

## Cover Page

**Order ID :** P4495

**Project ID :** NJ Soil PT

**Client :** Chemtech Consulting Group

### Lab Sample Number

P4495-01  
P4495-02  
P4495-03  
P4495-04  
P4495-05  
P4495-06  
P4495-07  
P4495-08  
P4495-09  
P4495-10  
P4495-11  
P4495-12  
P4495-13  
P4495-14  
P4495-15  
P4495-16  
P4495-17  
P4495-18  
P4495-19  
P4495-20  
P4495-21  
P4495-22  
P4495-23  
P4495-24  
P4495-25

### Client Sample Number

PT-AN-SOIL  
PT-CORR-SOIL  
PT-CN-SOIL  
PT-CN-SOIL  
PT-FP-SOIL  
PT-CR6-SOIL  
PT-NUT-SOIL  
PT-NUT-SOIL  
PT-OGR-SOIL  
PT-MET-SOIL  
PT-BNA-SOIL  
PT-TRIAZINE-SOIL  
PT-PAH-SOIL  
PT-DIES-SOIL  
PT-GAS-SOIL  
PT-NJEPH-SOIL  
PT-HERB-SOIL  
PT-PCB-SOIL  
PT-PCBO-SOIL  
PT-PEST-SOIL  
PT-CHLR-SOIL  
PT-TXP-SOIL  
PT-VOA-SOIL  
PT-SOL-SOIL  
PT-NO2-SOIL

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: 12/3/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

## **CASE NARRATIVE**

### **Chemtech Consulting Group**

**Project Name: NJ Soil PT**

**Project # N/A**

**Chemtech Project # P4495**

**Test Name: SVOCMS Group3**

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

25 Solid samples were received on 10/23/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group1, Anions Group2, Corrosivity, Cyanide, Diesel Range Organics, EPH, Flash Point, Gasoline Range Organics, Herbicide Group1, Hexavalent Chromium, Mercury, Metals Group3, Metals ICP-Group1, Nitrite, Oil and Grease, PCB, PESTICIDE Group1, PESTICIDE Group2, PESTICIDE Group3, Phosphorus, Total, SVOCMS Group1, SVOCMS Group2, SVOCMS Group3, SVOCMS Group4, TKN, TOC, TS and VOCMS Group1. This data package contains results for SVOCMS Group3.

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

The samples were analyzed on instrument BNA\_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOCMS Group3 was based on method 8270-Modified 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 Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

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 File ID BN035082.D met the requirements except for 2,4,6-Tribromophenol, marginally low therefore no corrective action was taken. .

The Tuning criteria met requirements.

Sample PT-PAH-SOIL was diluted due to high concentration.

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

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.



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Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

**F. Manual Integration Comments:**

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

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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\_\_\_\_\_

## 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:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(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. |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

# **ALLIANCE** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

## **GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: P4495

MATRIX: Solid

METHOD: 8270-Modified/3541

|     |                                                                                                                                                                                                                                                            | NA | NO | YES |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1.  | Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)                                                                                                                                                                              |    |    | ✓   |
| 2.  | GC/MS Tuning Specifications. DFTPP Meet Criteria.<br>(NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP,<br>CLP AND NJ)                                                                                                                                |    |    | ✓   |
| 3.  | GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for<br>8000 Series.                                                                                                                                                          |    |    | ✓   |
| 4.  | GC/MS Calibration - Initial Calibration performed within 30 days before sample<br>analysis and continuing calibration performed within 24 hours of sample analysis for<br>600 series and 12 hours for 8000 series.                                         |    |    | ✓   |
| 5.  | GC/MS Calibration Requirements.<br><br>The Initial Calibration met the requirements .<br>The Continuous Calibration File ID BN035082.D met the requirements except for<br>2,4,6-Tribromophenol, marginally low therefore no corrective action was taken. . |    | ✓  |     |
| 6.  | Blank Contamination - If yes, list compounds and concentrations in each blank:                                                                                                                                                                             |    | ✓  |     |
| 7.  | Surrogate Recoveries Meet Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable<br>ranges.                                                                                                               |    |    | ✓   |
| 8.  | Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable<br>range.<br><br>The Blank Spike met requirements for all samples .                            |    |    | ✓   |
| 9.  | Internal Standard Area/Retention Time Shift Meet Criteria<br><br>Comments:                                                                                                                                                                                 |    |    | ✓   |
| 10. | Extraction Holding Time Met<br><br>If not met, list number of days exceeded for each sample:                                                                                                                                                               |    |    | ✓   |

**ALLIANCE** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

**GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**

**(CONTINUED)**

NA NO YES

11. Analysis Holding Time Met

✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Sample PT-PAH-SOIL was diluted due to high concentration.

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

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

\_\_\_\_\_  
Date

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

Project #: P4495

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 Custody

✓

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: 12/03/2024

## LAB CHRONICLE

|                 |                           |                   |                        |
|-----------------|---------------------------|-------------------|------------------------|
| <b>OrderID:</b> | P4495                     | <b>OrderDate:</b> | 10/23/2024 10:29:00 AM |
| <b>Client:</b>  | Chemtech Consulting Group | <b>Project:</b>   | NJ Soil PT             |
| <b>Contact:</b> | QA Officer                | <b>Location:</b>  | QA Office,VOA Lab      |

| LabID             | ClientID                | Matrix      | Test          | Method        | Sample Date     | Prep Date | Anal Date | Received        |
|-------------------|-------------------------|-------------|---------------|---------------|-----------------|-----------|-----------|-----------------|
| <b>P4495-11</b>   | <b>PT-BNA-SOIL</b>      | <b>SOIL</b> |               |               | <b>10/21/24</b> |           |           | <b>10/23/24</b> |
|                   |                         |             | SVOCMS Group1 | 8270E         |                 | 10/25/24  | 11/13/24  |                 |
|                   |                         |             | SVOCMS Group2 | 8270-Modified |                 | 10/25/24  | 11/14/24  |                 |
| <b>P4495-11DL</b> | <b>PT-BNA-SOILDL</b>    | <b>SOIL</b> |               |               | <b>10/21/24</b> |           |           | <b>10/23/24</b> |
|                   |                         |             | SVOCMS Group1 | 8270E         |                 | 10/25/24  | 11/13/24  |                 |
|                   |                         |             | SVOCMS Group2 | 8270-Modified |                 | 10/25/24  | 11/14/24  |                 |
| <b>P4495-12</b>   | <b>PT-TRIAZINE-SOIL</b> | <b>SOIL</b> |               |               | <b>10/21/24</b> |           |           | <b>10/23/24</b> |
|                   |                         |             | SVOCMS Group4 | 8270E         |                 | 10/25/24  | 10/29/24  |                 |
| <b>P4495-13</b>   | <b>PT-PAH-SOIL</b>      | <b>SOIL</b> |               |               | <b>10/21/24</b> |           |           | <b>10/23/24</b> |
|                   |                         |             | SVOCMS Group3 | 8270-Modified |                 | 10/25/24  | 11/14/24  |                 |
| <b>P4495-13DL</b> | <b>PT-PAH-SOILDL</b>    | <b>SOIL</b> |               |               | <b>10/21/24</b> |           |           | <b>10/23/24</b> |
|                   |                         |             | SVOCMS Group3 | 8270-Modified |                 | 10/25/24  | 11/14/24  |                 |

### Hit Summary Sheet SW-846

SDG No.: P4495

Client: Chemtech Consulting Group

| Sample ID            | Client ID     | Matrix | Parameter              | Concentration | C | MDL  | RDL  | Units |
|----------------------|---------------|--------|------------------------|---------------|---|------|------|-------|
| Client ID :          | PT-PAH-SOIL   |        |                        |               |   |      |      |       |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Naphthalene            | 160.000       |   | 0.69 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | 2-Methylnaphthalene    | 170.000       | E | 0.8  | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Acenaphthylene         | 77.700        |   | 0.63 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Acenaphthene           | 280.000       | E | 0.55 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Fluorene               | 120.000       |   | 0.6  | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Phenanthrene           | 270.000       | E | 0.63 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Anthracene             | 410.000       | E | 0.79 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Fluoranthene           | 140.000       |   | 0.67 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Pyrene                 | 180.000       | E | 0.95 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Benzo(a)anthracene     | 200.000       | E | 0.76 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Chrysene               | 160.000       |   | 0.86 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Benzo(b)fluoranthene   | 200.000       | E | 1.2  | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Benzo(k)fluoranthene   | 100.000       |   | 0.98 | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Benzo(a)pyrene         | 200.000       | E | 1.7  | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Indeno(1,2,3-cd)pyrene | 91.600        |   | 1.3  | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Dibenzo(a,h)anthracene | 120.000       |   | 1.2  | 3.3  | ug/Kg |
| P4495-13             | PT-PAH-SOIL   | SOIL   | Benzo(g,h,i)perylene   | 37.000        |   | 1.1  | 3.3  | ug/Kg |
| Total Svoc :         |               |        |                        | 2,916.30      |   |      |      |       |
| Total Concentration: |               |        |                        | 2,916.30      |   |      |      |       |
| Client ID :          | PT-PAH-SOILDL |        |                        |               |   |      |      |       |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Naphthalene            | 170.000       | D | 3.5  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | 2-Methylnaphthalene    | 180.000       | D | 4    | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Acenaphthylene         | 80.800        | D | 3.2  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Acenaphthene           | 300.000       | D | 2.8  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Fluorene               | 120.000       | D | 3    | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Phenanthrene           | 290.000       | D | 3.2  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Anthracene             | 430.000       | D | 4    | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Fluoranthene           | 150.000       | D | 3.4  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Pyrene                 | 190.000       | D | 4.8  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Benzo(a)anthracene     | 220.000       | D | 3.8  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Chrysene               | 180.000       | D | 4.3  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Benzo(b)fluoranthene   | 220.000       | D | 6    | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Benzo(k)fluoranthene   | 110.000       | D | 4.9  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Benzo(a)pyrene         | 220.000       | D | 8.3  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Indeno(1,2,3-cd)pyrene | 100.000       | D | 6.3  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Dibenzo(a,h)anthracene | 130.000       | D | 5.9  | 16.5 | ug/Kg |
| P4495-13DL           | PT-PAH-SOILDL | SOIL   | Benzo(g,h,i)perylene   | 40.800        | D | 5.7  | 16.5 | ug/Kg |

**Hit Summary Sheet**  
**SW-846**

**SDG No.:** P4495  
**Client:** Chemtech Consulting Group

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| Sample ID | Client ID | Matrix | Parameter            | Concentration | C        | MDL | RDL | Units |
|-----------|-----------|--------|----------------------|---------------|----------|-----|-----|-------|
|           |           |        | Total Svoc :         |               | 3,131.60 |     |     |       |
|           |           |        | Total Concentration: |               | 3,131.60 |     |     |       |



# QC SUMMARY

## Surrogate Summary

SW-846

SDG No.: P4495

Client: Chemtech Consulting Group

Analytical Method: 8270-Modified

| Lab Sample ID | Client ID     | Parameter               | Spike (PPM) | Result (PPM) | Recovery (%) | Qual | Limits (%) |      |
|---------------|---------------|-------------------------|-------------|--------------|--------------|------|------------|------|
|               |               |                         |             |              |              |      | Low        | High |
| P4495-13      | PT-PAH-SOIL   | 2-Methylnaphthalene-d10 | 0.4         | 0.25         | 62           |      | 17         | 161  |
|               |               | Fluoranthene-d10        | 0.4         | 0.28         | 69           |      | 23         | 138  |
|               |               | Nitrobenzene-d5         | 0.4         | 0.29         | 73           |      | 33         | 121  |
|               |               | 2-Fluorobiphenyl        | 0.4         | 0.28         | 70           |      | 32         | 121  |
|               |               | Terphenyl-d14           | 0.4         | 0.32         | 81           |      | 21         | 130  |
| P4495-13DL    | PT-PAH-SOILDL | 2-Methylnaphthalene-d10 | 0.4         | 0.27         | 66           |      | 17         | 161  |
|               |               | Fluoranthene-d10        | 0.4         | 0.29         | 72           |      | 23         | 138  |
|               |               | Nitrobenzene-d5         | 0.4         | 0.33         | 83           |      | 33         | 121  |
|               |               | 2-Fluorobiphenyl        | 0.4         | 0.31         | 77           |      | 32         | 121  |
|               |               | Terphenyl-d14           | 0.4         | 0.38         | 94           |      | 21         | 130  |
| PB164402BL    | PB164402BL    | 2-Methylnaphthalene-d10 | 0.4         | 0.35         | 88           |      | 17         | 161  |
|               |               | Fluoranthene-d10        | 0.4         | 0.37         | 93           |      | 23         | 138  |
|               |               | Nitrobenzene-d5         | 0.4         | 0.37         | 93           |      | 33         | 121  |
|               |               | 2-Fluorobiphenyl        | 0.4         | 0.36         | 90           |      | 32         | 121  |
|               |               | Terphenyl-d14           | 0.4         | 0.42         | 104          |      | 21         | 130  |
| PB164402BS    | PB164402BS    | 2-Methylnaphthalene-d10 | 0.4         | 0.46         | 114          |      | 17         | 161  |
|               |               | Fluoranthene-d10        | 0.4         | 0.32         | 81           |      | 23         | 138  |
|               |               | Nitrobenzene-d5         | 0.4         | 0.35         | 86           |      | 33         | 121  |
|               |               | 2-Fluorobiphenyl        | 0.4         | 0.36         | 89           |      | 32         | 121  |
|               |               | Terphenyl-d14           | 0.4         | 0.42         | 105          |      | 21         | 130  |

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4495

Client: Chemtech Consulting Group

Analytical Method: 8270-Modified DataFile: BN035094.D

| Lab Sample ID | Parameter              | Spike | Result | Unit  | Rec | RPD | Qual | RPD  |     | Limits |     |
|---------------|------------------------|-------|--------|-------|-----|-----|------|------|-----|--------|-----|
|               |                        |       |        |       |     |     |      | Qual | Low | High   | RPD |
| PB164402BS    | Naphthalene            | 13.3  | 12.0   | ug/Kg | 90  |     |      |      | 63  | 120    |     |
|               | 2-Methylnaphthalene    | 13.3  | 12.0   | ug/Kg | 90  |     |      |      | 54  | 111    |     |
|               | Acenaphthylene         | 13.3  | 12.1   | ug/Kg | 91  |     |      |      | 61  | 110    |     |
|               | Acenaphthene           | 13.3  | 11.6   | ug/Kg | 87  |     |      |      | 65  | 112    |     |
|               | Fluorene               | 13.3  | 11.2   | ug/Kg | 84  |     |      |      | 61  | 115    |     |
|               | Phenanthrene           | 13.3  | 12.3   | ug/Kg | 92  |     |      |      | 61  | 120    |     |
|               | Anthracene             | 13.3  | 12.5   | ug/Kg | 94  |     |      |      | 60  | 115    |     |
|               | Fluoranthene           | 13.3  | 10.7   | ug/Kg | 80  |     |      |      | 56  | 124    |     |
|               | Pyrene                 | 13.3  | 13.6   | ug/Kg | 102 |     |      |      | 58  | 125    |     |
|               | Benzo(a)anthracene     | 13.3  | 12.0   | ug/Kg | 90  |     |      |      | 45  | 129    |     |
|               | Chrysene               | 13.3  | 12.6   | ug/Kg | 95  |     |      |      | 62  | 123    |     |
|               | Benzo(b)fluoranthene   | 13.3  | 13.0   | ug/Kg | 98  |     |      |      | 47  | 123    |     |
|               | Benzo(k)fluoranthene   | 13.3  | 12.8   | ug/Kg | 96  |     |      |      | 69  | 123    |     |
|               | Benzo(a)pyrene         | 13.3  | 13.0   | ug/Kg | 98  |     |      |      | 53  | 123    |     |
|               | Indeno(1,2,3-cd)pyrene | 13.3  | 11.2   | ug/Kg | 84  |     |      |      | 62  | 131    |     |
|               | Dibenz(a,h)anthracene  | 13.3  | 11.2   | ug/Kg | 84  |     |      |      | 57  | 120    |     |
|               | Benzo(g,h,i)perylene   | 13.3  | 10.0   | ug/Kg | 75  |     |      |      | 66  | 121    |     |

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164402BL

Lab Name: CHEMTECH

Contract: CHEM02

Lab Code: CHEM Case No.: P4495

SAS No.: P4495 SDG NO.: P4495

Lab File ID: BN035083.D

Lab Sample ID: PB164402BL

Instrument ID: BNA\_N

Date Extracted: 10/25/2024

Matrix: (soil/water) SOIL

Date Analyzed: 11/14/2024

Level: (low/med) LOW

Time Analyzed: 10:48

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 |
|-------------------|------------------|----------------|------------------|
| PB164402BS        | PB164402BS       | BN035094.D     | 11/14/2024       |
| PT-PAH-SOIL       | P4495-13         | BN035086.D     | 11/14/2024       |

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



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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CHEM02Lab Code: CHEMSAS No.: P4495 SDG NO.: P4495Lab File ID: BN035061.DDFTPP Injection Date: 11/13/2024Instrument ID: BNA\_NDFTPP Injection Time: 12:01

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 51  | 10.0 - 80.0% of mass 198           | 19.6                 |
| 68  | Less than 2.0% of mass 69          | 0.4 ( 1.4 ) 1        |
| 69  | Mass 69 relative abundance         | 29.1                 |
| 70  | Less than 2.0% of mass 69          | 0.2 ( 0.7 ) 1        |
| 127 | 10.0 - 80.0% of mass 198           | 35.9                 |
| 197 | Less than 2.0% of mass 198         | 0.2                  |
| 198 | Base Peak, 100% relative abundance | 100                  |
| 199 | 5.0 to 9.0% of mass 198            | 6.6                  |
| 275 | 10.0 - 60.0% of mass 198           | 27.6                 |
| 365 | Greater than 1% of mass 198        | 4.4                  |
| 441 | Present, but less than mass 443    | 9.3                  |
| 442 | Greater than 50% of mass 198       | 100                  |
| 443 | 15.0 - 24.0% of mass 442           | 11.2 ( 19 ) 2        |

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|-------------------|------------------|----------------|------------------|------------------|
| SSTDICC0.1        | SSTDICC0.1       | BN035062.D     | 11/13/2024       | 12:40            |
| SSTDICC0.2        | SSTDICC0.2       | BN035063.D     | 11/13/2024       | 13:16            |
| SSTDICCC0.4       | SSTDICCC0.4      | BN035064.D     | 11/13/2024       | 13:52            |
| SSTDICC0.8        | SSTDICC0.8       | BN035065.D     | 11/13/2024       | 14:28            |
| SSTDICC1.6        | SSTDICC1.6       | BN035066.D     | 11/13/2024       | 15:04            |
| SSTDICC3.2        | SSTDICC3.2       | BN035067.D     | 11/13/2024       | 15:39            |
| SSTDICC5.0        | SSTDICC5.0       | BN035068.D     | 11/13/2024       | 16:15            |



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Fax : 908 789 8922

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CHEM02Lab Code: CHEMSAS No.: P4495 SDG NO.: P4495Lab File ID: BN035081.DDFTPP Injection Date: 11/14/2024Instrument ID: BNA\_NDFTPP Injection Time: 08:53

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 51  | 10.0 - 80.0% of mass 198           | 19.9                 |
| 68  | Less than 2.0% of mass 69          | 0.6 ( 1.9 ) 1        |
| 69  | Mass 69 relative abundance         | 30.1                 |
| 70  | Less than 2.0% of mass 69          | 0.2 ( 0.6 ) 1        |
| 127 | 10.0 - 80.0% of mass 198           | 37.5                 |
| 197 | Less than 2.0% of mass 198         | 0.4                  |
| 198 | Base Peak, 100% relative abundance | 100                  |
| 199 | 5.0 to 9.0% of mass 198            | 6.8                  |
| 275 | 10.0 - 60.0% of mass 198           | 29.4                 |
| 365 | Greater than 1% of mass 198        | 4.8                  |
| 441 | Present, but less than mass 443    | 9.9                  |
| 442 | Greater than 50% of mass 198       | 100                  |
| 443 | 15.0 - 24.0% of mass 442           | 10.8 ( 16.9 ) 2      |

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|-------------------|------------------|----------------|------------------|------------------|
| SSTDCCC0.4        | SSTDCCC0.4       | BN035082.D     | 11/14/2024       | 10:12            |
| PB164402BL        | PB164402BL       | BN035083.D     | 11/14/2024       | 10:48            |
| PT-PAH-SOIL       | P4495-13         | BN035086.D     | 11/14/2024       | 13:22            |
| PT-PAH-SOILDL     | P4495-13DL       | BN035087.D     | 11/14/2024       | 14:10            |
| PB164402BS        | PB164402BS       | BN035094.D     | 11/14/2024       | 18:59            |

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4495 SAS No.: P4495 SDG NO.: P4495

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/14/2024

Lab File ID: BN035082.D Time Analyzed: 10:12

Instrument ID: BNA\_N GC Column: ZB-GR ID: 0.25 (mm)

|                  | IS1 (DCB)<br>AREA # | RT #  | IS2 (NPT)<br>AREA # | RT #   | IS3 (ANT)<br>AREA # | RT #  |
|------------------|---------------------|-------|---------------------|--------|---------------------|-------|
| 12 HOUR STD      | 2551                | 7.553 | 6362                | 10.32  | 5037                | 14.19 |
| UPPER LIMIT      | 5102                | 8.053 | 12724               | 10.819 | 10074               | 14.69 |
| LOWER LIMIT      | 1275.5              | 7.053 | 3181                | 9.819  | 2518.5              | 13.69 |
| EPA SAMPLE NO.   |                     |       |                     |        |                     |       |
| 01 PB164402BL    | 2707                | 7.55  | 6301                | 10.32  | 4578                | 14.19 |
| 02 PT-PAH-SOIL   | 3754                | 7.55  | 10271               | 10.31  | 7900                | 14.19 |
| 03 PT-PAH-SOILDL | 3588                | 7.55  | 9962                | 10.32  | 7625                | 14.19 |
| 04 PB164402BS    | 2568                | 7.55  | 6459                | 10.32  | 4848                | 14.19 |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4495 SAS No.: P4495 SDG NO.: P4495

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/14/2024

Lab File ID: BN035082.D Time Analyzed: 10:12

Instrument ID: BNA\_N GC Column: ZB-GR ID: 0.25 (mm)

|                  | IS4 (PHN)<br>AREA # | RT #   | IS5 (CRY)<br>AREA # | RT #   | IS6 (PRY)<br>AREA # | RT #  |
|------------------|---------------------|--------|---------------------|--------|---------------------|-------|
| 12 HOUR STD      | 12802               | 16.933 | 13485               | 21.134 | 14730               | 23.3  |
| UPPER LIMIT      | 25604               | 17.433 | 26970               | 21.634 | 29460               | 23.8  |
| LOWER LIMIT      | 6401                | 16.433 | 6742.5              | 20.634 | 7365                | 22.8  |
| EPA SAMPLE NO.   |                     |        |                     |        |                     |       |
| 01 PB164402BL    | 12175               | 16.93  | 12501               | 21.13  | 13990               | 23.30 |
| 02 PT-PAH-SOIL   | 19410               | 16.94  | 20657               | 21.14  | 18894               | 23.30 |
| 03 PT-PAH-SOILDL | 18496               | 16.93  | 19193               | 21.13  | 17654               | 23.30 |
| 04 PB164402BS    | 11535               | 16.93  | 9992                | 21.13  | 9578                | 23.30 |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.



# SAMPLE DATA

## Report of Analysis

|                    |                           |                 |               |
|--------------------|---------------------------|-----------------|---------------|
| Client:            | Chemtech Consulting Group | Date Collected: | 10/21/24      |
| Project:           | NJ Soil PT                | Date Received:  | 10/23/24      |
| Client Sample ID:  | PT-PAH-SOIL               | SDG No.:        | P4495         |
| Lab Sample ID:     | P4495-13                  | Matrix:         | SOIL          |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100           |
| Sample Wt/Vol:     | 30 Units: g               | Final Vol:      | 1000 uL       |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3 |
| Extraction Type :  | Decanted : N              | Level :         | LOW           |
| Injection Volume : | GPC Factor : 1.0          | GPC Cleanup :   | N PH :        |
| Prep Method :      | sw3541                    |                 |               |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035086.D        | 1         | 10/25/24 09:50 | 11/14/24 13:22 | PB164402      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|---------------------------|-------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>            |                         |       |           |          |            |                   |
| 91-20-3                   | Naphthalene             | 160   |           | 0.69     | 3.30       | ug/Kg             |
| 91-57-6                   | 2-Methylnaphthalene     | 170   | E         | 0.80     | 3.30       | ug/Kg             |
| 208-96-8                  | Acenaphthylene          | 77.7  |           | 0.63     | 3.30       | ug/Kg             |
| 83-32-9                   | Acenaphthene            | 280   | E         | 0.55     | 3.30       | ug/Kg             |
| 86-73-7                   | Fluorene                | 120   |           | 0.60     | 3.30       | ug/Kg             |
| 85-01-8                   | Phenanthrene            | 270   | E         | 0.63     | 3.30       | ug/Kg             |
| 120-12-7                  | Anthracene              | 410   | E         | 0.79     | 3.30       | ug/Kg             |
| 206-44-0                  | Fluoranthene            | 140   |           | 0.67     | 3.30       | ug/Kg             |
| 129-00-0                  | Pyrene                  | 180   | E         | 0.95     | 3.30       | ug/Kg             |
| 56-55-3                   | Benzo(a)anthracene      | 200   | E         | 0.76     | 3.30       | ug/Kg             |
| 218-01-9                  | Chrysene                | 160   |           | 0.86     | 3.30       | ug/Kg             |
| 205-99-2                  | Benzo(b)fluoranthene    | 200   | E         | 1.20     | 3.30       | ug/Kg             |
| 207-08-9                  | Benzo(k)fluoranthene    | 100   |           | 0.98     | 3.30       | ug/Kg             |
| 50-32-8                   | Benzo(a)pyrene          | 200   | E         | 1.70     | 3.30       | ug/Kg             |
| 193-39-5                  | Indeno(1,2,3-cd)pyrene  | 91.6  |           | 1.30     | 3.30       | ug/Kg             |
| 53-70-3                   | Dibenzo(a,h)anthracene  | 120   |           | 1.20     | 3.30       | ug/Kg             |
| 191-24-2                  | Benzo(g,h,i)perylene    | 37.0  |           | 1.10     | 3.30       | ug/Kg             |
| <b>SURROGATES</b>         |                         |       |           |          |            |                   |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.25  |           | 17 - 161 | 62%        | SPK: 0.4          |
| 93951-69-0                | Fluoranthene-d10        | 0.28  |           | 23 - 138 | 69%        | SPK: 0.4          |
| 4165-60-0                 | Nitrobenzene-d5         | 0.29  |           | 33 - 121 | 73%        | SPK: 0.4          |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.28  |           | 32 - 121 | 70%        | SPK: 0.4          |
| 1718-51-0                 | Terphenyl-d14           | 0.32  |           | 21 - 130 | 81%        | SPK: 0.4          |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |            |                   |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 3750  |           | 7.546    |            |                   |
| 1146-65-2                 | Naphthalene-d8          | 10300 |           | 10.308   |            |                   |
| 15067-26-2                | Acenaphthene-d10        | 7900  |           | 14.186   |            |                   |
| 1517-22-2                 | Phenanthrene-d10        | 19400 |           | 16.939   |            |                   |
| 1719-03-5                 | Chrysene-d12            | 20700 |           | 21.14    |            |                   |

## Report of Analysis

|                    |                           |                 |               |
|--------------------|---------------------------|-----------------|---------------|
| Client:            | Chemtech Consulting Group | Date Collected: | 10/21/24      |
| Project:           | NJ Soil PT                | Date Received:  | 10/23/24      |
| Client Sample ID:  | PT-PAH-SOIL               | SDG No.:        | P4495         |
| Lab Sample ID:     | P4495-13                  | Matrix:         | SOIL          |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100           |
| Sample Wt/Vol:     | 30 Units: g               | Final Vol:      | 1000 uL       |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3 |
| Extraction Type :  | Decanted : N              | Level :         | LOW           |
| Injection Volume : | GPC Factor : 1.0          | GPC Cleanup :   | N PH :        |
| Prep Method :      | sw3541                    |                 |               |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035086.D        | 1         | 10/25/24 09:50 | 11/14/24 13:22 | PB164402      |

| CAS Number | Parameter    | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|------------|--------------|-------|-----------|-----|------------|-------|
| 1520-96-3  | Perylene-d12 | 18900 | 23.301    |     |            |       |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
 Data File : BN035086.D  
 Acq On : 14 Nov 2024 13:22  
 Operator : RC/JU  
 Sample : P4495-13  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PT-PAH-SOIL

Quant Time: Nov 14 13:51:57 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

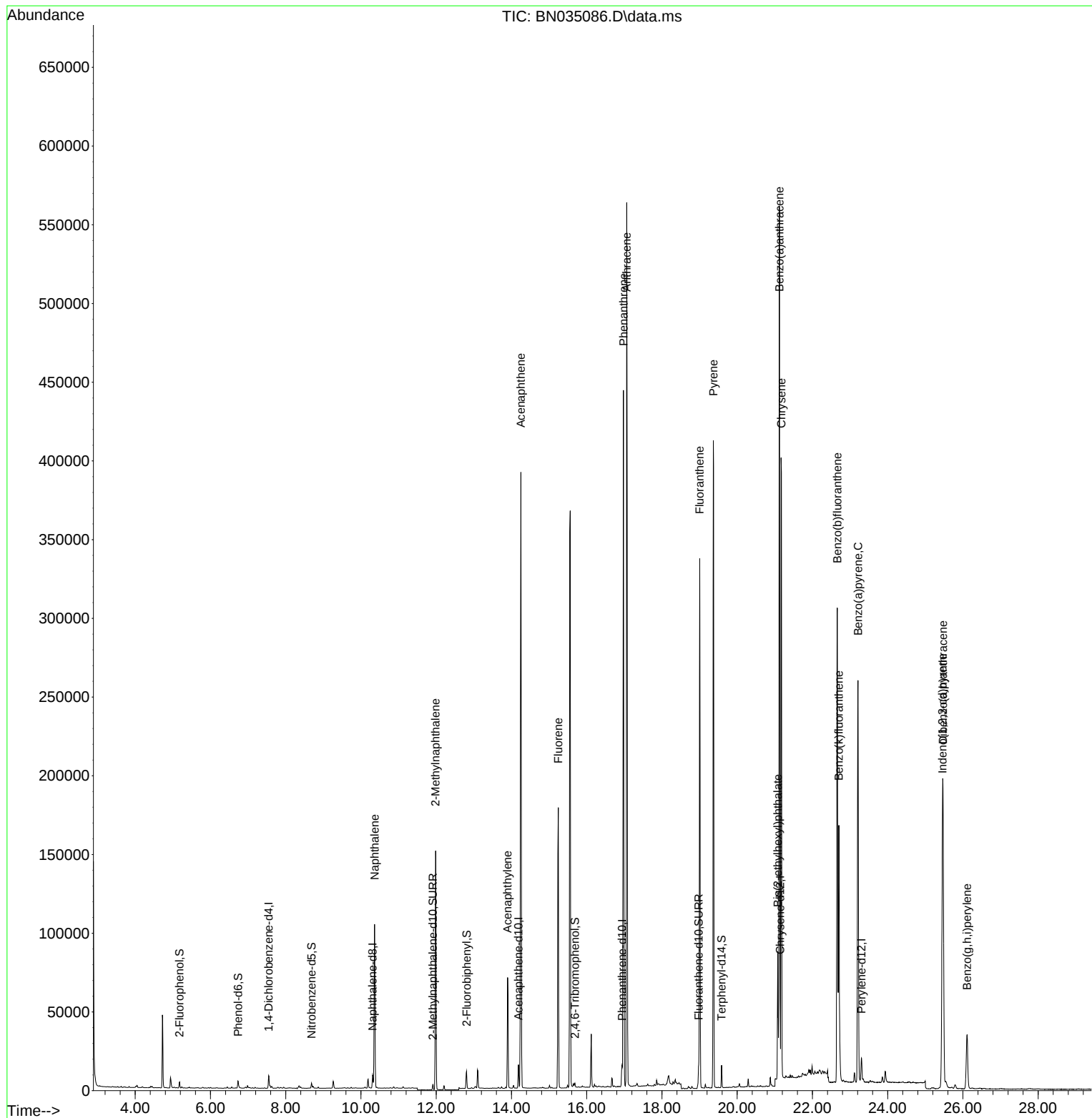
| Compound                      | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------------|--------|------|----------|--------|-------|----------|
| -----                         |        |      |          |        |       |          |
| Internal Standards            |        |      |          |        |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.546  | 152  | 3754     | 0.400  | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.308 | 136  | 10271    | 0.400  | ng    | #-0.01   |
| 13) Acenaphthene-d10          | 14.186 | 164  | 7900     | 0.400  | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.939 | 188  | 19410    | 0.400  | ng    | 0.00     |
| 29) Chrysene-d12              | 21.140 | 240  | 20657    | 0.400  | ng    | # 0.00   |
| 35) Perylene-d12              | 23.301 | 264  | 18894    | 0.400  | ng    | 0.00     |
|                               |        |      |          |        |       |          |
| System Monitoring Compounds   |        |      |          |        |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 3074     | 0.323  | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 4280     | 0.358  | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.685  | 82   | 2617     | 0.293  | ng    | -0.01    |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 4536     | 0.248  | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.686 | 330  | 1323     | 0.232  | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.807 | 172  | 9035     | 0.282  | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.976 | 212  | 16359    | 0.275  | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.584 | 244  | 13939    | 0.322  | ng    | 0.00     |
|                               |        |      |          |        |       |          |
| Target Compounds              |        |      |          |        |       | Qvalue   |
| 9) Naphthalene                | 10.362 | 128  | 127058   | 4.738  | ng    | 97       |
| 12) 2-Methylnaphthalene       | 11.984 | 142  | 101061   | 5.108  | ng    | 99       |
| 16) Acenaphthylene            | 13.898 | 152  | 78653    | 2.330  | ng    | 100      |
| 17) Acenaphthene              | 14.250 | 154  | 187057   | 8.454  | ng    | 98       |
| 18) Fluorene                  | 15.245 | 166  | 112723   | 3.463  | ng    | 99       |
| 25) Phenanthrene              | 16.977 | 178  | 410639   | 8.039  | ng    | 99       |
| 26) Anthracene                | 17.064 | 178  | 572114   | 12.194 | ng    | 99       |
| 28) Fluoranthene              | 19.004 | 202  | 290131   | 4.130  | ng    | 100      |
| 30) Pyrene                    | 19.366 | 202  | 361798   | 5.259  | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.122 | 228  | 427505   | 5.943  | ng    | 100      |
| 33) Chrysene                  | 21.176 | 228  | 337891   | 4.742  | ng    | 99       |
| 34) Bis(2-ethylhexyl)phtha... | 21.077 | 149  | 66373    | 1.759  | ng    | 98       |
| 36) Indeno(1,2,3-cd)pyrene    | 25.455 | 276  | 207176   | 2.749  | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.660 | 252  | 388820   | 6.116  | ng    | 96       |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 191270   | 3.007  | ng    | 96       |
| 39) Benzo(a)pyrene            | 23.210 | 252  | 339348   | 6.067  | ng    | # 94     |
| 40) Dibenzo(a,h)anthracene    | 25.470 | 278  | 216242   | 3.621  | ng    | 99       |
| 41) Benzo(g,h,i)perylene      | 26.110 | 276  | 70521    | 1.110  | ng    | 98       |
| -----                         |        |      |          |        |       |          |

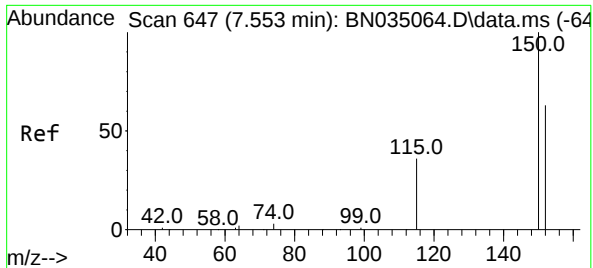
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035086.D  
Acq On : 14 Nov 2024 13:22  
Operator : RC/JU  
Sample : P4495-13  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

Quant Time: Nov 14 13:51:57 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration

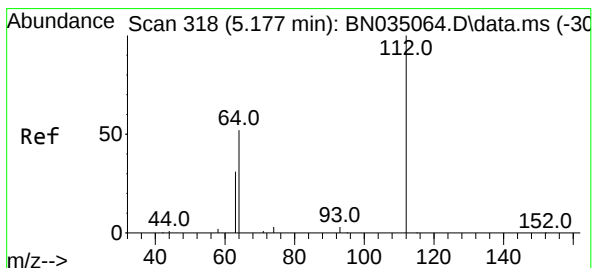
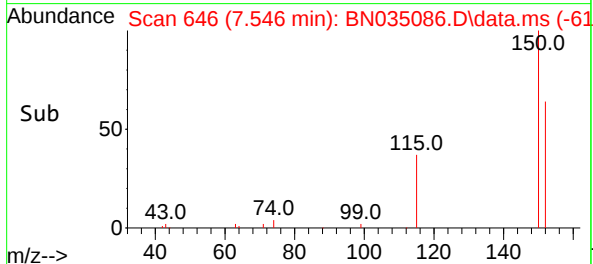
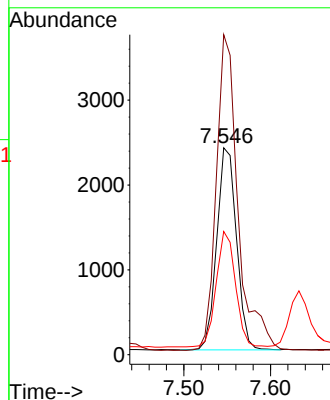
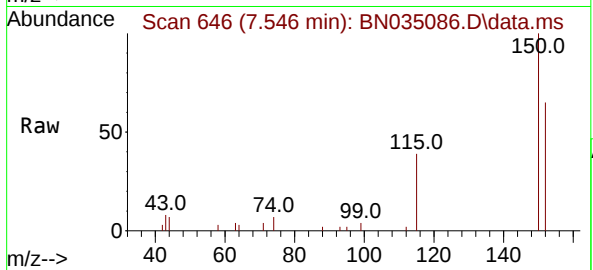




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.546 min Scan# 64  
Delta R.T. -0.007 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

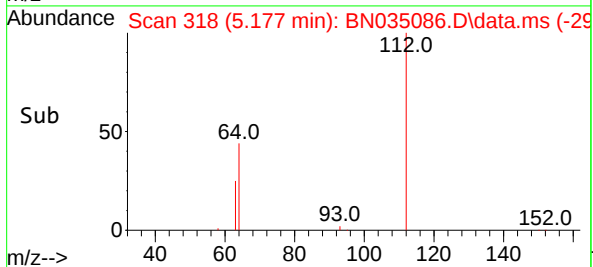
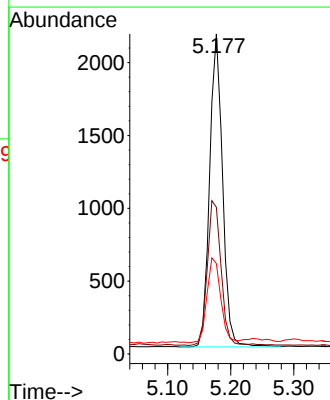
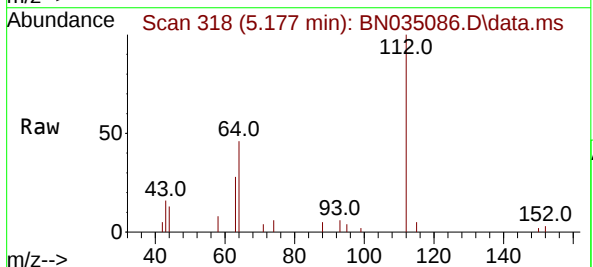
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BNA\_N  
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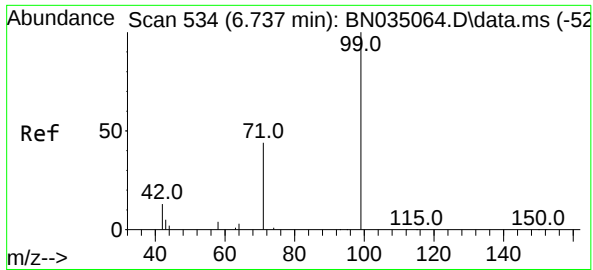
Tgt Ion:152 Resp: 3754  
Ion Ratio Lower Upper  
152 100  
150 154.7 124.5 186.7  
115 59.6 47.8 71.6



