC DRO STD (Restek) | <a href="#">PP23964</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
| 11/13/2024       |                             |                         |                  |                        |                    |                |                  |                      |

**FROM** 0.80000ml of E3828 + 0.20000ml of PP23961 = Final Quantity: 1.000 ml

## Pest/Pcb STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 438              | 10 PPM ICC DRO STD (Restek) | <a href="#">PP23965</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
|                  |                             |                         |                  |                        |                    |                |                  | 11/13/2024           |

**FROM** 0.90000ml of E3828 + 0.10000ml of PP23961 = Final Quantity: 1.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 439              | 5 PPM ICC DRO STD (Restek) | <a href="#">PP23966</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
|                  |                            |                         |                  |                        |                    |                |                  | 11/13/2024           |

**FROM** 0.90000ml of E3828 + 0.10000ml of PP23963 = Final Quantity: 1.000 ml

## Pest/Pcb STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                 | <u>NAME</u>              | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|----------------------------------------------------------------------------------|--------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3797                                                                             | 50 PPM DRO ICV STD (CPI) | <a href="#">PP23967</a> | 11/13/2024       | 05/09/2025             | Yogesh Patel       | None           | None             | Ankita Jodhani       |
| <b>FROM</b> 0.80000ml of E3828 + 0.50000ml of PP23962 = Final Quantity: 1.000 ml |                          |                         |                  |                        |                    |                |                  |                      |

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## CHEMICAL RECEIPT LOG BOOK

| Supplier         | ItemCode / ItemName                      | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-3382-05 / Sand, Purified (cs/4x2.5kg) | 0000243821 | 06/30/2025      | 04/30/2020 / RAJESH     | 04/28/2020 / RAJESH         | E2865          |

| Supplier                    | ItemCode / ItemName                                    | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1 | 313201 | 07/01/2025      | 01/03/2024 / Rajesh     | 07/20/2023 / Rajesh         | E3551          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24I2662006 | 04/23/2025      | 10/24/2024 / Rajesh     | 10/24/2024 / Rajesh         | E3822          |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 24H1462005 | 05/08/2025      | 11/08/2024 / Rajesh     | 11/07/2024 / Rajesh         | E3827          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24G0862003 | 05/09/2025      | 11/09/2024 / Rajesh     | 11/04/2024 / Rajesh         | E3828          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24K1762005 | 06/18/2025      | 12/18/2024 / Rajesh     | 12/09/2024 / Rajesh         | E3848          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31266 / Florida TRPH Standard | A0186840 | 05/13/2025      | 11/13/2024 / yogesh     | 07/11/2022 / Yogesh         | P11958         |

| Supplier | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31266 / Florida TRPH Standard | A0186840 | 05/13/2025      | 11/13/2024 / yogesh     | 07/11/2022 / Yogesh         | P11959         |

| Supplier | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31266 / Florida TRPH Standard | A0204859 | 04/25/2025      | 10/25/2024 / yogesh     | 01/12/2024 / Yogesh         | P13104         |

| Supplier | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31266 / Florida TRPH Standard | A0204859 | 04/25/2025      | 10/25/2024 / yogesh     | 01/12/2024 / Yogesh         | P13109         |

| Supplier                 | ItemCode / ItemName                   | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 72072 / n-Tetracosane-d50, 1000 ug/ml | 101122 | 05/13/2025      | 11/13/2024 / yogesh     | 01/17/2024 / Ankita         | P13213         |

| Supplier          | ItemCode / ItemName                                     | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|---------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml | 514983 | 02/14/2025      | 08/14/2024 / yogesh     | 01/31/2024 / Ankita         | P13218         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier          | ItemCode / ItemName                                     | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|---------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml | 514983 | 05/13/2025      | 11/13/2024 / yogesh     | 01/31/2024 / Ankita         | P13219         |

| Supplier                 | ItemCode / ItemName                   | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 72072 / n-Tetracosane-d50, 1000 ug/ml | 101122 | 05/01/2025      | 11/01/2024 / yogesh     | 07/24/2024 / yogesh         | P13492         |

| Supplier                 | ItemCode / ItemName                   | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 72072 / n-Tetracosane-d50, 1000 ug/ml | 101122 | 05/01/2025      | 11/01/2024 / yogesh     | 07/24/2024 / yogesh         | P13493         |

| Supplier                 | ItemCode / ItemName                   | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 72072 / n-Tetracosane-d50, 1000 ug/ml | 101122 | 05/01/2025      | 11/01/2024 / yogesh     | 07/24/2024 / yogesh         | P13494         |

| Supplier                 | ItemCode / ItemName                   | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 72072 / n-Tetracosane-d50, 1000 ug/ml | 101122 | 05/01/2025      | 11/01/2024 / yogesh     | 07/24/2024 / yogesh         | P13495         |

Sand  
Purified  
Washed and Ignited



Material No.: 3382-05  
Batch No.: 0000243821  
Manufactured Date: 2018/04/09  
Retest Date: 2025/04/07  
Revision No: 1

## Certificate of Analysis

| Test                      | Specification | Result |
|---------------------------|---------------|--------|
| Substances Soluble in HCl | $\leq 0.16\%$ | 0.01   |

For Laboratory, Research or Manufacturing Use  
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US  
Packaging Site: Paris Mfg Ctr & DC

E 2865

  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700



**PRODUCTOS  
QUÍMICOS  
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR  
MONTERREY, N.L. MEXICO  
CP 64070  
TEL +52 81 13 52 57 57  
www.pqm.com.mx

## CERTIFICATE OF ANALYSIS

|                        |                                   |               |                                 |
|------------------------|-----------------------------------|---------------|---------------------------------|
| PRODUCT :              | SODIUM SULFATE CRYSTALS ANHYDROUS |               |                                 |
| QUALITY :              | ACS (CODE RMB3375)                | FORMULA :     | Na <sub>2</sub> SO <sub>4</sub> |
| SPECIFICATION NUMBER : | 6399                              | RELEASE DATE: | ABR/21/2023                     |
| LOT NUMBER :           | 313201                            |               |                                 |

| TEST                                     | SPECIFICATIONS | LOT VALUES  |
|------------------------------------------|----------------|-------------|
| Assay (Na <sub>2</sub> SO <sub>4</sub> ) | Min. 99.0%     | 99.7 %      |
| pH of a 5% solution at 25°C              | 5.2 - 9.2      | 6.1         |
| Insoluble matter                         | Max. 0.01%     | 0.005 %     |
| Loss on ignition                         | Max. 0.5%      | 0.1 %       |
| Chloride (Cl)                            | Max. 0.001%    | <0.001 %    |
| Nitrogen compounds (as N)                | Max. 5 ppm     | <5 ppm      |
| Phosphate (PO <sub>4</sub> )             | Max. 0.001%    | <0.001 %    |
| Heavy metals (as Pb)                     | Max. 5 ppm     | <5 ppm      |
| Iron (Fe)                                | Max. 0.001%    | <0.001 %    |
| Calcium (Ca)                             | Max. 0.01%     | 0.002 %     |
| Magnesium (Mg)                           | Max. 0.005%    | 0.001 %     |
| Potassium (K)                            | Max. 0.008%    | 0.003 %     |
| Extraction-concentration suitability     | Passes test    | Passes test |
| Appearance                               | Passes test    | Passes test |
| Identification                           | Passes test    | Passes test |
| Solubility and foreign matter            | Passes test    | Passes test |
| Retained on US Standard No. 10 sieve     | Max. 1%        | 0.1 %       |
| Retained on US Standard No. 60 sieve     | Min. 94%       | 97.3 %      |
| Through US Standard No. 60 sieve         | Max. 5%        | 2.5 %       |
| Through US Standard No. 100 sieve        | Max. 10%       | 0.1 %       |

### COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)

avantor™



Material No.: 9266-A4  
Batch No.: 24I2662006  
Manufactured Date: 2024-08-29  
Expiration Date: 2025-11-28  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                       | Specification  | Result     |
|--------------------------------------------------------------------------------------------|----------------|------------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                       | $\leq 5$       | 2          |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)                       | $\leq 10$      | 3          |
| Assay ( $\text{CH}_2\text{Cl}_2$ ) (by GC, exclusive of preservative, corrected for water) | $\geq 99.8\%$  | 99.9%      |
| Color (APHA)                                                                               | $\leq 10$      | 5          |
| Residue after Evaporation                                                                  | $\leq 1.0$ ppm | 0.2 ppm    |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$     | $< 0.1$    |
| Chloride (Cl)                                                                              | $\leq 10$ ppm  | $< 5$ ppm  |
| Water (by KF, coulometric)                                                                 | $\leq 0.02\%$  | $< 0.01\%$ |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3822

Jamie Croak  
Director Quality Operations, Bioscience Production

Acetone  
BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

avantor™



Material No.: 9254-03  
Batch No.: 24H1462005  
Manufactured Date: 2024-05-24  
Expiration Date: 2027-05-24  
Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | >= 99.4 %     | 99.8 %      |
| Color (APHA)                                                            | <= 10         | 5           |
| Residue after Evaporation                                               | <= 1.0 ppm    | 0.2 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (µeq/g)                                                  | <= 0.3        | 0.2         |
| Titration Base (µeq/g)                                                  | <= 0.6        | <0.1        |
| Water (H <sub>2</sub> O)                                                | <= 0.5 %      | 0.2 %       |
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)    | <= 5          | <1          |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)    | <= 10         | 1           |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3827

Recd. by RS on ~~11/8/24~~ 11/7/24  
RS  
11/7

Jamie Croak  
Director Quality Operations, Bioscience Production

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)

avantor™



Material No.: 9266-A4

Batch No.: 24J0862003

Manufactured Date: 2024-09-12

Expiration Date: 2025-12-12

Revision No.: 0

## Certificate of Analysis

| Test                                                                                       | Specification  | Result     |
|--------------------------------------------------------------------------------------------|----------------|------------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                       | $\leq 5$       | 2          |
| ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)                        | $\leq 10$      | 1          |
| Assay ( $\text{CH}_2\text{Cl}_2$ ) (by GC, exclusive of preservative, corrected for water) | $\geq 99.8\%$  | 100.0 %    |
| Color (APHA)                                                                               | $\leq 10$      | 5          |
| Residue after Evaporation                                                                  | $\leq 1.0$ ppm | 0.2 ppm    |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$     | $< 0.1$    |
| Chloride (Cl)                                                                              | $\leq 10$ ppm  | $< 5$ ppm  |
| Water (by KF, coulometric)                                                                 | $\leq 0.02\%$  | $< 0.01\%$ |

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3828

Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)



Material No.: 9266-A4  
Batch No.: 24K1762005  
Manufactured Date: 2024-10-08  
Expiration Date: 2026-01-07  
Revision No.: 0

Certificate of Analysis

| Test                                                                                             | Specification | Result  |
|--------------------------------------------------------------------------------------------------|---------------|---------|
| FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)                              | <= 5          | 1       |
| ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)                              | <= 10         | 2       |
| Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water) | >= 99.8 %     | 100.0 % |
| Color (APHA)                                                                                     | <= 10         | 5       |
| Residue after Evaporation                                                                        | <= 1.0 ppm    | 0.5 ppm |
| Titration Acid (µeq/g)                                                                           | <= 0.3        | 0.0     |
| Chloride (Cl)                                                                                    | <= 10 ppm     | <5 ppm  |
| Water (by KF, coulometric)                                                                       | <= 0.02 %     | 0.01 %  |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3848

  
Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle

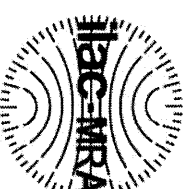
Belleville, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                            | Grav. Conc.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2)                    |                                       |
|---------------|-----------------------------------------------------|--------------------------------|------------------------------------------------------------|---------------------------------------|
| 1             | n-Octane (C8)<br>CAS # 111-65-9<br>Purity 99%       | 505.0 µg/mL                    | +/- 2.9995 µg/mL<br>+/- 12.5465 µg/mL<br>+/- 15.0390 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2             | n-Decane (C10)<br>CAS # 124-18-5<br>Purity 99%      | 503.0 µg/mL                    | +/- 2.9877 µg/mL<br>+/- 12.4968 µg/mL<br>+/- 14.9795 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3             | n-Dodecane (C12)<br>CAS # 112-40-3<br>Purity 99%    | 503.5 µg/mL                    | +/- 2.9906 µg/mL<br>+/- 12.5092 µg/mL<br>+/- 14.9944 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4             | n-Tetradecane (C14)<br>CAS # 629-59-4<br>Purity 99% | 505.0 µg/mL                    | +/- 2.9995 µg/mL<br>+/- 12.5465 µg/mL<br>+/- 15.0390 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5             | n-Hexadecane (C16)<br>CAS # 544-76-3<br>Purity 98%  | 504.7 µg/mL                    | +/- 2.9978 µg/mL<br>+/- 12.5390 µg/mL<br>+/- 15.0301 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6             | n-Octadecane (C18)<br>CAS # 593-45-3<br>Purity 97%  | 504.4 µg/mL                    | +/- 2.9960 µg/mL<br>+/- 12.5316 µg/mL<br>+/- 15.0212 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7             | n-Eicosane (C20)<br>CAS # 112-95-8<br>Purity 99%    | 503.5 µg/mL                    | +/- 2.9906 µg/mL<br>+/- 12.5092 µg/mL<br>+/- 14.9944 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

P11948 } 7.8  
P11962 } 07/11/16

|    |                                                            |                  |             |                                          |                         |                                       |
|----|------------------------------------------------------------|------------------|-------------|------------------------------------------|-------------------------|---------------------------------------|
| 8  | n-Docosane (C22)<br>CAS # 629-97-0<br>Purity 99%           | (Lot MKCL8918)   | 504.5 µg/mL | +/- 2.9966<br>+/- 12.5340<br>+/- 15.0241 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 9  | n-Tetracosane (C24)<br>CAS # 646-31-1<br>Purity 99%        | (Lot MKCN2863)   | 503.5 µg/mL | +/- 2.9906<br>+/- 12.5092<br>+/- 14.9944 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 10 | n-Hexacosane (C26)<br>CAS # 630-01-3<br>Purity 99%         | (Lot MKCD4540)   | 504.0 µg/mL | +/- 2.9936<br>+/- 12.5216<br>+/- 15.0093 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 11 | n-Octacosane (C28)<br>CAS # 630-02-4<br>Purity 99%         | (Lot BCCG0084)   | 504.5 µg/mL | +/- 2.9966<br>+/- 12.5340<br>+/- 15.0241 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 12 | n-Triacontane (C30)<br>CAS # 638-68-6<br>Purity 99%        | (Lot MKCN9321)   | 505.0 µg/mL | +/- 2.9995<br>+/- 12.5465<br>+/- 15.0390 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 13 | n-Dotriacontane (C32)<br>CAS # 544-85-4<br>Purity 99%      | (Lot BCBW0661)   | 505.0 µg/mL | +/- 2.9995<br>+/- 12.5465<br>+/- 15.0390 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 14 | n-Tetratriacontane (C34)<br>CAS # 14167-59-0<br>Purity 99% | (Lot OML4N)      | 504.5 µg/mL | +/- 2.9966<br>+/- 12.5340<br>+/- 15.0241 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 15 | n-Hexatriacontane (C36)<br>CAS # 630-06-8<br>Purity 99%    | (Lot U25B014)    | 504.0 µg/mL | +/- 2.9936<br>+/- 12.5216<br>+/- 15.0093 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 16 | n-Octatriacontane (C38)<br>CAS # 7194-85-6<br>Purity 97%   | (Lot 0000127235) | 504.4 µg/mL | +/- 2.9960<br>+/- 12.5316<br>+/- 15.0212 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 17 | n-Tetracontane (C40)<br>CAS # 4181-95-7<br>Purity 98%      | (Lot PADGI)      | 504.7 µg/mL | +/- 2.9978<br>+/- 12.5390<br>+/- 15.0301 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** Hexane  
CAS # 110-54-3  
Purity 99%

**Column:**

30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

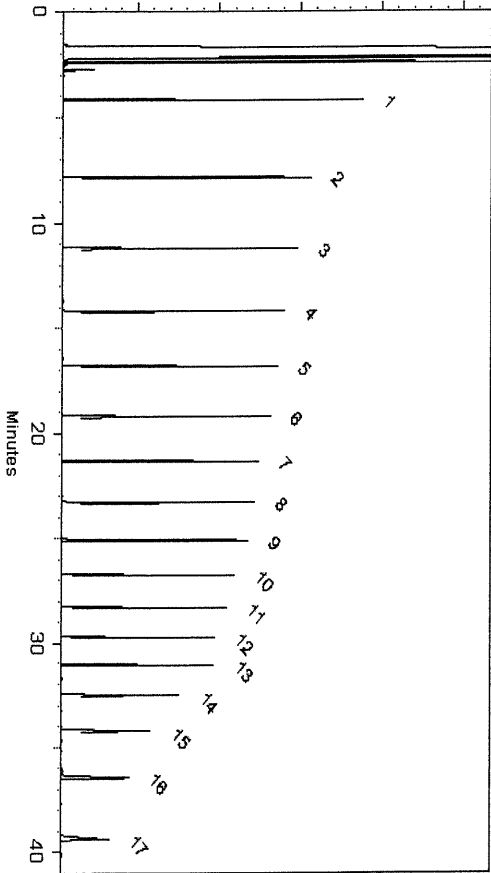
250°C

**Det. Temp:**

330°C

**Det. Type:**

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Brittany Federinko*

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

*Christie Mills*

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-US](http://www.restek.com/Contact-US) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions                                          | Standard Conditions | Non-Standard Conditions |
|-----------------------------------------------------------|---------------------|-------------------------|
| 25°C Nominal (Room Temperature)                           | < 60°C              | ≥ 60°C up to 7 days     |
| 10°C or colder (Refrigerate)                              | < 40°C              | ≥ 40°C up to 7 days     |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C              | ≥ 25°C up to 7 days     |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-US](http://www.restek.com/Contact-US).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle

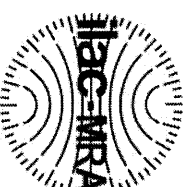
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 31266

Lot No.: A0186840

Description :

Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size :

2 mL

Pkg Amt: > 1 mL

Expiration Date :

July 31, 2029

Storage: 25°C nominal

Handling:

Sonicate prior to use.

Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                            | Grav. Conc.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2)                    |                                                  |
|---------------|-----------------------------------------------------|--------------------------------|------------------------------------------------------------|--------------------------------------------------|
| 1             | n-Octane (C8)<br>CAS # 111-65-9<br>Purity 99%       | 505.0 µg/mL                    | +/- 2.9995 µg/mL<br>+/- 12.5465 µg/mL<br>+/- 15.0390 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |
| 2             | n-Decane (C10)<br>CAS # 124-18-5<br>Purity 99%      | 503.0 µg/mL                    | +/- 2.9877 µg/mL<br>+/- 12.4968 µg/mL<br>+/- 14.9795 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |
| 3             | n-Dodecane (C12)<br>CAS # 112-40-3<br>Purity 99%    | 503.5 µg/mL                    | +/- 2.9906 µg/mL<br>+/- 12.5092 µg/mL<br>+/- 14.9944 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |
| 4             | n-Tetradecane (C14)<br>CAS # 629-59-4<br>Purity 99% | 505.0 µg/mL                    | +/- 2.9995 µg/mL<br>+/- 12.5465 µg/mL<br>+/- 15.0390 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |
| 5             | n-Hexadecane (C16)<br>CAS # 544-76-3<br>Purity 98%  | 504.7 µg/mL                    | +/- 2.9978 µg/mL<br>+/- 12.5390 µg/mL<br>+/- 15.0301 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |
| 6             | n-Octadecane (C18)<br>CAS # 593-45-3<br>Purity 97%  | 504.4 µg/mL                    | +/- 2.9960 µg/mL<br>+/- 12.5316 µg/mL<br>+/- 15.0212 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |
| 7             | n-Eicosane (C20)<br>CAS # 112-95-8<br>Purity 99%    | 503.5 µg/mL                    | +/- 2.9906 µg/mL<br>+/- 12.5092 µg/mL<br>+/- 14.9944 µg/mL | Gravimetric Unstressed<br>Unstressed<br>Stressed |