#4  
2-Fluorophenol  
Concen: 0.323 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:112 Resp: 3074  
Ion Ratio Lower Upper  
112 100  
64 48.8 39.7 59.5  
63 28.7 23.0 34.4

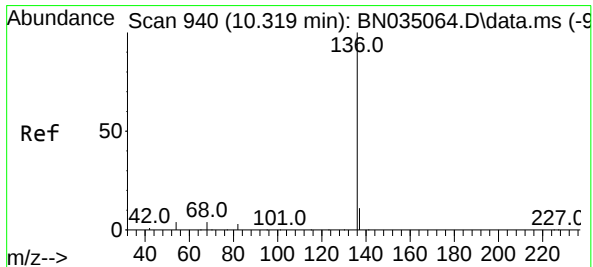
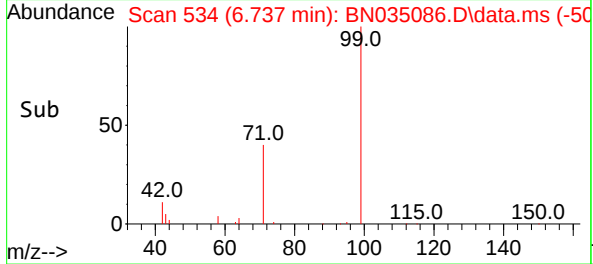
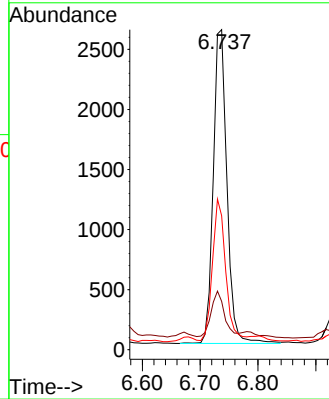
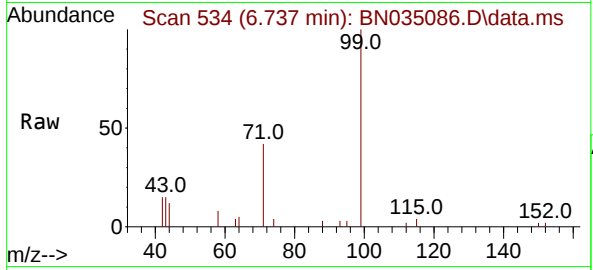




#5  
Phenol-d6  
Concen: 0.358 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

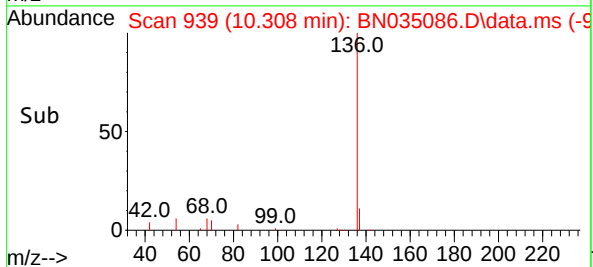
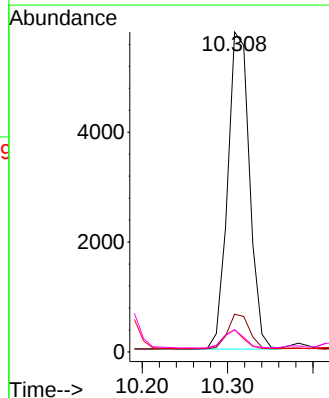
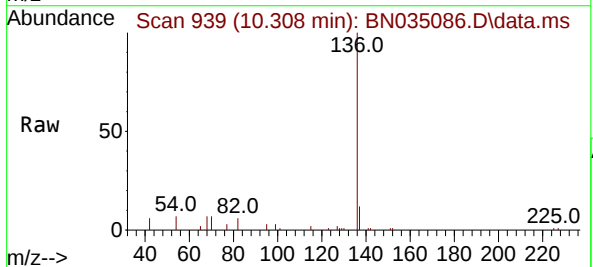
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ClientSampleId :  
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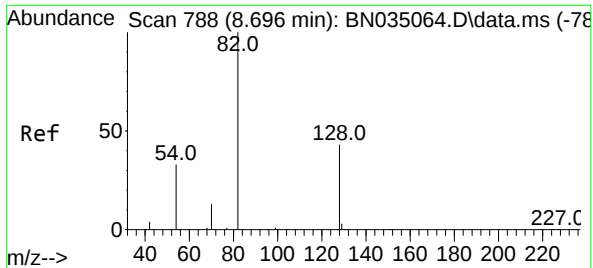
Tgt Ion: 99 Resp: 4280  
Ion Ratio Lower Upper  
99 100  
42 14.9 11.4 17.0  
71 43.2 34.6 51.8



#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.308 min Scan# 939  
Delta R.T. -0.011 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion: 136 Resp: 10271  
Ion Ratio Lower Upper  
136 100  
137 11.8 9.8 14.8  
54 7.0 4.0 6.0#  
68 7.0 4.2 6.2#

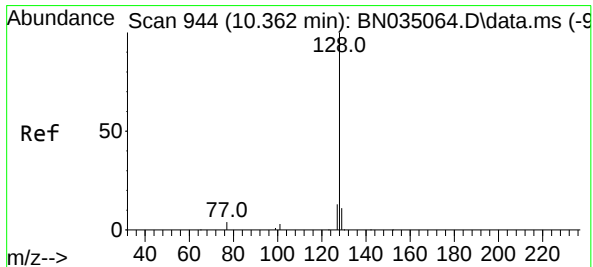
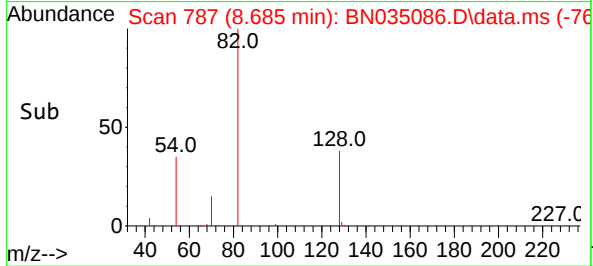
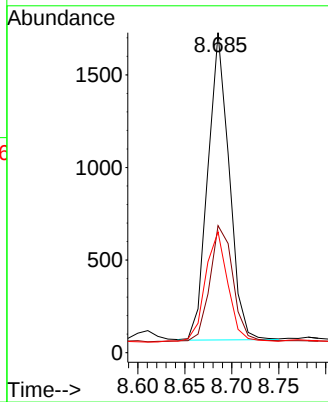
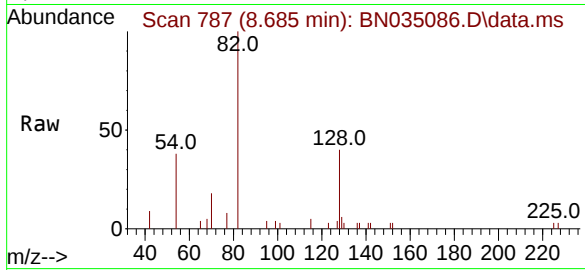




#8  
Nitrobenzene-d5  
Concen: 0.293 ng  
RT: 8.685 min Scan# 788  
Delta R.T. -0.011 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

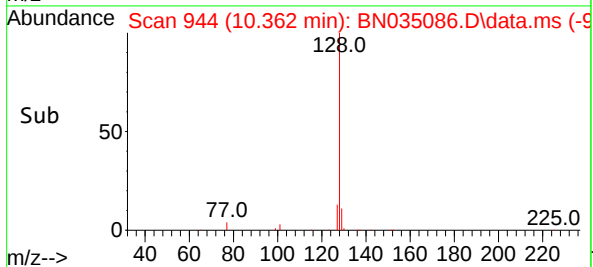
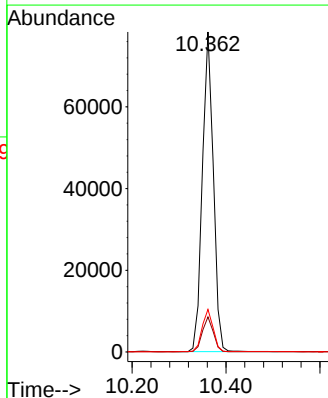
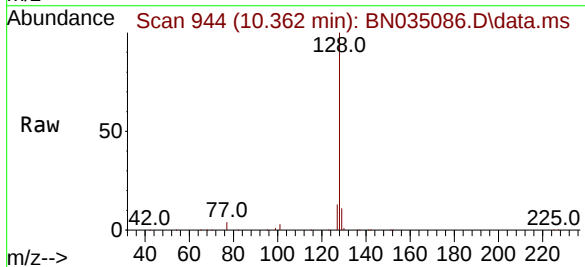
Instrument :  
BNA\_N  
ClientSampleId :  
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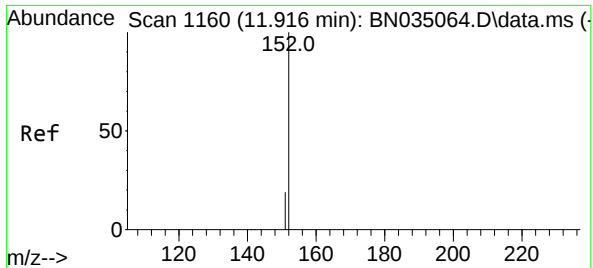
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 82    | Resp: | 2617 |
| Ion Ratio | Lower | Upper |      |
| 82        | 100   |       |      |
| 128       | 39.7  | 36.5  | 54.7 |
| 54        | 37.7  | 28.7  | 43.1 |



#9  
Naphthalene  
Concen: 4.738 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 128   | Resp: | 127058 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 129       | 10.9  | 9.6   | 14.4   |
| 127       | 13.3  | 11.6  | 17.4   |

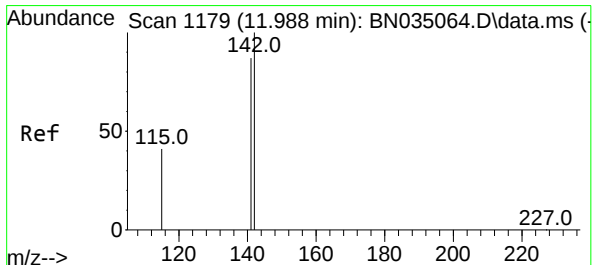
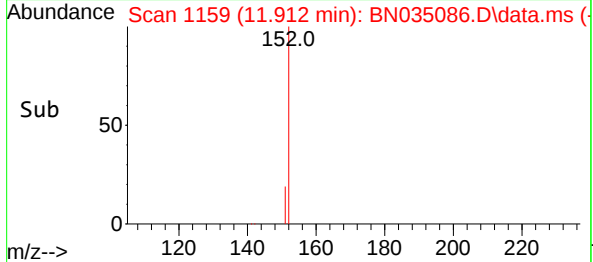
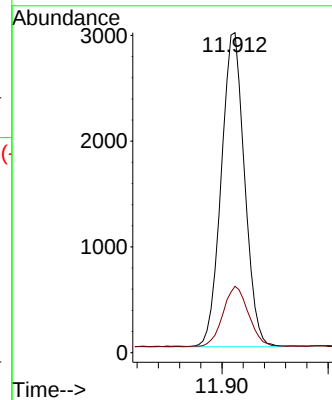
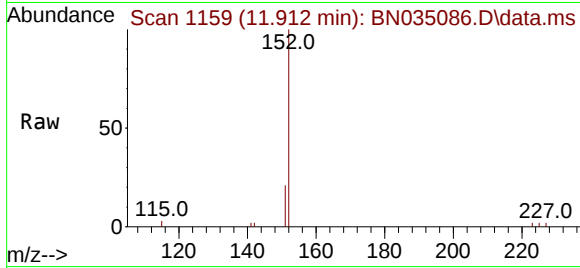




#11  
2-Methylnaphthalene-d10  
Concen: 0.248 ng  
RT: 11.912 min Scan# 1159  
Delta R.T. -0.004 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

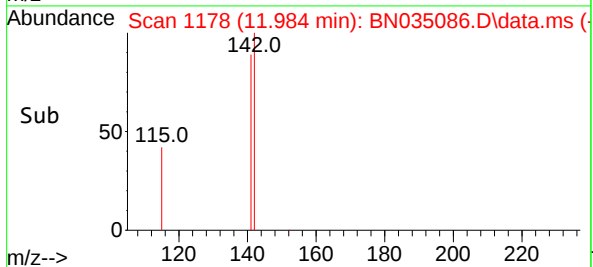
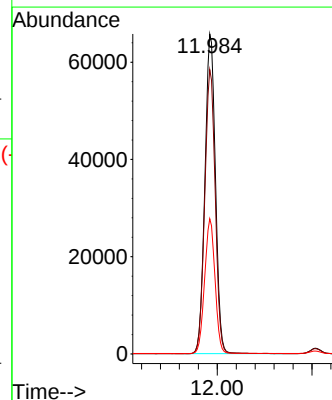
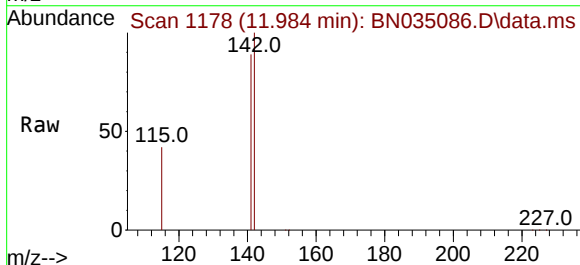
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

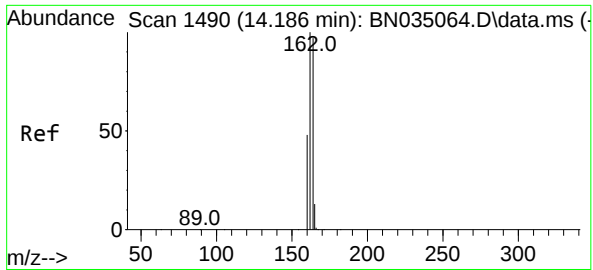
Tgt Ion:152 Resp: 4536  
Ion Ratio Lower Upper  
152 100  
151 20.9 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 5.108 ng  
RT: 11.984 min Scan# 1178  
Delta R.T. -0.004 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:142 Resp: 101061  
Ion Ratio Lower Upper  
142 100  
141 88.9 70.1 105.1  
115 42.2 34.4 51.6

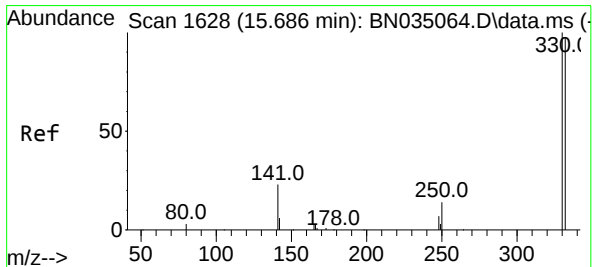
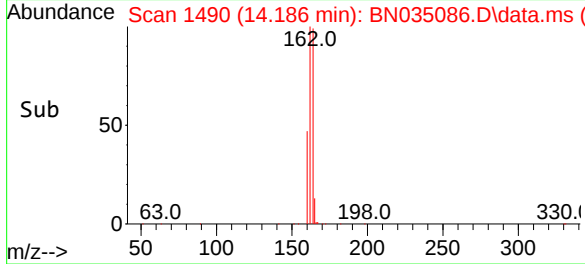
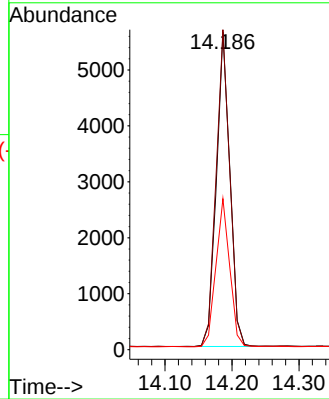
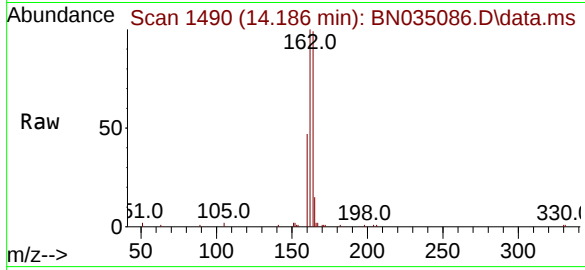




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.186 min Scan# 1490  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

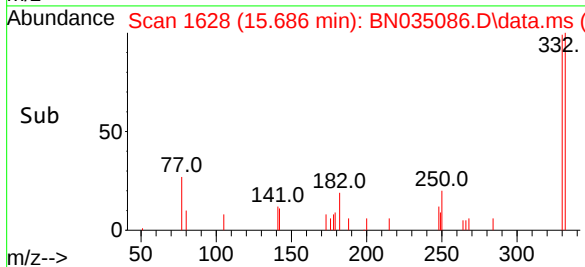
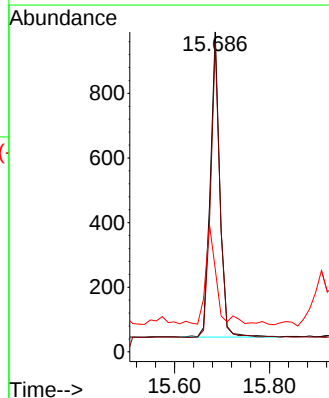
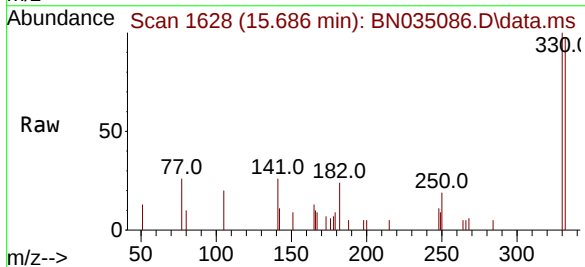
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

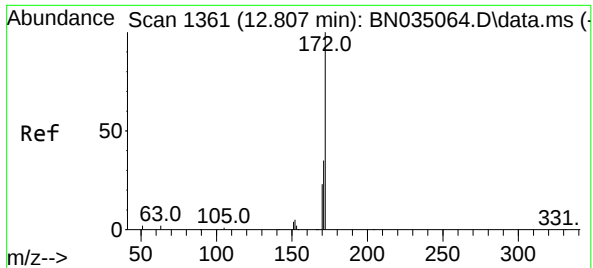
| Tgt Ion   | 164  | 162   | 160  |
|-----------|------|-------|------|
| Resp:     | 7900 |       |      |
| Ion Ratio | 100  | 100.8 | 47.6 |
| Lower     |      | 82.2  | 40.2 |
| Upper     |      | 123.2 | 60.4 |



#14  
2,4,6-Tribromophenol  
Concen: 0.232 ng  
RT: 15.686 min Scan# 1628  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

| Tgt Ion   | 330  | 332   | 141  |
|-----------|------|-------|------|
| Resp:     | 1323 |       |      |
| Ion Ratio | 100  | 94.7  | 32.1 |
| Lower     |      | 76.9  | 29.6 |
| Upper     |      | 115.3 | 44.4 |

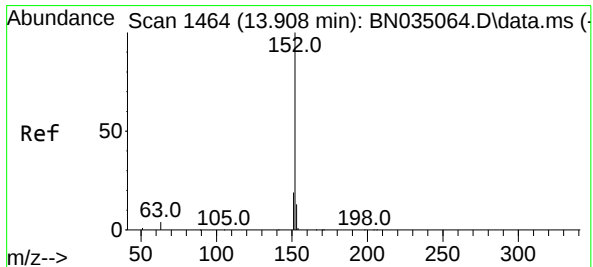
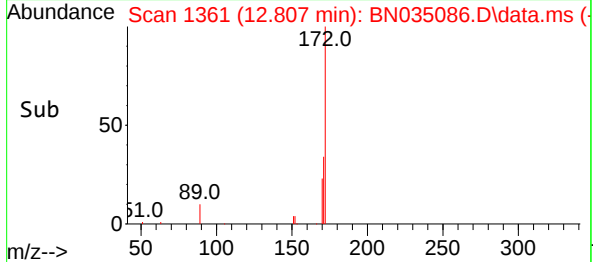
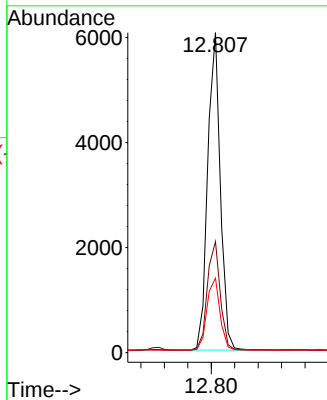
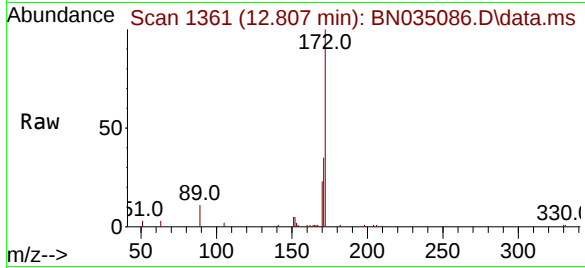




#15  
2-Fluorobiphenyl  
Concen: 0.282 ng  
RT: 12.807 min Scan# 11  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

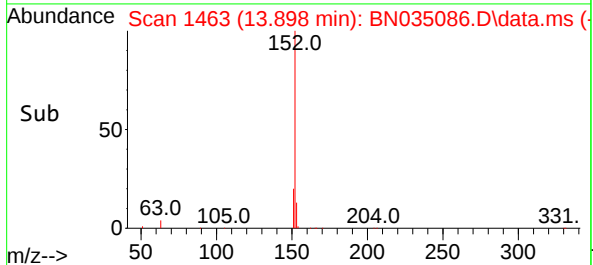
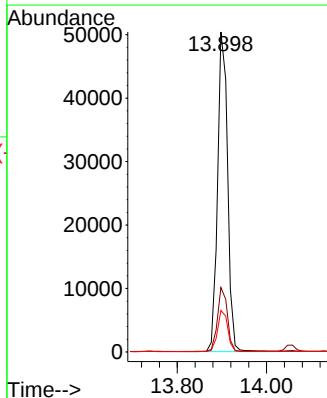
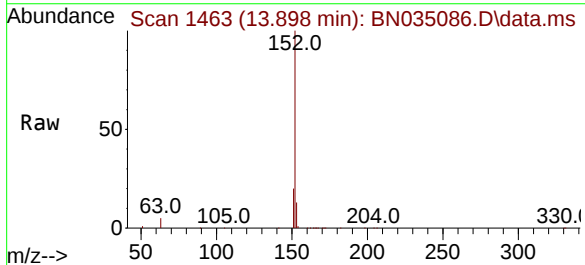
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ClientSampleId :  
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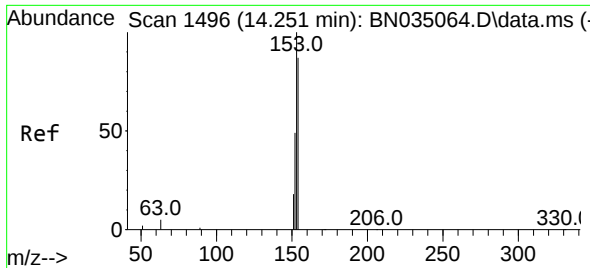
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 34.7  | 28.2  | 42.4  |
| 170     | 23.3  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 2.330 ng  
RT: 13.898 min Scan# 1463  
Delta R.T. -0.011 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.9  | 15.8  | 23.8  |
| 153     | 13.1  | 10.2  | 15.4  |

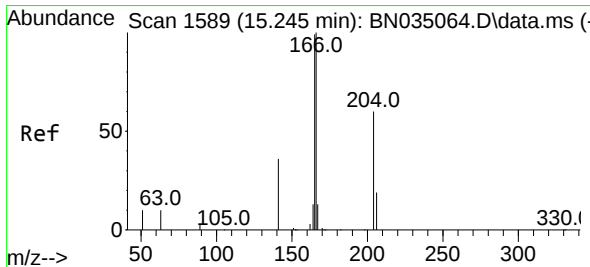
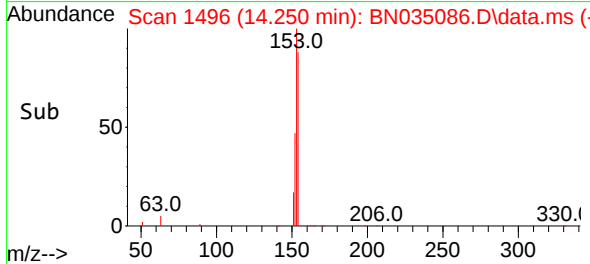
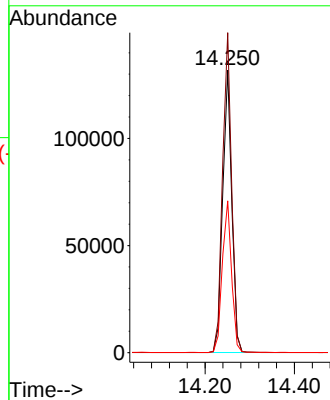
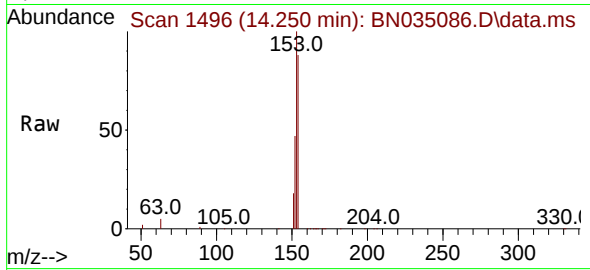




#17  
Acenaphthene  
Concen: 8.454 ng  
RT: 14.250 min Scan# 1496  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

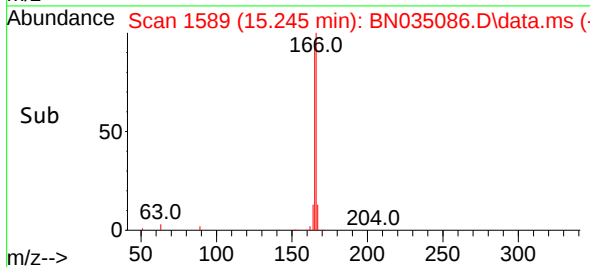
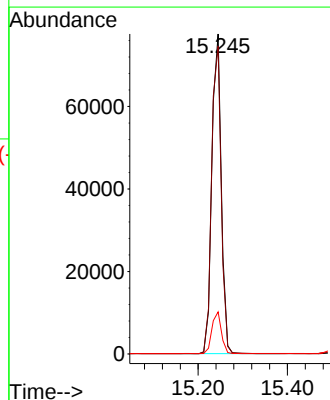
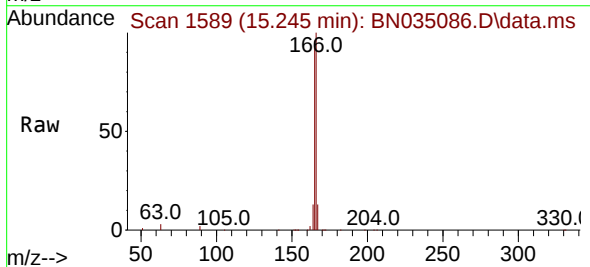
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

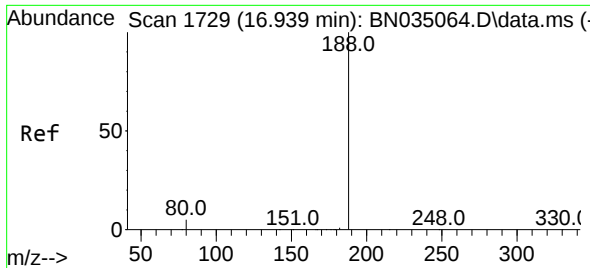
Tgt Ion:154 Resp: 187057  
Ion Ratio Lower Upper  
154 100  
153 113.7 91.6 137.4  
152 54.9 45.8 68.6



#18  
Fluorene  
Concen: 3.463 ng  
RT: 15.245 min Scan# 1589  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:166 Resp: 112723  
Ion Ratio Lower Upper  
166 100  
165 98.1 79.1 118.7  
167 13.2 10.6 16.0

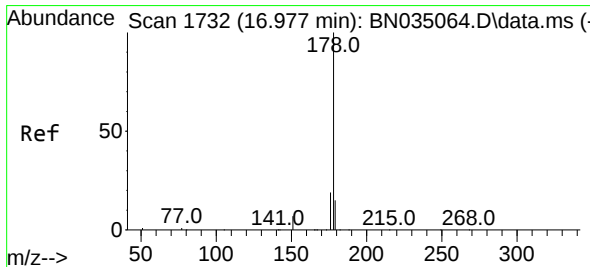
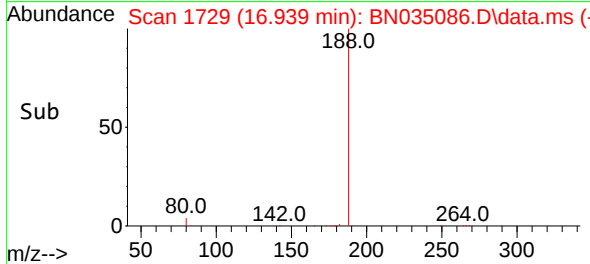
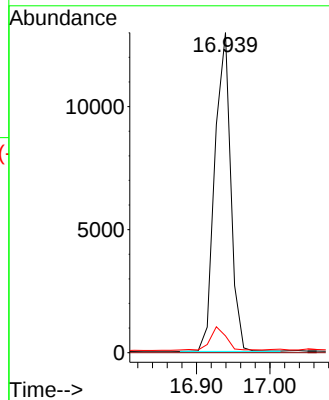
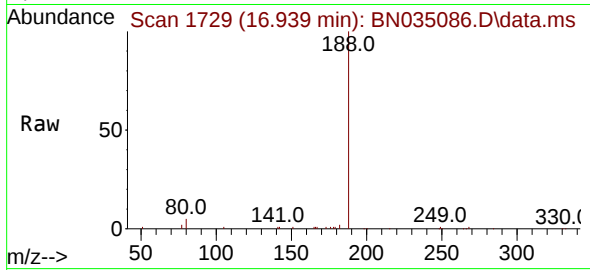




#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 16.939 min Scan# 1729  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

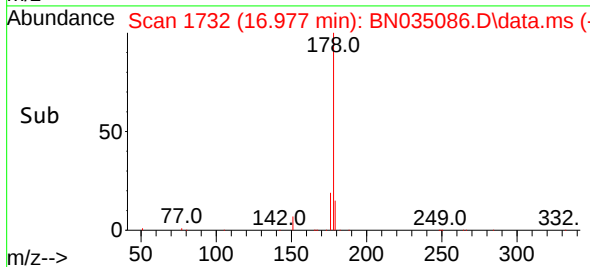
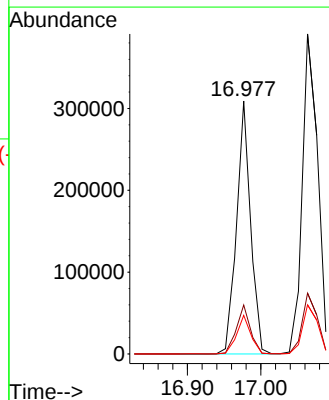
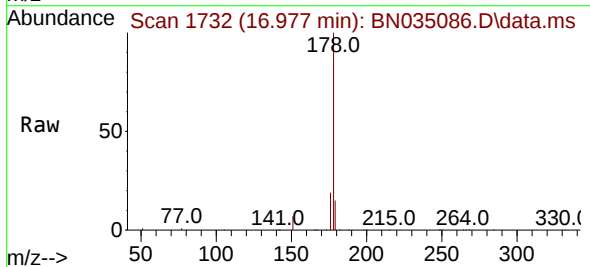
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

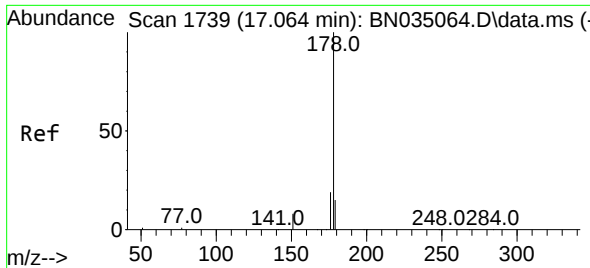
Tgt Ion:188 Resp: 19410  
Ion Ratio Lower Upper  
188 100  
94 0.0 0.0 0.0  
80 5.3 4.3 6.5



#25  
Phenanthrene  
Concen: 8.039 ng  
RT: 16.977 min Scan# 1732  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:178 Resp: 410639  
Ion Ratio Lower Upper  
178 100  
176 19.3 15.2 22.8  
179 15.3 12.6 18.8

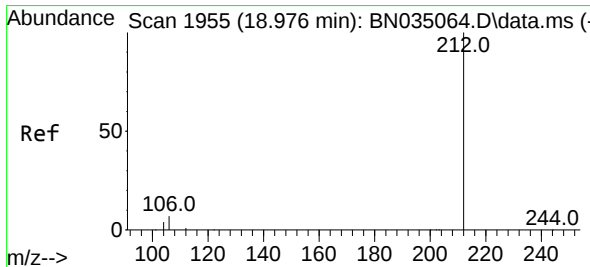
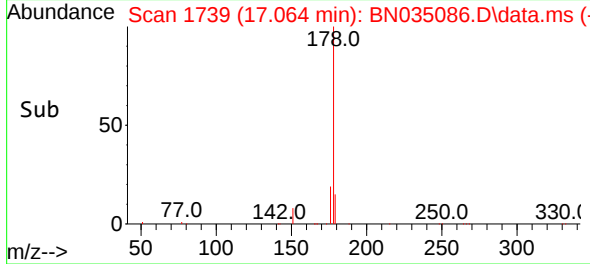
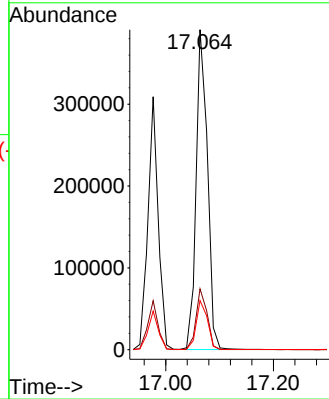
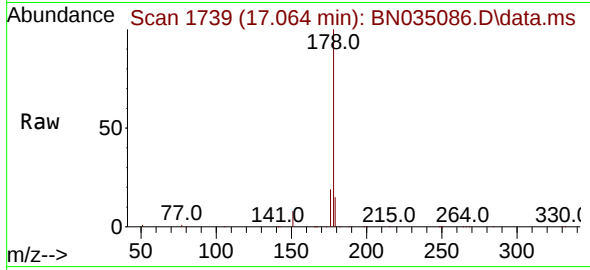




#26  
Anthracene  
Concen: 12.194 ng  
RT: 17.064 min Scan# 1739  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

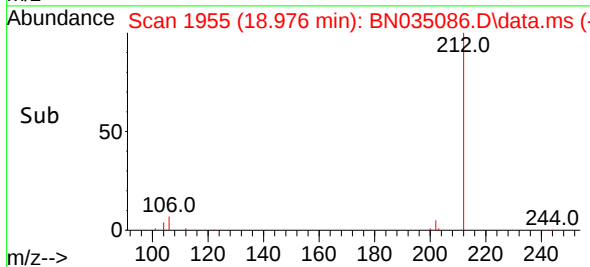
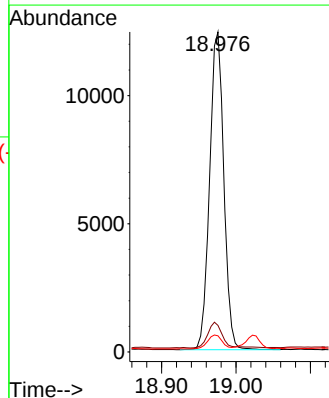
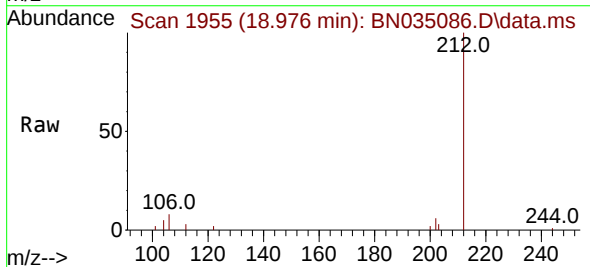
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

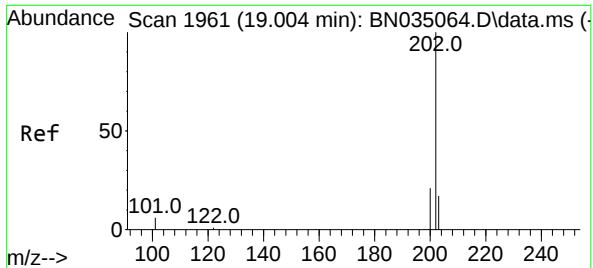
Tgt Ion:178 Resp: 572114  
Ion Ratio Lower Upper  
178 100  
176 18.6 14.6 22.0  
179 15.3 12.2 18.2



#27  
Fluoranthene-d10  
Concen: 0.275 ng  
RT: 18.976 min Scan# 1955  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:212 Resp: 16359  
Ion Ratio Lower Upper  
212 100  
106 8.5 6.0 9.0  
104 4.6 3.5 5.3

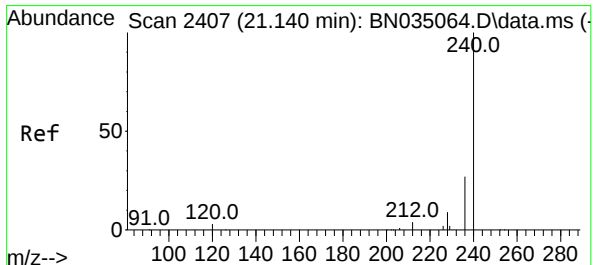
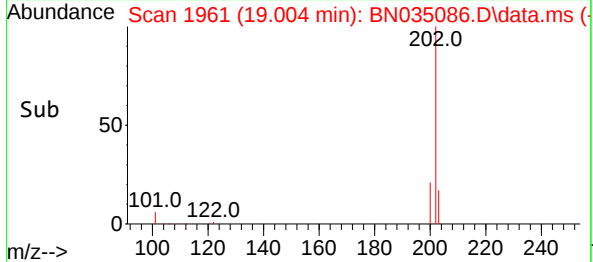
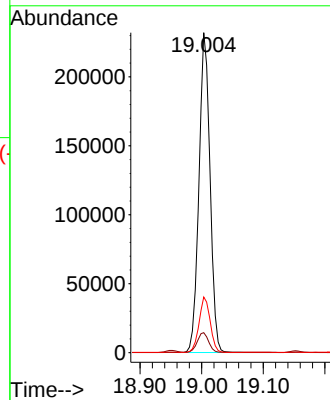
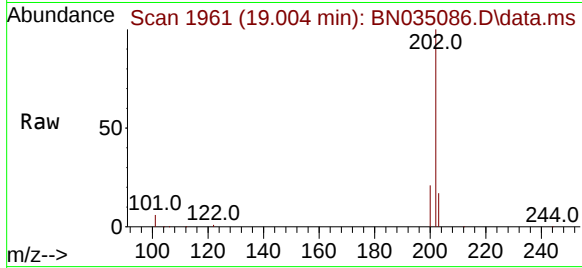