P11948 } 7.8  
P11962 } 07/11/16

|    |                                                            |                  |             |                                          |                         |                                       |
|----|------------------------------------------------------------|------------------|-------------|------------------------------------------|-------------------------|---------------------------------------|
| 8  | n-Docosane (C22)<br>CAS # 629-97-0<br>Purity 99%           | (Lot MKCL8918)   | 504.5 µg/mL | +/- 2.9966<br>+/- 12.5340<br>+/- 15.0241 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 9  | n-Tetracosane (C24)<br>CAS # 646-31-1<br>Purity 99%        | (Lot MKCN2863)   | 503.5 µg/mL | +/- 2.9906<br>+/- 12.5092<br>+/- 14.9944 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 10 | n-Hexacosane (C26)<br>CAS # 630-01-3<br>Purity 99%         | (Lot MKCD4540)   | 504.0 µg/mL | +/- 2.9936<br>+/- 12.5216<br>+/- 15.0093 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 11 | n-Octacosane (C28)<br>CAS # 630-02-4<br>Purity 99%         | (Lot BCCG0084)   | 504.5 µg/mL | +/- 2.9966<br>+/- 12.5340<br>+/- 15.0241 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 12 | n-Triacontane (C30)<br>CAS # 638-68-6<br>Purity 99%        | (Lot MKCN9321)   | 505.0 µg/mL | +/- 2.9995<br>+/- 12.5465<br>+/- 15.0390 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 13 | n-Dotriacontane (C32)<br>CAS # 544-85-4<br>Purity 99%      | (Lot BCBW0661)   | 505.0 µg/mL | +/- 2.9995<br>+/- 12.5465<br>+/- 15.0390 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 14 | n-Tetratriacontane (C34)<br>CAS # 14167-59-0<br>Purity 99% | (Lot OML4N)      | 504.5 µg/mL | +/- 2.9966<br>+/- 12.5340<br>+/- 15.0241 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 15 | n-Hexatriacontane (C36)<br>CAS # 630-06-8<br>Purity 99%    | (Lot U25B014)    | 504.0 µg/mL | +/- 2.9936<br>+/- 12.5216<br>+/- 15.0093 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 16 | n-Octatriacontane (C38)<br>CAS # 7194-85-6<br>Purity 97%   | (Lot 0000127235) | 504.4 µg/mL | +/- 2.9960<br>+/- 12.5316<br>+/- 15.0212 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 17 | n-Tetracontane (C40)<br>CAS # 4181-95-7<br>Purity 98%      | (Lot PADGI)      | 504.7 µg/mL | +/- 2.9978<br>+/- 12.5390<br>+/- 15.0301 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** Hexane  
CAS # 110-54-3  
Purity 99%

**Column:**

30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

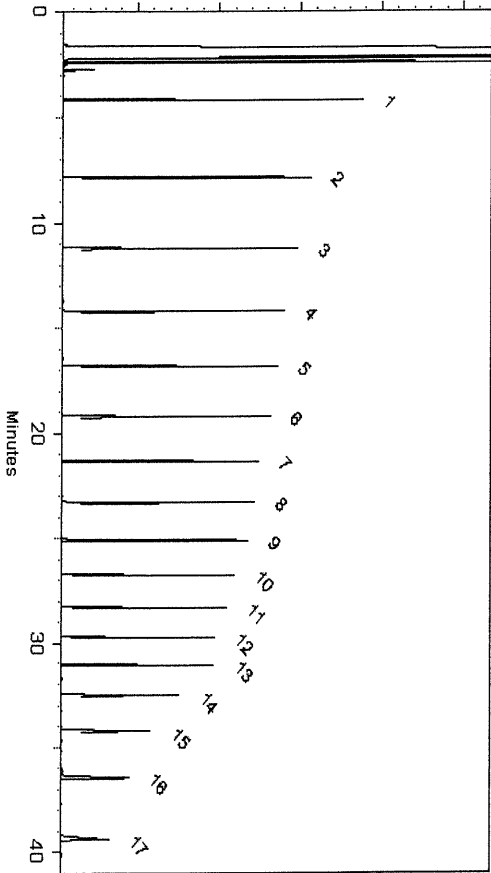
250°C

**Det. Temp:**

330°C

**Det. Type:**

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Brittany Federinko*

Brittany Federinko - Operations Tech I

**Date Mixed:** 29-Jun-2022

**Balance:** 1128360905

*Christie Mills*

Christie Mills - Operations Tech II - ARM QC

**Date Passed:** 01-Jul-2022

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-US](http://www.restek.com/Contact-US) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions                                          | Standard Conditions | Non-Standard Conditions |
|-----------------------------------------------------------|---------------------|-------------------------|
| 25°C Nominal (Room Temperature)                           | < 60°C              | ≥ 60°C up to 7 days     |
| 10°C or colder (Refrigerate)                              | < 40°C              | ≥ 40°C up to 7 days     |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C              | ≥ 25°C up to 7 days     |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-US](http://www.restek.com/Contact-US).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31266 **Lot No.:** A0204859

**Description :** Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2030 **Storage:** 25°C nominal

**Handling:** Sonicate prior to use. **Ship:** Ambient

P13103 } Y.P.  
↓  
P13112 } 01/12/2024

### CERTIFIED VALUES

| Elution Order | Compound                 | CAS #      | Lot #      | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|--------------------------|------------|------------|--------|-----------------------------|----------------------------------------|
| 1             | n-Octane (C8)            | 111-65-9   | SHBP9758   | 99%    | 504.4 µg/mL                 | +/- 13.0305                            |
| 2             | n-Decane (C10)           | 124-18-5   | SHBQ1342   | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |
| 3             | n-Dodecane (C12)         | 112-40-3   | SHBP7054   | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |
| 4             | n-Tetradecane (C14)      | 629-59-4   | STBK5437   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 5             | n-Hexadecane (C16)       | 544-76-3   | SHBP8192   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 6             | n-Octadecane (C18)       | 593-45-3   | UE5NG      | 98%    | 504.1 µg/mL                 | +/- 13.0230                            |
| 7             | n-Eicosane (C20)         | 112-95-8   | MKCN8767   | 97%    | 504.0 µg/mL                 | +/- 13.0204                            |
| 8             | n-Docosane (C22)         | 629-97-0   | MKCQ3882   | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |
| 9             | n-Tetracosane (C24)      | 646-31-1   | MKCQ8345   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 10            | n-Hexacosane (C26)       | 630-01-3   | MKCQ4814   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 11            | n-Octacosane (C28)       | 630-02-4   | BCCG0084   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 12            | n-Triacontane (C30)      | 638-68-6   | MKCQ9436   | 97%    | 504.0 µg/mL                 | +/- 13.0204                            |
| 13            | n-Dotriacontane (C32)    | 544-85-4   | BCBW0661   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 14            | n-Tetratriacontane (C34) | 14167-59-0 | OML4N      | 99%    | 504.4 µg/mL                 | +/- 13.0305                            |
| 15            | n-Hexatriacontane (C36)  | 630-06-8   | Z27H018    | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 16            | n-Octatriacontane (C38)  | 7194-85-6  | 0000145137 | 96%    | 503.8 µg/mL                 | +/- 13.0152                            |
| 17            | n-Tetracontane (C40)     | 4181-95-7  | OKEGA      | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |

**Solvent:** Hexane  
**CAS #** 110-54-3  
**Purity** 99%

## Quality Confirmation Test

**Column:**  
 30m x 0.25mm x 0.25µm  
 Rtx-5 (cat.#10223)

**Carrier Gas:**  
 hydrogen-constant pressure 10 psi.

**Temp. Program:**  
 40°C (hold 2 min.) to 330°C  
 @ 10°C/min. (hold 10 min.)

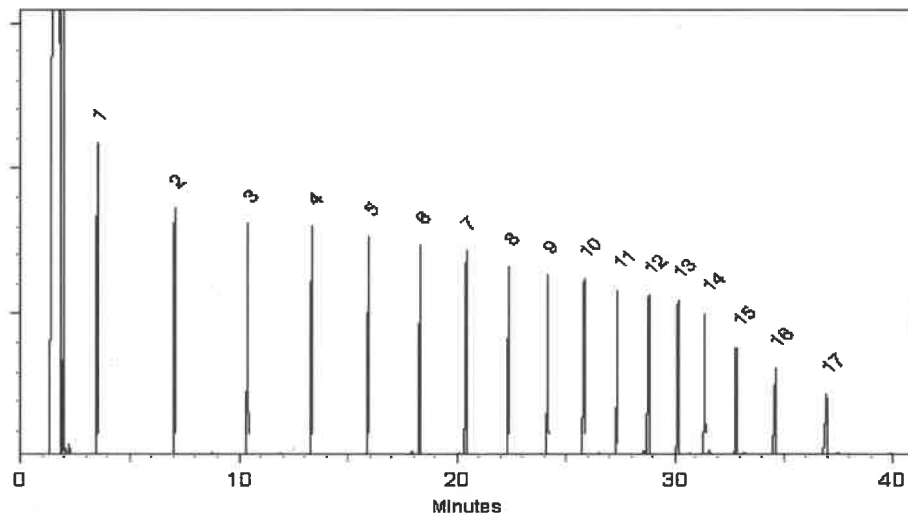
**Inj. Temp:**  
 250°C

**Det. Temp:**  
 330°C

**Det. Type:**  
 FID

**Split Vent:**  
 2 ml/min.

**Inj. Vol**  
 1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*[Signature]*  
 Dakota Parson - Operations Technician I

**Date Mixed:** 29-Nov-2023 **Balance Serial #** B442140311

*[Signature]*  
 Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 01-Dec-2023

Manufactured under Restek's ISO 9001:2015  
 Registered Quality System  
 Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