#28  
Fluoranthene  
Concen: 4.130 ng  
RT: 19.004 min Scan# 1961  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

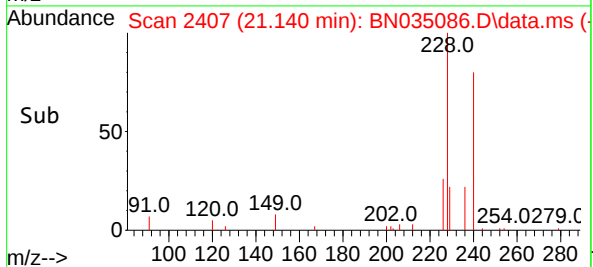
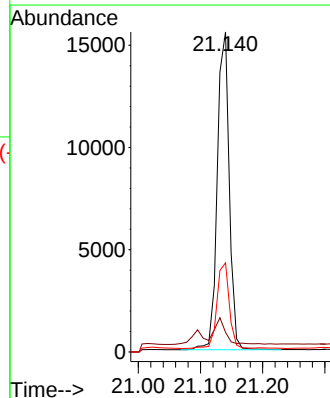
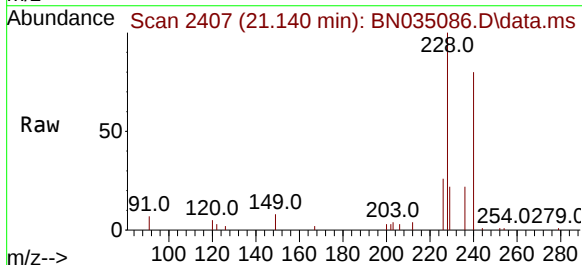
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

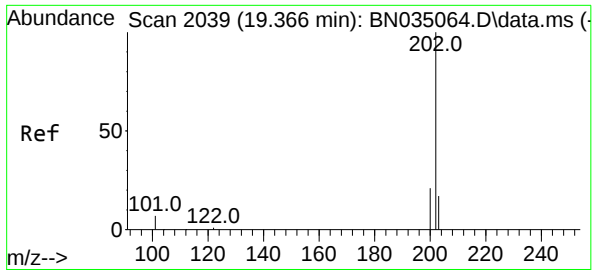
Tgt Ion:202 Resp: 290131  
Ion Ratio Lower Upper  
202 100  
101 6.5 5.2 7.8  
203 17.3 13.8 20.8



#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.140 min Scan# 2407  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:240 Resp: 20657  
Ion Ratio Lower Upper  
240 100  
120 6.1 3.8 5.6#  
236 27.9 22.2 33.2

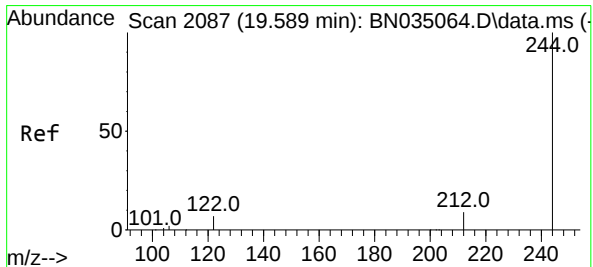
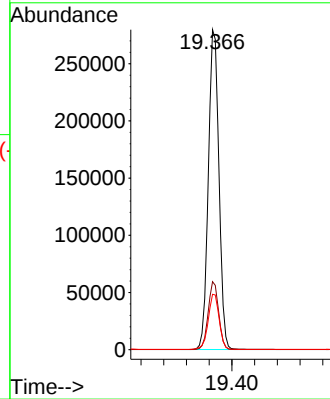
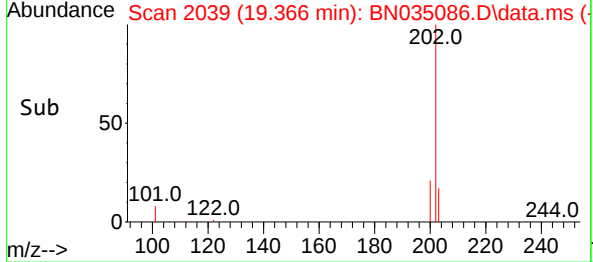
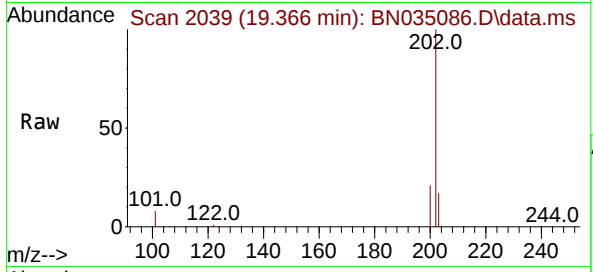




#30  
Pyrene  
Concen: 5.259 ng  
RT: 19.366 min Scan# 2039  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

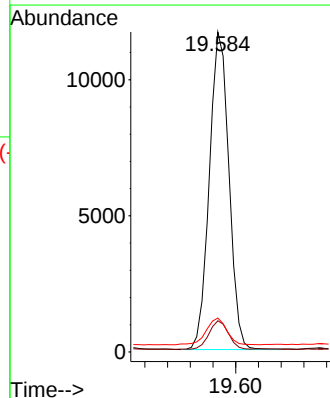
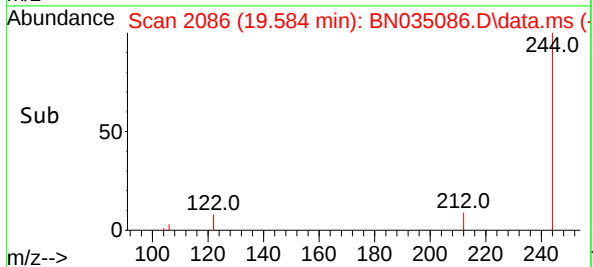
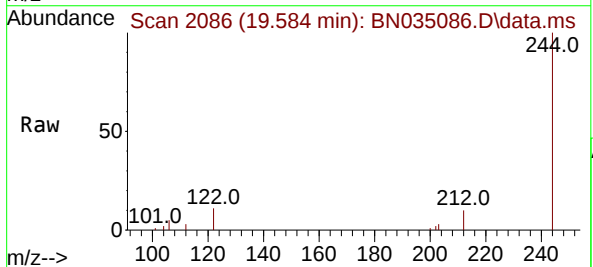
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

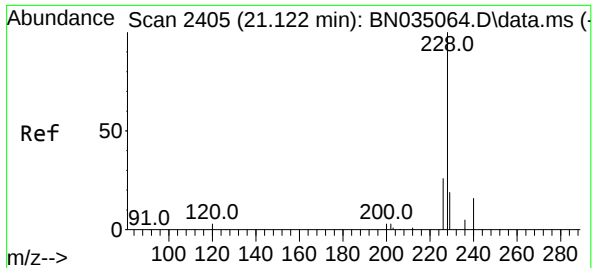
Tgt Ion:202 Resp: 361798  
Ion Ratio Lower Upper  
202 100  
200 21.0 16.7 25.1  
203 17.8 14.2 21.4



#31  
Terphenyl-d14  
Concen: 0.322 ng  
RT: 19.584 min Scan# 2086  
Delta R.T. -0.005 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:244 Resp: 13939  
Ion Ratio Lower Upper  
244 100  
212 9.8 7.6 11.4  
122 10.6 6.1 9.1#

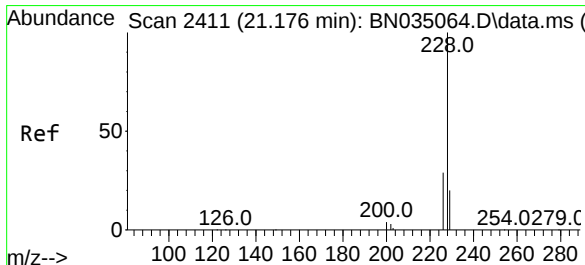
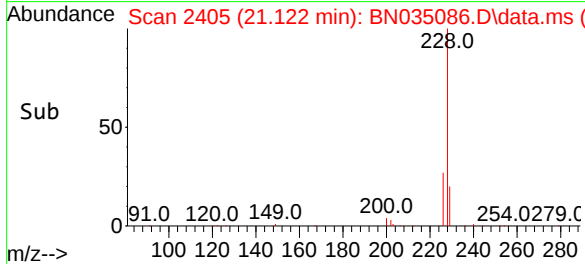
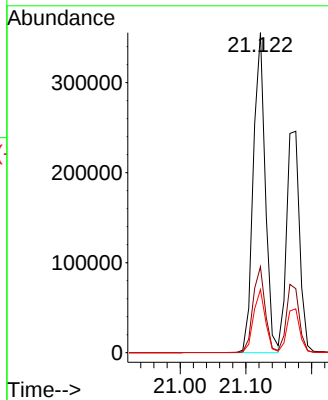
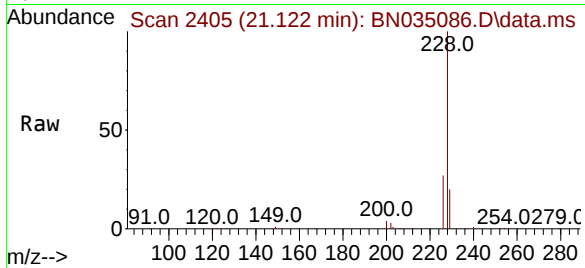




#32  
Benzo(a)anthracene  
Concen: 5.943 ng  
RT: 21.122 min Scan# 2405  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

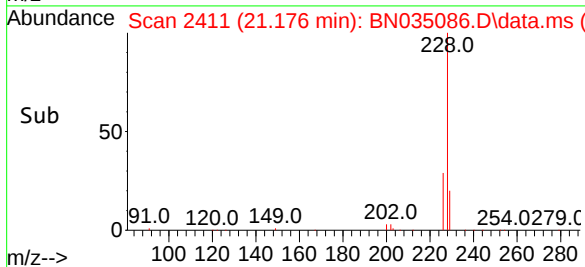
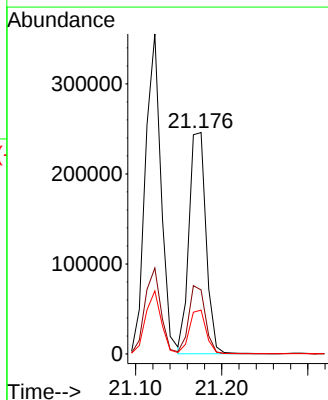
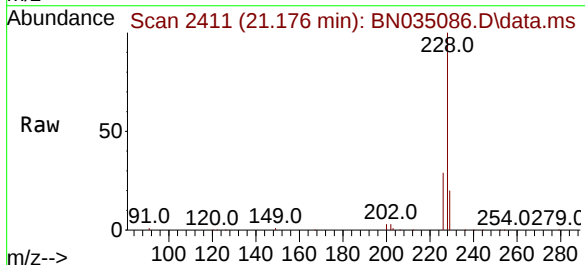
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

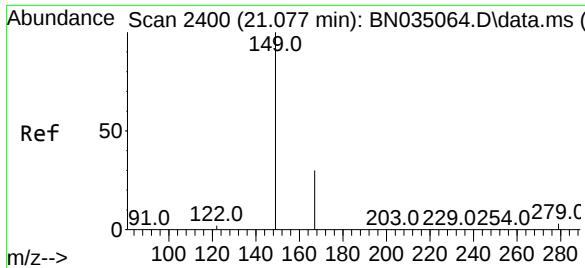
Tgt Ion:228 Resp: 427505  
Ion Ratio Lower Upper  
228 100  
226 26.9 21.4 32.0  
229 19.7 15.7 23.5



#33  
Chrysene  
Concen: 4.742 ng  
RT: 21.176 min Scan# 2411  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:228 Resp: 337891  
Ion Ratio Lower Upper  
228 100  
226 28.9 23.7 35.5  
229 19.8 16.2 24.4

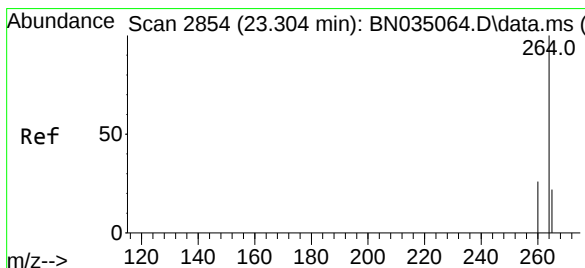
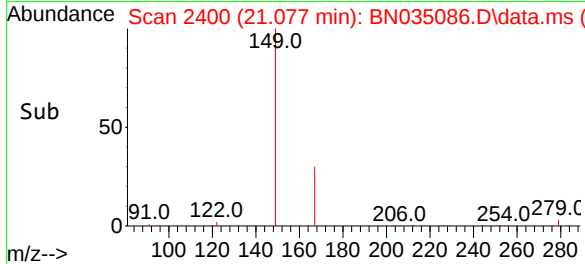
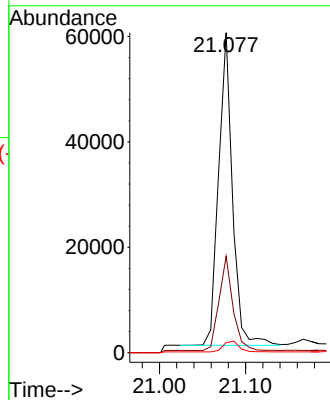
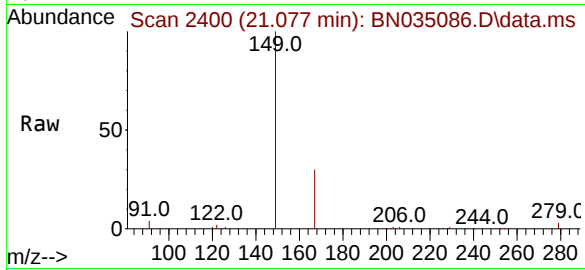




#34  
Bis(2-ethylhexyl)phthalate  
Concen: 1.759 ng  
RT: 21.077 min Scan# 2400  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

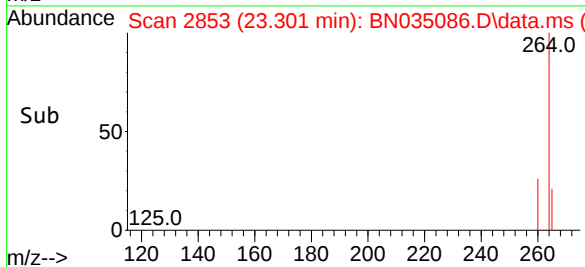
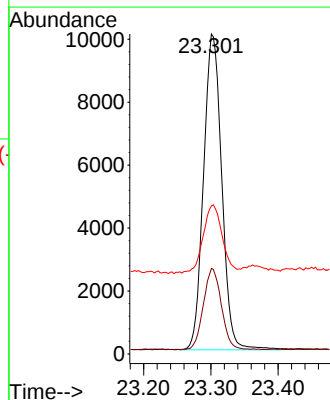
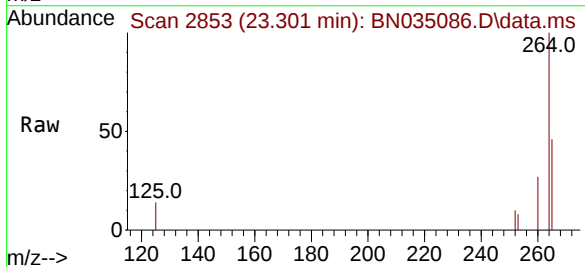
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

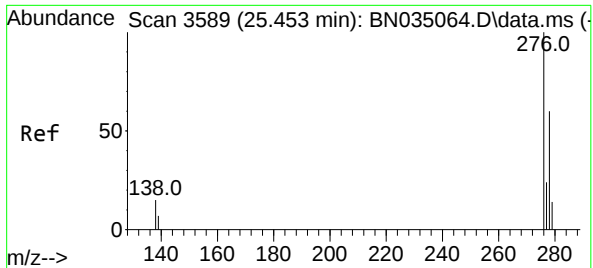
Tgt Ion:149 Resp: 66373  
Ion Ratio Lower Upper  
149 100  
167 29.9 23.2 34.8  
279 3.9 3.2 4.8



#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.301 min Scan# 2853  
Delta R.T. -0.003 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:264 Resp: 18894  
Ion Ratio Lower Upper  
264 100  
260 26.7 20.9 31.3  
265 46.3 35.4 53.2





#36

Indeno(1,2,3-cd)pyrene

Concen: 2.749 ng

RT: 25.455 min Scan# 3589

Delta R.T. 0.003 min

Lab File: BN035086.D

Acq: 14 Nov 2024 13:22

Instrument :

BNA\_N

ClientSampleId :

PT-PAH-SOIL

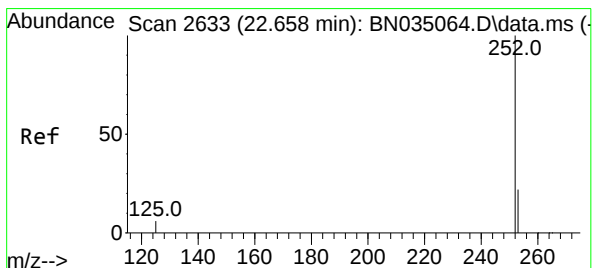
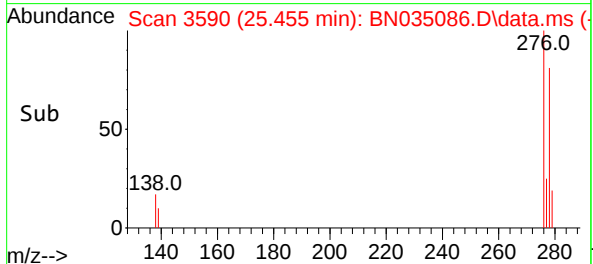
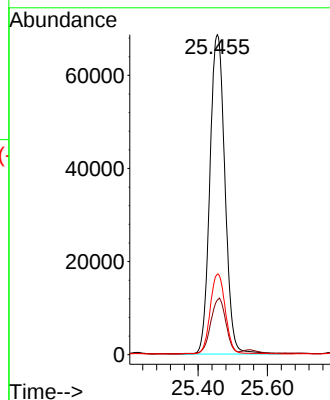
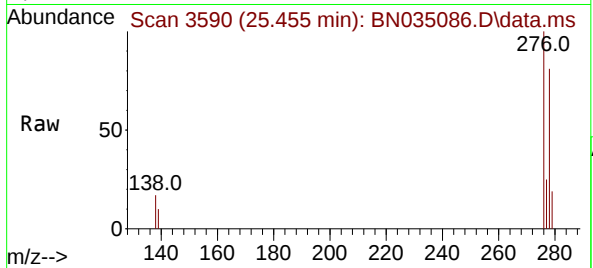
Tgt Ion:276 Resp: 207176

Ion Ratio Lower Upper

276 100

138 17.3 13.0 19.4

277 24.9 19.8 29.6



#37

Benzo(b)fluoranthene

Concen: 6.116 ng

RT: 22.660 min Scan# 2634

Delta R.T. 0.003 min

Lab File: BN035086.D

Acq: 14 Nov 2024 13:22

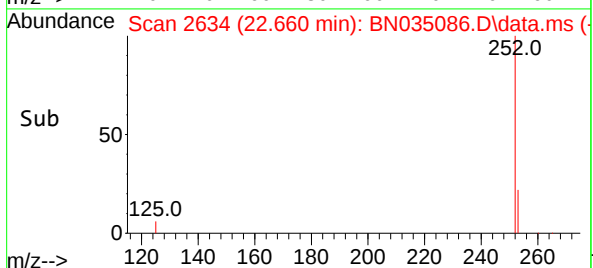
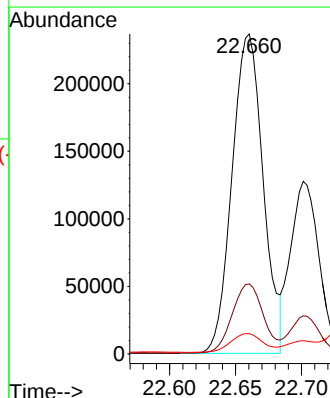
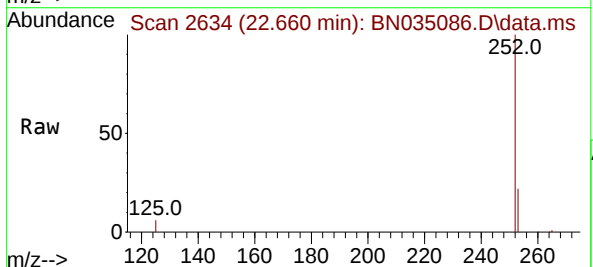
Tgt Ion:252 Resp: 388820

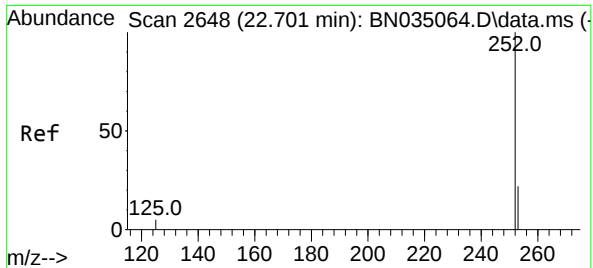
Ion Ratio Lower Upper

252 100

253 21.9 19.3 28.9

125 6.4 6.2 9.2

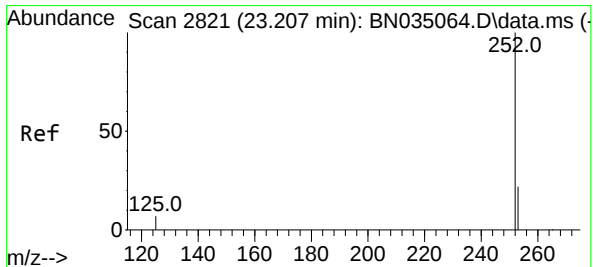
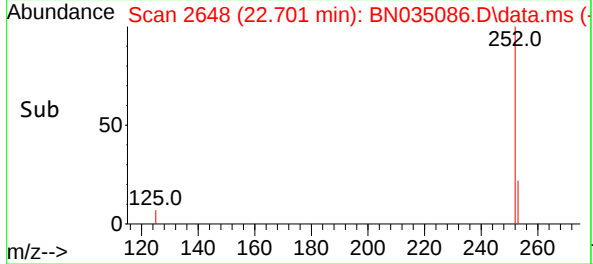
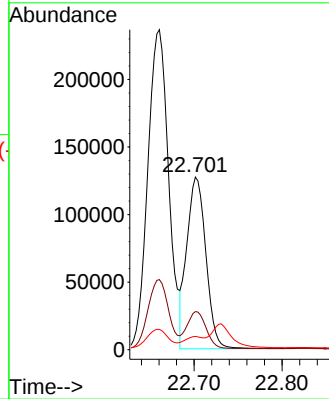
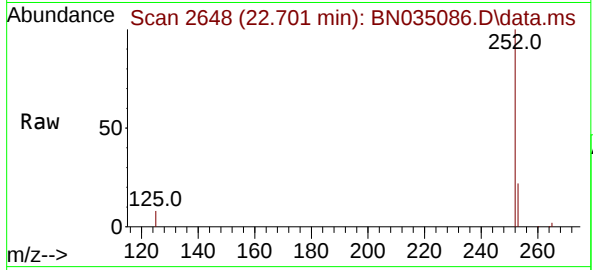




#38  
Benzo(k)fluoranthene  
Concen: 3.007 ng  
RT: 22.701 min Scan# 2648  
Delta R.T. -0.000 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

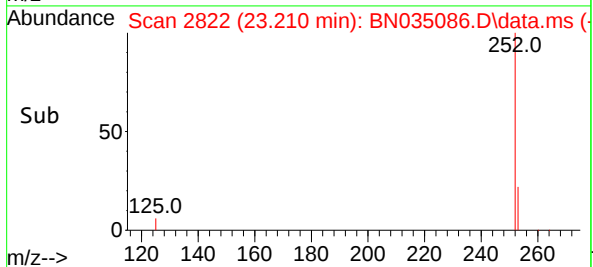
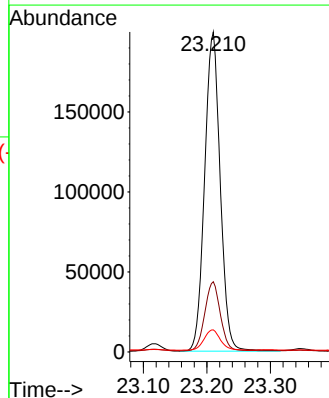
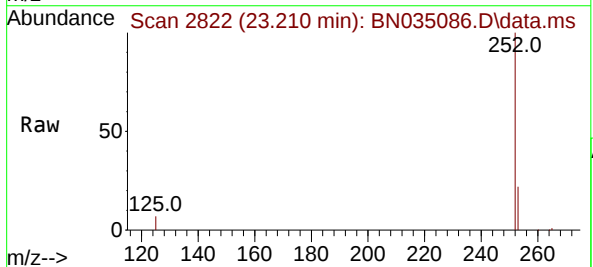
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

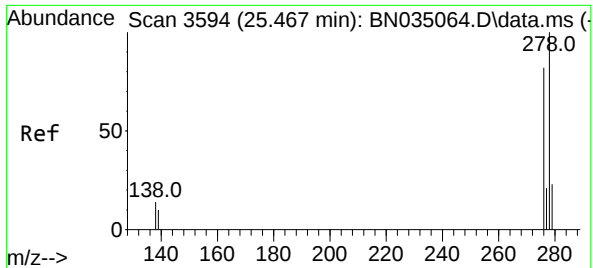
Tgt Ion:252 Resp: 191270  
Ion Ratio Lower Upper  
252 100  
253 22.1 19.5 29.3  
125 7.7 6.5 9.7



#39  
Benzo(a)pyrene  
Concen: 6.067 ng  
RT: 23.210 min Scan# 2822  
Delta R.T. 0.003 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:252 Resp: 339348  
Ion Ratio Lower Upper  
252 100  
253 22.0 20.1 30.1  
125 6.9 7.5 11.3

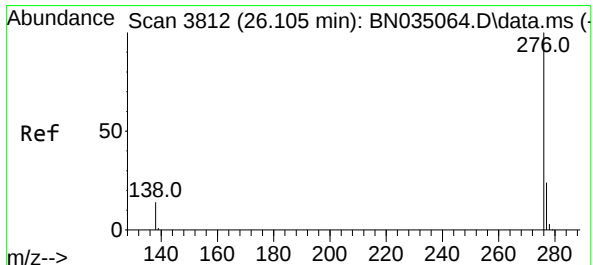
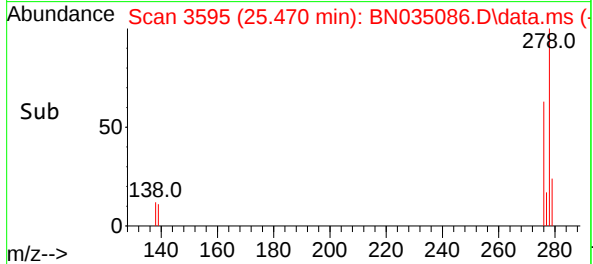
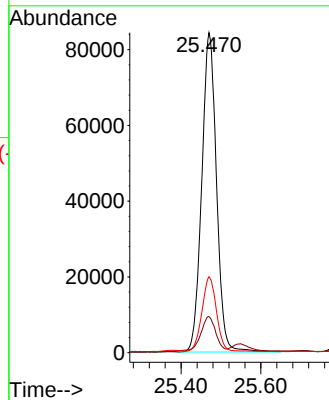
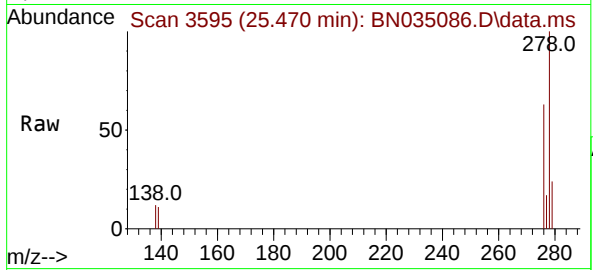




#40  
Dibenzo(a,h)anthracene  
Concen: 3.621 ng  
RT: 25.470 min Scan# 31  
Delta R.T. 0.003 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

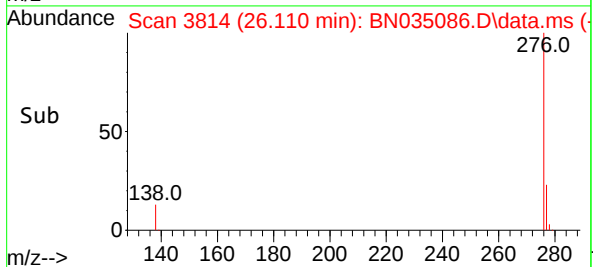
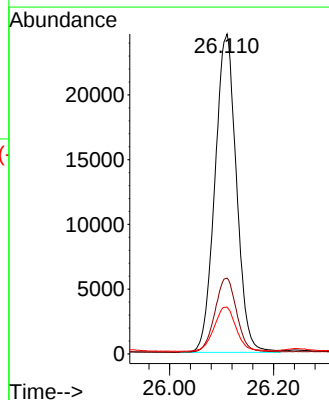
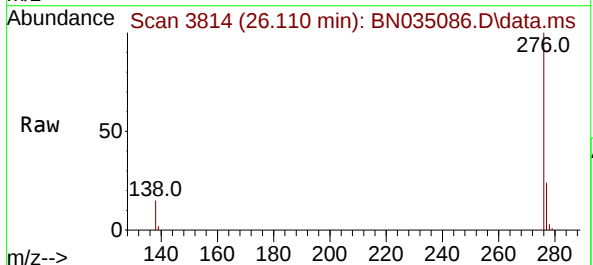
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOIL

Tgt Ion:278 Resp: 216242  
Ion Ratio Lower Upper  
278 100  
139 11.2 9.3 13.9  
279 23.8 19.7 29.5



#41  
Benzo(g,h,i)perylene  
Concen: 1.110 ng  
RT: 26.110 min Scan# 3814  
Delta R.T. 0.006 min  
Lab File: BN035086.D  
Acq: 14 Nov 2024 13:22

Tgt Ion:276 Resp: 70521  
Ion Ratio Lower Upper  
276 100  
277 23.7 19.9 29.9  
138 14.7 11.6 17.4



## Report of Analysis

|                    |                           |                 |               |
|--------------------|---------------------------|-----------------|---------------|
| Client:            | Chemtech Consulting Group | Date Collected: | 10/21/24      |
| Project:           | NJ Soil PT                | Date Received:  | 10/23/24      |
| Client Sample ID:  | PT-PAH-SOILDL             | SDG No.:        | P4495         |
| Lab Sample ID:     | P4495-13DL                | Matrix:         | SOIL          |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100           |
| Sample Wt/Vol:     | 30 Units: g               | Final Vol:      | 1000 uL       |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3 |
| Extraction Type :  | Decanted : N              | Level :         | LOW           |
| Injection Volume : | GPC Factor : 1.0          | GPC Cleanup :   | N PH :        |
| Prep Method :      | sw3541                    |                 |               |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035087.D        | 5         | 10/25/24 09:50 | 11/14/24 14:10 | PB164402      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|---------------------------|-------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>            |                         |       |           |          |            |                   |
| 91-20-3                   | Naphthalene             | 170   | D         | 3.50     | 16.5       | ug/Kg             |
| 91-57-6                   | 2-Methylnaphthalene     | 180   | D         | 4.00     | 16.5       | ug/Kg             |
| 208-96-8                  | Acenaphthylene          | 80.8  | D         | 3.20     | 16.5       | ug/Kg             |
| 83-32-9                   | Acenaphthene            | 300   | D         | 2.80     | 16.5       | ug/Kg             |
| 86-73-7                   | Fluorene                | 120   | D         | 3.00     | 16.5       | ug/Kg             |
| 85-01-8                   | Phenanthrene            | 290   | D         | 3.20     | 16.5       | ug/Kg             |
| 120-12-7                  | Anthracene              | 430   | D         | 4.00     | 16.5       | ug/Kg             |
| 206-44-0                  | Fluoranthene            | 150   | D         | 3.40     | 16.5       | ug/Kg             |
| 129-00-0                  | Pyrene                  | 190   | D         | 4.80     | 16.5       | ug/Kg             |
| 56-55-3                   | Benzo(a)anthracene      | 220   | D         | 3.80     | 16.5       | ug/Kg             |
| 218-01-9                  | Chrysene                | 180   | D         | 4.30     | 16.5       | ug/Kg             |
| 205-99-2                  | Benzo(b)fluoranthene    | 220   | D         | 6.00     | 16.5       | ug/Kg             |
| 207-08-9                  | Benzo(k)fluoranthene    | 110   | D         | 4.90     | 16.5       | ug/Kg             |
| 50-32-8                   | Benzo(a)pyrene          | 220   | D         | 8.30     | 16.5       | ug/Kg             |
| 193-39-5                  | Indeno(1,2,3-cd)pyrene  | 100   | D         | 6.30     | 16.5       | ug/Kg             |
| 53-70-3                   | Dibenzo(a,h)anthracene  | 130   | D         | 5.90     | 16.5       | ug/Kg             |
| 191-24-2                  | Benzo(g,h,i)perylene    | 40.8  | D         | 5.70     | 16.5       | ug/Kg             |
| <b>SURROGATES</b>         |                         |       |           |          |            |                   |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.27  |           | 17 - 161 | 66%        | SPK: 0.4          |
| 93951-69-0                | Fluoranthene-d10        | 0.29  |           | 23 - 138 | 72%        | SPK: 0.4          |
| 4165-60-0                 | Nitrobenzene-d5         | 0.33  |           | 33 - 121 | 83%        | SPK: 0.4          |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.31  |           | 32 - 121 | 77%        | SPK: 0.4          |
| 1718-51-0                 | Terphenyl-d14           | 0.38  |           | 21 - 130 | 94%        | SPK: 0.4          |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |            |                   |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 3590  |           | 7.553    |            |                   |
| 1146-65-2                 | Naphthalene-d8          | 9960  |           | 10.319   |            |                   |
| 15067-26-2                | Acenaphthene-d10        | 7630  |           | 14.19    |            |                   |
| 1517-22-2                 | Phenanthrene-d10        | 18500 |           | 16.932   |            |                   |
| 1719-03-5                 | Chrysene-d12            | 19200 |           | 21.133   |            |                   |

## Report of Analysis

|                    |                           |                 |               |
|--------------------|---------------------------|-----------------|---------------|
| Client:            | Chemtech Consulting Group | Date Collected: | 10/21/24      |
| Project:           | NJ Soil PT                | Date Received:  | 10/23/24      |
| Client Sample ID:  | PT-PAH-SOILDL             | SDG No.:        | P4495         |
| Lab Sample ID:     | P4495-13DL                | Matrix:         | SOIL          |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100           |
| Sample Wt/Vol:     | 30      Units:    g       | Final Vol:      | 1000      uL  |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3 |
| Extraction Type :  | Decanted :    N           | Level :         | LOW           |
| Injection Volume : | GPC Factor :    1.0       | GPC Cleanup :   | N      PH :   |
| Prep Method :      | sw3541                    |                 |               |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035087.D        | 5         | 10/25/24 09:50 | 11/14/24 14:10 | PB164402      |

| CAS Number | Parameter    | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|------------|--------------|-------|-----------|-----|------------|-------|
| 1520-96-3  | Perylene-d12 | 17700 | 23.303    |     |            |       |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
 Data File : BN035087.D  
 Acq On : 14 Nov 2024 14:10  
 Operator : RC/JU  
 Sample : P4495-13DL 5X  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PT-PAH-SOILD

Quant Time: Nov 14 14:35:52 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

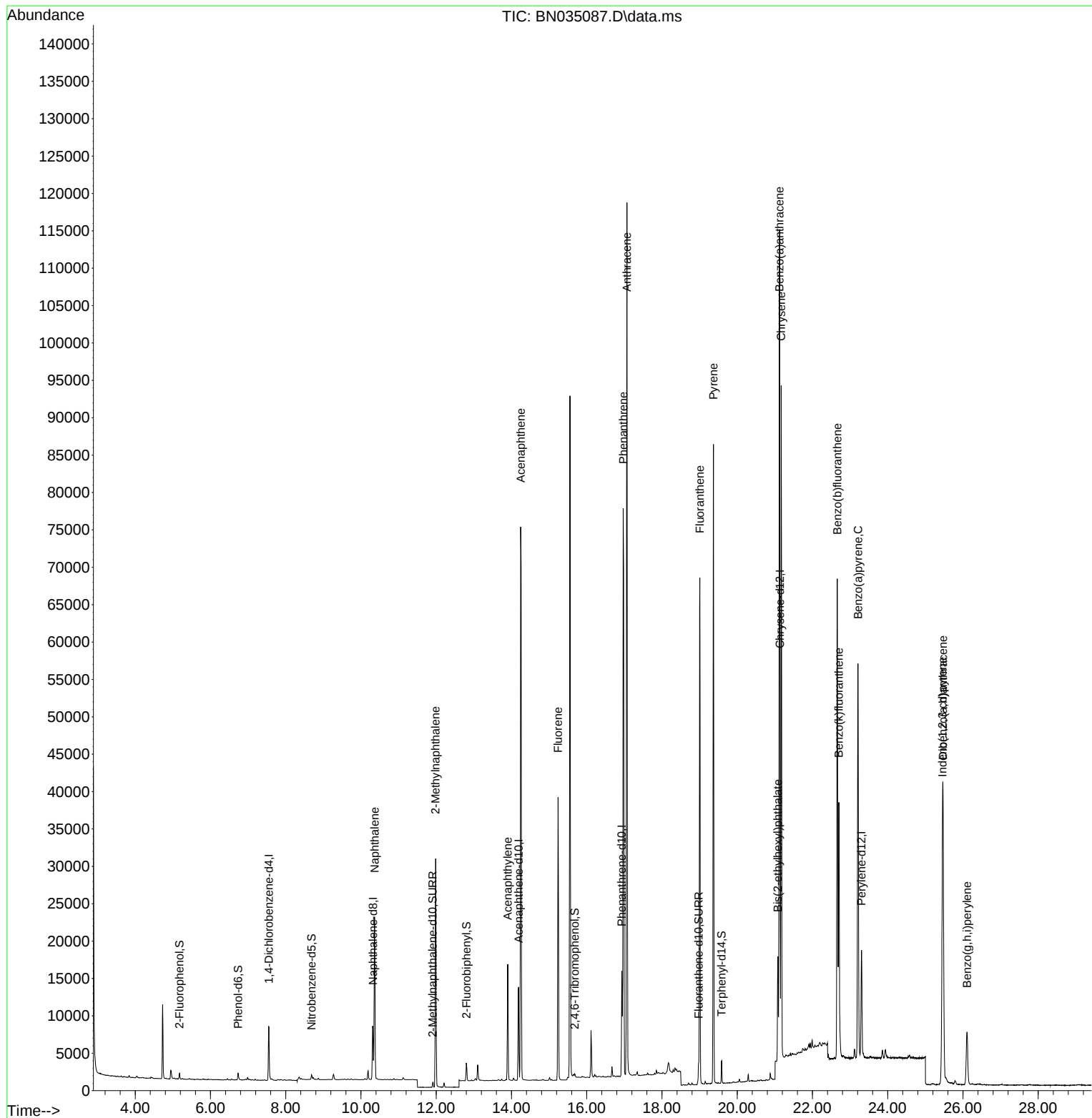
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 3588     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 9962     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 7625     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.932 | 188  | 18496    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.133 | 240  | 19193    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.303 | 264  | 17654    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 623      | 0.068 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 858      | 0.075 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.685  | 82   | 574      | 0.066 | ng    | -0.01    |
| 11) 2-Methylnaphthalene-d10   | 11.908 | 152  | 948      | 0.053 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.679 | 330  | 267      | 0.049 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.800 | 172  | 1933     | 0.062 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 3297     | 0.058 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.587 | 244  | 3039     | 0.075 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 9) Naphthalene                | 10.361 | 128  | 26813    | 1.031 | ng    | 98       |
| 12) 2-Methylnaphthalene       | 11.984 | 142  | 20979    | 1.093 | ng    | 98       |
| 16) Acenaphthylene            | 13.901 | 152  | 15792    | 0.485 | ng    | 99       |
| 17) Acenaphthene              | 14.243 | 154  | 39032    | 1.828 | ng    | 100      |
| 18) Fluorene                  | 15.238 | 166  | 23114    | 0.736 | ng    | 100      |
| 25) Phenanthrene              | 16.970 | 178  | 85839    | 1.764 | ng    | 99       |
| 26) Anthracene                | 17.069 | 178  | 116295   | 2.601 | ng    | 100      |
| 28) Fluoranthene              | 19.006 | 202  | 59098    | 0.883 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 74314    | 1.163 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.125 | 228  | 90123    | 1.349 | ng    | 100      |
| 33) Chrysene                  | 21.169 | 228  | 70164    | 1.060 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 12480    | 0.356 | ng    | 98       |
| 36) Indeno(1,2,3-cd)pyrene    | 25.455 | 276  | 42313    | 0.601 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.660 | 252  | 80139    | 1.349 | ng    | 97       |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 40922    | 0.689 | ng    | 98       |
| 39) Benzo(a)pyrene            | 23.209 | 252  | 69681    | 1.333 | ng    | 95       |
| 40) Dibenzo(a,h)anthracene    | 25.472 | 278  | 44339    | 0.795 | ng    | 100      |
| 41) Benzo(g,h,i)perylene      | 26.107 | 276  | 14526    | 0.245 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

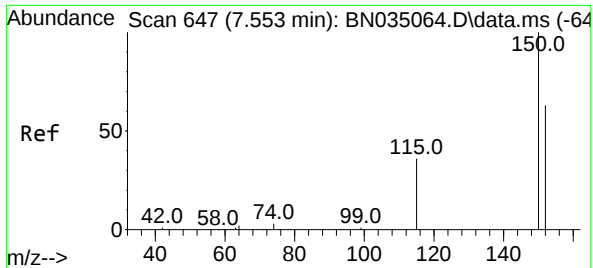
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data File : BN035087.D  
Acq On : 14 Nov 2024 14:10  
Operator : RC/JU  
Sample : P4495-13DL 5X  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

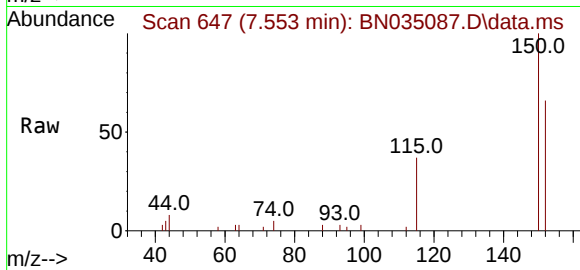
Quant Time: Nov 14 14:35:52 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration



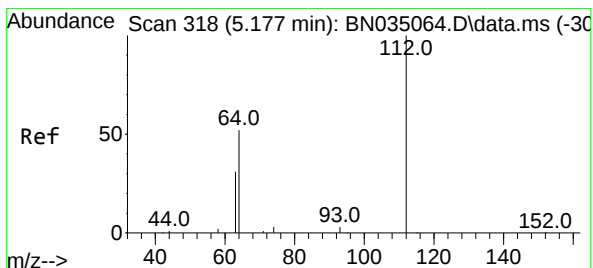
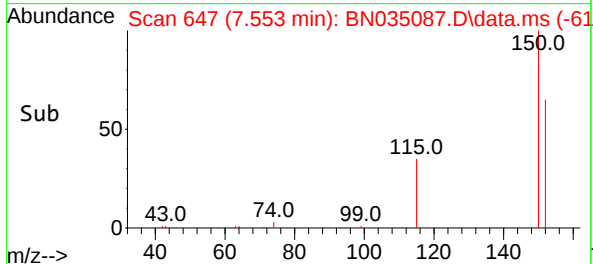
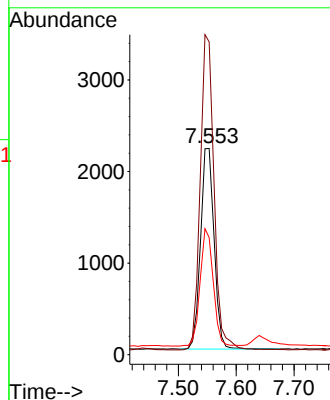


#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

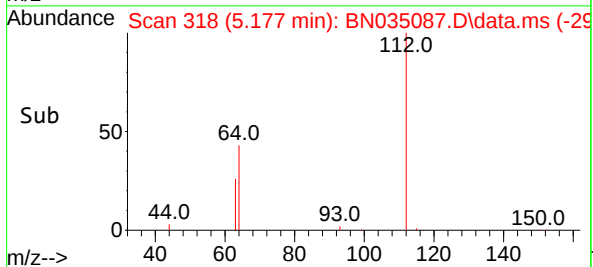
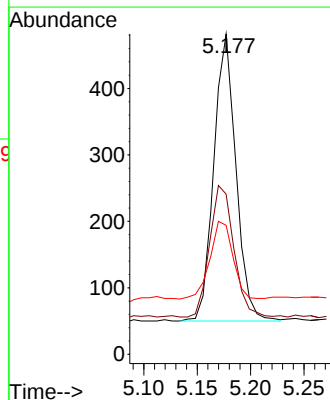
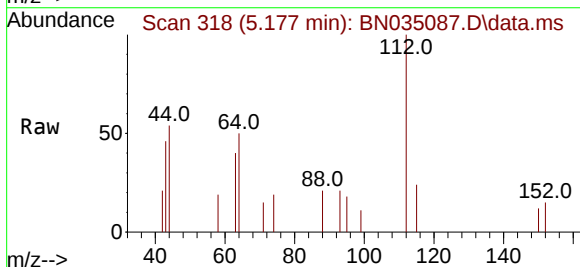


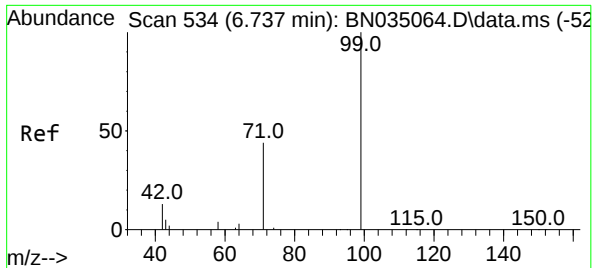
Tgt Ion:152 Resp: 3588  
Ion Ratio Lower Upper  
152 100  
150 151.6 124.5 186.7  
115 56.7 47.8 71.6



#4  
2-Fluorophenol  
Concen: 0.068 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:112 Resp: 623  
Ion Ratio Lower Upper  
112 100  
64 49.9 39.7 59.5  
63 28.1 23.0 34.4

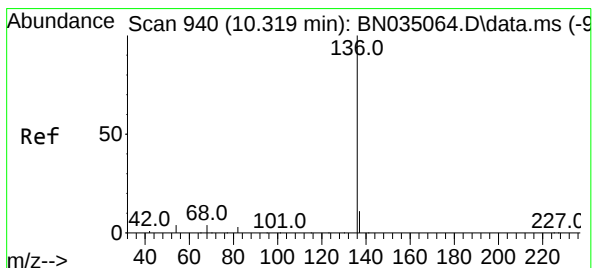
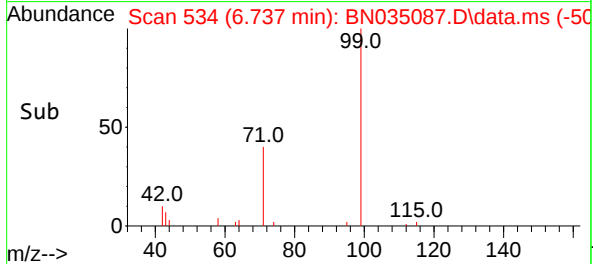
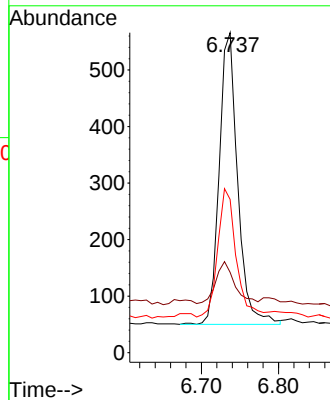
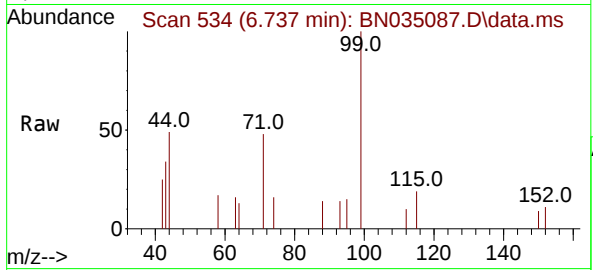




#5  
Phenol-d6  
Concen: 0.075 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

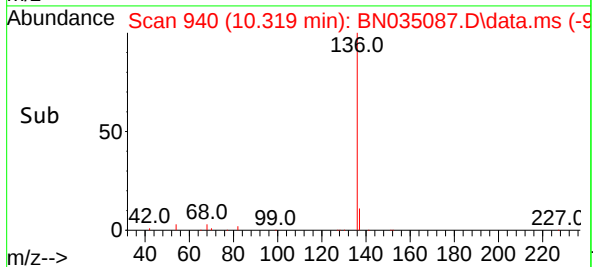
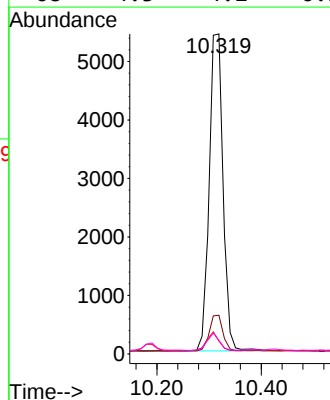
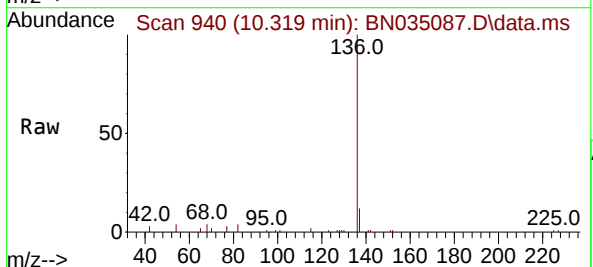
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

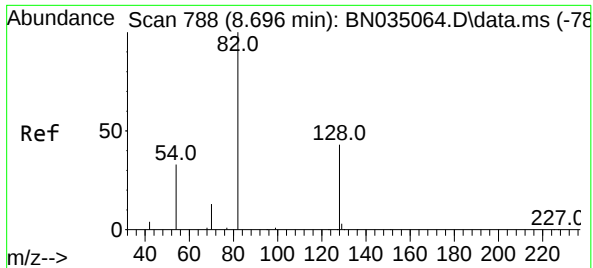
Tgt Ion: 99 Resp: 858  
Ion Ratio Lower Upper  
99 100  
42 16.3 11.4 17.0  
71 43.6 34.6 51.8



#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion: 136 Resp: 9962  
Ion Ratio Lower Upper  
136 100  
137 12.1 9.8 14.8  
54 4.1 4.0 6.0  
68 4.3 4.2 6.2

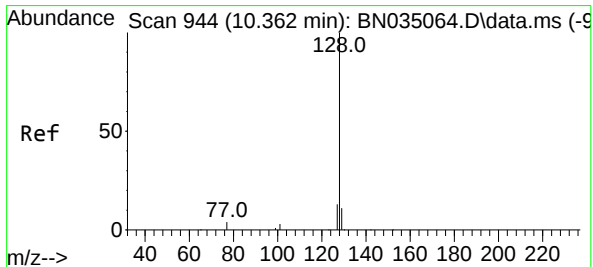
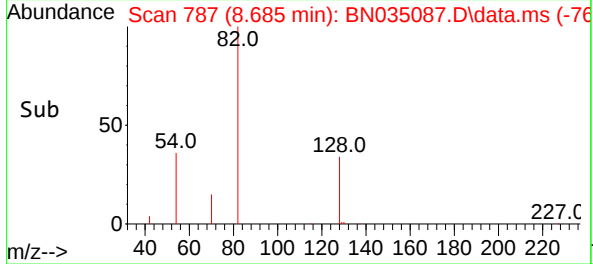
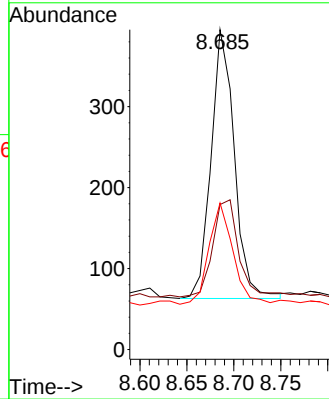
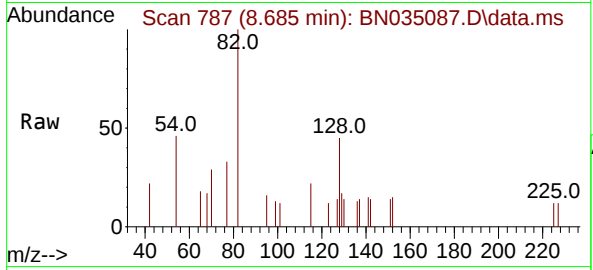




#8  
Nitrobenzene-d5  
Concen: 0.066 ng  
RT: 8.685 min Scan# 788  
Delta R.T. -0.011 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

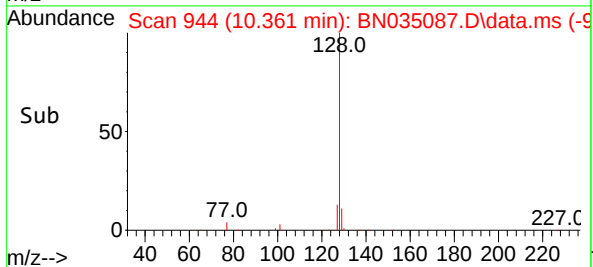
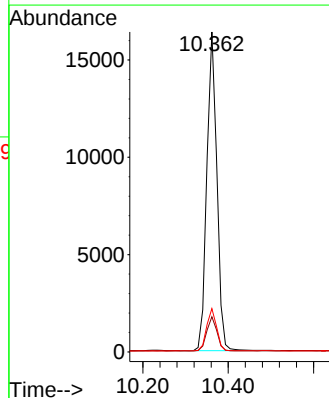
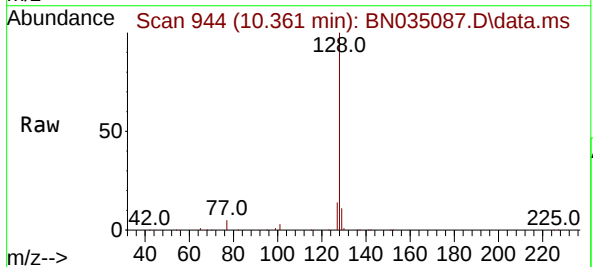
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

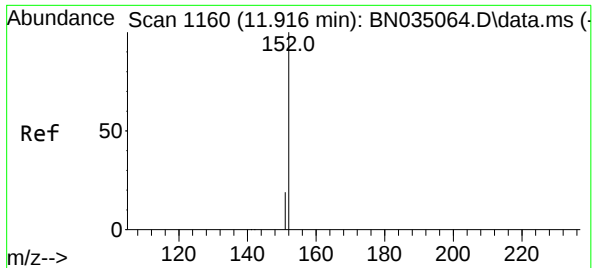
Tgt Ion: 82 Resp: 574  
Ion Ratio Lower Upper  
82 100  
128 45.3 36.5 54.7  
54 45.8 28.7 43.1#



#9  
Naphthalene  
Concen: 1.031 ng  
RT: 10.361 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion: 128 Resp: 26813  
Ion Ratio Lower Upper  
128 100  
129 11.0 9.6 14.4  
127 13.6 11.6 17.4

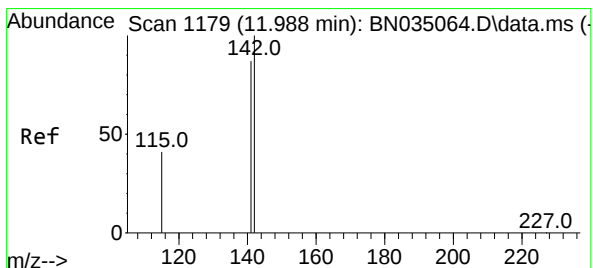
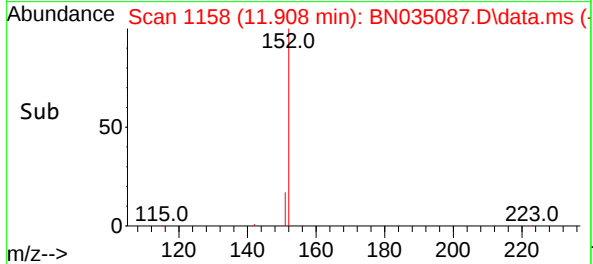
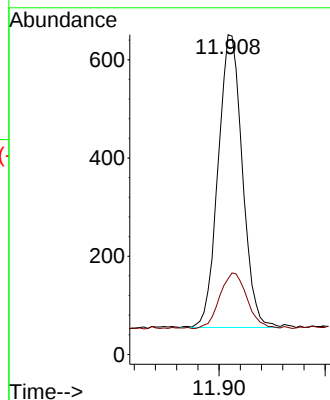
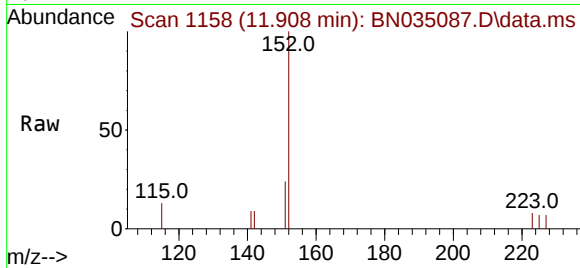




#11  
2-Methylnaphthalene-d10  
Concen: 0.053 ng  
RT: 11.908 min Scan# 1158  
Delta R.T. -0.008 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

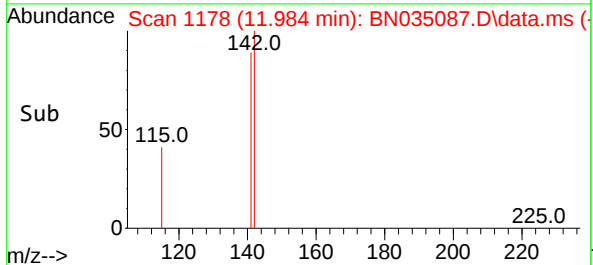
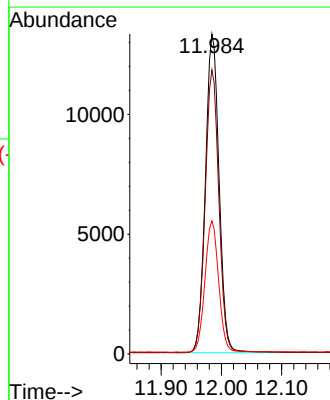
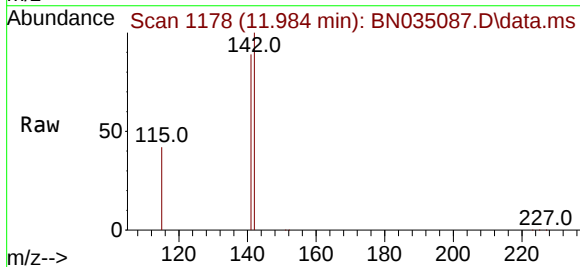
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

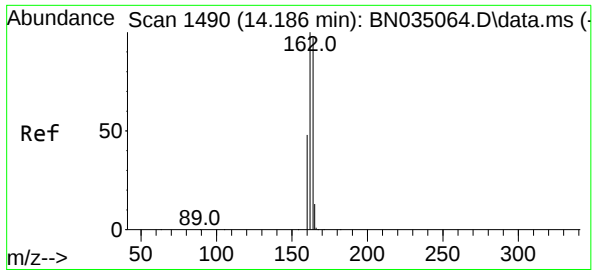
Tgt Ion:152 Resp: 948  
Ion Ratio Lower Upper  
152 100  
151 21.2 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 1.093 ng  
RT: 11.984 min Scan# 1178  
Delta R.T. -0.004 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:142 Resp: 20979  
Ion Ratio Lower Upper  
142 100  
141 88.8 70.1 105.1  
115 41.6 34.4 51.6

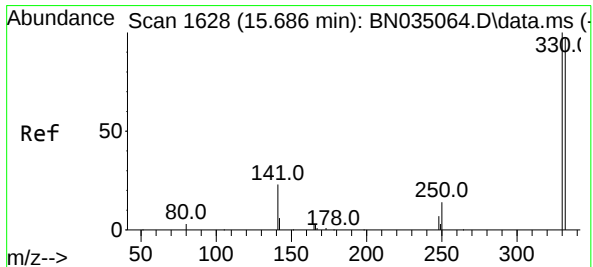
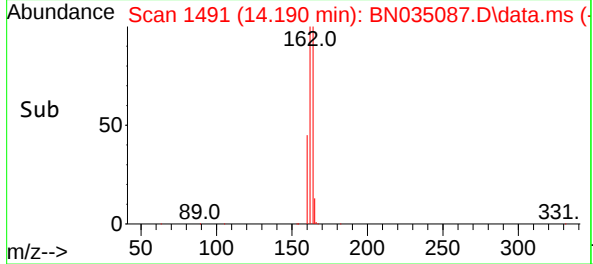
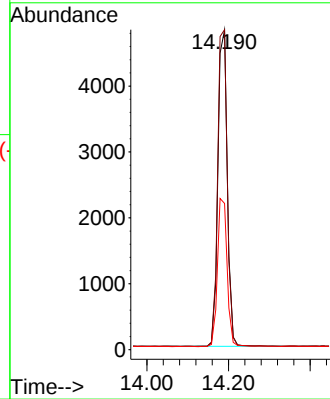
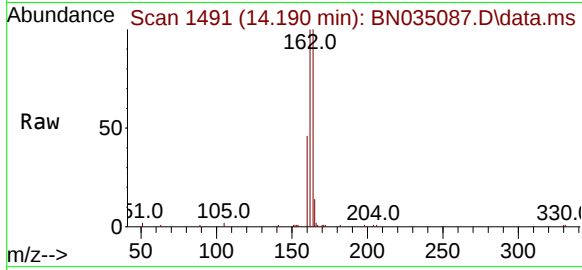




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

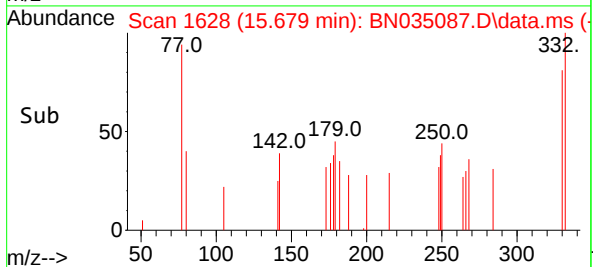
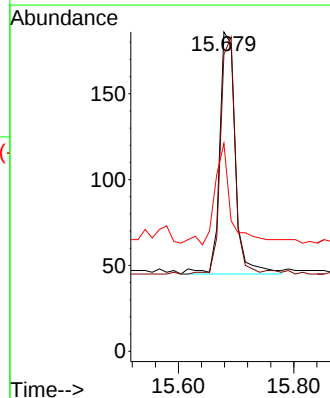
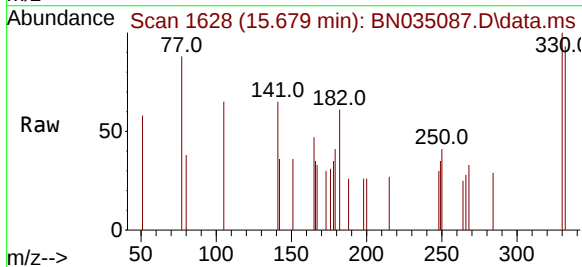
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

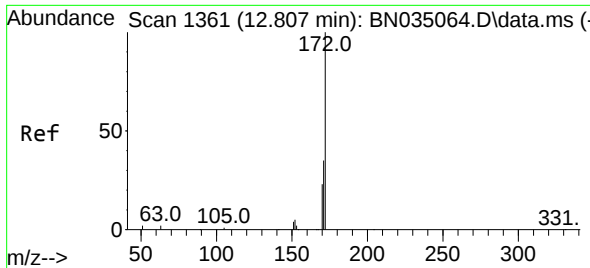
Tgt Ion:164 Resp: 7625  
Ion Ratio Lower Upper  
164 100  
162 100.1 82.2 123.2  
160 45.7 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.049 ng  
RT: 15.679 min Scan# 1628  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:330 Resp: 267  
Ion Ratio Lower Upper  
330 100  
332 88.0 76.9 115.3  
141 42.7 29.6 44.4

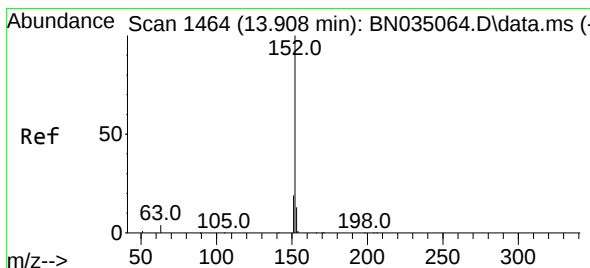
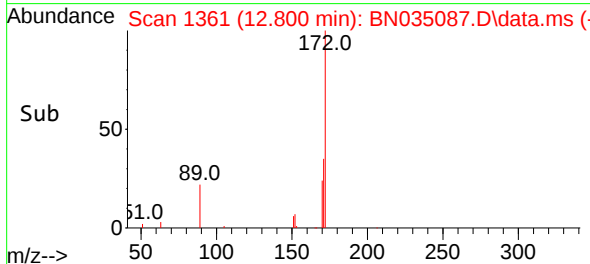
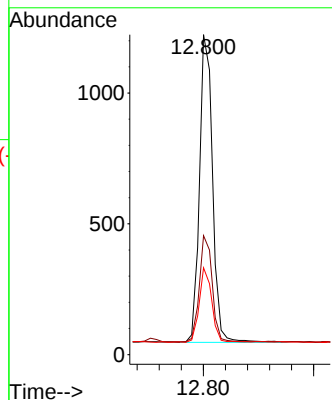
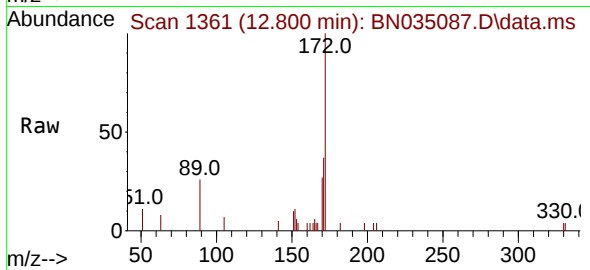




#15  
2-Fluorobiphenyl  
Concen: 0.062 ng  
RT: 12.800 min Scan# 1361  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

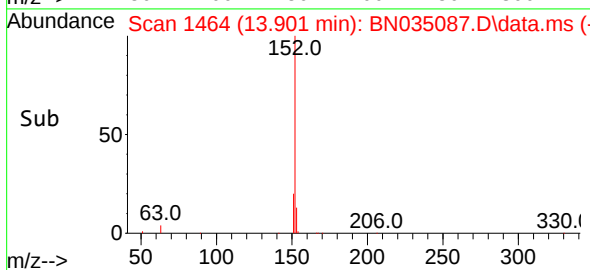
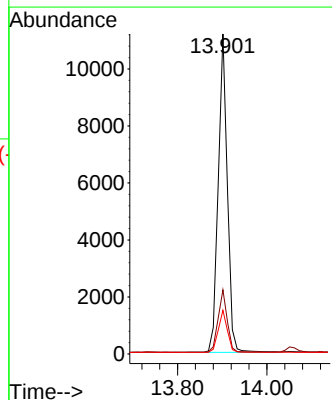
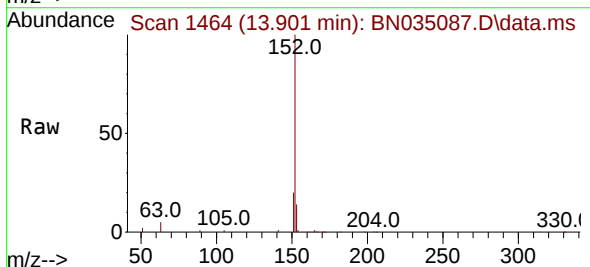
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

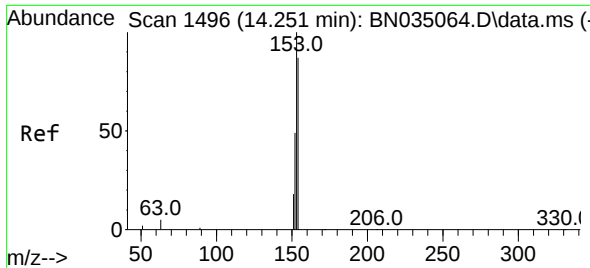
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 172   | Resp: | 1933  |
| Ion      | Ratio | Lower | Upper |
| 172      | 100   |       |       |
| 171      | 37.2  | 28.2  | 42.4  |
| 170      | 27.1  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 0.485 ng  
RT: 13.901 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 152   | Resp: | 15792 |
| Ion      | Ratio | Lower | Upper |
| 152      | 100   |       |       |
| 151      | 19.7  | 15.8  | 23.8  |
| 153      | 13.3  | 10.2  | 15.4  |

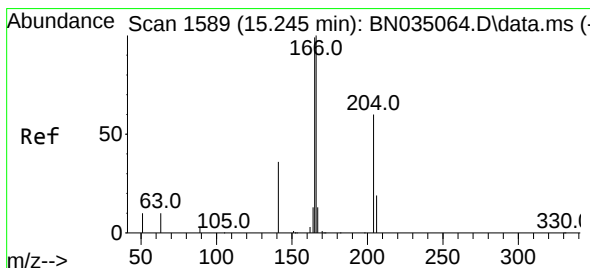
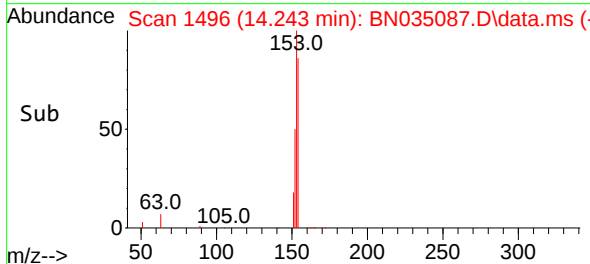
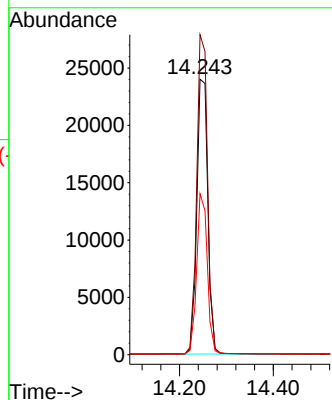
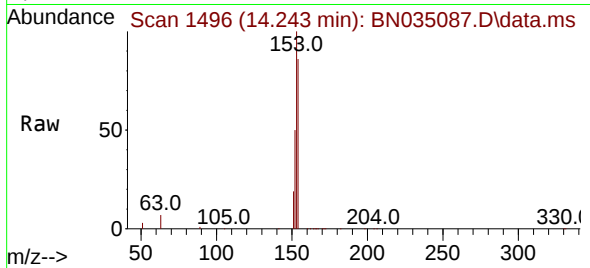




#17  
Acenaphthene  
Concen: 1.828 ng  
RT: 14.243 min Scan# 1496  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

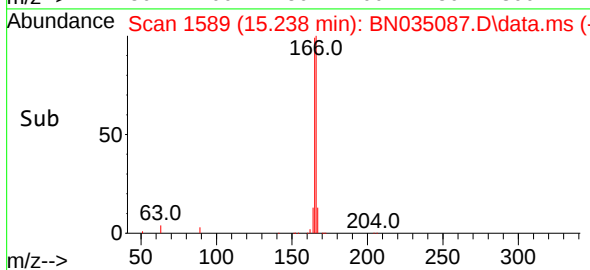
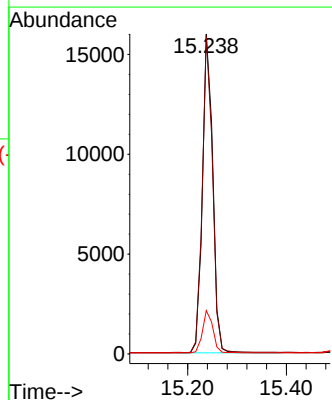
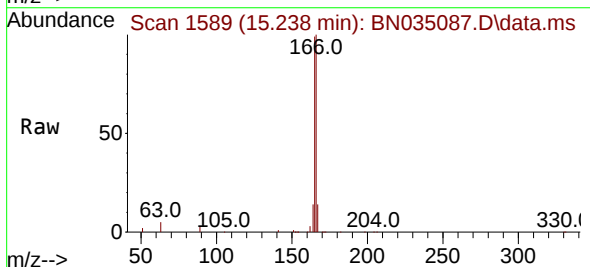
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILDL

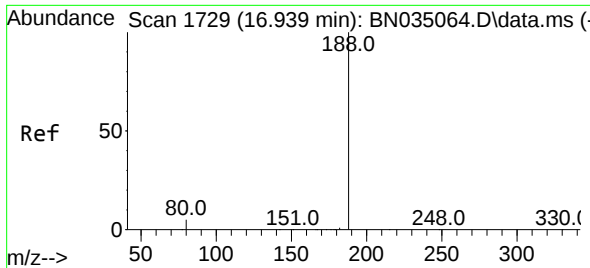
Tgt Ion:154 Resp: 39032  
Ion Ratio Lower Upper  
154 100  
153 114.3 91.6 137.4  
152 56.3 45.8 68.6



#18  
Fluorene  
Concen: 0.736 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:166 Resp: 23114  
Ion Ratio Lower Upper  
166 100  
165 98.8 79.1 118.7  
167 13.4 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.932 min Scan# 1729

Delta R.T. -0.007 min

Lab File: BN035087.D

Acq: 14 Nov 2024 14:10

Instrument :

BNA\_N

ClientSampleId :

PT-PAH-SOILDL

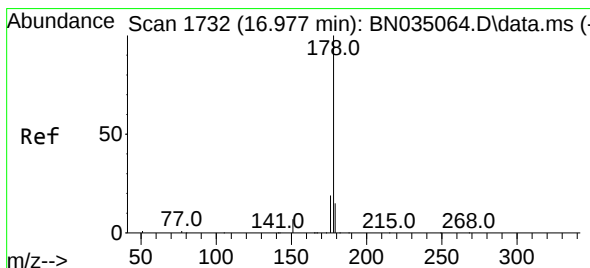
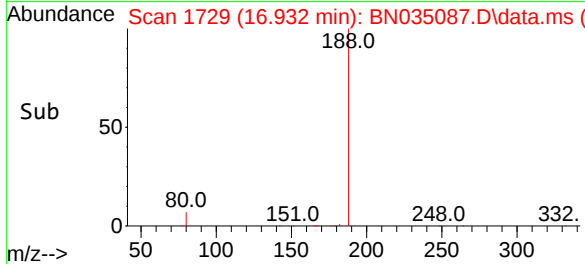
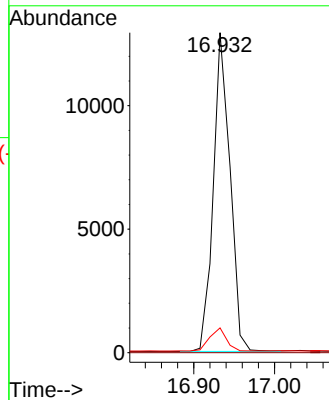
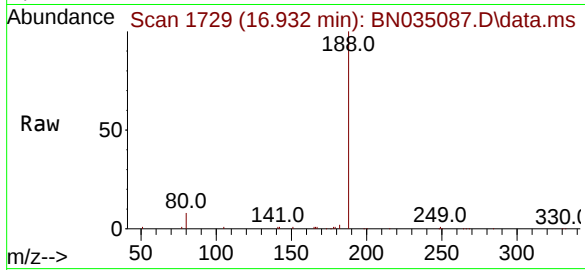
Tgt Ion:188 Resp: 18496

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 7.7 4.3 6.5#



#25

Phenanthrene

Concen: 1.764 ng

RT: 16.970 min Scan# 1732

Delta R.T. -0.007 min

Lab File: BN035087.D

Acq: 14 Nov 2024 14:10

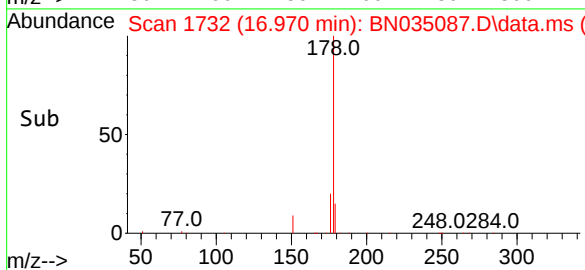
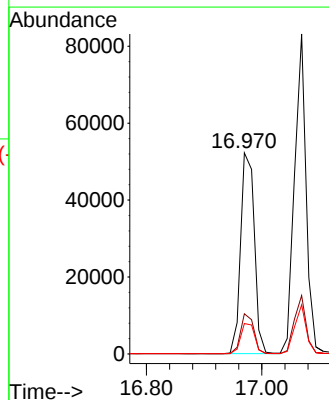
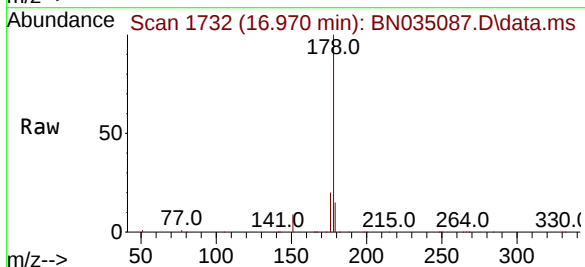
Tgt Ion:178 Resp: 85839