*chromatographic plus*



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31266 **Lot No.:** A0204859

**Description :** Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2030 **Storage:** 25°C nominal

**Handling:** Sonicate prior to use. **Ship:** Ambient

P13103 } Y.P.  
↓  
P13112 } 01/12/2024

### CERTIFIED VALUES

| Elution Order | Compound                 | CAS #      | Lot #      | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|--------------------------|------------|------------|--------|-----------------------------|----------------------------------------|
| 1             | n-Octane (C8)            | 111-65-9   | SHBP9758   | 99%    | 504.4 µg/mL                 | +/- 13.0305                            |
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| 3             | n-Dodecane (C12)         | 112-40-3   | SHBP7054   | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |
| 4             | n-Tetradecane (C14)      | 629-59-4   | STBK5437   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
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| 6             | n-Octadecane (C18)       | 593-45-3   | UE5NG      | 98%    | 504.1 µg/mL                 | +/- 13.0230                            |
| 7             | n-Eicosane (C20)         | 112-95-8   | MKCN8767   | 97%    | 504.0 µg/mL                 | +/- 13.0204                            |
| 8             | n-Docosane (C22)         | 629-97-0   | MKCQ3882   | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |
| 9             | n-Tetracosane (C24)      | 646-31-1   | MKCQ8345   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 10            | n-Hexacosane (C26)       | 630-01-3   | MKCQ4814   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
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| 13            | n-Dotriacontane (C32)    | 544-85-4   | BCBW0661   | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 14            | n-Tetratriacontane (C34) | 14167-59-0 | OML4N      | 99%    | 504.4 µg/mL                 | +/- 13.0305                            |
| 15            | n-Hexatriacontane (C36)  | 630-06-8   | Z27H018    | 99%    | 504.0 µg/mL                 | +/- 13.0201                            |
| 16            | n-Octatriacontane (C38)  | 7194-85-6  | 0000145137 | 96%    | 503.8 µg/mL                 | +/- 13.0152                            |
| 17            | n-Tetracontane (C40)     | 4181-95-7  | OKEGA      | 99%    | 503.6 µg/mL                 | +/- 13.0098                            |

**Solvent:** Hexane  
**CAS #** 110-54-3  
**Purity** 99%

## Quality Confirmation Test

**Column:**  
 30m x 0.25mm x 0.25µm  
 Rtx-5 (cat.#10223)

**Carrier Gas:**  
 hydrogen-constant pressure 10 psi.

**Temp. Program:**  
 40°C (hold 2 min.) to 330°C  
 @ 10°C/min. (hold 10 min.)

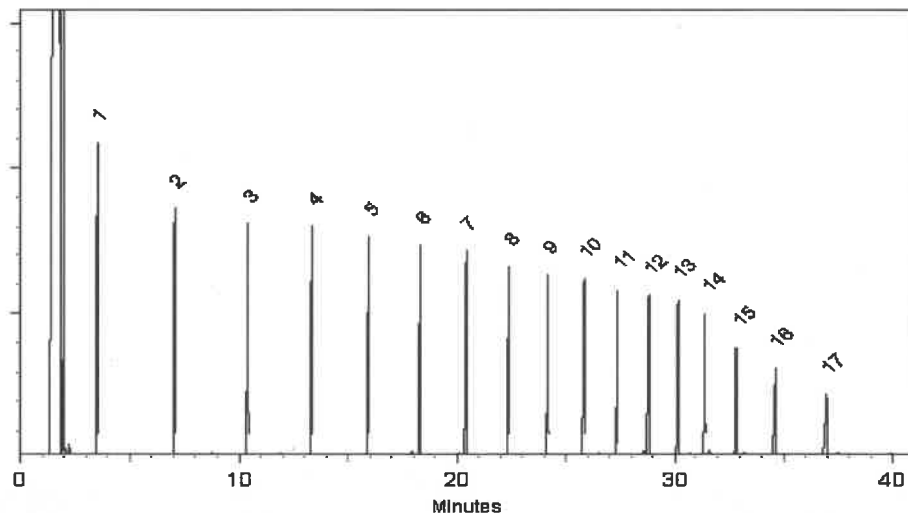
**Inj. Temp:**  
 250°C

**Det. Temp:**  
 330°C

**Det. Type:**  
 FID

**Split Vent:**  
 2 ml/min.

**Inj. Vol**  
 1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*[Signature]*  
 Dakota Parson - Operations Technician I

**Date Mixed:** 29-Nov-2023 **Balance Serial #** B442140311

*[Signature]*  
 Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 01-Dec-2023

Manufactured under Restek's ISO 9001:2015  
 Registered Quality System  
 Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT**

Part Number:  
Lot Number:  
Description:

72072  
101122  
n-Tetracosane-d50

Solvent(s):  
Methylene chloride

Lot#  
105345

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test ID#:

101132  
Ambient (20 °C)  
1000  
6UTB

5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

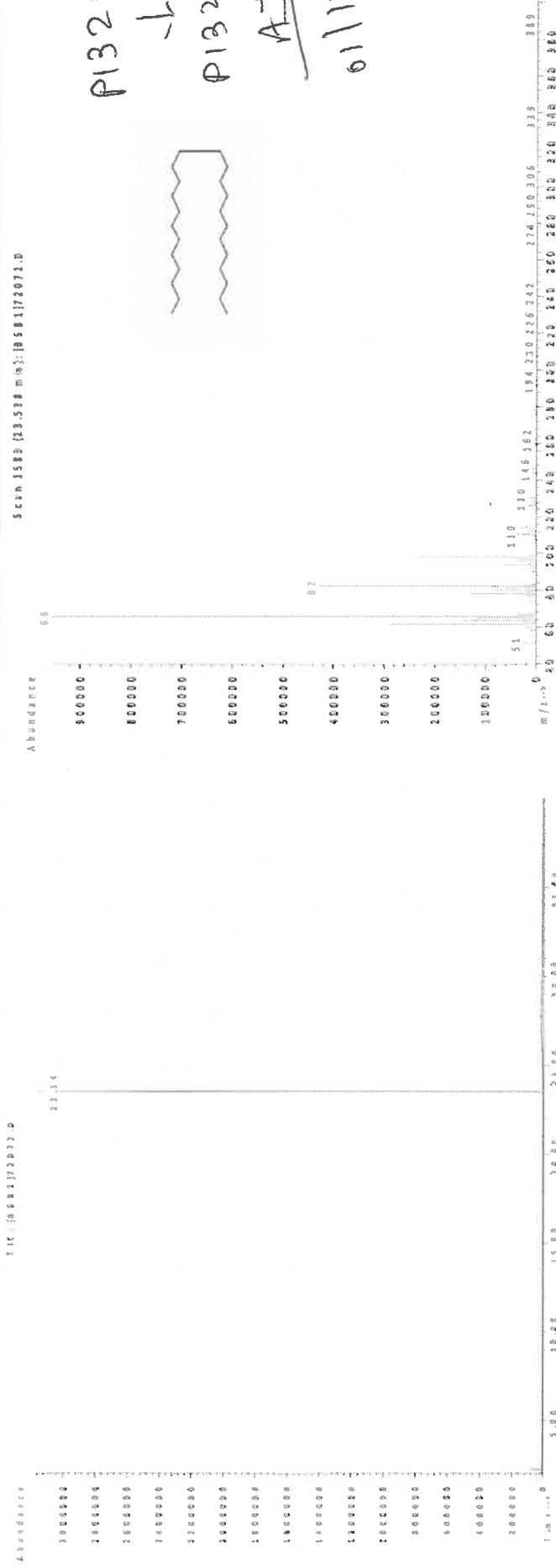
Weight(s) shown below were combined and diluted to (mL):

200.0

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Purity Uncertainty (%) | Assay (%D) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-----|------------|----------------------|------------|------------------------|------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|------|----------------|------|
|----------|-----|------------|----------------------|------------|------------------------|------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|------|----------------|------|

1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



P13205  
P13214  
A3  
61/17/24

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



5580 Skylane Blvd  
Santa Rosa, CA 95403  
(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

# Certificate of Analysis

| Catalog No.: Lot No.:  |        | Storage:        | Solvent:   | Exp. Date: | Description:                           |                     |
|------------------------|--------|-----------------|------------|------------|----------------------------------------|---------------------|
| Z-110400-05            | 514983 | ≤ -10 Degrees C | Hexane     | 11/20/2028 | TRPH Standard (C8-C40), 500 mg/L, 1 ml |                     |
| -01                    |        |                 |            |            |                                        |                     |
| Compound               |        |                 | CAS No.    | Purity (%) | Compound Lot No.                       | Concentration, mg/L |
| decane (C10)           |        |                 | 124-18-5   | 99.7       | 415.7.2P                               | 498.5 ± 6.92        |
| docosane (C22)         |        |                 | 629-97-0   | 98.8       | 420.9.1P                               | 499.4 ± 6.93        |
| dodecane (C12)         |        |                 | 112-40-3   | 99.7       | 416.9.3P                               | 502 ± 6.97          |
| dotriacontane (C32)    |        |                 | 544-85-4   | 97         | 425.9.2.2P                             | 499.6 ± 8.53        |
| eicosane (C20)         |        |                 | 112-95-8   | 99.8       | 419.7.1P                               | 501 ± 6.95          |
| hexacosane (C26)       |        |                 | 630-01-3   | 99.3       | 422.7.2.1P                             | 501 ± 6.95          |
| hexatriacontane (C36)  |        |                 | 630-06-8   | 98         | 427.29.1.1P                            | 499.3 ± 8.53        |
| n-hexadecane (C16)     |        |                 | 544-76-3   | 99.45      | 368.271.1P                             | 498.7 ± 6.91        |
| octacosane (C28)       |        |                 | 630-02-4   | 99.1       | 423.24.1P                              | 500.5 ± 6.95        |
| n-octadecane (C18)     |        |                 | 593-45-3   | 99.5       | 418.29.1P                              | 499.5 ± 6.92        |
| octane (C8)            |        |                 | 111-65-9   | 99.4       | 385.7.2.1P                             | 498.5 ± 6.92        |
| octatriacontane (C38)  |        |                 | 7194-85-6  | 95         | 428.1.2P                               | 500.2 ± 6.94        |
| tetracontane (C40)     |        |                 | 4181-95-7  | 97         | 429.7.2P                               | 499.6 ± 6.93        |
| n-tetracosane (C24)    |        |                 | 646-31-1   | 99.5       | 421.7.1P                               | 499.5 ± 6.93        |
| n-tetradecane (C14)    |        |                 | 629-59-4   | 99.3       | 417.9.1P                               | 500 ± 6.94          |
| tetratriacontane (C34) |        |                 | 14167-59-0 | 96.1       | 426.7.2.2P                             | 499.7 ± 8.53        |
| triacontane (C30)      |        |                 | 638-68-6   | 99.5       | 424.7.1.1P                             | 500 ± 6.94          |

P13215  
↓  
P13224  
AJ  
01131124  
\*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible Andrea Schaible  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values  
listed are determined gravimetrically.