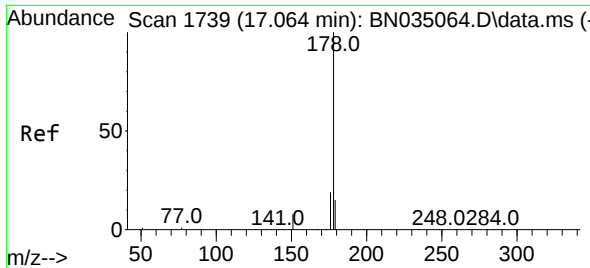
Ion Ratio Lower Upper

178 100

176 19.2 15.2 22.8

179 15.3 12.6 18.8

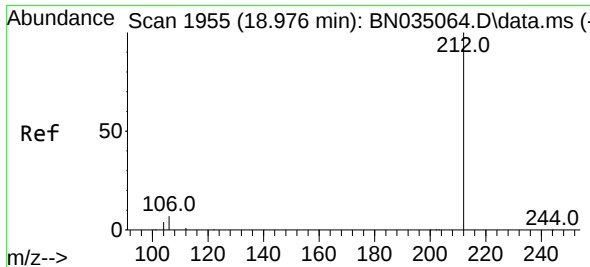
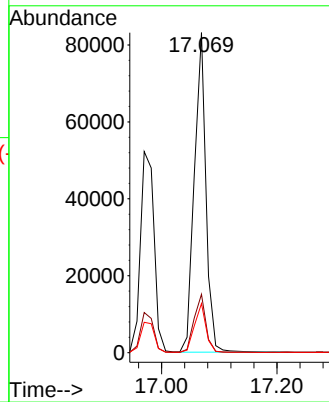
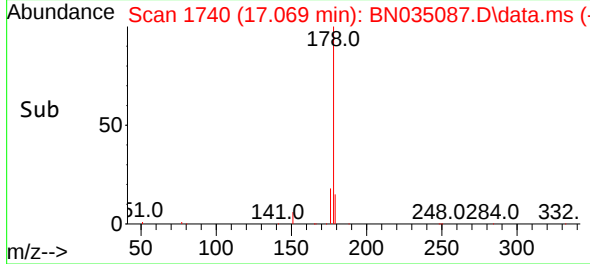
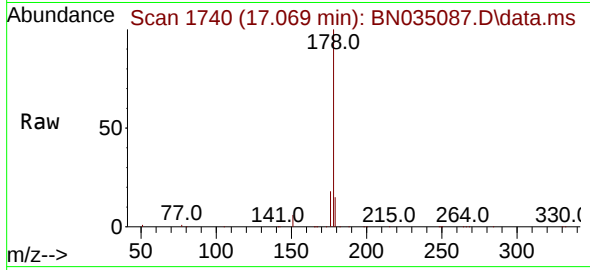




#26  
Anthracene  
Concen: 2.601 ng  
RT: 17.069 min Scan# 1739  
Delta R.T. 0.005 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

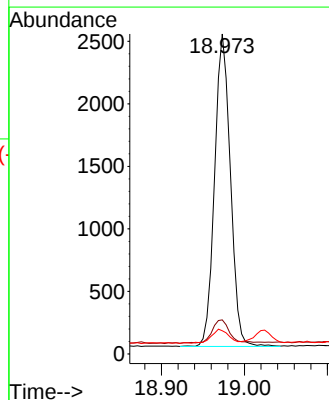
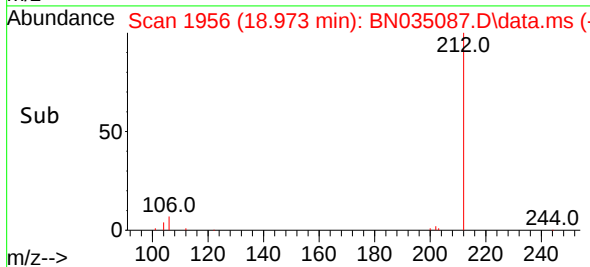
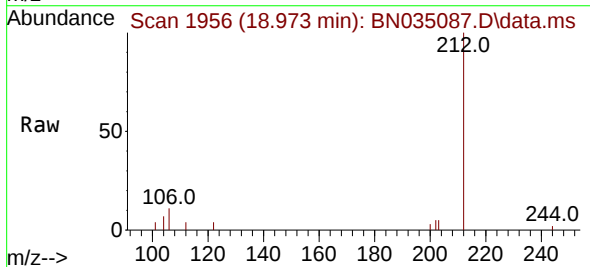
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

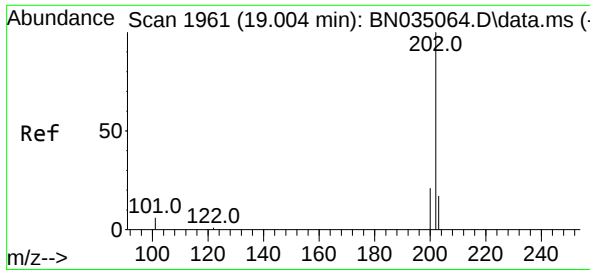
Tgt Ion:178 Resp: 116295  
Ion Ratio Lower Upper  
178 100  
176 18.5 14.6 22.0  
179 15.2 12.2 18.2



#27  
Fluoranthene-d10  
Concen: 0.058 ng  
RT: 18.973 min Scan# 1956  
Delta R.T. -0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:212 Resp: 3297  
Ion Ratio Lower Upper  
212 100  
106 8.3 6.0 9.0  
104 5.0 3.5 5.3

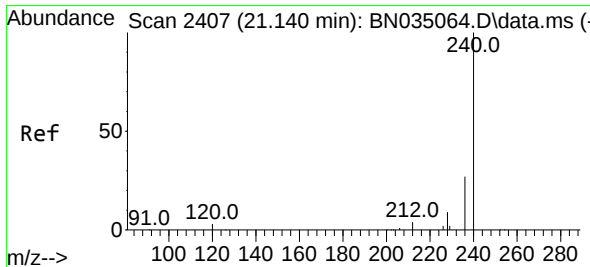
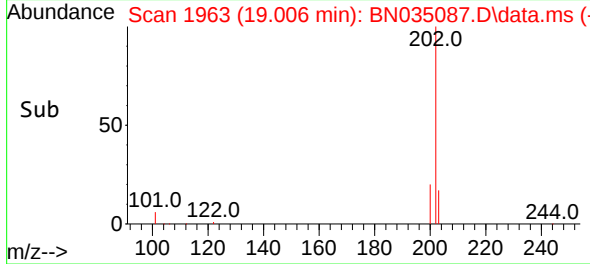
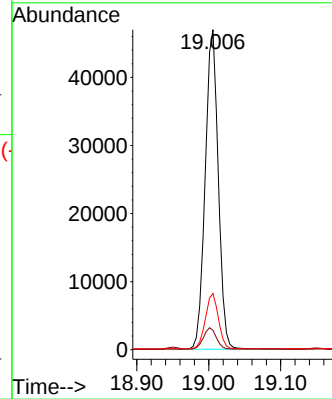
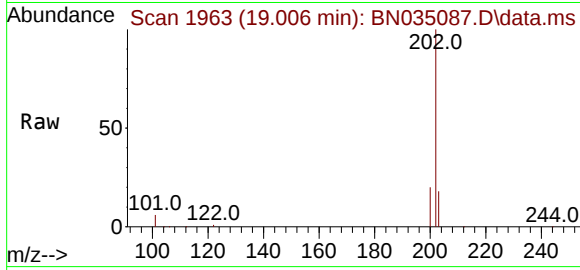




#28  
Fluoranthene  
Concen: 0.883 ng  
RT: 19.006 min Scan# 1963  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

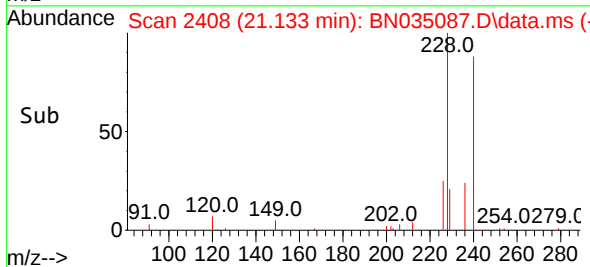
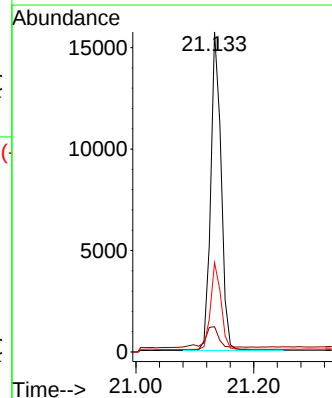
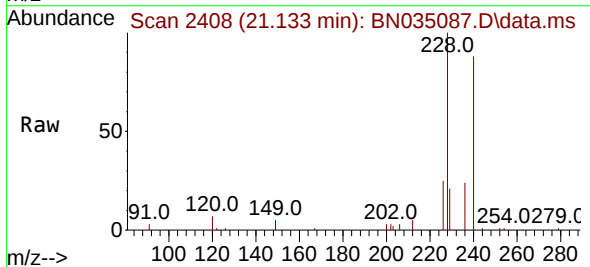
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILDL

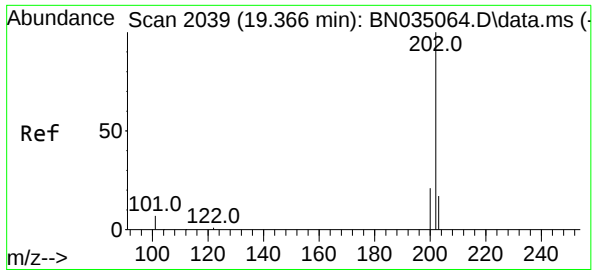
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 6.6   | 5.2   | 7.8   |
| 203     | 17.2  | 13.8  | 20.8  |



#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.133 min Scan# 2408  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 7.9   | 3.8   | 5.6   |
| 236     | 27.9  | 22.2  | 33.2  |

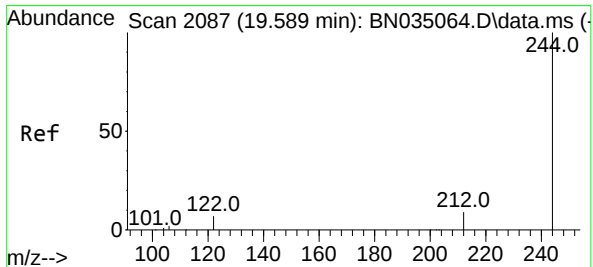
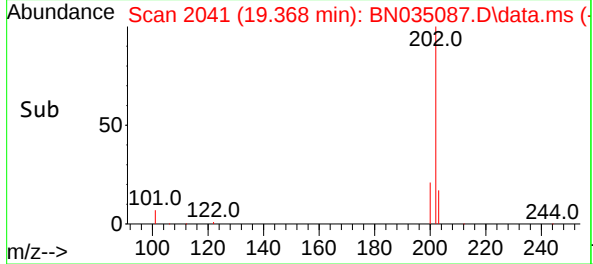
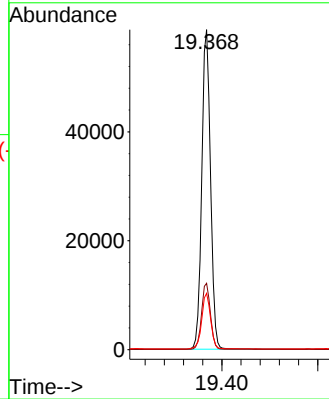
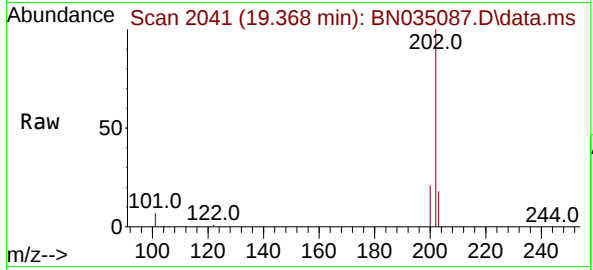




#30  
Pyrene  
Concen: 1.163 ng  
RT: 19.368 min Scan# 2039  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

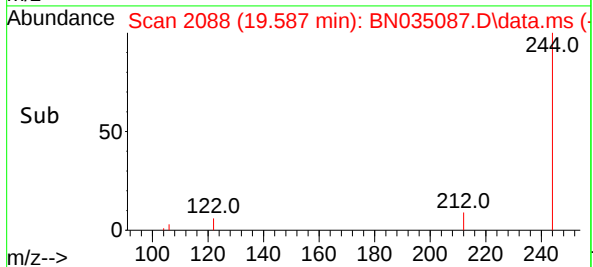
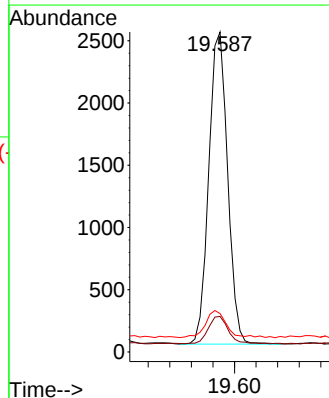
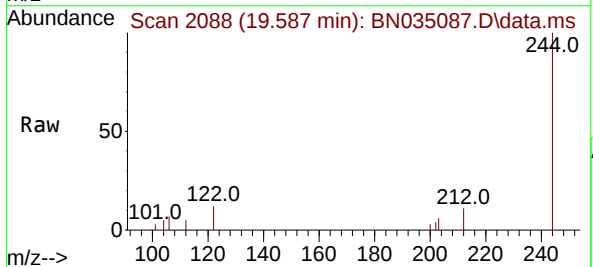
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

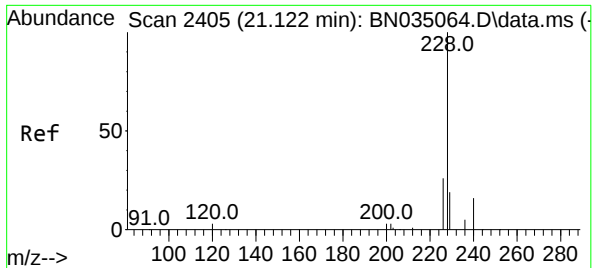
Tgt Ion:202 Resp: 74314  
Ion Ratio Lower Upper  
202 100  
200 20.9 16.7 25.1  
203 17.7 14.2 21.4



#31  
Terphenyl-d14  
Concen: 0.075 ng  
RT: 19.587 min Scan# 2088  
Delta R.T. -0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:244 Resp: 3039  
Ion Ratio Lower Upper  
244 100  
212 11.1 7.6 11.4  
122 12.0 6.1 9.1#

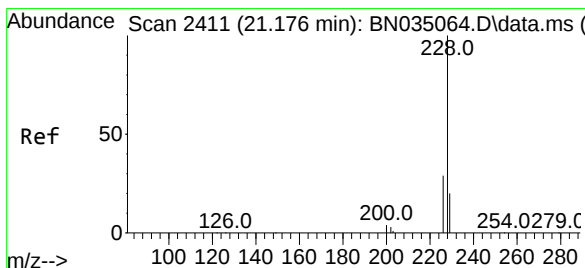
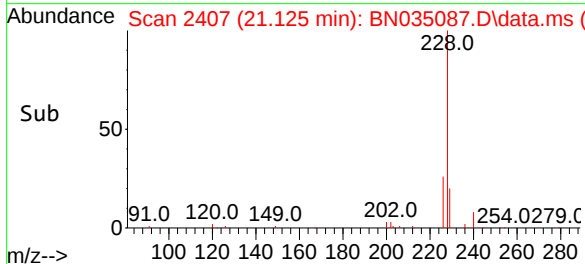
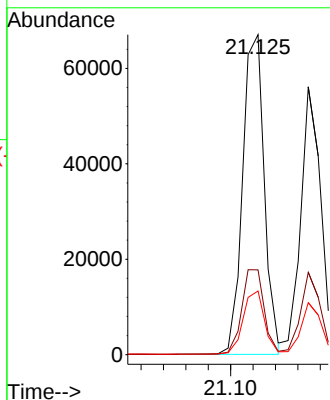
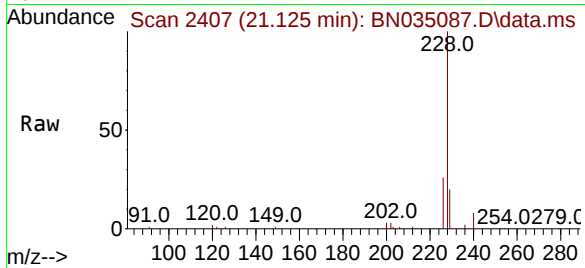




#32  
Benzo(a)anthracene  
Concen: 1.349 ng  
RT: 21.125 min Scan# 2407  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

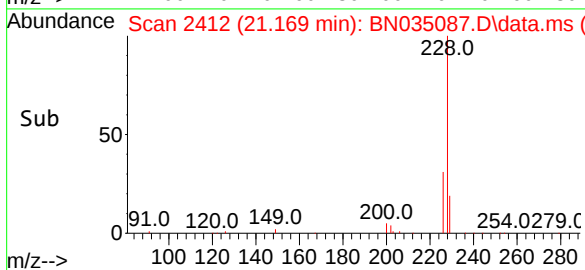
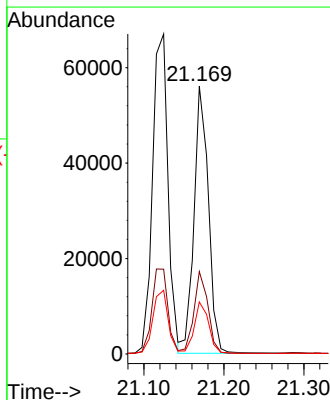
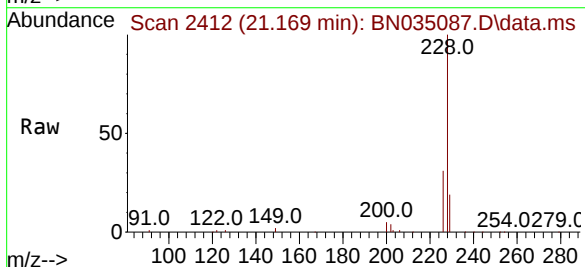
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

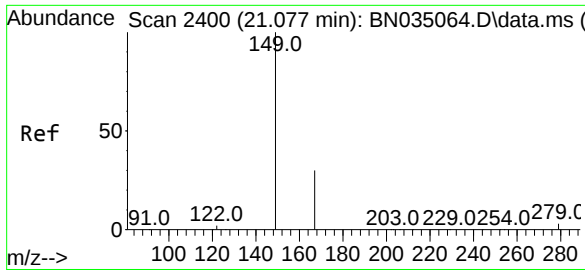
Tgt Ion:228 Resp: 90123  
Ion Ratio Lower Upper  
228 100  
226 26.5 21.4 32.0  
229 19.9 15.7 23.5



#33  
Chrysene  
Concen: 1.060 ng  
RT: 21.169 min Scan# 2412  
Delta R.T. -0.007 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:228 Resp: 70164  
Ion Ratio Lower Upper  
228 100  
226 30.8 23.7 35.5  
229 19.4 16.2 24.4

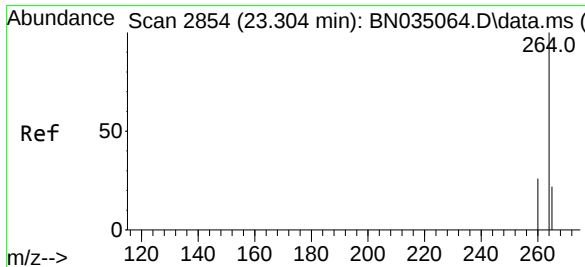
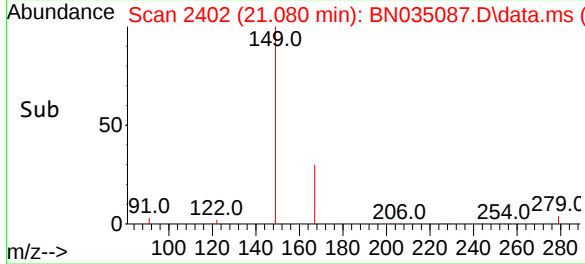
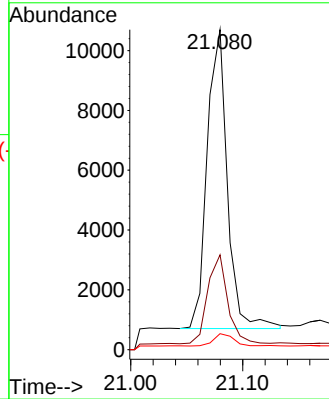
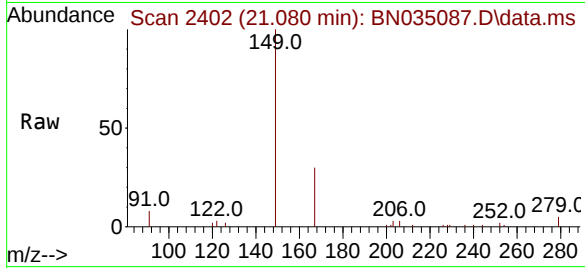




#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.356 ng  
RT: 21.080 min Scan# 2402  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

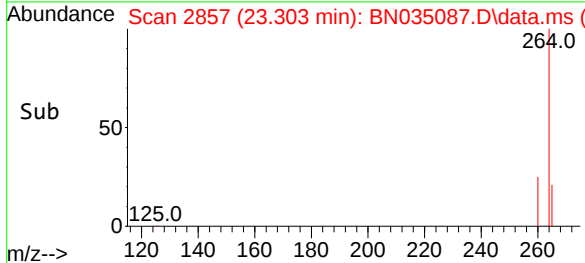
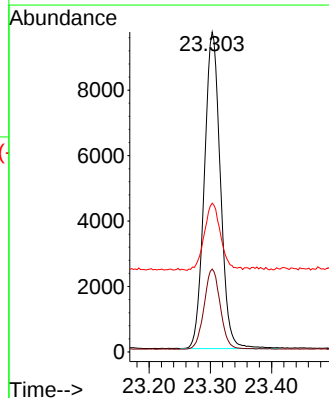
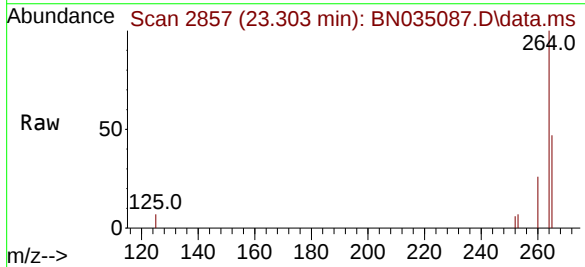
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILDL

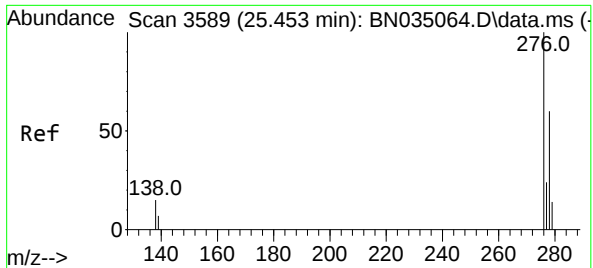
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 167     | 30.0  | 23.2  | 34.8  |
| 279     | 4.3   | 3.2   | 4.8   |



#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.303 min Scan# 2857  
Delta R.T. -0.001 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.9  | 20.9  | 31.3  |
| 265     | 46.5  | 35.4  | 53.2  |

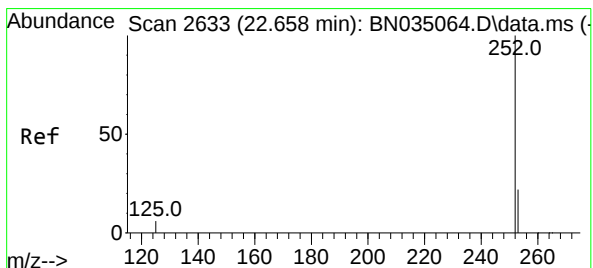
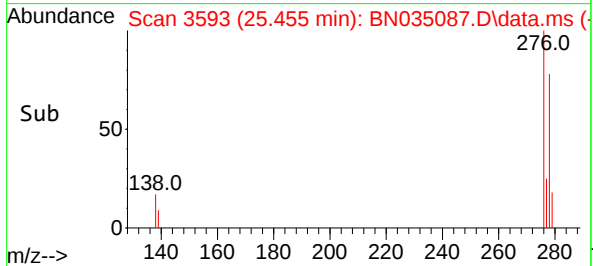
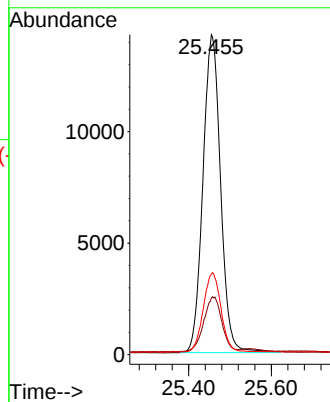
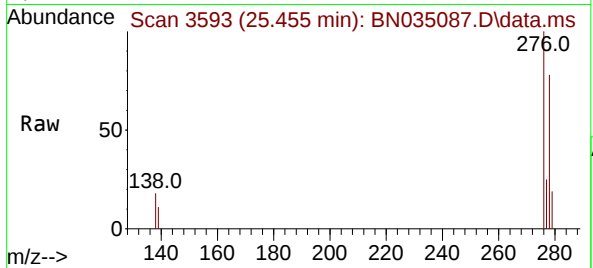




#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.601 ng  
RT: 25.455 min Scan# 3589  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

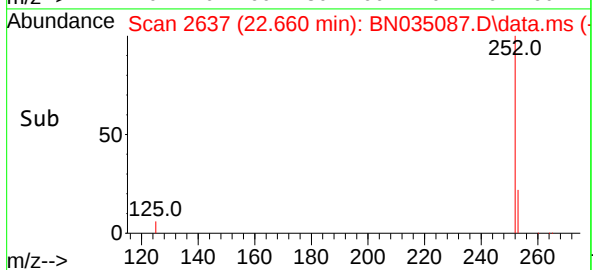
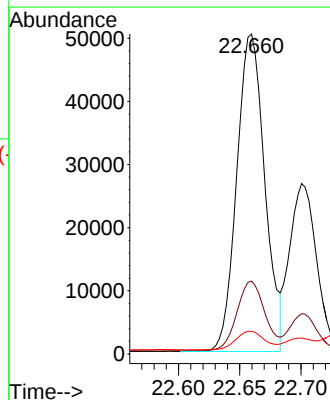
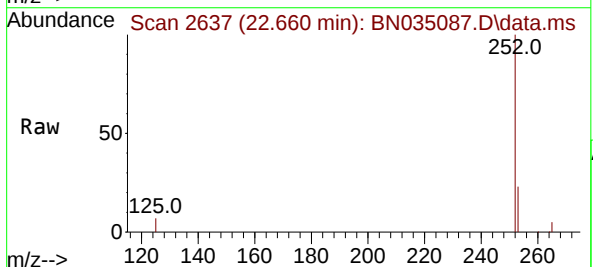
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

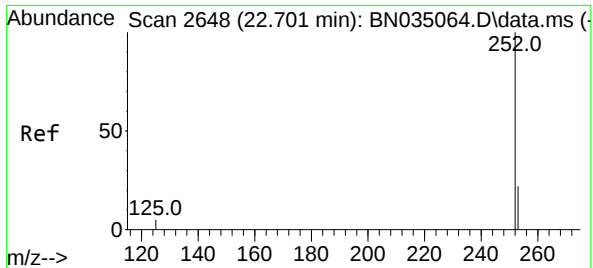
Tgt Ion:276 Resp: 42313  
Ion Ratio Lower Upper  
276 100  
138 17.7 13.0 19.4  
277 24.8 19.8 29.6



#37  
Benzo(b)fluoranthene  
Concen: 1.349 ng  
RT: 22.660 min Scan# 2637  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:252 Resp: 80139  
Ion Ratio Lower Upper  
252 100  
253 22.8 19.3 28.9  
125 7.1 6.2 9.2

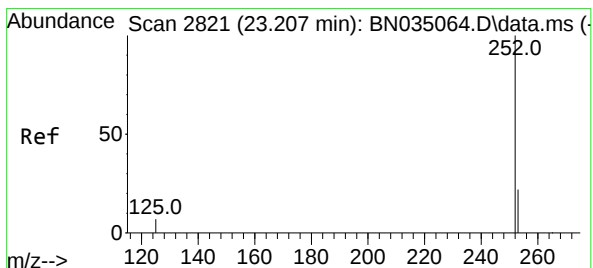
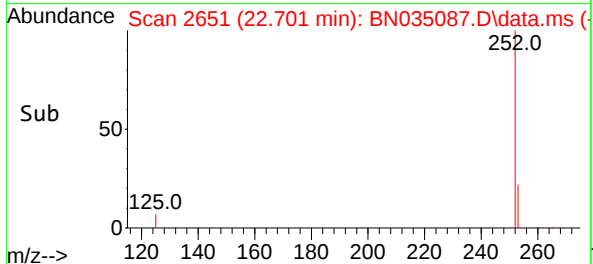
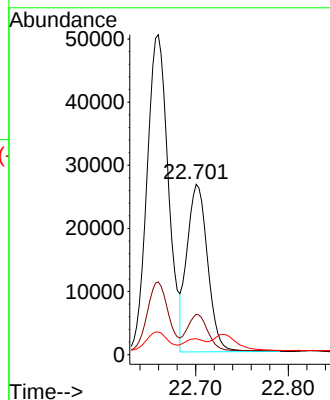
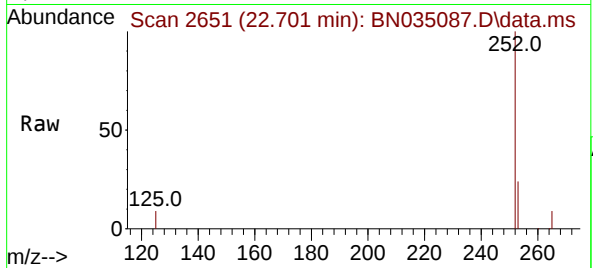




#38  
Benzo(k)fluoranthene  
Concen: 0.689 ng  
RT: 22.701 min Scan# 2648  
Delta R.T. -0.001 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

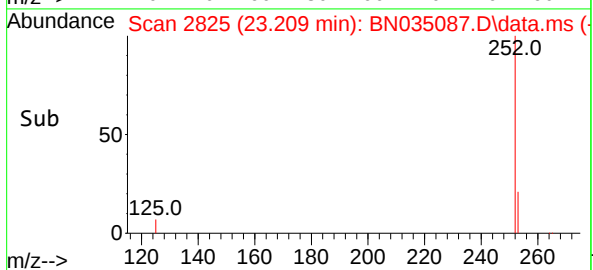
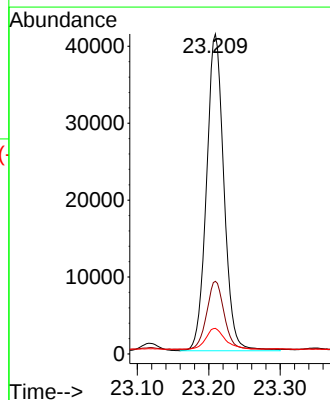
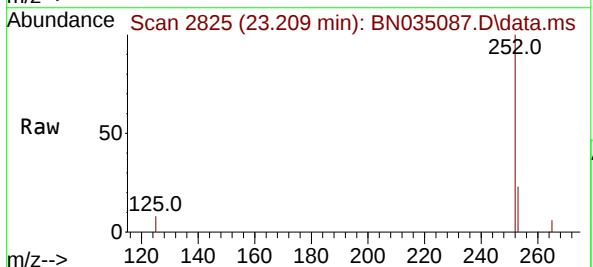
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILDL

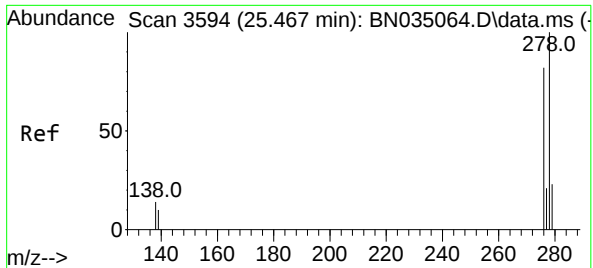
Tgt Ion:252 Resp: 40922  
Ion Ratio Lower Upper  
252 100  
253 23.6 19.5 29.3  
125 9.4 6.5 9.7



#39  
Benzo(a)pyrene  
Concen: 1.333 ng  
RT: 23.209 min Scan# 2825  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:252 Resp: 69681  
Ion Ratio Lower Upper  
252 100  
253 22.7 20.1 30.1  
125 8.0 7.5 11.3

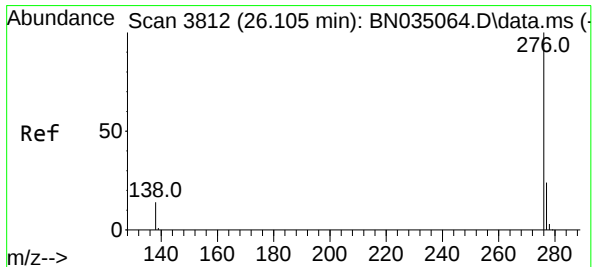
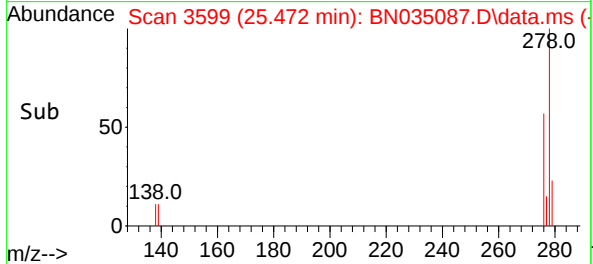
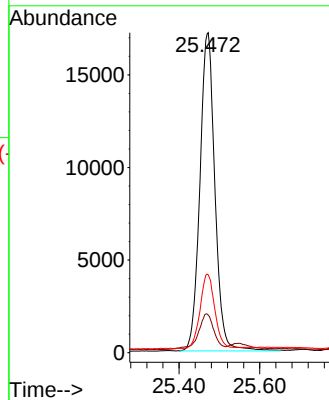
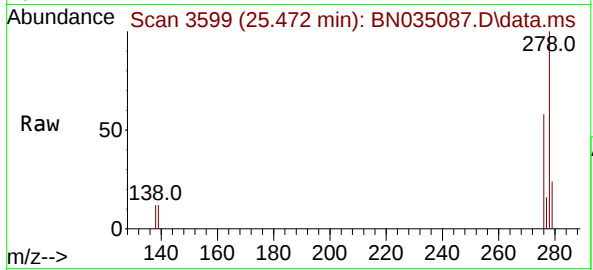




#40  
Dibenzo(a,h)anthracene  
Concen: 0.795 ng  
RT: 25.472 min Scan# 31  
Delta R.T. 0.005 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

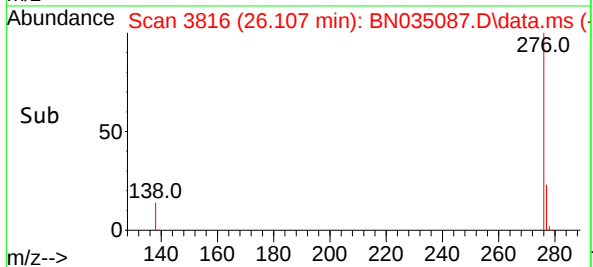
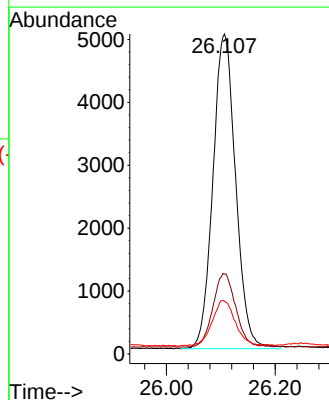
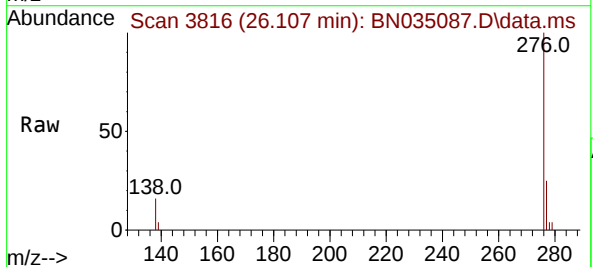
Instrument :  
BNA\_N  
ClientSampleId :  
PT-PAH-SOILD

Tgt Ion:278 Resp: 44339  
Ion Ratio Lower Upper  
278 100  
139 11.7 9.3 13.9  
279 24.4 19.7 29.5



#41  
Benzo(g,h,i)perylene  
Concen: 0.245 ng  
RT: 26.107 min Scan# 3816  
Delta R.T. 0.002 min  
Lab File: BN035087.D  
Acq: 14 Nov 2024 14:10

Tgt Ion:276 Resp: 14526  
Ion Ratio Lower Upper  
276 100  
277 25.0 19.9 29.9  
138 16.5 11.6 17.4





# CALIBRATION SUMMARY

Method Path : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\  
 Method File : 8270-SIM-BN111324.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Nov 13 17:18:14 2024  
 Response Via : Initial Calibration

## Calibration Files

0.1 =BN035062.D 0.2 =BN035063.D 0.4 =BN035064.D 0.8 =BN035065.D 1.6 =BN035066.D 3.2 =BN035067.D 5.0 =BN035068.D

|           | Compound              | 0.1            | 0.2   | 0.4   | 0.8   | 1.6   | 3.2   | 5.0   | Avg   | %RSD  |
|-----------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----     |                       |                |       |       |       |       |       |       |       |       |
| 1) I      | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)        | 1,4-Dioxane           | 0.410          | 0.382 | 0.335 | 0.371 | 0.367 | 0.348 | 0.329 | 0.363 | 7.76  |
| 3)        | n-Nitrosodimet...     | 0.366          | 0.328 | 0.326 | 0.360 | 0.347 | 0.321 | 0.322 | 0.339 | 5.51  |
| 4) S      | 2-Fluorophenol        | 1.073          | 1.039 | 0.949 | 1.086 | 1.034 | 0.966 | 0.961 | 1.015 | 5.54  |
| 5) S      | Phenol-d6             | 1.264          | 1.279 | 1.159 | 1.355 | 1.318 | 1.255 | 1.282 | 1.273 | 4.79  |
| 6)        | bis(2-Chloroet...     | 0.972          | 0.949 | 0.893 | 1.027 | 0.995 | 0.925 | 0.929 | 0.956 | 4.77  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 7) I      | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 8) S      | Nitrobenzene-d5       | 0.358          | 0.338 | 0.320 | 0.368 | 0.356 | 0.344 | 0.353 | 0.348 | 4.53  |
| 9)        | Naphthalene           | 1.088          | 1.009 | 0.977 | 1.116 | 1.085 | 1.010 | 1.027 | 1.044 | 4.96  |
| 10)       | Hexachlorobuta...     | 0.324          | 0.305 | 0.293 | 0.326 | 0.315 | 0.289 | 0.291 | 0.306 | 5.12  |
| 11) SURR2 | Methylnaphth...       | 0.694          | 0.683 | 0.664 | 0.762 | 0.753 | 0.703 | 0.731 | 0.713 | 5.13  |
| 12)       | 2-Methylnaphth...     | 0.742          | 0.748 | 0.711 | 0.823 | 0.815 | 0.765 | 0.789 | 0.770 | 5.29  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 13) I     | Acenaphthene-d10      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 14) S     | 2,4,6-Tribromo...     | 0.281          | 0.262 | 0.240 | 0.300 | 0.299 | 0.308 | 0.331 | 0.289 | 10.57 |
| 15) S     | 2-Fluorobiphenyl      | 1.701          | 1.576 | 1.460 | 1.735 | 1.687 | 1.599 | 1.614 | 1.624 | 5.73  |
| 16)       | Acenaphthylene        | 1.715          | 1.616 | 1.488 | 1.822 | 1.775 | 1.756 | 1.795 | 1.709 | 6.93  |
| 17)       | Acenaphthene          | 1.129          | 1.079 | 1.000 | 1.202 | 1.157 | 1.130 | 1.146 | 1.120 | 5.76  |
| 18)       | Fluorene              | 1.704          | 1.591 | 1.463 | 1.755 | 1.708 | 1.656 | 1.659 | 1.648 | 5.86  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 19) I     | Phenanthrene-d10      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 20)       | 4,6-Dinitro-2-...     | 0.068          | 0.067 | 0.073 | 0.087 | 0.088 | 0.095 | 0.105 | 0.083 | 17.50 |
| 21)       | 4-Bromophenyl-...     | 0.256          | 0.240 | 0.246 | 0.272 | 0.267 | 0.252 | 0.252 | 0.255 | 4.41  |
| 22)       | Hexachlorobenzene     | 0.275          | 0.259 | 0.253 | 0.277 | 0.273 | 0.258 | 0.258 | 0.264 | 3.79  |
| 23)       | Atrazine              | 0.227          | 0.227 | 0.217 | 0.244 | 0.238 | 0.223 | 0.225 | 0.229 | 3.95  |
| 24)       | Pentachlorophenol     | 0.106          | 0.101 | 0.104 | 0.130 | 0.130 | 0.141 | 0.154 | 0.124 | 16.69 |
| 25)       | Phenanthrene          | 1.069          | 1.013 | 1.004 | 1.115 | 1.096 | 1.034 | 1.036 | 1.053 | 3.97  |
| 26)       | Anthracene            | 0.917          | 0.904 | 0.920 | 1.024 | 1.016 | 0.986 | 1.001 | 0.967 | 5.32  |
| 27) SURR  | Fluoranthene-d10      | 1.196          | 1.178 | 1.169 | 1.288 | 1.284 | 1.222 | 1.240 | 1.225 | 3.91  |
| 28)       | Fluoranthene          | 1.396          | 1.376 | 1.386 | 1.543 | 1.527 | 1.453 | 1.453 | 1.448 | 4.63  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 29) I     | Chrysene-d12          | -----ISTD----- |       |       |       |       |       |       |       |       |
| 30)       | Pyrene                | 1.339          | 1.290 | 1.288 | 1.424 | 1.367 | 1.301 | 1.317 | 1.332 | 3.70  |
| 31) S     | Terphenyl-d14         | 0.838          | 0.819 | 0.810 | 0.894 | 0.867 | 0.817 | 0.831 | 0.839 | 3.63  |
| 32)       | Benzo(a)anthra...     | 1.421          | 1.368 | 1.328 | 1.464 | 1.416 | 1.355 | 1.396 | 1.393 | 3.31  |
| 33)       | Chrysene              | 1.409          | 1.366 | 1.332 | 1.479 | 1.420 | 1.331 | 1.321 | 1.380 | 4.27  |
| 34)       | Bis(2-ethylhex...     | 0.809          | 0.753 | 0.647 | 0.768 | 0.702 | 0.693 | 0.742 | 0.731 | 7.38  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 35) I     | Perylene-d12          | -----ISTD----- |       |       |       |       |       |       |       |       |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\

Method File : 8270-SIM-BN111324.M

|       |                   |       |       |       |       |       |       |       |       |      |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 36)   | Indeno(1,2,3-c... | 1.609 | 1.515 | 1.522 | 1.730 | 1.659 | 1.550 | 1.585 | 1.596 | 4.88 |
| 37)   | Benzo(b)fluora... | 1.326 | 1.272 | 1.279 | 1.439 | 1.418 | 1.327 | 1.359 | 1.346 | 4.77 |
| 38)   | Benzo(k)fluora... | 1.342 | 1.288 | 1.287 | 1.418 | 1.410 | 1.323 | 1.358 | 1.347 | 3.94 |
| 39) C | Benzo(a)pyrene    | 1.172 | 1.134 | 1.123 | 1.247 | 1.240 | 1.167 | 1.207 | 1.184 | 4.12 |
| 40)   | Dibenzo(a,h)an... | 1.248 | 1.195 | 1.210 | 1.375 | 1.322 | 1.235 | 1.265 | 1.264 | 5.06 |
| 41)   | Benzo(g,h,i)pe... | 1.380 | 1.288 | 1.286 | 1.452 | 1.386 | 1.294 | 1.328 | 1.345 | 4.71 |

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(#) = Out of Range

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035062.D  
 Acq On : 13 Nov 2024 12:40  
 Operator : RC/JU  
 Sample : SSTDICC0.1  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Quant Time: Nov 13 16:42:46 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

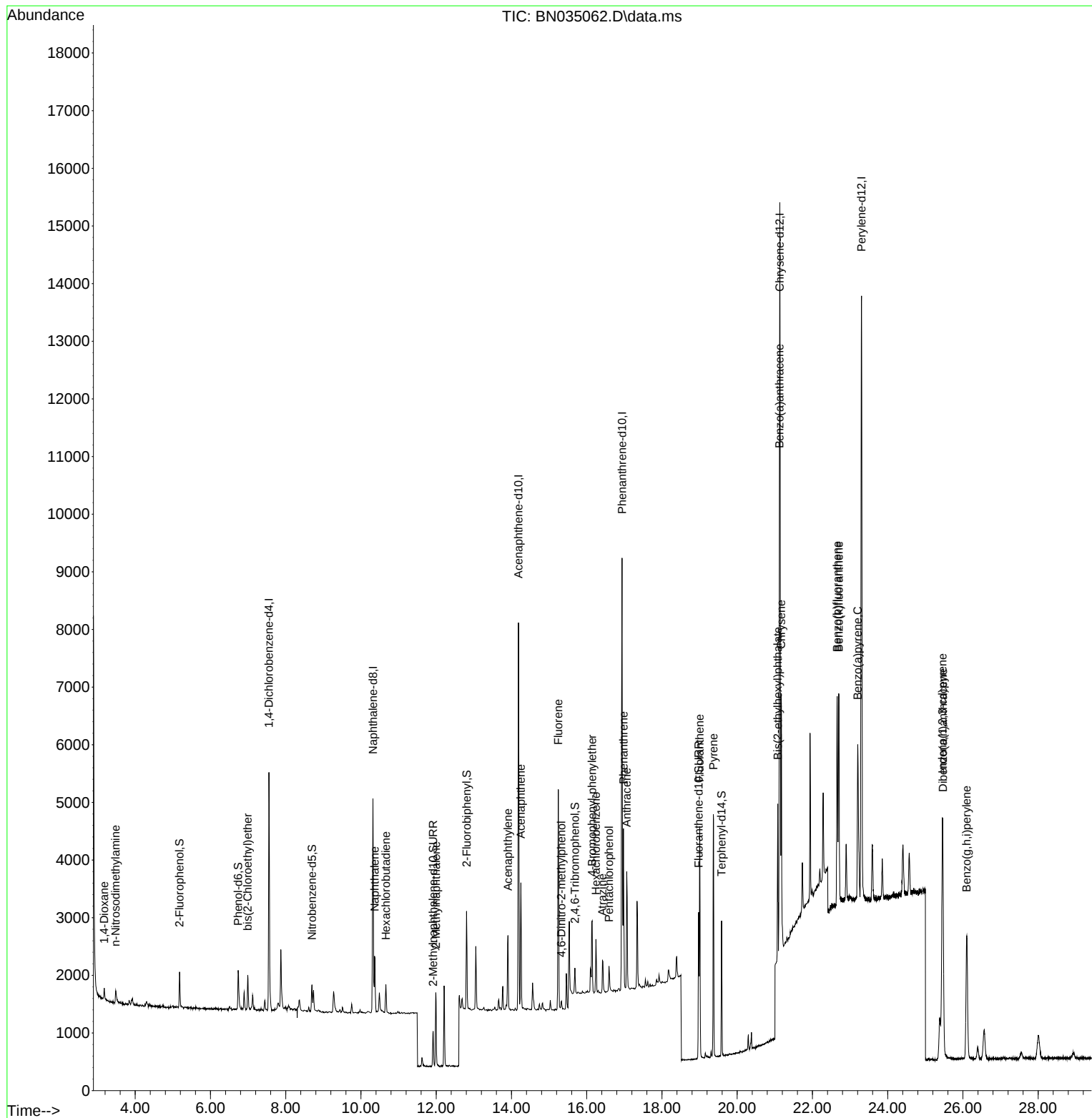
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 1991     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 4930     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.186 | 164  | 3629     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.939 | 188  | 10187    | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.131 | 240  | 11121    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.304 | 264  | 13104    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 534      | 0.106 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 629      | 0.099 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.696  | 82   | 441      | 0.103 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 11.916 | 152  | 855      | 0.097 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.686 | 330  | 255      | 0.097 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.807 | 172  | 1543     | 0.105 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.976 | 212  | 3046     | 0.098 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.584 | 244  | 2331     | 0.100 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.177  | 88   | 204      | 0.113 | ng    | 93       |
| 3) n-Nitrosodimethylamine     | 3.480  | 42   | 182      | 0.108 | ng    | # 90     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 484      | 0.102 | ng    | 99       |
| 9) Naphthalene                | 10.362 | 128  | 1341     | 0.104 | ng    | # 89     |
| 10) Hexachlorobutadiene       | 10.660 | 225  | 399      | 0.106 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 11.992 | 142  | 914      | 0.096 | ng    | 96       |
| 16) Acenaphthylene            | 13.908 | 152  | 1556     | 0.100 | ng    | 99       |
| 17) Acenaphthene              | 14.250 | 154  | 1024     | 0.101 | ng    | 98       |
| 18) Fluorene                  | 15.245 | 166  | 1546     | 0.103 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.330 | 198  | 172      | 0.081 | ng    | # 1      |
| 21) 4-Bromophenyl-phenylether | 16.145 | 248  | 651      | 0.100 | ng    | 97       |
| 22) Hexachlorobenzene         | 16.244 | 284  | 701      | 0.104 | ng    | 98       |
| 23) Atrazine                  | 16.418 | 200  | 577      | 0.099 | ng    | # 91     |
| 24) Pentachlorophenol         | 16.592 | 266  | 269      | 0.085 | ng    | 94       |
| 25) Phenanthrene              | 16.977 | 178  | 2723     | 0.102 | ng    | 100      |
| 26) Anthracene                | 17.063 | 178  | 2335     | 0.095 | ng    | 98       |
| 28) Fluoranthene              | 19.003 | 202  | 3554     | 0.096 | ng    | 100      |
| 30) Pyrene                    | 19.366 | 202  | 3722     | 0.101 | ng    | 98       |
| 32) Benzo(a)anthracene        | 21.122 | 228  | 3952     | 0.102 | ng    | 97       |
| 33) Chrysene                  | 21.167 | 228  | 3918     | 0.102 | ng    | 96       |
| 34) Bis(2-ethylhexyl)phtha... | 21.077 | 149  | 2250     | 0.112 | ng    | # 99     |
| 36) Indeno(1,2,3-cd)pyrene    | 25.455 | 276  | 5271     | 0.101 | ng    | 96       |
| 37) Benzo(b)fluoranthene      | 22.657 | 252  | 4345     | 0.099 | ng    | # 82     |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 4395     | 0.100 | ng    | # 78     |
| 39) Benzo(a)pyrene            | 23.204 | 252  | 3841     | 0.099 | ng    | # 77     |
| 40) Dibenzo(a,h)anthracene    | 25.467 | 278  | 4089     | 0.099 | ng    | # 85     |
| 41) Benzo(g,h,i)perylene      | 26.099 | 276  | 4521     | 0.103 | ng    | # 94     |
| -----                         |        |      |          |       |       |          |

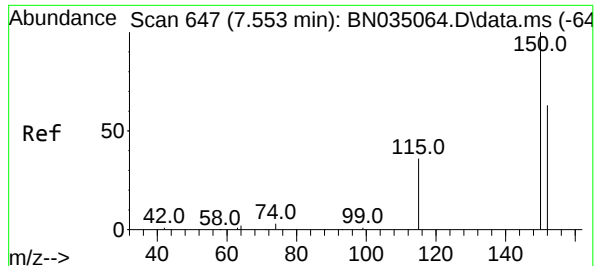
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035062.D  
Acq On : 13 Nov 2024 12:40  
Operator : RC/JU  
Sample : SSTDICC0.1  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

Quant Time: Nov 13 16:42:46 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 16:42:01 2024  
Response via : Initial Calibration

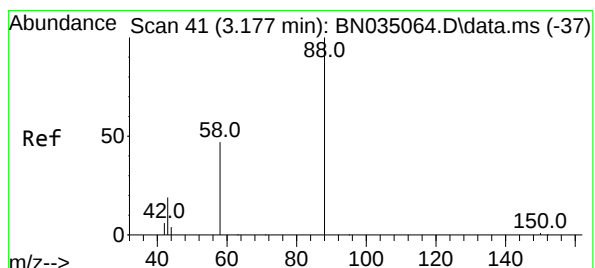
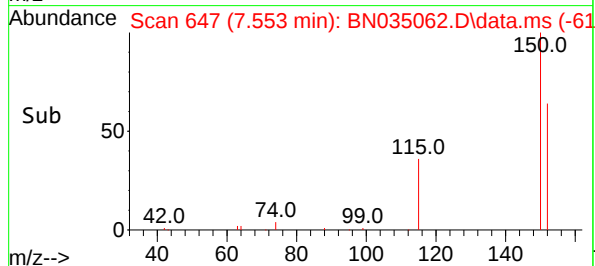
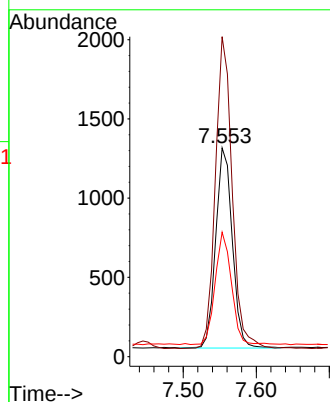
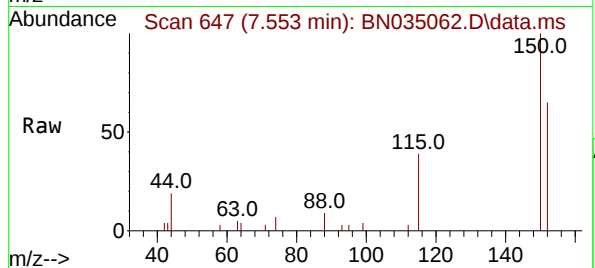




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

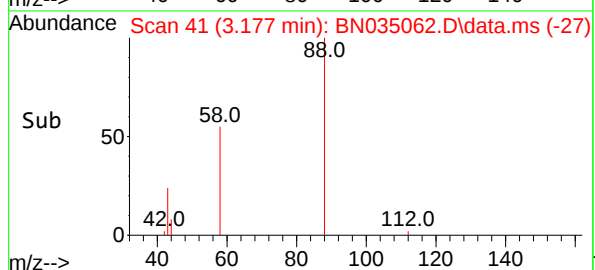
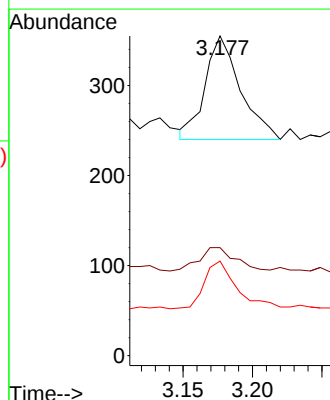
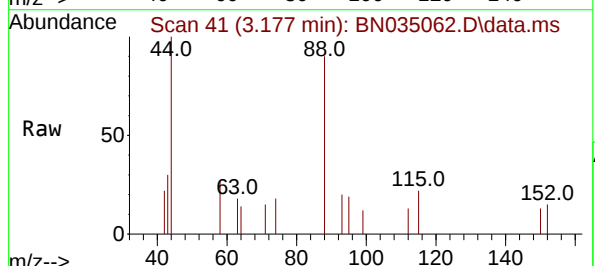
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

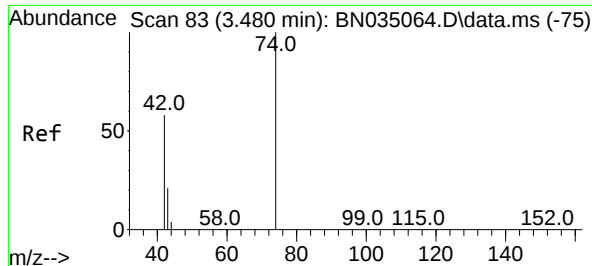
Tgt Ion: 152 Resp: 1991  
Ion Ratio Lower Upper  
152 100  
150 153.3 124.5 186.7  
115 59.6 47.8 71.6



#2  
1,4-Dioxane  
Concen: 0.113 ng  
RT: 3.177 min Scan# 41  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion: 88 Resp: 204  
Ion Ratio Lower Upper  
88 100  
43 23.0 16.9 25.3  
58 42.6 39.0 58.4

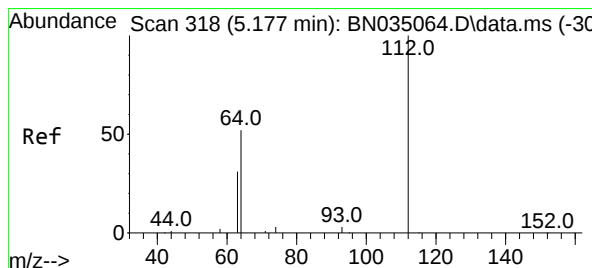
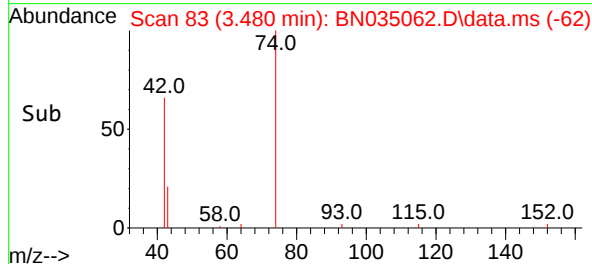
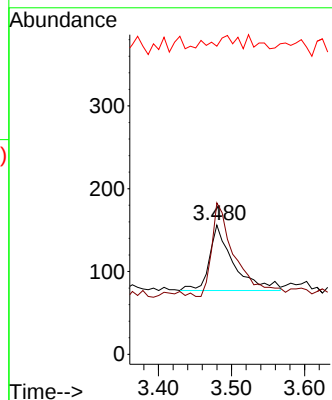
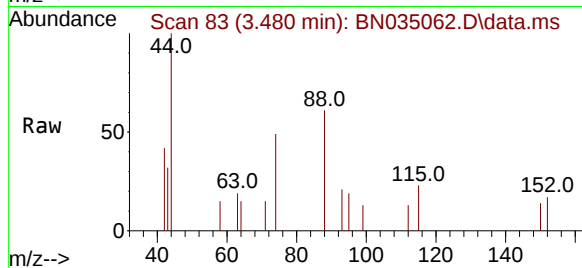




#3  
n-Nitrosodimethylamine  
Concen: 0.108 ng  
RT: 3.480 min Scan# 81  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

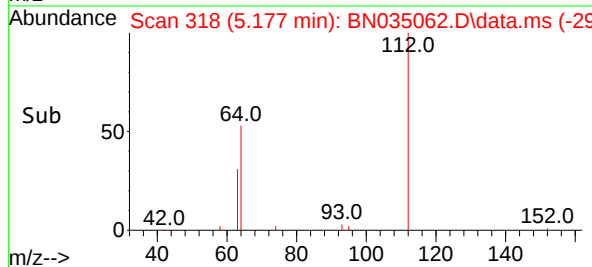
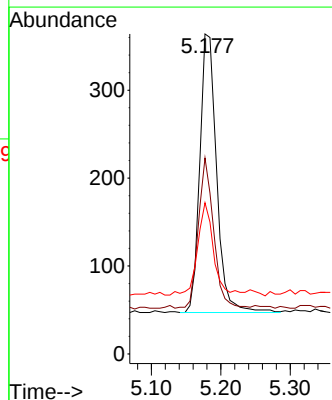
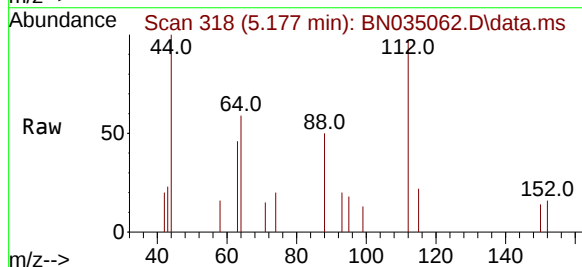
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

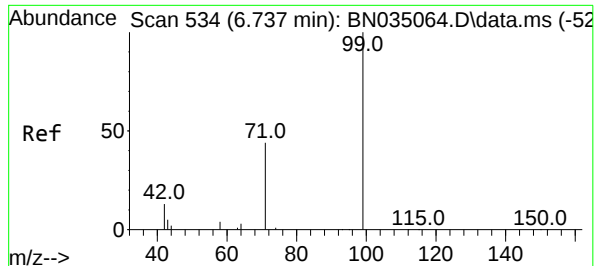
Tgt Ion: 42 Resp: 182  
Ion Ratio Lower Upper  
42 100  
74 139.0 120.8 181.2  
44 12.6 2.9 4.3#



#4  
2-Fluorophenol  
Concen: 0.106 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion: 112 Resp: 534  
Ion Ratio Lower Upper  
112 100  
64 48.9 39.7 59.5  
63 31.1 23.0 34.4

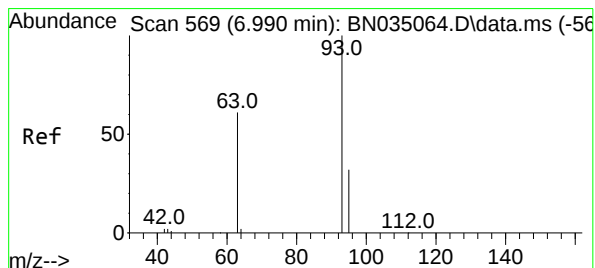
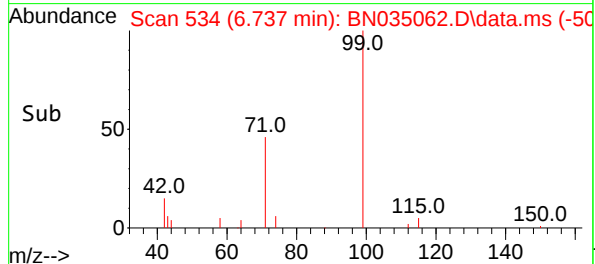
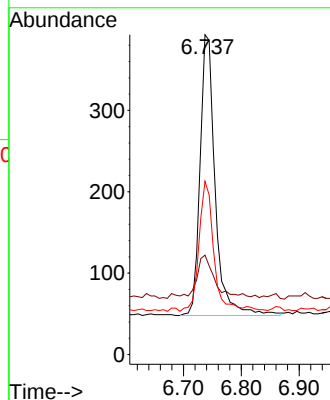
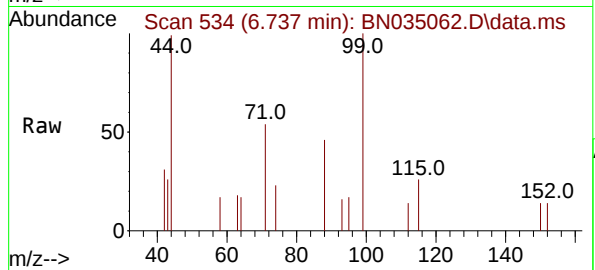




#5  
Phenol-d6  
Concen: 0.099 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

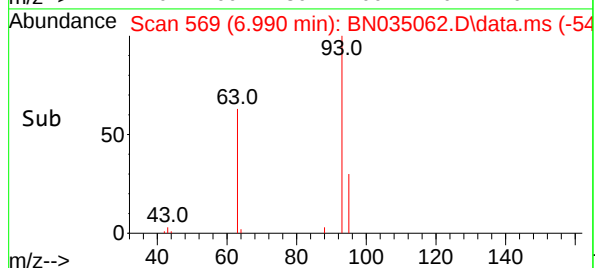
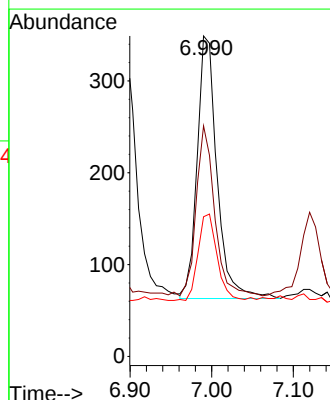
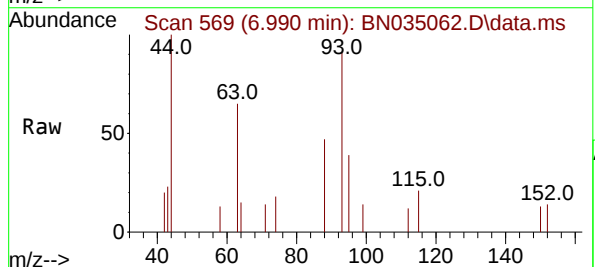
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

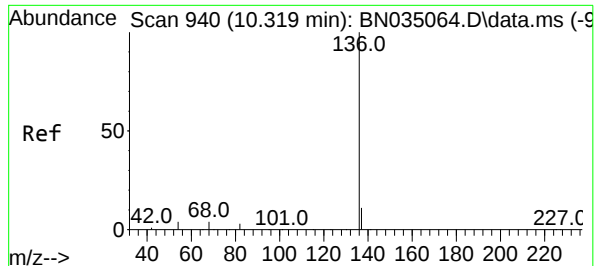
Tgt Ion: 99 Resp: 629  
Ion Ratio Lower Upper  
99 100  
42 19.6 11.4 17.0#  
71 44.5 34.6 51.8



#6  
bis(2-Chloroethyl)ether  
Concen: 0.102 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion: 93 Resp: 484  
Ion Ratio Lower Upper  
93 100  
63 60.1 47.4 71.2  
95 31.8 26.2 39.4

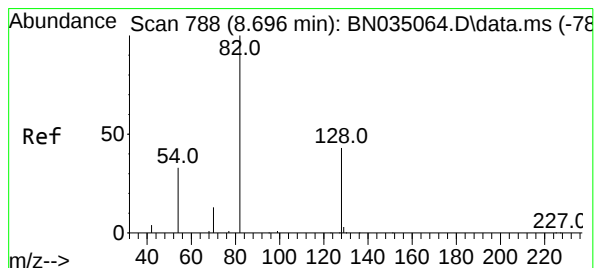
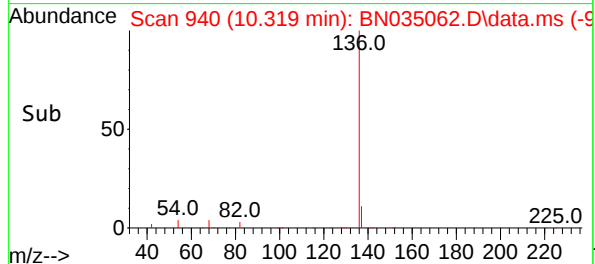
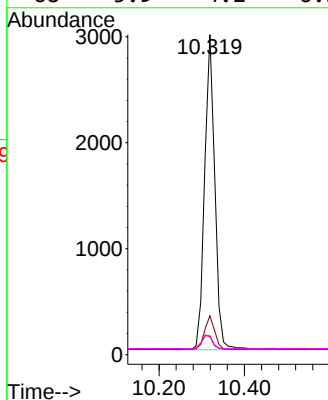
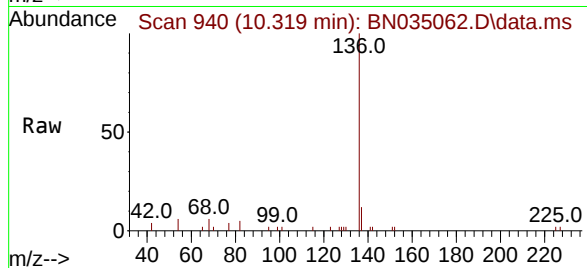




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

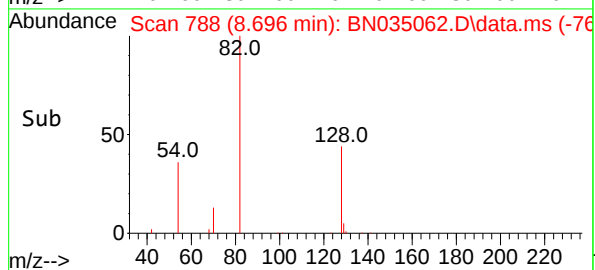
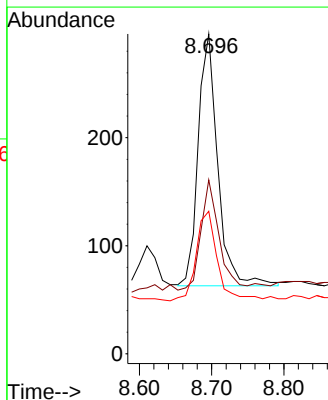
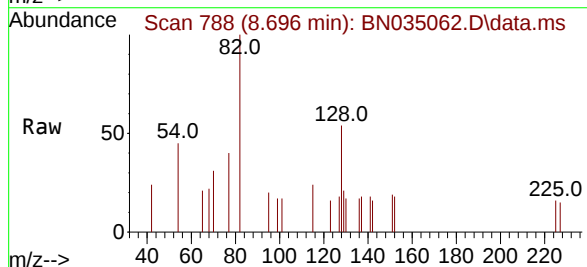
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

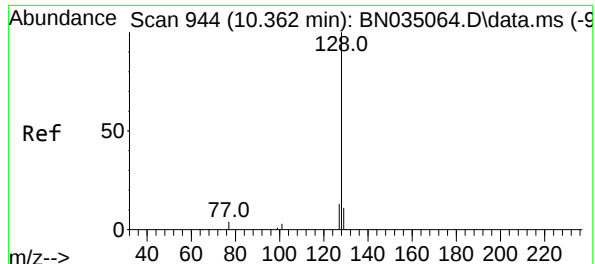
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 4930  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.2  | 9.8   | 14.8  |
| 54       | 5.6   | 4.0   | 6.0   |
| 68       | 5.9   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 0.103 ng  
RT: 8.696 min Scan# 788  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 441   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 54.4  | 36.5  | 54.7  |
| 54       | 44.6  | 28.7  | 43.1  |

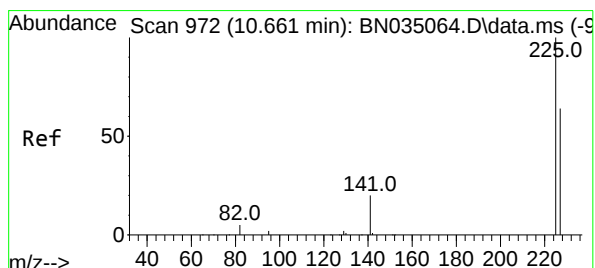
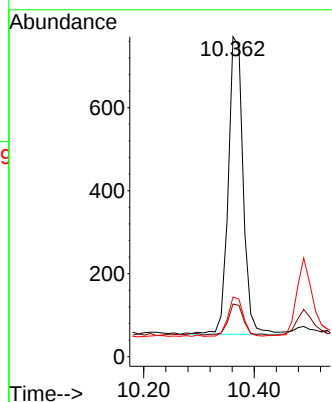
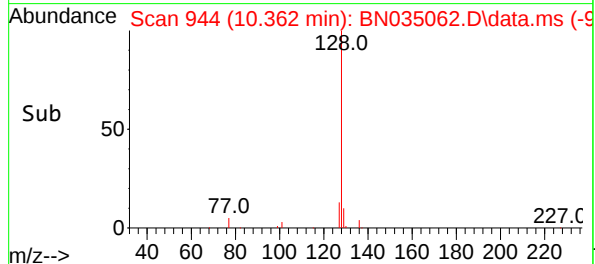
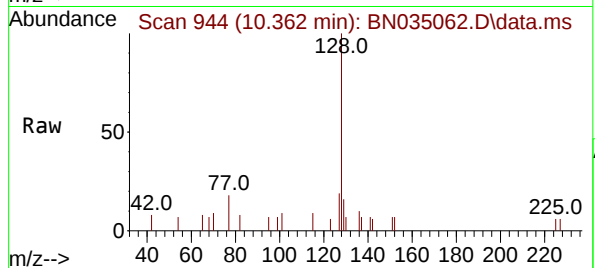




#9  
Naphthalene  
Concen: 0.104 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

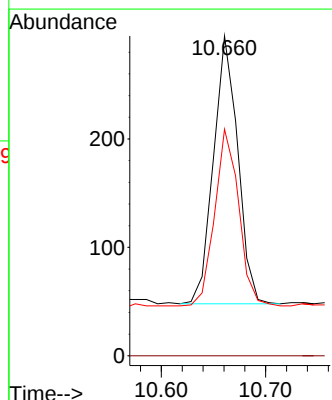
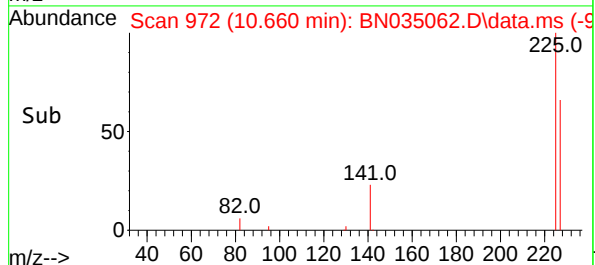
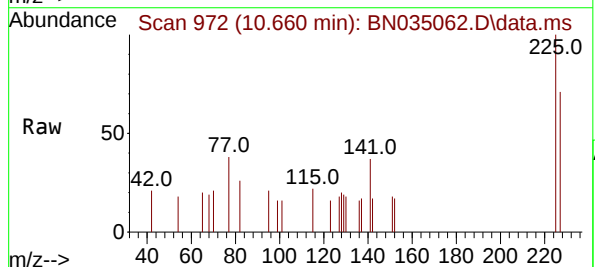
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

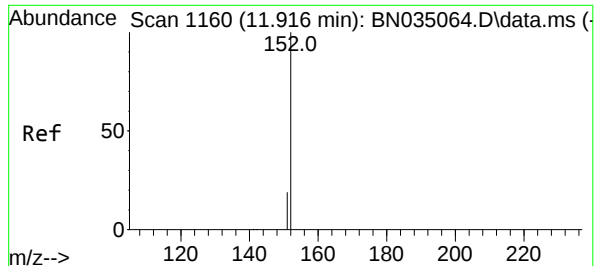
Tgt Ion:128 Resp: 1341  
Ion Ratio Lower Upper  
128 100  
129 16.5 9.6 14.4#  
127 18.7 11.6 17.4#



#10  
Hexachlorobutadiene  
Concen: 0.106 ng  
RT: 10.660 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion:225 Resp: 399  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 65.4 51.5 77.3

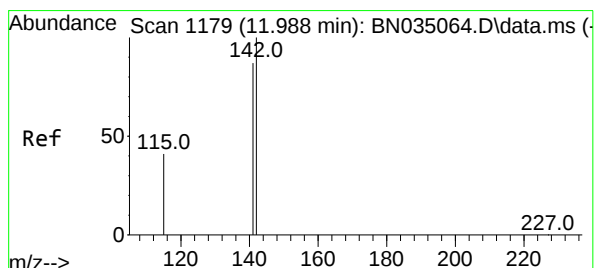
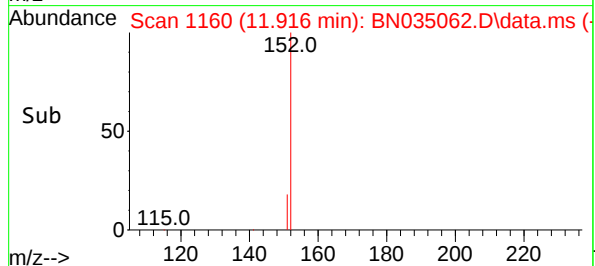
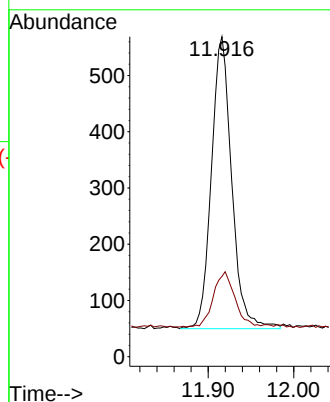
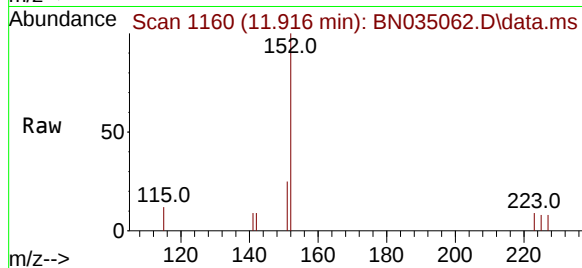




#11  
2-Methylnaphthalene-d10  
Concen: 0.097 ng  
RT: 11.916 min Scan# 1160  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

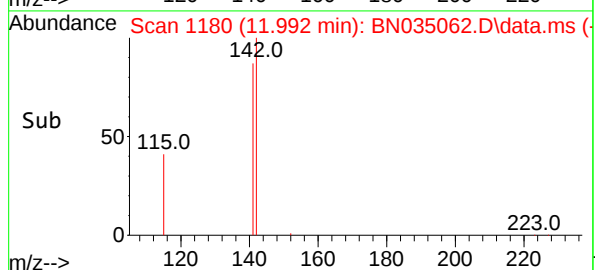
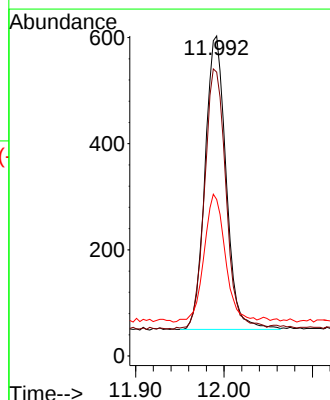
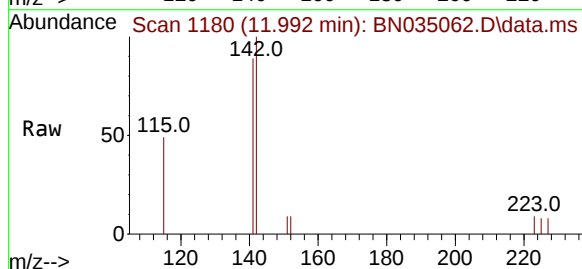
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

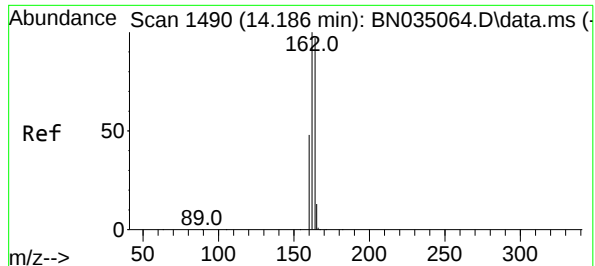
Tgt Ion:152 Resp: 855  
Ion Ratio Lower Upper  
152 100  
151 20.2 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 0.096 ng  
RT: 11.992 min Scan# 1180  
Delta R.T. 0.004 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion:142 Resp: 914  
Ion Ratio Lower Upper  
142 100  
141 88.7 70.1 105.1  
115 48.9 34.4 51.6