5580 Skyline Blvd  
Santa Rosa, CA 95403  
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(800)878-7654 Toll Free  
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Manufacturer's Quality System  
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by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Page 1 of 1

| Catalog No.:          | Lot No.: | Storage:        | Solvent:   | Exp. Date: | Description:                           |                     |
|-----------------------|----------|-----------------|------------|------------|----------------------------------------|---------------------|
| Z-110400-05           | 514983   | ≤ -10 Degrees C | Hexane     | 11/20/2028 | TRPH Standard (C8-C40), 500 mg/L, 1 ml |                     |
| -01                   |          |                 |            |            |                                        |                     |
| Compound              |          |                 | CAS No.    | Purity (%) | Compound Lot No.                       | Concentration, mg/L |
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P13215  
↓  
P13224  
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\*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

*Andrea Schaible*

Andrea Schaible  
Chemist

Certified By: \_\_\_\_\_

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values  
listed are determined gravimetrically.

# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Certificate of Analysis



### Certified Reference Material (CRM)

**Conformance:** The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

**Health & Safety:** See the attached SDS & Certified Weight Report before use.

**Intended Use:** This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

**Characterization Values:** In production, gravimetric/volumetric readings are certified to be within  $\pm 0.5\%$  of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

**Homogeneity:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

**Verification:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

**Stability:** Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

**Uncertainty:** UCRM is the expanded uncertainty which utilizes a  $K = 2$  (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

**Purity & Identity:** Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

**Storage:** Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

**Usage:** Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

**Minimum Sample Size:** 0.5 uL for analytical applications.

**Legal Notice:** Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

**Certifying Officer:** Stephen J. Arpie, M.S., Director General

Page 1 of 2



Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514  
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Understanding the Certified Weight Report



Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

**Absolute Standards, Inc.**  
800-368-1131  
www.absolutestandards.com

**Certified Reference Material CRM**

ISO 17034 Accredited  
Scope: http://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT**

Part # 10009R  
Lot # 070716  
Description: CLP Priority Pollutant Internal Standards  
GC/MS Calibration - 6 components  
Expiration Date: 070721  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 4000  
NIST Test ID#: 822-275872-11  
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride  
Lot# 78782

Formulated By: Paul Barron  
Reviewed By: Pedro L. Rentes

070716  
070716

**MSDS Information**  
(Solvent Safety info. On Attached pg.)

| Compound                  | SMW | Lot Number        | Nominal Conc (µg/mL) | Purity (%) | Uncertainty (%) | Target Weight (µg) | Actual Weight (µg) | Actual Conc (µg/mL) | Expanded Uncertainty (µg/mL) | CAS#       | OSHA PEL (TWA)      | LD50            |
|---------------------------|-----|-------------------|----------------------|------------|-----------------|--------------------|--------------------|---------------------|------------------------------|------------|---------------------|-----------------|
| 1. 1,4-Dichlorobenzene-d4 | 118 | PR-1848M07287CB1  | 4000                 | 98         | 0.2             | 2.04093            | 2.04335            | 4004.7              | 15.4                         | 2055-02-1  | N/A                 | or-rat 500mg/kg |
| 2. Naphthalene-d8         | 223 | PR-2339M031612HP1 | 4000                 | 99         | 0.2             | 2.02032            | 2.02084            | 4001.0              | 15.2                         | 1146-85-2  | 10 ppm (50mg/m3)(H) | or-rat 400mg/kg |
| 3. Acenaphthene-d10       | 2   | PR-25444          | 4000                 | 99         | 0.2             | 2.02032            | 2.02245            | 4004.2              | 15.2                         | 15067-26-2 | N/A                 | or-rat 500mg/kg |
| 4. Phenanthrene-d10       | 248 | PR-2305M081711PM1 | 4000                 | 98         | 0.2             | 2.04093            | 2.04136            | 4000.8              | 15.4                         | 1517-25-2  | N/A                 | N/A             |
| 5. Chrysene-d12           | 92  | I-19280           | 4000                 | 98         | 0.2             | 2.04093            | 2.04159            | 4001.3              | 15.4                         | 1719-03-5  | N/A                 | N/A             |
| 6. Perylene-d12           | 247 | PR-24113          | 4000                 | 98         | 0.2             | 2.04093            | 2.04156            | 4001.2              | 15.4                         | 1503-58-3  | N/A                 | N/A             |

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"  
Run Length: 40.00 min, 23900 points at 10 points/second.  
Created: Sat, Jul 9, 2016 at 1:54:53 PM.  
Sampled: Sequence "070716-GC/MS", Method "GC-MS".  
Analyzed using Method "GC-MS".

**Comments:**  
GC-MS Analysis by Melissa Siciric  
Column ID: SPB-5 30 meter x 0.53mm x 1.5µm Film Thickness.  
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.  
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).  
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.  
FID Temp = 300°C, FID Signal = sDet Channel 1.  
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

**Peak Data:**

| Peak No. | Name                   | FID RT (min) |
|----------|------------------------|--------------|
| 1        | 1,4-Dichlorobenzene-d4 | 6.34         |
| 2        | Naphthalene-d8         | 8.98         |
| 3        | Acenaphthene-d10       | 12.97        |
| 4        | Phenanthrene-d10       | 16.37        |
| 5        | Chrysene-d12           | 22.62        |
| 6        | Perylene-d12           | 25.75        |

**Suppliers, Inc.**  
PP10009R L070716  
Pax7906 LPAR5989

| Analyte                | Sup/Abs Dev (%) |
|------------------------|-----------------|
| 1,4-Dichlorobenzene-d4 | 2.55            |
| Naphthalene-d8         | 2.43            |
| Acenaphthene-d10       | 2.74            |
| Phenanthrene-d10       | 0.65            |
| Chrysene-d12           | 1.93            |
| Perylene-d12           | -1.72           |
| Total                  | -0.56           |

**Qualitative Quantitative**

Printed: 5/8/2019, 12:55:50 PM

Formulator  
Reviewer

Actual  
Concentration  
Uncertainty  
Values

Health &  
Safety

3rd Party  
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

Part Number: **72072**  
Lot Number: **101122**  
Description: **n-Tetracosane-d50**

Solvent(s):  
Methylene chloride  
Lot#  
105345

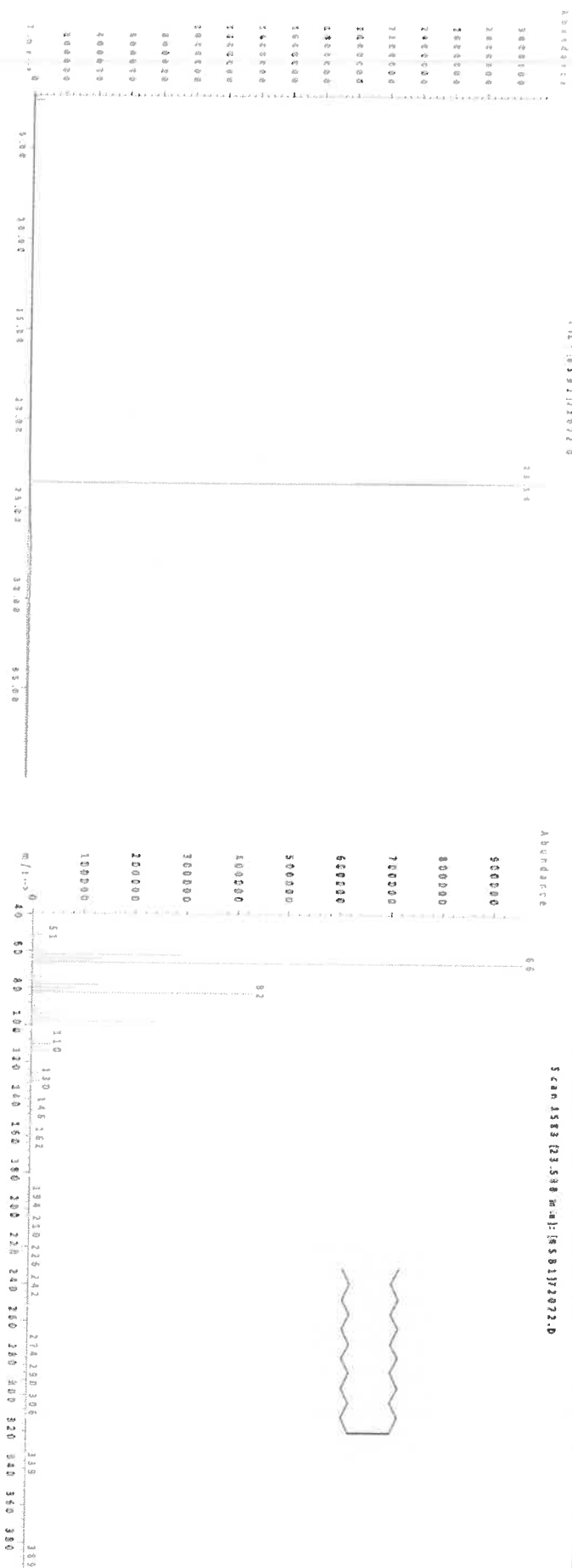
Expiration Date: **101132**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test ID#: **6UB3**  
Weight(s) shown below were combined and diluted to (mL): **200.0**  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

**P13437**  
**13436**  
**07/24/24**  
**X.F.**

|                |                         |        |
|----------------|-------------------------|--------|
| Formulated By: | <i>Prashant Chauhan</i> | 101122 |
| Reviewed By:   | <i>Pedro L. Rentas</i>  | 101122 |
|                | Pedro L. Rentas         | DATE   |

| Compound             | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) | LD50 |
|----------------------|------|------------|----------------------|------------|------------------------|-----------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|------|
| 1. n-Tetracosane-d50 | 2072 | PR-26606   | 1000                 | 98.7       | 0.2                    | 99.0      | 0.20471          | 0.20482          | 1000.6              | 4.1                                | 16416-32-3                                             | N/A  |

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Certificate of Analysis



### Certified Reference Material (CRM)

**Conformance:** The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

**Health & Safety:** See the attached SDS & Certified Weight Report before use.

**Intended Use:** This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

**Characterization Values:** In production, gravimetric/volumetric readings are certified to be within  $\pm 0.5\%$  of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

**Homogeneity:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

**Verification:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

**Stability:** Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

**Uncertainty:** UCRM is the expanded uncertainty which utilizes a  $K = 2$  (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

**Purity & Identity:** Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

**Storage:** Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

**Usage:** Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

**Minimum Sample Size:** 0.5 uL for analytical applications.

**Legal Notice:** Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

**Certifying Officer:** Stephen J. Arpie, M.S., Director General

Page 1 of 2



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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Understanding the Certified Weight Report



Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

**Absolute Standards, Inc.**  
800-368-1131  
www.absolutestandards.com

**Certified Reference Material CRM**

ISO 17034 Accredited  
Scope: http://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT**

Part # 10009R  
Lot # 070716  
Shelf Life 070716

Part Number: 10009R  
Lot Number: 070716  
Description: CLP Priority Pollutant Internal Standards  
GC/MS Calibration - 6 components  
070716  
Expiration Date: Ambient (20 °C)  
Recommended Storage: 4000  
Nominal Concentration (µg/mL): 822-275872-11  
NIST Test ID#: 5E-05 Balance Uncertainty  
0.058 Mass Uncertainty

Solvent(s): Methylene chloride  
Lot# 78782

Formulated By: Paul Barron  
Reviewed By: Pedro L. Rentes

070716  
070716

Weight(s) shown below were combined and diluted to (mL): 500.0

| Compound                  | SMW | Lot Number        | Nominal Conc (µg/mL) | Purity (%) | Uncertainty (%) | Target Weight (µg) | Actual Weight (µg) | Actual Conc (µg/mL) | Expanded Uncertainty (µg/mL) | CAS#       | MSDS Information (Solvent Safety info. On Attached pg.) | OSHA PEL (TWA) | LD50 |
|---------------------------|-----|-------------------|----------------------|------------|-----------------|--------------------|--------------------|---------------------|------------------------------|------------|---------------------------------------------------------|----------------|------|
| 1. 1,4-Dichlorobenzene-d4 | 118 | PR-1848M07287CB1  | 4000                 | 98         | 0.2             | 2.04093            | 2.04335            | 4004.7              | 15.4                         | 2055-02-1  | N/A                                                     | en-ra 500mg/kg |      |
| 2. Naphthalene-d8         | 223 | PR-2339M031612HP1 | 4000                 | 99         | 0.2             | 2.02032            | 2.02084            | 4001.0              | 15.2                         | 1146-85-2  | 10 ppm (50mg/m3/8h)                                     | en-ra 400mg/kg |      |
| 3. Acenaphthene-d10       | 2   | PR-25444          | 4000                 | 99         | 0.2             | 2.02032            | 2.02245            | 4004.2              | 15.2                         | 15067-26-2 | N/A                                                     | en-ra 500mg/kg |      |
| 4. Phenanthrene-d10       | 248 | PR-2305M081711PM1 | 4000                 | 98         | 0.2             | 2.04093            | 2.04136            | 4000.8              | 15.4                         | 1517-25-2  | N/A                                                     | N/A            |      |
| 5. Chrysene-d12           | 92  | I-19280           | 4000                 | 98         | 0.2             | 2.04093            | 2.04159            | 4001.3              | 15.4                         | 1719-03-5  | N/A                                                     | N/A            |      |
| 6. Perylene-d12           | 247 | PR-24113          | 4000                 | 98         | 0.2             | 2.04093            | 2.04156            | 4001.2              | 15.4                         | 1503-58-3  | N/A                                                     | N/A            |      |

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"  
Run Length: 40.00 min, 23900 points at 10 points/second.  
Created: Sat, Jul 9, 2016 at 1:54:53 PM.  
Sampled: Sequence "070716-GC/MS", Method "GC-MS".  
Analyzed using Method "GC-MS".

Comments:  
GC-MS Analysis by Melissa Siciric  
Column ID: SPB-5 30 meter x 0.53mm x 1.5µm Film Thickness.  
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.  
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).  
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.  
FID Temp = 300°C, FID Signal = sDet Channel 1.  
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

|   |                        |       |
|---|------------------------|-------|
| 1 | 1,4-Dichlorobenzene-d4 | 6.34  |
| 2 | Naphthalene-d8         | 8.98  |
| 3 | Acenaphthene-d10       | 12.97 |
| 4 | Phenanthrene-d10       | 16.37 |
| 5 | Chrysene-d12           | 22.62 |
| 6 | Perylene-d12           | 25.75 |

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Formulator  
Reviewer

Actual  
Concentration  
Uncertainty  
Values

Health &  
Safety

3rd Party  
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

Part Number: **72072**  
Lot Number: **101122**  
Description: **n-Tetracosane-d50**

Solvent(s):  
Methylene chloride  
Lot#  
105345

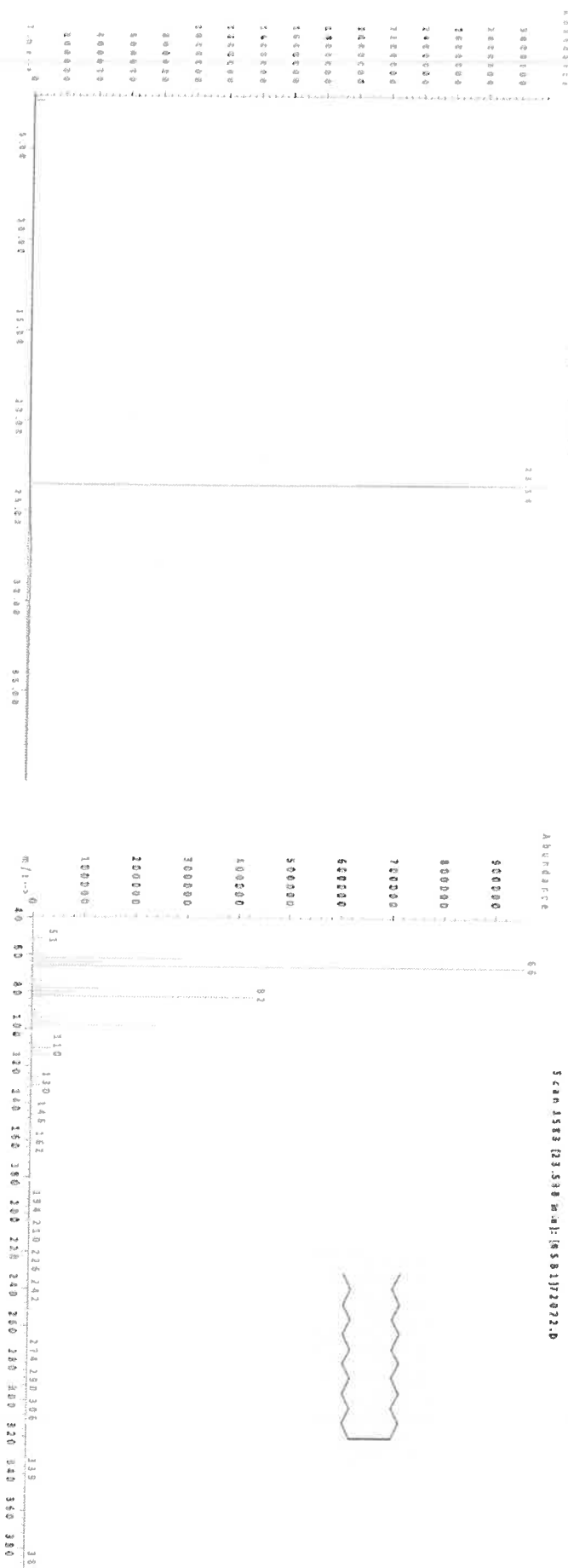
Expiration Date: **101132**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test ID#: **6UTB**  
Weight(s) shown below were combined and diluted to (mL): **200.0**  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

**P13437**  
**13496**  
**07/24/24**  
**X.F.**

|                |                         |        |
|----------------|-------------------------|--------|
| Formulated By: | <i>Prashant Chauhan</i> | 101122 |
| Reviewed By:   | <i>Pedro L. Rentas</i>  | 101122 |
|                | Pedro L. Rentas         | DATE   |

| Compound             | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) | LD50 |
|----------------------|------|------------|----------------------|------------|------------------------|-----------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|------|
| 1. n-Tetracosane-d50 | 2072 | PR-26606   | 1000                 | 98.7       | 0.2                    | 99.0      | 0.20471          | 0.20482          | 1000.6              | 4.1                                | 16416-32-3                                             | N/A  |

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Certificate of Analysis



### Certified Reference Material (CRM)

**Conformance:** The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

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**Verification:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

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**Storage:** Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

**Usage:** Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

**Minimum Sample Size:** 0.5 uL for analytical applications.

**Legal Notice:** Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

**Certifying Officer:** Stephen J. Arpie, M.S., Director General

Page 1 of 2



Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514  
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Understanding the Certified Weight Report



Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

**Absolute Standards, Inc.**  
800-368-1131  
www.absolutestandards.com

**Certified Reference Material CRM**

ISO 17034 Accredited  
Scope: http://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT**

Part # 10009R  
Lot # 070716  
Shelf Life 070716

Part Number: 10009R  
Lot Number: 070716  
Description: CLP Priority Pollutant Internal Standards  
GC/MS Calibration - 6 components  
070716  
Expiration Date: Ambient (20 °C)  
Recommended Storage: 4000  
Nominal Concentration (µg/mL): 822-275872-11  
NIST Test ID#: 5E-05 Balance Uncertainty  
0.058 Mass Uncertainty