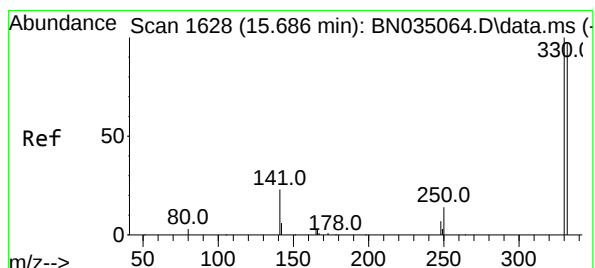
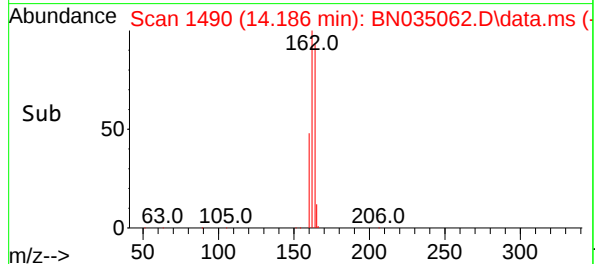
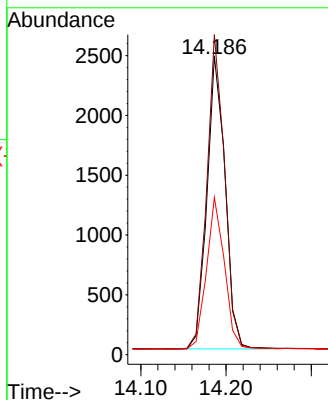
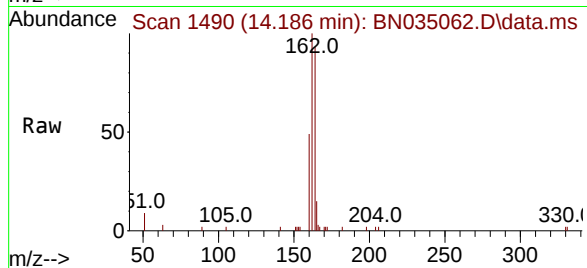




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.186 min Scan# 1490  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

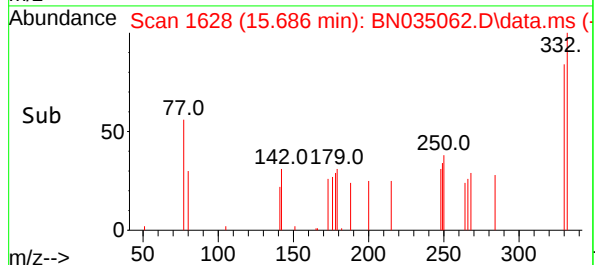
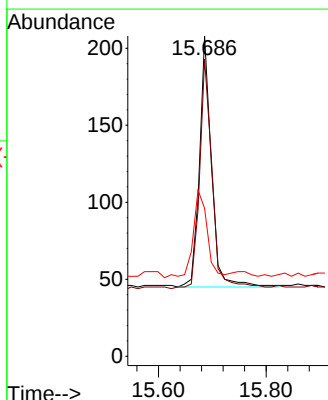
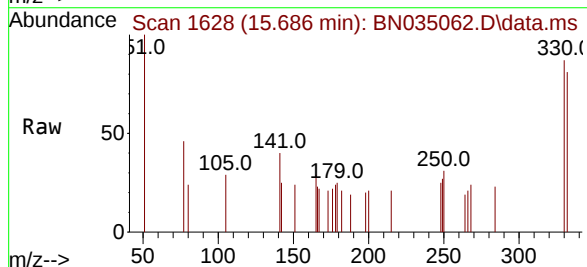
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

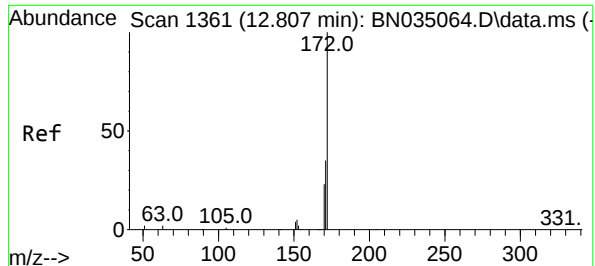
Tgt Ion:164 Resp: 3629  
Ion Ratio Lower Upper  
164 100  
162 107.1 82.2 123.2  
160 52.6 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.097 ng  
RT: 15.686 min Scan# 1628  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion:330 Resp: 255  
Ion Ratio Lower Upper  
330 100  
332 90.6 76.9 115.3  
141 37.6 29.6 44.4

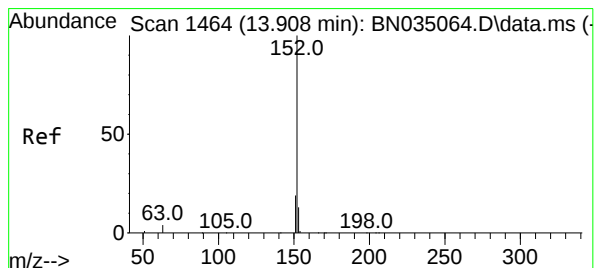
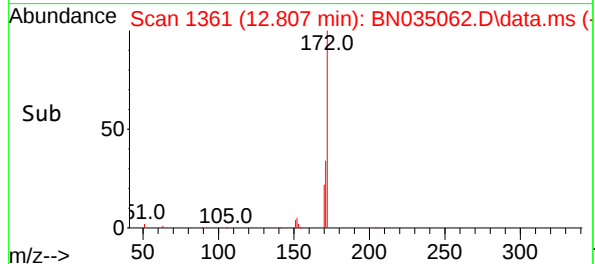
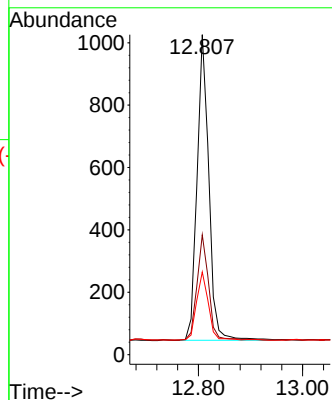
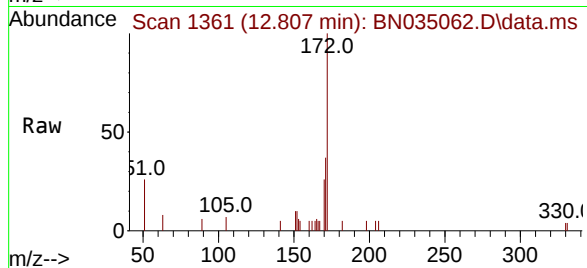




#15  
2-Fluorobiphenyl  
Concen: 0.105 ng  
RT: 12.807 min Scan# 1361  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

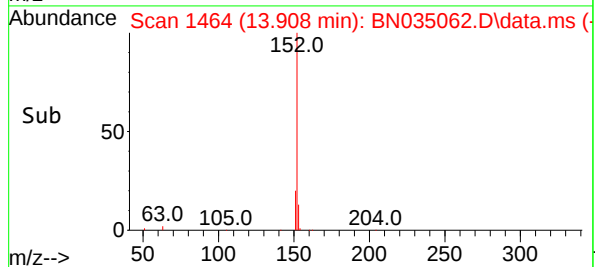
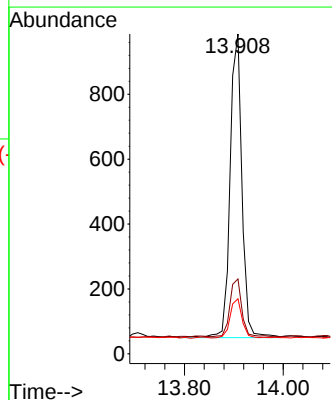
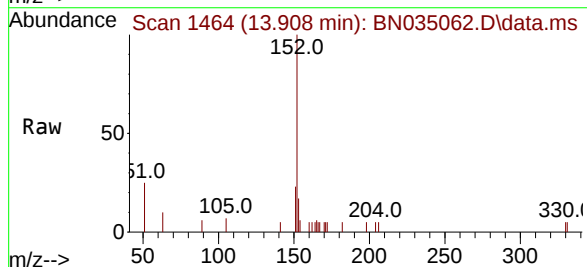
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

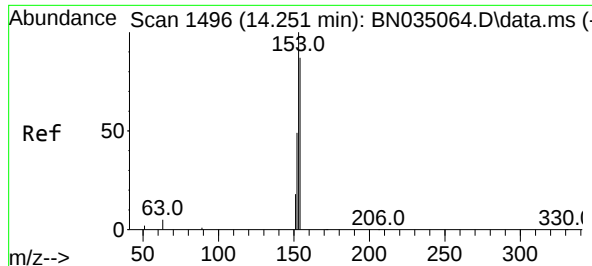
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 37.4  | 28.2  | 42.4  |
| 170     | 25.8  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 0.100 ng  
RT: 13.908 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.2  | 15.8  | 23.8  |
| 153     | 13.2  | 10.2  | 15.4  |

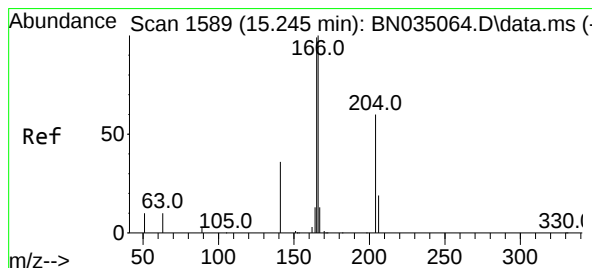
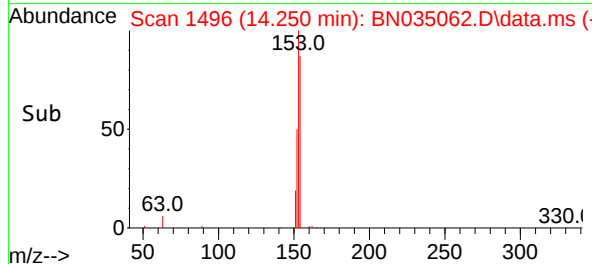
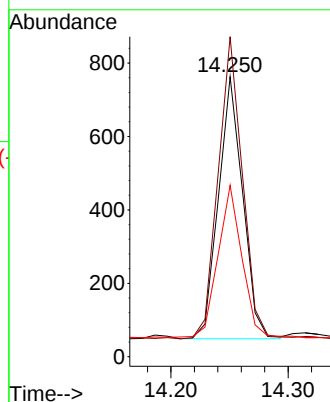
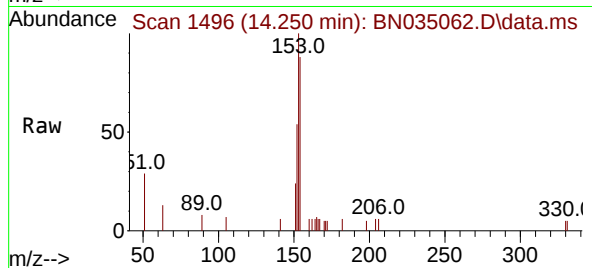




#17  
Acenaphthene  
Concen: 0.101 ng  
RT: 14.250 min Scan# 1496  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

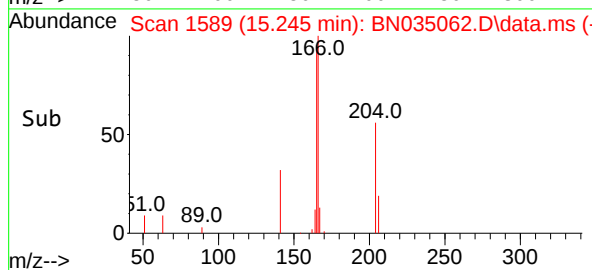
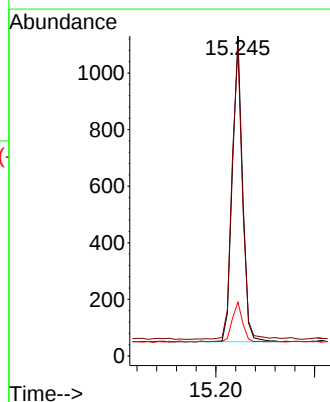
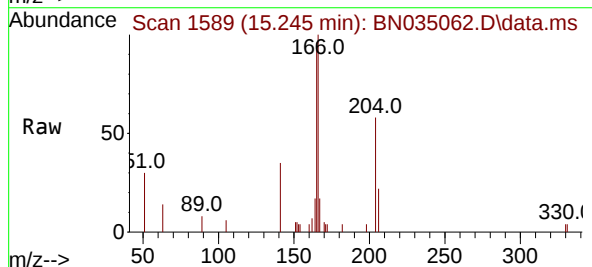
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

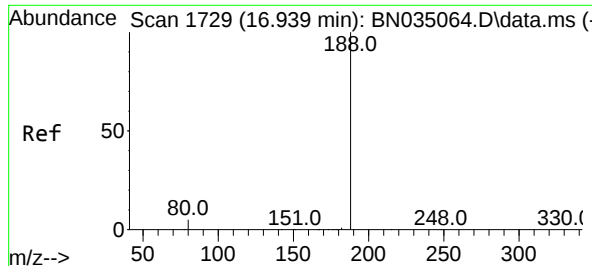
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 116.6 | 91.6  | 137.4 |
| 152     | 57.9  | 45.8  | 68.6  |



#18  
Fluorene  
Concen: 0.103 ng  
RT: 15.245 min Scan# 1589  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 97.9  | 79.1  | 118.7 |
| 167     | 12.9  | 10.6  | 16.0  |





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.939 min Scan# 1729

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

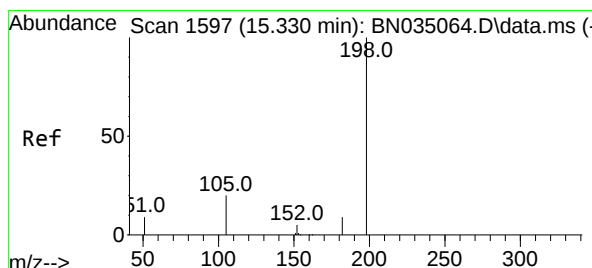
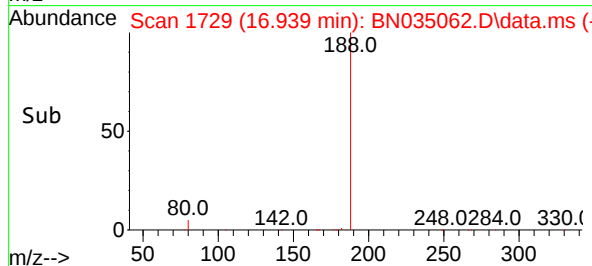
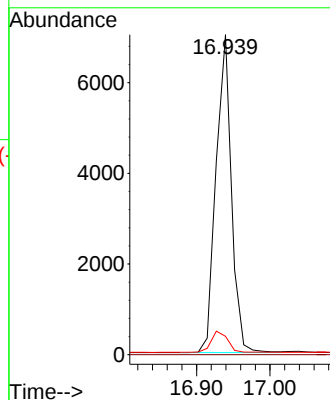
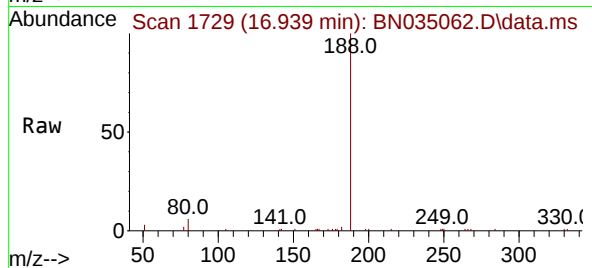
Tgt Ion:188 Resp: 10187

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 5.7 4.3 6.5



#20

4,6-Dinitro-2-methylphenol

Concen: 0.081 ng

RT: 15.330 min Scan# 1597

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

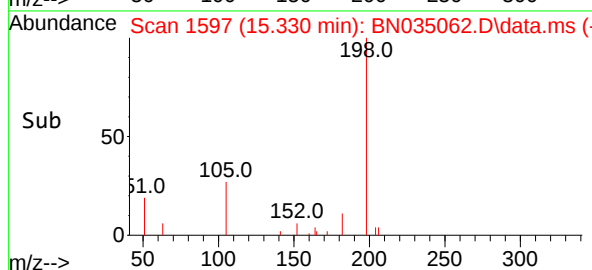
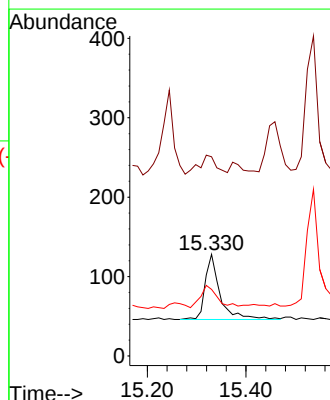
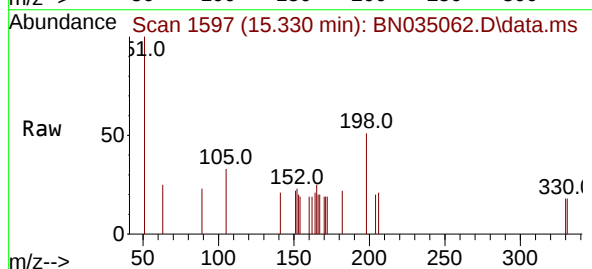
Tgt Ion:198 Resp: 172

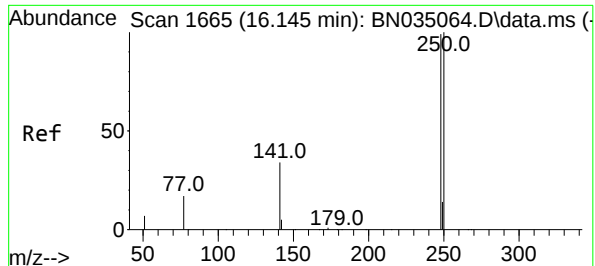
Ion Ratio Lower Upper

198 100

51 196.1 29.9 44.9#

105 65.6 23.7 35.5#

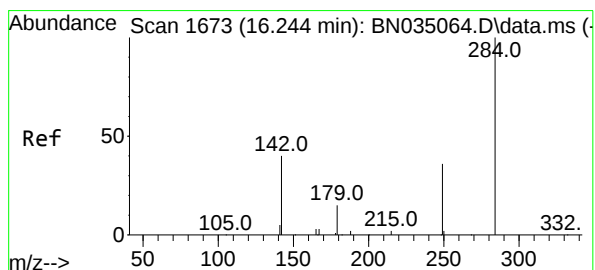
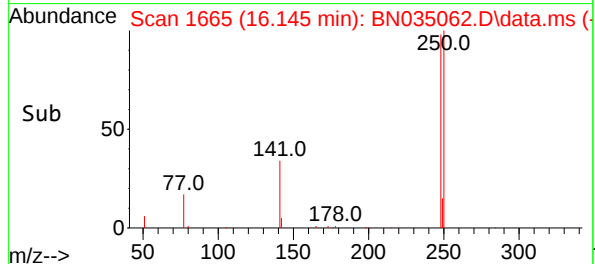
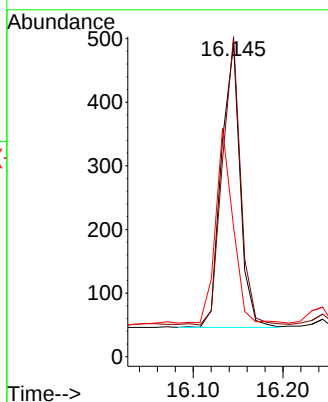
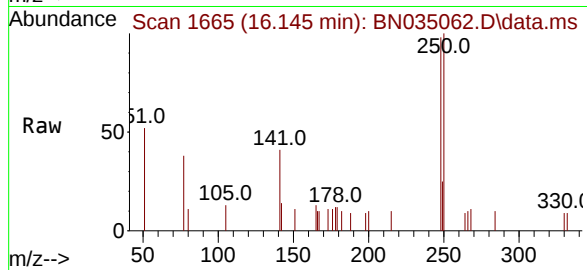




#21  
4-Bromophenyl-phenylether  
Concen: 0.100 ng  
RT: 16.145 min Scan# 1665  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

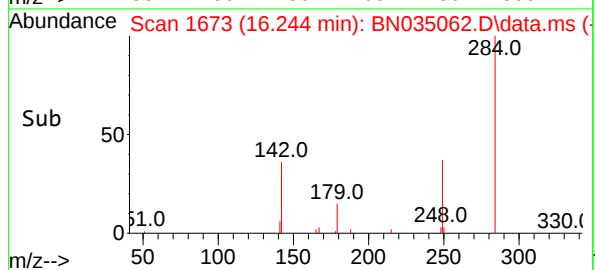
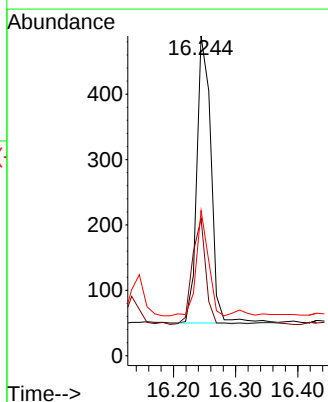
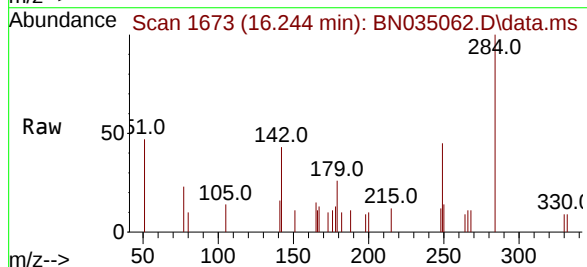
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

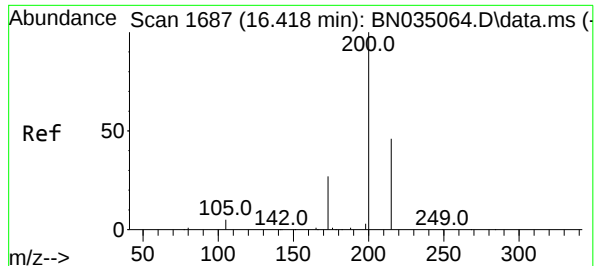
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 102.4 | 81.2  | 121.8 |
| 141     | 41.5  | 29.1  | 43.7  |



#22  
Hexachlorobenzene  
Concen: 0.104 ng  
RT: 16.244 min Scan# 1673  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 34.5  | 28.2  | 42.4  |
| 249     | 31.4  | 26.2  | 39.2  |





#23

Atrazine

Concen: 0.099 ng

RT: 16.418 min Scan# 1

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

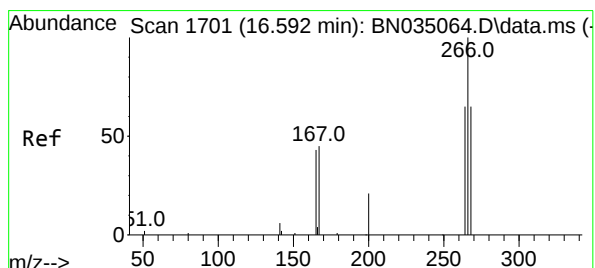
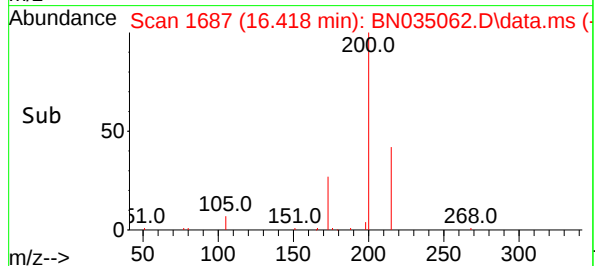
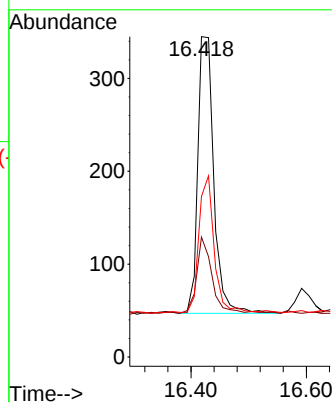
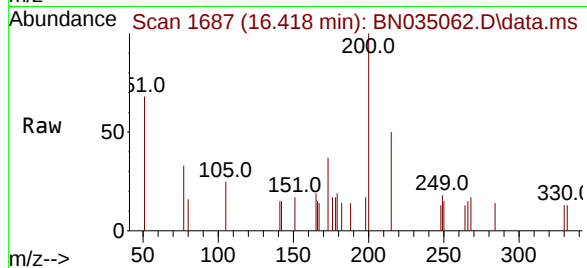
Tgt Ion:200 Resp: 577

Ion Ratio Lower Upper

200 100

173 37.4 22.6 33.8#

215 50.1 37.8 56.6



#24

Pentachlorophenol

Concen: 0.085 ng

RT: 16.592 min Scan# 1701

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

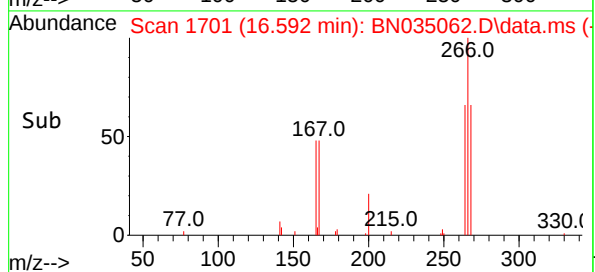
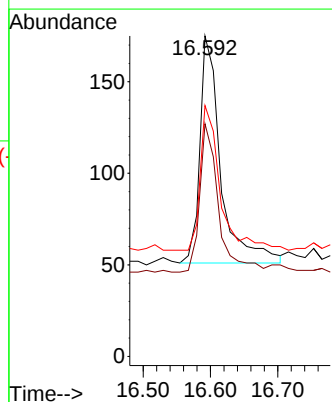
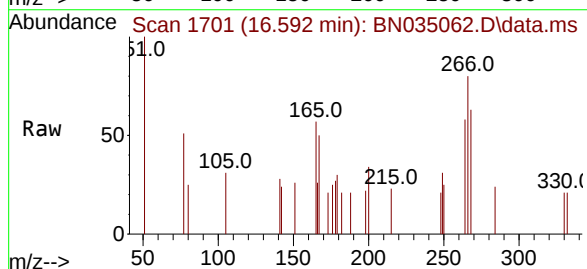
Tgt Ion:266 Resp: 269

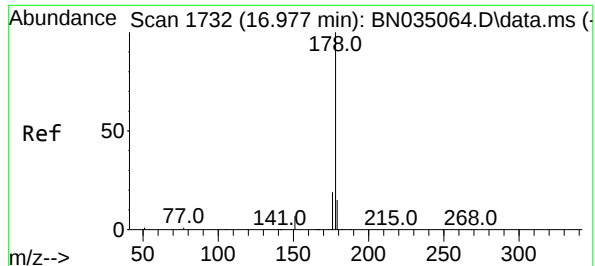
Ion Ratio Lower Upper

266 100

264 58.4 49.4 74.0

268 60.2 52.6 79.0

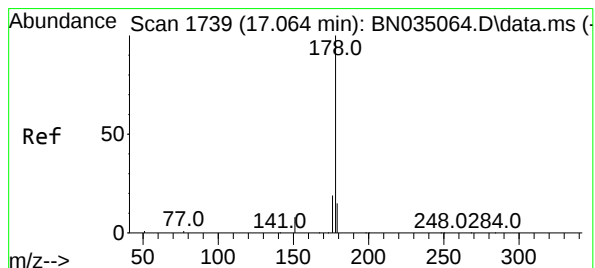
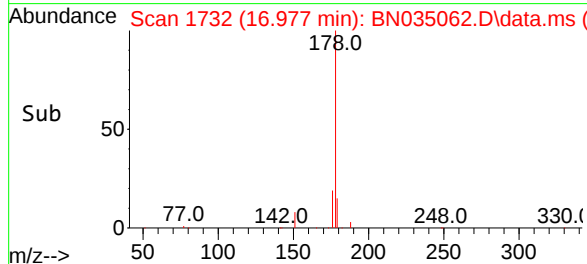
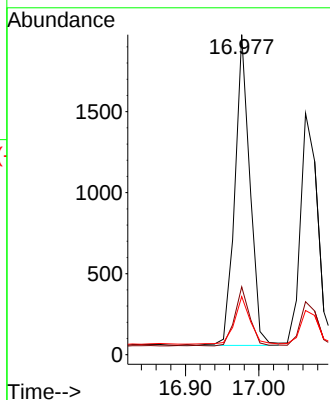
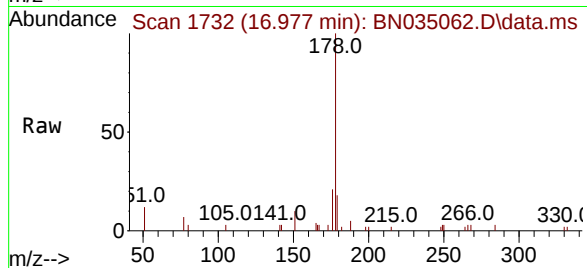




#25  
Phenanthrene  
Concen: 0.102 ng  
RT: 16.977 min Scan# 1732  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

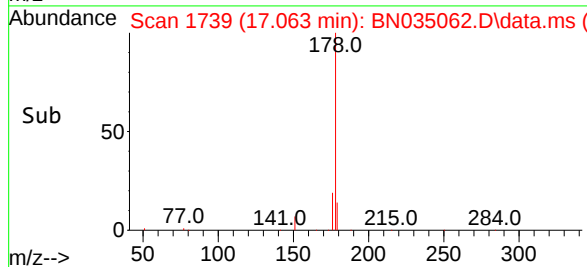
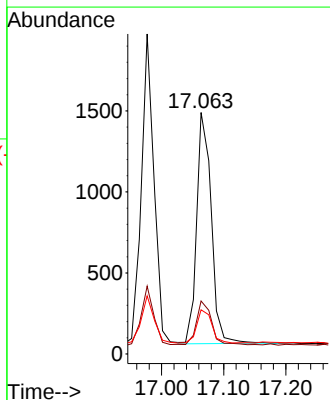
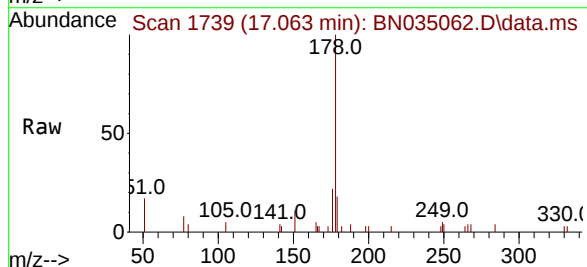
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

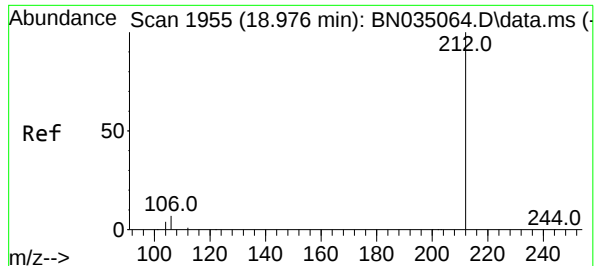
Tgt Ion:178 Resp: 2723  
Ion Ratio Lower Upper  
178 100  
176 18.9 15.2 22.8  
179 15.9 12.6 18.8



#26  
Anthracene  
Concen: 0.095 ng  
RT: 17.063 min Scan# 1739  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion:178 Resp: 2335  
Ion Ratio Lower Upper  
178 100  
176 19.6 14.6 22.0  
179 14.8 12.2 18.2





#27

Fluoranthene-d10

Concen: 0.098 ng

RT: 18.976 min Scan# 1955

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

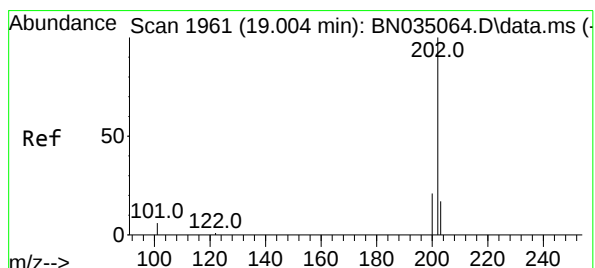
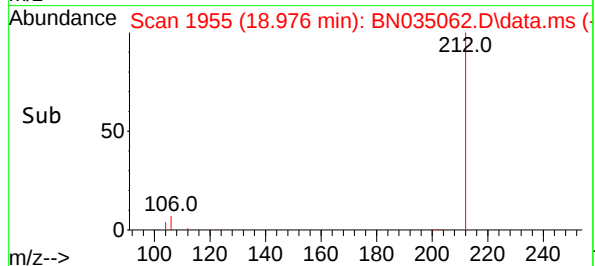
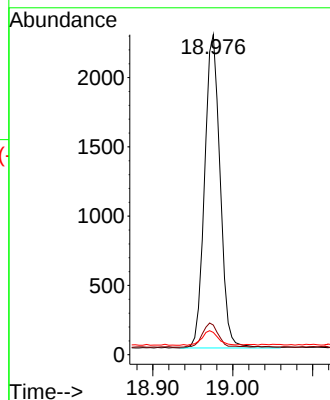
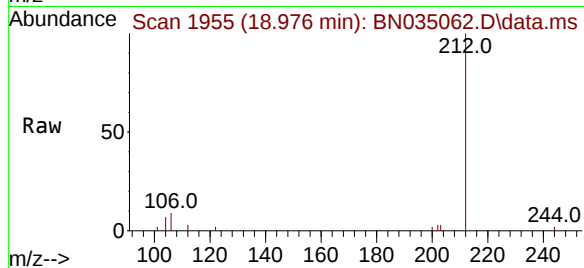
Tgt Ion:212 Resp: 3046

Ion Ratio Lower Upper

212 100

106 7.8 6.0 9.0

104 4.8 3.5 5.3



#28

Fluoranthene

Concen: 0.096 ng

RT: 19.003 min Scan# 1961

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

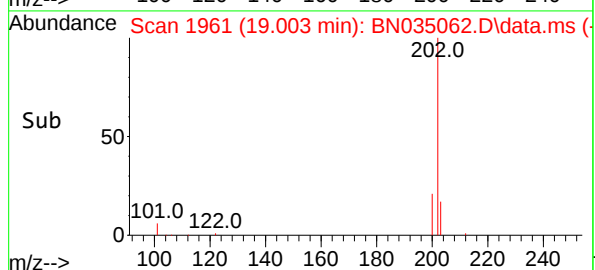
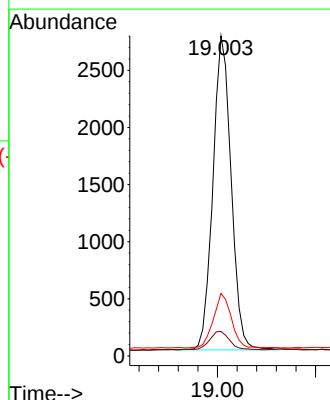
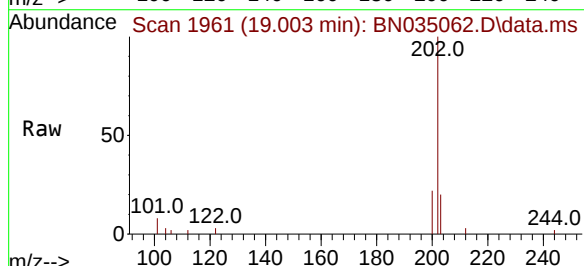
Tgt Ion:202 Resp: 3554

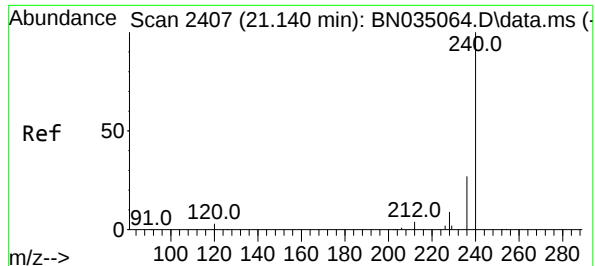
Ion Ratio Lower Upper

202 100

101 6.7 5.2 7.8

203 17.2 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.131 min Scan# 2406

Delta R.T. -0.009 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

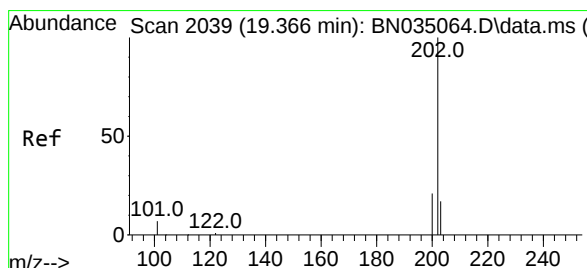
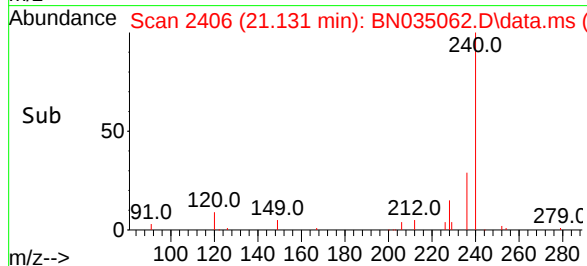
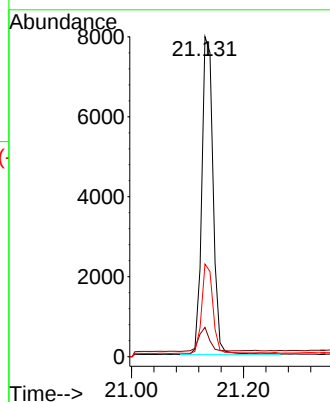
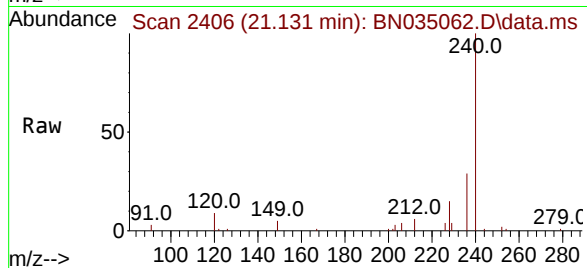
Tgt Ion:240 Resp: 11121

Ion Ratio Lower Upper

240 100

120 9.1 3.8 5.6#

236 28.9 22.2 33.2



#30

Pyrene

Concen: 0.101 ng

RT: 19.366 min Scan# 2039

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

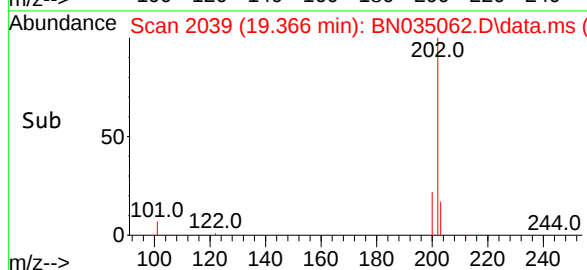
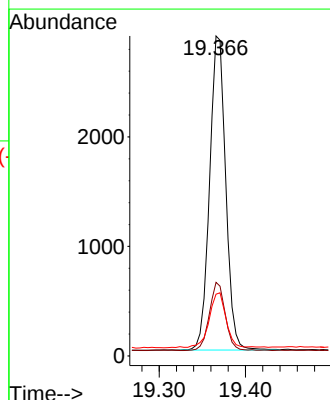
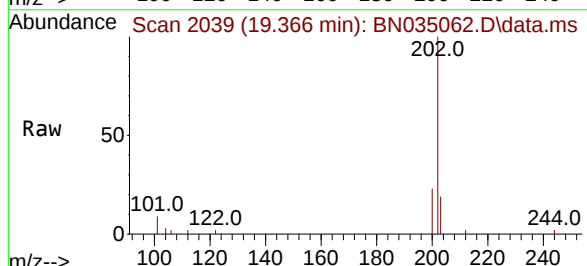
Tgt Ion:202 Resp: 3722