Solvent(s): Methylene chloride  
Lot# 78782

Formulated By: Paul Barron  
Reviewed By: Pedro L. Rentes

070716  
070716

Weight(s) shown below were combined and diluted to (mL): 500.0

| Compound                  | SMW | Lot Number        | Nominal Conc (µg/mL) | Purity (%) | Uncertainty (%) | Target Weight (µg) | Actual Weight (µg) | Actual Conc (µg/mL) | Expanded Uncertainty (µg/mL) | CAS#       | OSHA PEL (TWA)      | LD50            |
|---------------------------|-----|-------------------|----------------------|------------|-----------------|--------------------|--------------------|---------------------|------------------------------|------------|---------------------|-----------------|
| 1. 1,4-Dichlorobenzene-d4 | 118 | PR-1848M07287CB1  | 4000                 | 98         | 0.2             | 2.04093            | 2.04335            | 4004.7              | 15.4                         | 2055-02-1  | N/A                 | or-rat 500mg/kg |
| 2. Naphthalene-d8         | 223 | PR-2339M031612HP1 | 4000                 | 99         | 0.2             | 2.02032            | 2.02084            | 4001.0              | 15.2                         | 1146-85-2  | 10 ppm (50mg/m3/8h) | or-rat 400mg/kg |
| 3. Acenaphthene-d10       | 2   | PR-25444          | 4000                 | 99         | 0.2             | 2.02032            | 2.02245            | 4004.2              | 15.2                         | 15067-26-2 | N/A                 | or-rat 500mg/kg |
| 4. Phenanthrene-d10       | 248 | PR-2305M081711PM1 | 4000                 | 98         | 0.2             | 2.04093            | 2.04135            | 4000.8              | 15.4                         | 1517-25-2  | N/A                 | N/A             |
| 5. Chrysene-d12           | 92  | I-19280           | 4000                 | 98         | 0.2             | 2.04093            | 2.04150            | 4001.3              | 15.4                         | 1719-03-5  | N/A                 | N/A             |
| 6. Perylene-d12           | 247 | PR-24113          | 4000                 | 98         | 0.2             | 2.04093            | 2.04155            | 4001.2              | 15.4                         | 1503-58-3  | N/A                 | N/A             |

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23900 points at 10 points/second.  
Created: Sat, Jul 9, 2016 at 1:54:53 PM.  
Sampled: Sequence "070716-GC/MS", Method "GC-MS".  
Analyzed using Method "GC-MS".

Comments:  
GC-MS Analysis by Melissa Siciric  
Column ID: SPB-5 30 meter x 0.53mm x 1.5µm Film Thickness.  
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.  
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).  
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.  
FID Temp = 300°C, FID Signal = sDet Channel 1.  
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

|   |                        |       |
|---|------------------------|-------|
| 1 | 1,4-Dichlorobenzene-d4 | 6.34  |
| 2 | Naphthalene-d8         | 8.98  |
| 3 | Acenaphthene-d10       | 12.97 |
| 4 | Phenanthrene-d10       | 16.37 |
| 5 | Chrysene-d12           | 22.62 |
| 6 | Perylene-d12           | 25.75 |

Printed: 5/8/2019, 12:55:50 PM

Formulator  
Reviewer

Actual  
Concentration

Uncertainty  
Values

Health &  
Safety

3rd Party  
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514  
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

Part Number: **72072**  
Lot Number: **101122**  
Description: **n-Tetracosane-d50**

Solvent(s):  
Methylene chloride  
Lot#  
105345

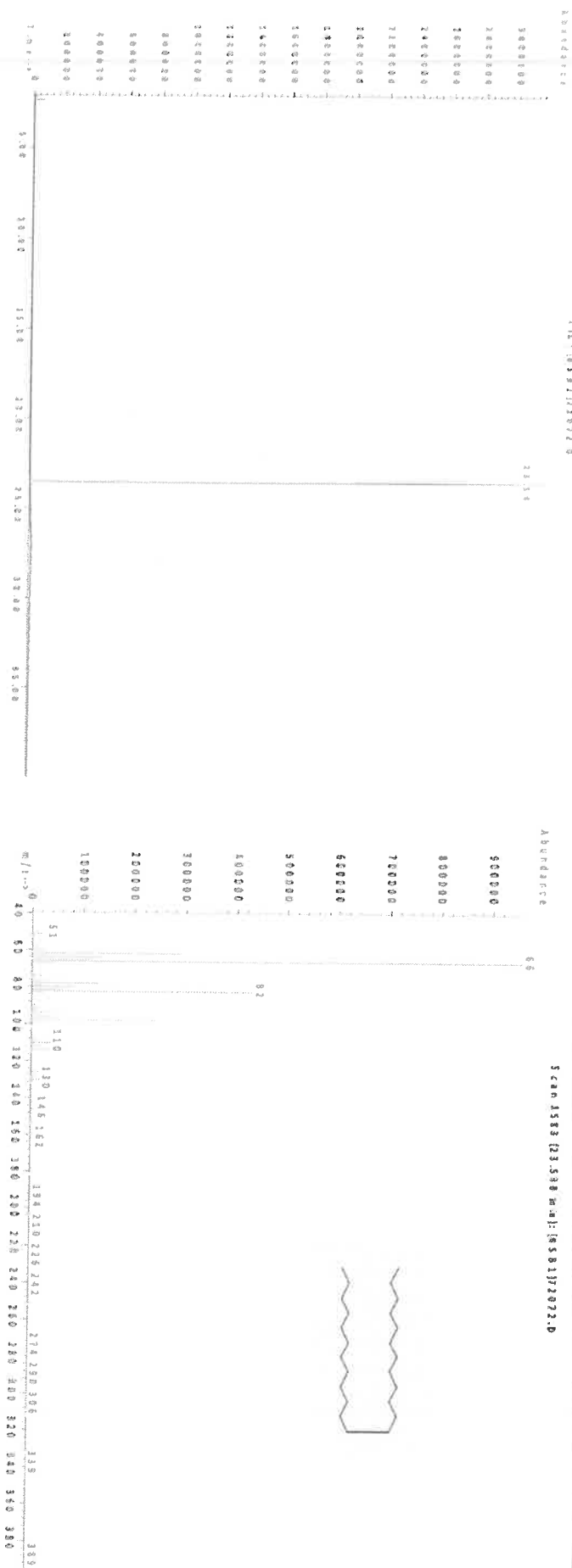
Expiration Date: **101132**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test ID#: **6UTB**  
Weight(s) shown below were combined and diluted to (mL): **200.0**  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

**P13437**  
**13496**  
**07/24/24**  
**X.F.**

|                |                         |        |
|----------------|-------------------------|--------|
| Formulated By: | <i>Prashant Chauhan</i> | 101122 |
| Reviewed By:   | <i>Pedro L. Rentas</i>  | 101122 |
|                | Pedro L. Rentas         | DATE   |

| Compound             | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | CAS#       | OSHA PEL (TWA) | LD50 |
|----------------------|------|------------|----------------------|------------|------------------------|-----------|------------------|------------------|---------------------|------------------------------------|------------|----------------|------|
| 1. n-Tetracosane-d50 | 2072 | PR-26606   | 1000                 | 98.7       | 0.2                    | 99.0      | 0.20471          | 0.20482          | 1000.6              | 4.1                                | 16416-32-3 | N/A            | N/A  |

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Certificate of Analysis



### Certified Reference Material (CRM)

**Conformance:** The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

**Health & Safety:** See the attached SDS & Certified Weight Report before use.

**Intended Use:** This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

**Characterization Values:** In production, gravimetric/volumetric readings are certified to be within  $\pm 0.5\%$  of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

**Homogeneity:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

**Verification:** Uncertainties that are due to the analytical procedure(s) are within  $\pm 5\%$  unless specifically stated on the Certified Wt. Report.

**Stability:** Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

**Uncertainty:** UCRM is the expanded uncertainty which utilizes a  $K = 2$  (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

**Purity & Identity:** Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

**Storage:** Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

**Usage:** Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

**Minimum Sample Size:** 0.5 uL for analytical applications.

**Legal Notice:** Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

**Certifying Officer:** Stephen J. Arpie, M.S., Director General

Page 1 of 2



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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



# ABSOLUTE STANDARDS, INC.

ISO - 17034



## Understanding the Certified Weight Report



Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

**Absolute Standards, Inc.**  
800-368-1131  
www.absolutestandards.com

**Certified Reference Material CRM**

ISO 17034 Accredited  
Scope: http://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT**

Part # 10009R  
Lot # 070716  
Description: CLP Priority Pollutant Internal Standards  
GC/MS Calibration - 6 components  
070721  
Expiration Date: Ambient (20 °C)  
Recommended Storage: 4000  
Nominal Concentration (µg/mL): 822-275872-11  
NIST Test ID#: 5E-05 Balance Uncertainty  
0.058 Mass Uncertainty

Solvent(s): Methylene chloride  
Lot# 78782

Formulated By: Paul Barron  
Reviewed By: Pedro L. Rentes

070716  
070716

Weight(s) shown below were combined and diluted to (mL): 500.0

| Compound                  | SMW | Lot Number        | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (µg) | Actual Weight (µg) | Actual Conc (µg/mL) | Expanded Uncertainty (µg/mL) | MSDS Information (Solvent Safety Info. On Attached pg.) |
|---------------------------|-----|-------------------|----------------------|------------|--------------------|--------------------|--------------------|---------------------|------------------------------|---------------------------------------------------------|
| 1. 1,4-Dichlorobenzene-d4 | 118 | PR-1845M07287CB1  | 4000                 | 98         | 0.2                | 2.04093            | 2.04335            | 4004.7              | 15.4                         | 2055-02-1 N/A                                           |
| 2. Naphthalene-d8         | 223 | PR-2339M031612HP1 | 4000                 | 99         | 0.2                | 2.02032            | 2.02084            | 4001.0              | 15.2                         | 1148-05-2 10 ppm (50mg/m3) N/A                          |
| 3. Acenaphthene-d10       | 2   | PR-25444          | 4000                 | 99         | 0.2                | 2.02032            | 2.02245            | 4004.2              | 15.2                         | 15067-28-2 N/A                                          |
| 4. Phenanthrene-d10       | 248 | PR-2305M081711PM1 | 4000                 | 98         | 0.2                | 2.04093            | 2.04135            | 4000.8              | 15.4                         | 1517-22-2 N/A                                           |
| 5. Chrysene-d12           | 92  | I-19290           | 4000                 | 98         | 0.2                | 2.04093            | 2.04159            | 4001.3              | 15.4                         | 1719-03-5 N/A                                           |
| 6. Perylene-d12           | 247 | PR-24113          | 4000                 | 98         | 0.2                | 2.04093            | 2.04158            | 4001.2              | 15.4                         | 1503-08-3 N/A                                           |

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23900 points at 10 points/second.  
Created: Sat, Jul 9, 2016 at 1:54:53 PM.  
Sampled: Sequence "070716-GC/MS", Method "GC-MS".  
Analyzed using Method "GC-MS".

Comments:  
GC-MS Analysis by Melissa Siciric  
Column ID: SPB-5 30 meter x 0.53mm x 1.5µm Film Thickness.  
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.  
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).  
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.  
FID Temp = 300°C, FID Signal = sDet Channel 1.  
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

|   |                        |       |
|---|------------------------|-------|
| 1 | 1,4-Dichlorobenzene-d4 | 6.34  |
| 2 | Naphthalene-d8         | 8.98  |
| 3 | Acenaphthene-d10       | 12.97 |
| 4 | Phenanthrene-d10       | 16.37 |
| 5 | Chrysene-d12           | 22.62 |
| 6 | Perylene-d12           | 25.75 |

Printed: 5/8/2019, 12:55:50 PM

Formulator  
Reviewer

Actual  
Concentration

Uncertainty  
Values

Health &  
Safety

3rd Party  
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514  
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com  
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

Part Number: **72072**  
Lot Number: **101122**  
Description: **n-Tetracosane-d50**

Solvent(s):  
Methylene chloride  
Lot#  
105345

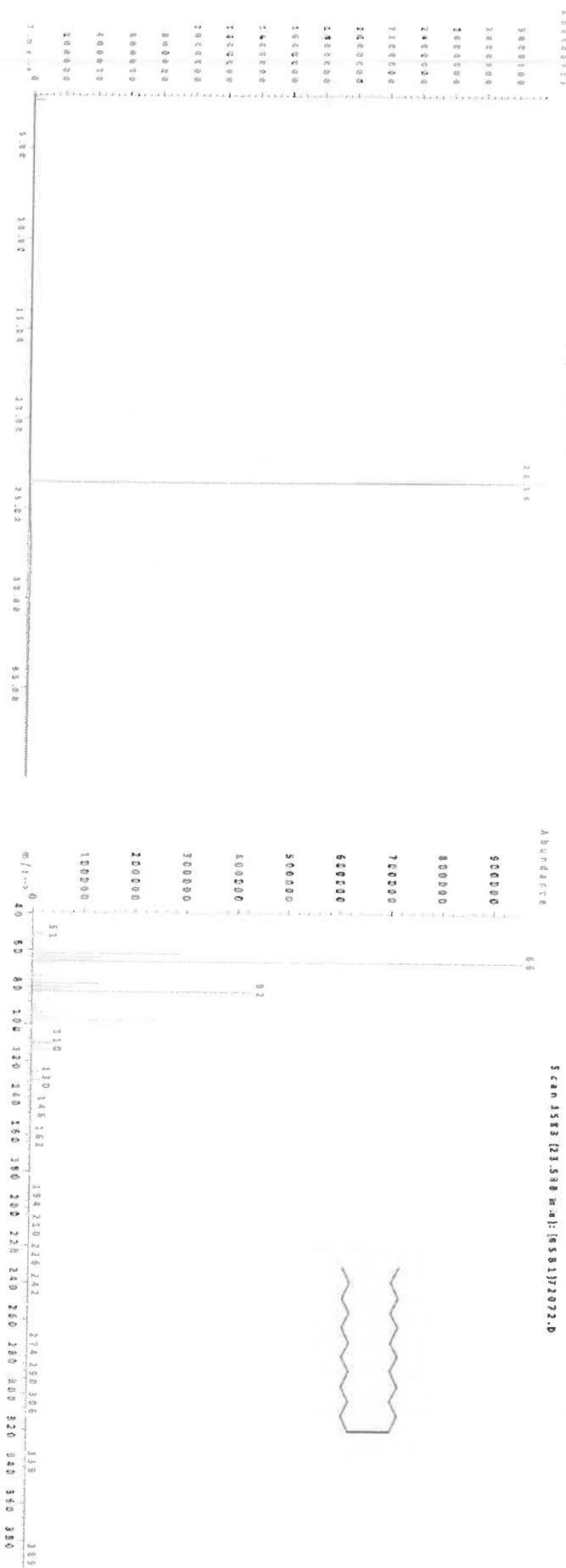
Expiration Date: **101132**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test ID#: **6UTB**  
Weight(s) shown below were combined and diluted to (mL): **200.0**  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

**P13437**  
**13496**  
**07/24/24**  
**X.F.**

|                |                         |        |
|----------------|-------------------------|--------|
| Formulated By: | <i>Prashant Chauhan</i> | 101122 |
| Reviewed By:   | <i>Pedro L. Rentas</i>  | 101122 |
|                | Pedro L. Rentas         | DATE   |

| Compound             | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) | LD50 |
|----------------------|------|------------|----------------------|------------|------------------------|-----------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|------|
| 1. n-Tetracosane-d50 | 2072 | PR-26606   | 1000                 | 98.7       | 0.2                    | 99.0      | 0.20471          | 0.20482          | 1000.6              | 4.1                                | 16416-32-3                                             | N/A  |

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.  
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).  
• Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.  
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.  
• Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1996).

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# SHIPPING DOCUMENTS

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CLIENT INFORMATION

REPORT TO BE SENT TO:  
COMPANY: Parsons  
ADDRESS: 301 plainfield Road  
CITY Syracuse STATE: NY ZIP: 13212  
ATTENTION: Stephen Liberatore  
PHONE: (315) 418-8767 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Con Ed East River Spill 2-4  
PROJECT NO.: 453648 LOCATION: Manhattan  
PROJECT MANAGER Stephen Liberatore NY  
e-mail: Stephen.Liberatore@parsons.com  
PHONE: (315) 418-8767 FAX: -

CLIENT BILLING INFORMATION

BILL TO: Parsons PO#: 453648  
ADDRESS: 301 Plainfield Road  
CITY Syracuse STATE: NY ZIP: 13212  
ATTENTION: S. Liberatore PHONE: (315) 418-8767  
ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) standard DAYS\*  
HARDCOPY (DATA PACKAGE): DAYS\*  
EDD: DAYS\*  
\*TO BE APPROVED BY CHEMTECH  
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)  
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP  
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B  
+ Raw Data ☐ Other  
☐ EDD FORMAT

PCBS  
TPH

1 2 3 4 5 6 7 8 9

| CHEMTECH<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |          | SAMPLE<br>COLLECTION |             | # OF BOTTLES | PRESERVATIVES |          |   |   |   |   |   |   |   | COMMENTS<br>← Specify Preservatives<br>A-HCl D-NaOH<br>B-HNO3 E-ICE<br>C-H2SO4 F-OTHER |  |  |
|--------------------------|----------------------------------|------------------|----------------|----------|----------------------|-------------|--------------|---------------|----------|---|---|---|---|---|---|---|----------------------------------------------------------------------------------------|--|--|
|                          |                                  |                  | COMP           | GRAB     | DATE                 | TIME        |              | E             | E        |   |   |   |   |   |   |   |                                                                                        |  |  |
|                          |                                  |                  |                |          |                      |             |              | 1             | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                                                                                        |  |  |
| 1.                       | <u>SB-01-20241219-7.0-7.5</u>    | <u>Soil</u>      |                | <u>X</u> | <u>12/19/24</u>      | <u>1045</u> | <u>2</u>     | <u>X</u>      | <u>X</u> |   |   |   |   |   |   |   |                                                                                        |  |  |
| 2.                       | <u>SB-01-20241219-9.0-9.5</u>    | <u>Soil</u>      |                | <u>X</u> | <u>12/19/24</u>      | <u>1050</u> | <u>2</u>     | <u>X</u>      | <u>X</u> |   |   |   |   |   |   |   |                                                                                        |  |  |
| 3.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 4.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 5.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 6.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 7.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 8.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 9.                       |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |
| 10.                      |                                  |                  |                |          |                      |             |              |               |          |   |   |   |   |   |   |   |                                                                                        |  |  |

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:  
1. K. Walentin  
RELINQUISHED BY SAMPLER:  
2.  
RELINQUISHED BY SAMPLER:  
3.

DATE/TIME:  
12-19-24/1630  
DATE/TIME:  
DATE/TIME:

RECEIVED BY:  
[Signature]  
RECEIVED BY:  
RECEIVED BY:

12-19-24  
12-19-24

1630  
1045

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 5.1 °C  
Comments:  
  
  
Page \_\_\_\_ of \_\_\_\_ CLIENT: ☐ Hand Delivered ☐ Other  
CHEMTECH: ☐ Picked Up ☐ Field Sampling Shipment Complete  
☐ YES ☐ NO

Copyright © 2023  
P5361-TPH GC

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT  
YELLOW - CHEMTECH COPY  
PINK - SAMPLER COPY

263 of 265

---

**From:** Maryanne.Kosciewicz@parsons.com  
**Sent:** Monday, March 10, 2025 2:21 PM  
**To:** YAZMEEN@CHEMTECH.NET  
**Cc:** Laura.Drachenberg@parsons.com; Kirsten.Valentini@parsons.com; Stephen.Liberatore@parsons.com  
**Subject:** RE: ConEd - East River  
**Importance:** High

Status update please.

---

**From:** Kosciewicz, Maryanne [US-US]  
**Sent:** Thursday, March 6, 2025 12:53 PM  
**To:** YAZMEEN@CHEMTECH.NET  
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**Subject:** ConEd - East River

Hi Yazmeen,

Could you please provide a level 4 (or NYSDEC Category B) lab report for East River SDG **P5361**?

Thanks,  
Maryanne

**Maryanne Kosciewicz**  
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| Connecticut          | PH-0830          |
| DOD ELAP (ANAB)      | L2219            |
| Maine                | 2024021          |
| Maryland             | 296              |
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