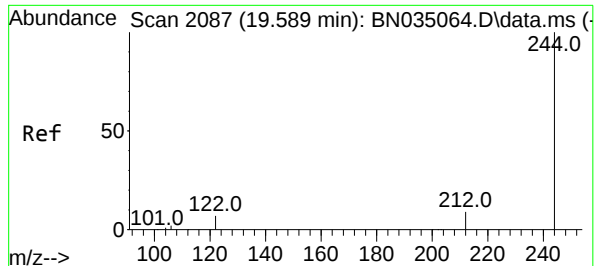
Ion Ratio Lower Upper

202 100

200 21.3 16.7 25.1

203 18.8 14.2 21.4

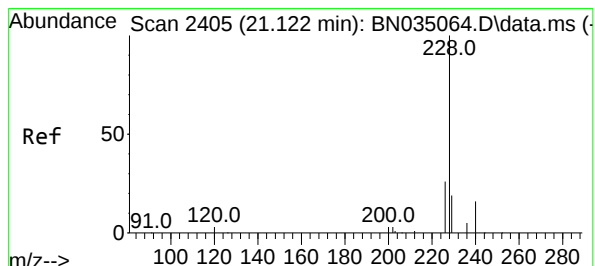
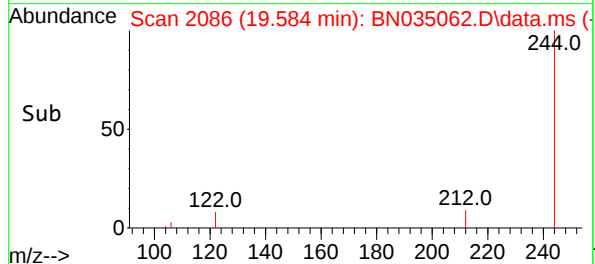
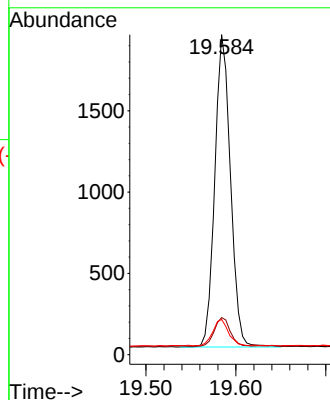
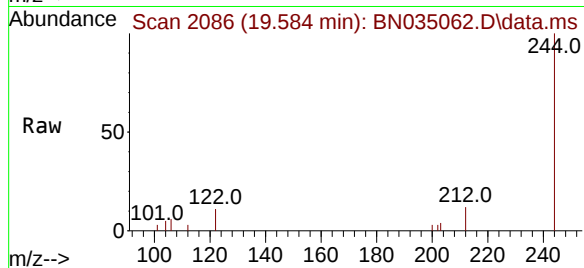




#31  
Terphenyl-d14  
Concen: 0.100 ng  
RT: 19.584 min Scan# 2086  
Delta R.T. -0.005 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

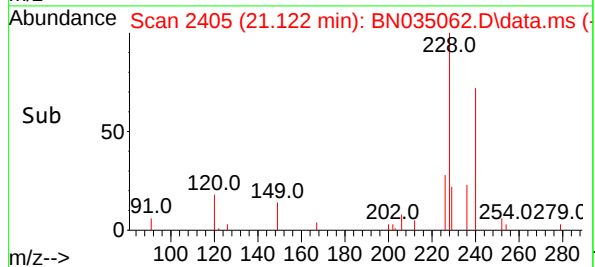
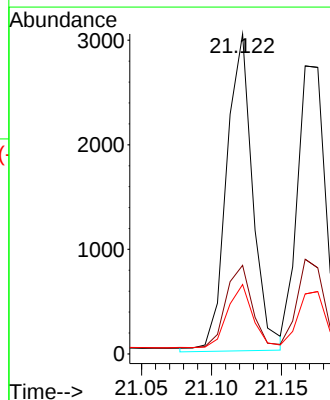
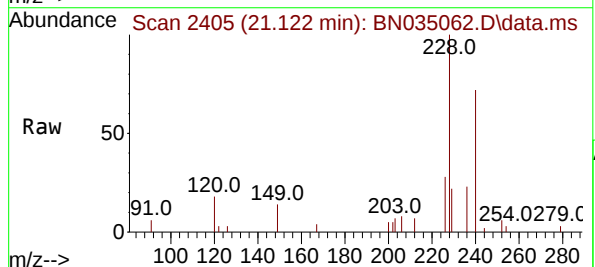
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

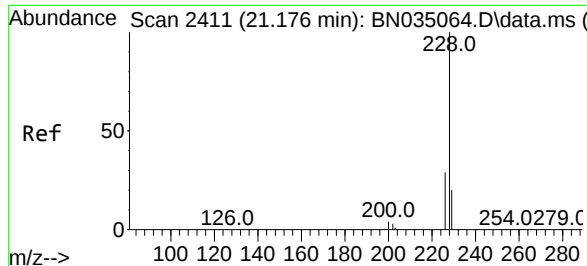
Tgt Ion:244 Resp: 2331  
Ion Ratio Lower Upper  
244 100  
212 11.6 7.6 11.4#  
122 11.0 6.1 9.1#



#32  
Benzo(a)anthracene  
Concen: 0.102 ng  
RT: 21.122 min Scan# 2405  
Delta R.T. -0.000 min  
Lab File: BN035062.D  
Acq: 13 Nov 2024 12:40

Tgt Ion:228 Resp: 3952  
Ion Ratio Lower Upper  
228 100  
226 27.7 21.4 32.0  
229 21.7 15.7 23.5





#33

Chrysene

Concen: 0.102 ng

RT: 21.167 min Scan# 2411

Delta R.T. -0.009 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

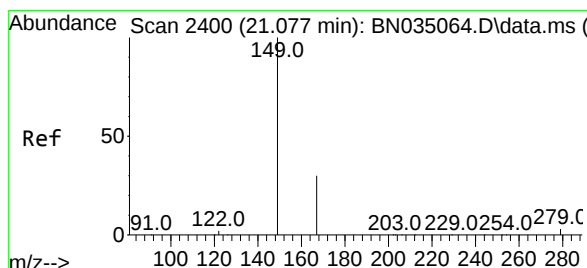
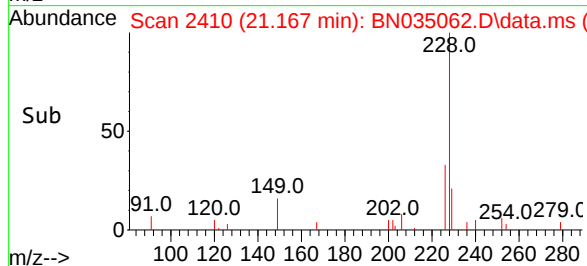
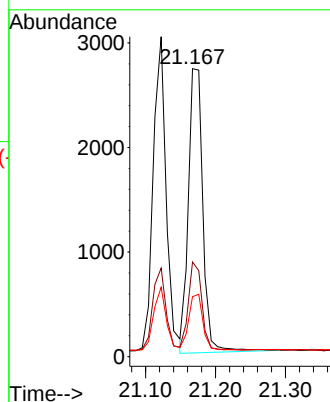
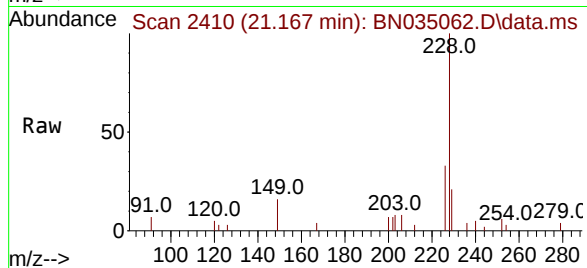
Tgt Ion:228 Resp: 3918

Ion Ratio Lower Upper

228 100

226 32.9 23.7 35.5

229 20.8 16.2 24.4



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.112 ng

RT: 21.077 min Scan# 2400

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

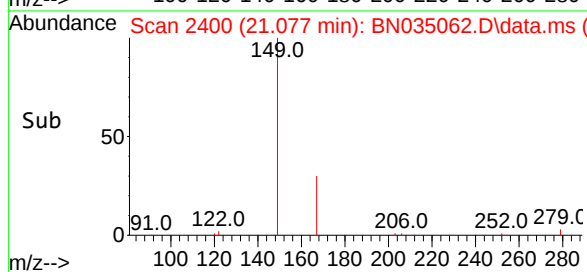
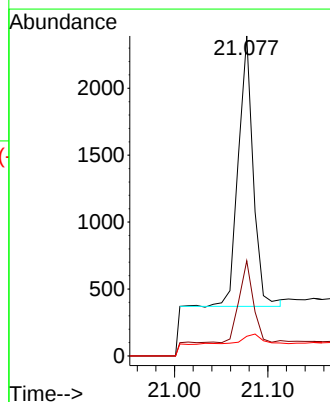
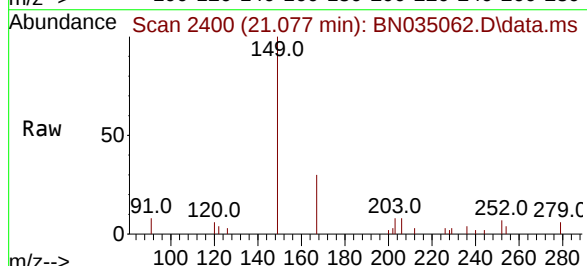
Tgt Ion:149 Resp: 2250

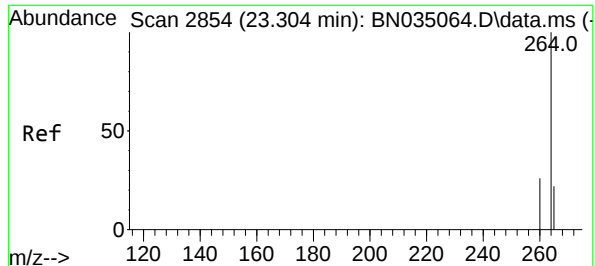
Ion Ratio Lower Upper

149 100

167 29.3 23.2 34.8

279 5.8 3.2 4.8#





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.304 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

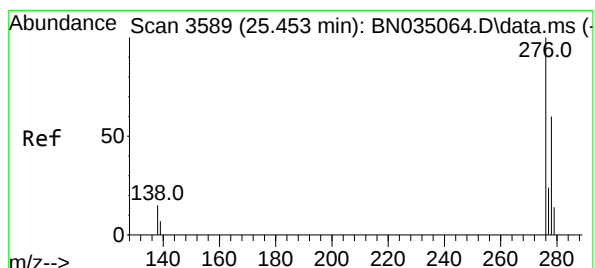
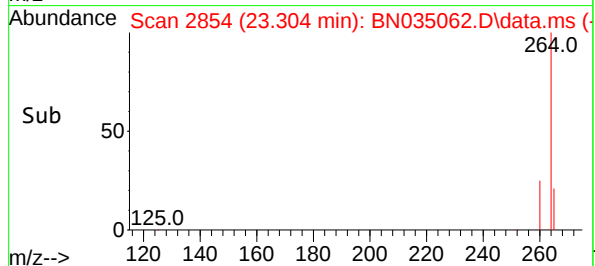
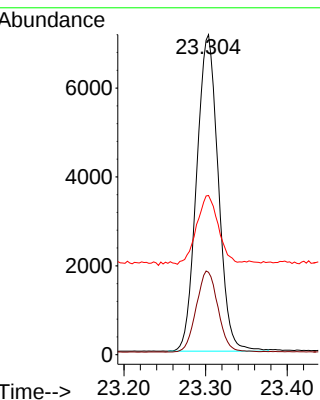
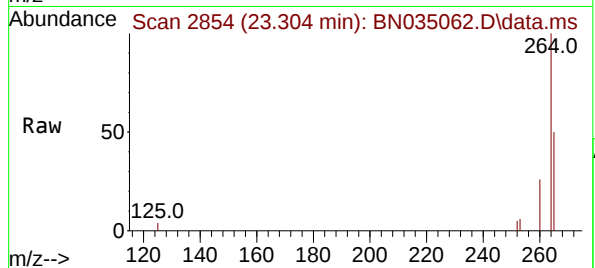
Tgt Ion:264 Resp: 13104

Ion Ratio Lower Upper

264 100

260 25.7 20.9 31.3

265 49.8 35.4 53.2



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.101 ng

RT: 25.455 min Scan# 3590

Delta R.T. 0.003 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

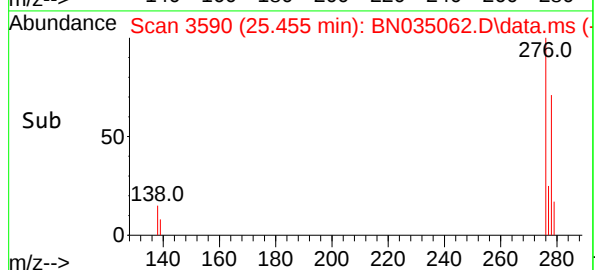
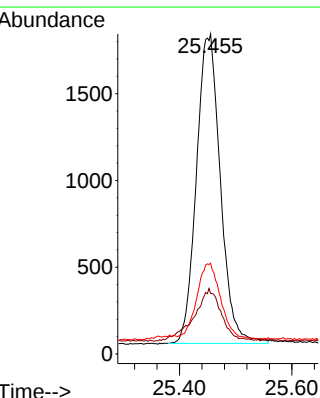
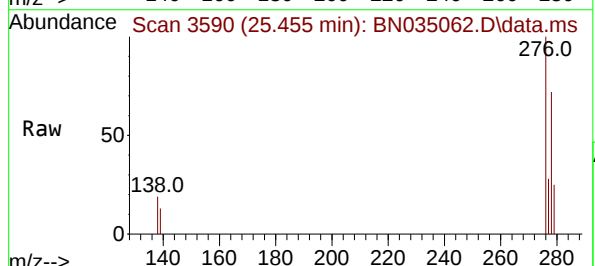
Tgt Ion:276 Resp: 5271

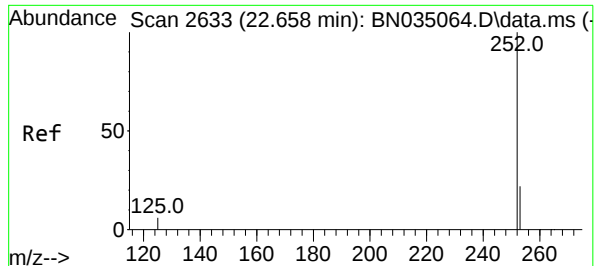
Ion Ratio Lower Upper

276 100

138 19.3 13.0 19.4

277 23.9 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.099 ng

RT: 22.657 min Scan# 2633

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

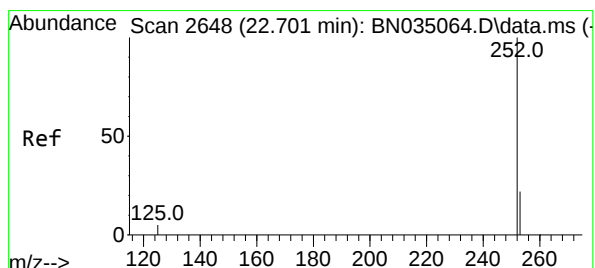
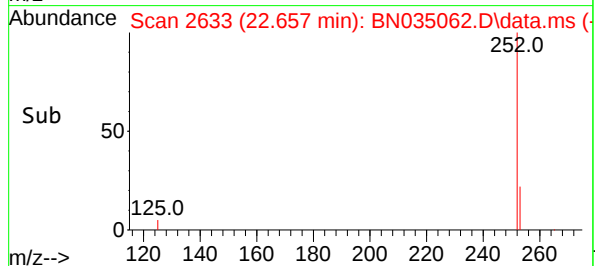
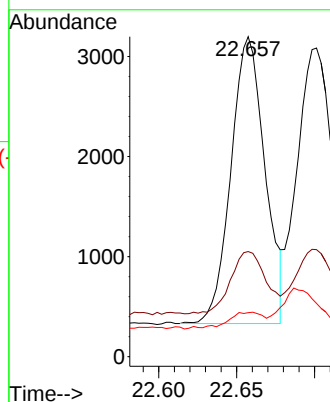
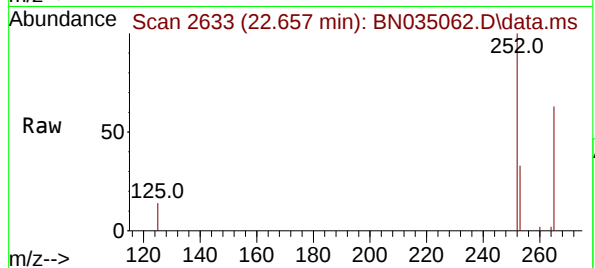
Tgt Ion:252 Resp: 4345

Ion Ratio Lower Upper

252 100

253 32.9 19.3 28.9#

125 13.8 6.2 9.2#



#38

Benzo(k)fluoranthene

Concen: 0.100 ng

RT: 22.701 min Scan# 2648

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

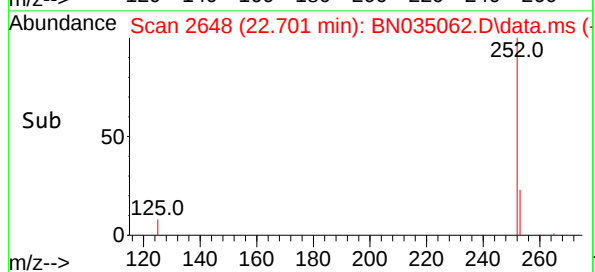
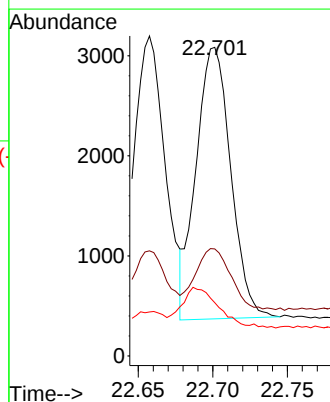
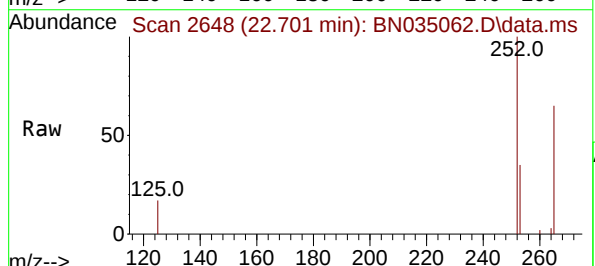
Tgt Ion:252 Resp: 4395

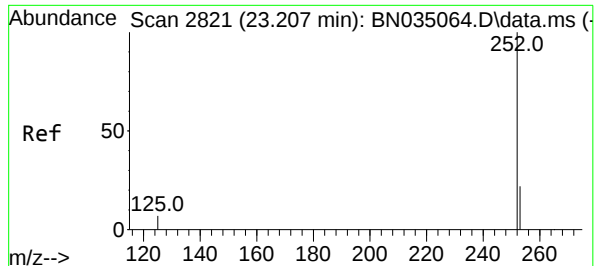
Ion Ratio Lower Upper

252 100

253 34.7 19.5 29.3#

125 17.3 6.5 9.7#





#39

Benzo(a)pyrene

Concen: 0.099 ng

RT: 23.204 min Scan# 2820

Delta R.T. -0.003 min

Lab File: BN035062.D

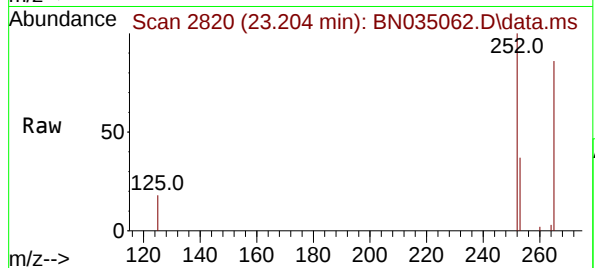
Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1



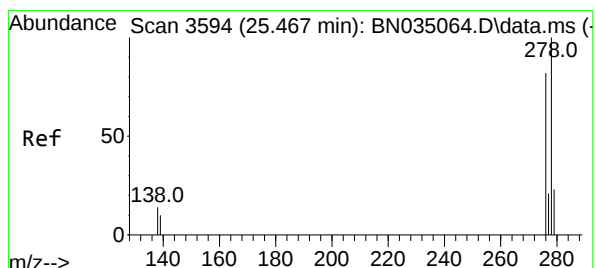
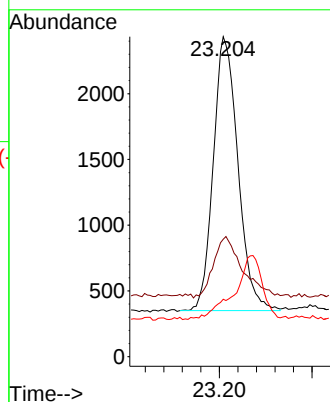
Tgt Ion:252 Resp: 3841

Ion Ratio Lower Upper

252 100

253 36.7 20.1 30.1#

125 18.0 7.5 11.3#



#40

Dibenzo(a,h)anthracene

Concen: 0.099 ng

RT: 25.467 min Scan# 3594

Delta R.T. -0.000 min

Lab File: BN035062.D

Acq: 13 Nov 2024 12:40

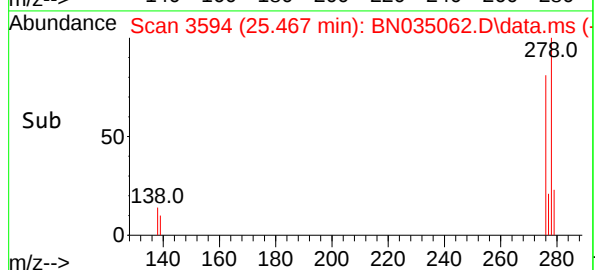
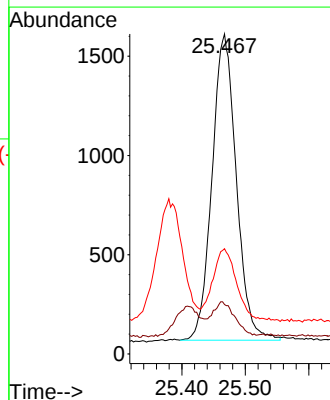
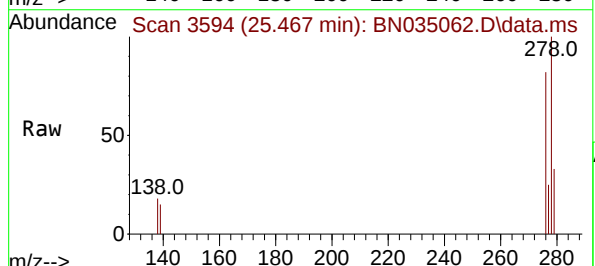
Tgt Ion:278 Resp: 4089

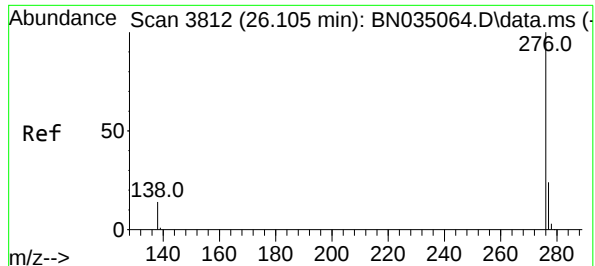
Ion Ratio Lower Upper

278 100

139 15.4 9.3 13.9#

279 32.9 19.7 29.5#





#41

Benzo(g,h,i)perylene

Concen: 0.103 ng

RT: 26.099 min Scan# 3810

Delta R.T. -0.006 min

Lab File: BN035062.D

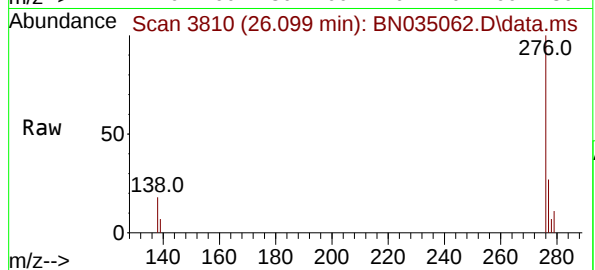
Acq: 13 Nov 2024 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1



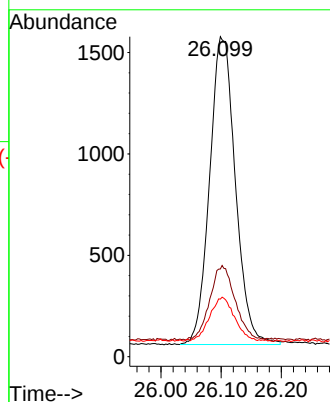
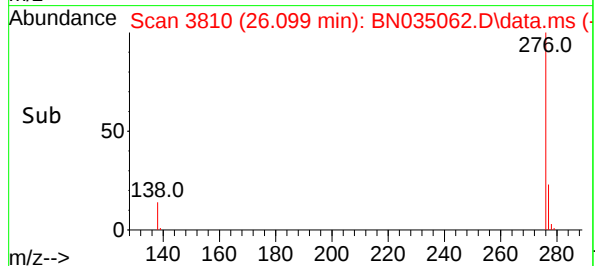
Tgt Ion:276 Resp: 4521

Ion Ratio Lower Upper

276 100

277 27.4 19.9 29.9

138 18.0 11.6 17.4#



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035063.D  
 Acq On : 13 Nov 2024 13:16  
 Operator : RC/JU  
 Sample : SSTDICC0.2  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Quant Time: Nov 13 16:43:13 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

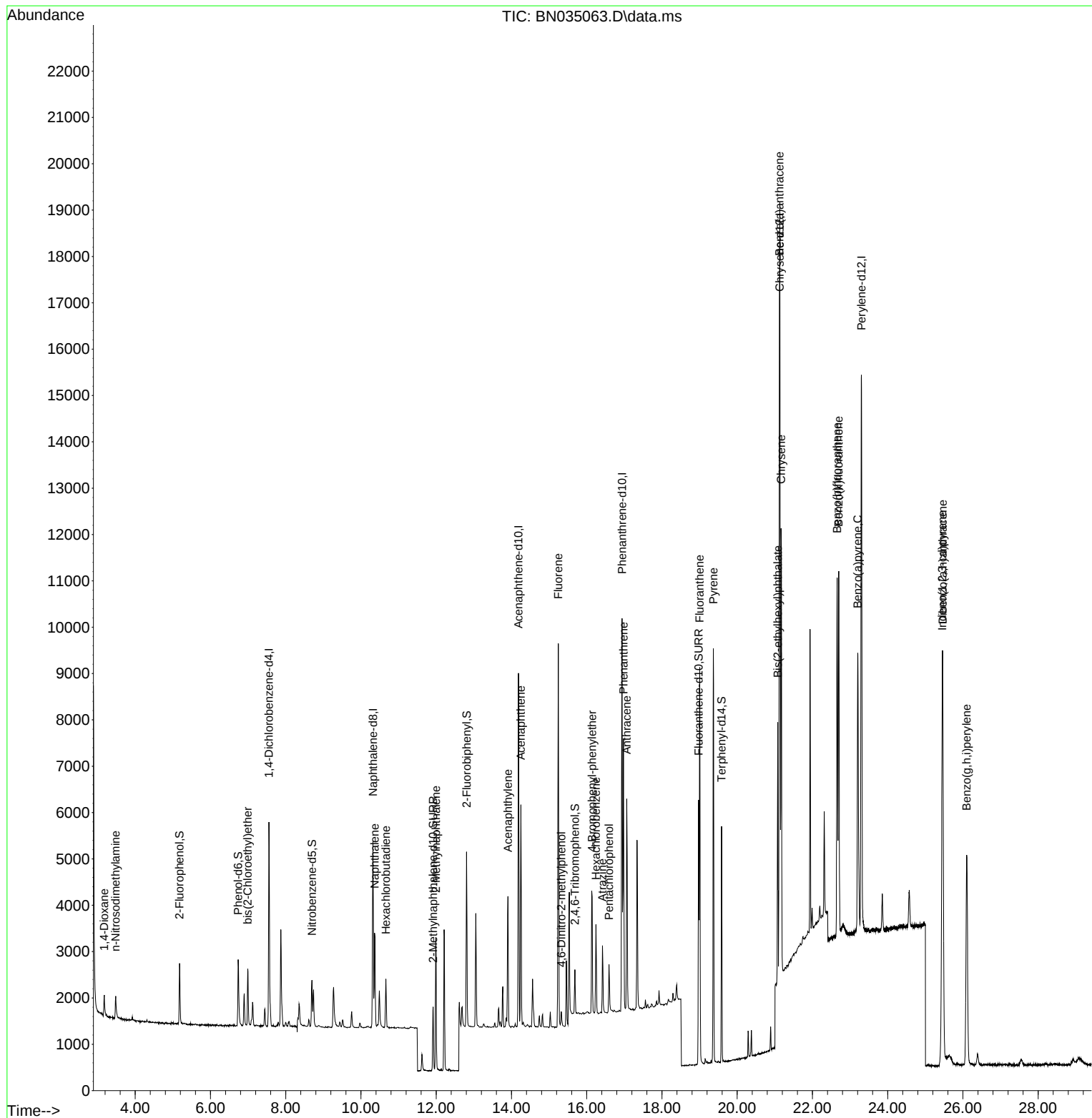
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2177     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 5449     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.186 | 164  | 4114     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.939 | 188  | 11179    | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.131 | 240  | 12508    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.301 | 264  | 14643    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 1131     | 0.205 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 1392     | 0.201 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.696  | 82   | 921      | 0.195 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 11.916 | 152  | 1861     | 0.192 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.686 | 330  | 538      | 0.181 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.807 | 172  | 3241     | 0.194 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.976 | 212  | 6587     | 0.192 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.584 | 244  | 5123     | 0.195 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.177  | 88   | 416      | 0.210 | ng    | 94       |
| 3) n-Nitrosodimethylamine     | 3.480  | 42   | 357      | 0.194 | ng    | # 97     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 1033     | 0.199 | ng    | 99       |
| 9) Naphthalene                | 10.362 | 128  | 2748     | 0.193 | ng    | 96       |
| 10) Hexachlorobutadiene       | 10.661 | 225  | 832      | 0.200 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 11.992 | 142  | 2039     | 0.194 | ng    | 97       |
| 16) Acenaphthylene            | 13.908 | 152  | 3325     | 0.189 | ng    | 100      |
| 17) Acenaphthene              | 14.251 | 154  | 2219     | 0.193 | ng    | 99       |
| 18) Fluorene                  | 15.245 | 166  | 3273     | 0.193 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.330 | 198  | 376      | 0.162 | ng    | # 44     |
| 21) 4-Bromophenyl-phenylether | 16.145 | 248  | 1341     | 0.188 | ng    | 97       |
| 22) Hexachlorobenzene         | 16.244 | 284  | 1445     | 0.195 | ng    | 99       |
| 23) Atrazine                  | 16.418 | 200  | 1271     | 0.199 | ng    | 96       |
| 24) Pentachlorophenol         | 16.592 | 266  | 562      | 0.163 | ng    | 99       |
| 25) Phenanthrene              | 16.977 | 178  | 5664     | 0.193 | ng    | 99       |
| 26) Anthracene                | 17.064 | 178  | 5051     | 0.187 | ng    | 98       |
| 28) Fluoranthene              | 19.004 | 202  | 7690     | 0.190 | ng    | 100      |
| 30) Pyrene                    | 19.366 | 202  | 8067     | 0.194 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.122 | 228  | 8558     | 0.196 | ng    | 99       |
| 33) Chrysene                  | 21.167 | 228  | 8540     | 0.198 | ng    | 97       |
| 34) Bis(2-ethylhexyl)phtha... | 21.077 | 149  | 4712     | 0.208 | ng    | 99       |
| 36) Indeno(1,2,3-cd)pyrene    | 25.450 | 276  | 11095    | 0.190 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.657 | 252  | 9315     | 0.189 | ng    | # 94     |
| 38) Benzo(k)fluoranthene      | 22.698 | 252  | 9432     | 0.191 | ng    | # 92     |
| 39) Benzo(a)pyrene            | 23.204 | 252  | 8302     | 0.192 | ng    | # 92     |
| 40) Dibenzo(a,h)anthracene    | 25.464 | 278  | 8750     | 0.189 | ng    | 95       |
| 41) Benzo(g,h,i)perylene      | 26.099 | 276  | 9431     | 0.192 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

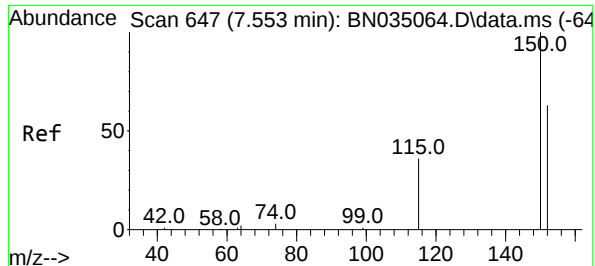
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035063.D  
Acq On : 13 Nov 2024 13:16  
Operator : RC/JU  
Sample : SSTDICC0.2  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

Quant Time: Nov 13 16:43:13 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 16:42:01 2024  
Response via : Initial Calibration

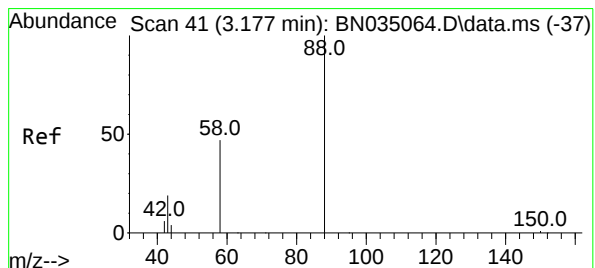
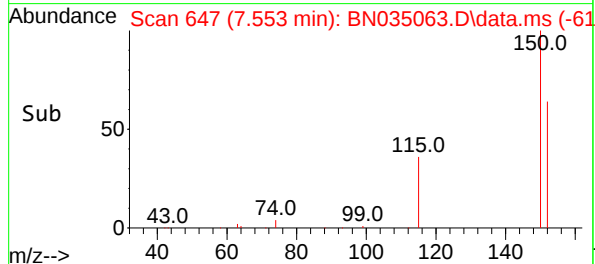
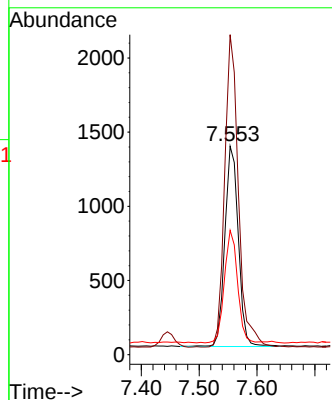
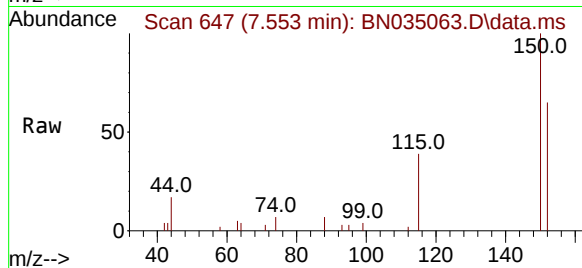




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

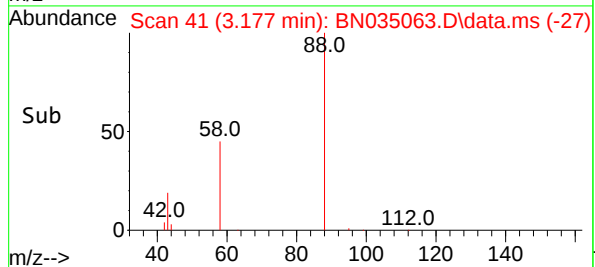
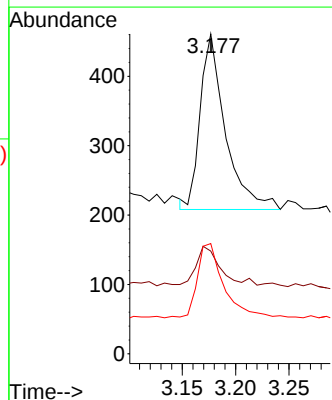
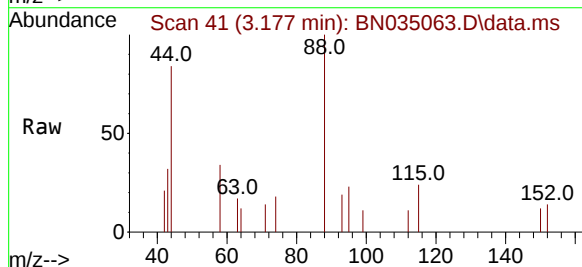
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

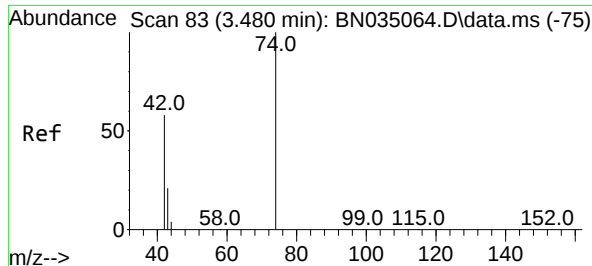
Tgt Ion:152 Resp: 2177  
Ion Ratio Lower Upper  
152 100  
150 153.5 124.5 186.7  
115 59.6 47.8 71.6



#2  
1,4-Dioxane  
Concen: 0.210 ng  
RT: 3.177 min Scan# 41  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion: 88 Resp: 416  
Ion Ratio Lower Upper  
88 100  
43 24.3 16.9 25.3  
58 44.5 39.0 58.4

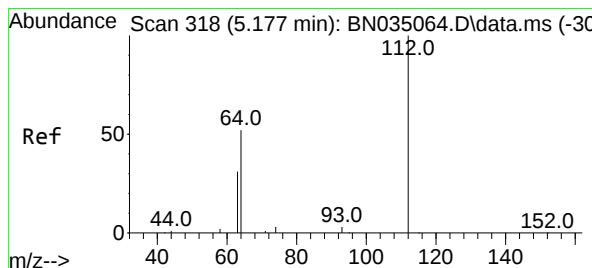
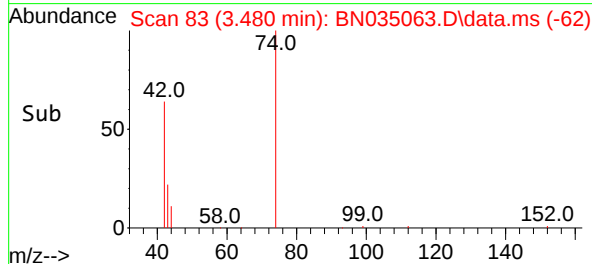
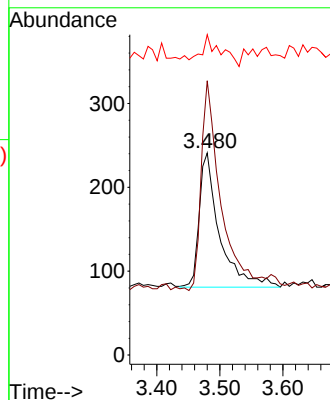
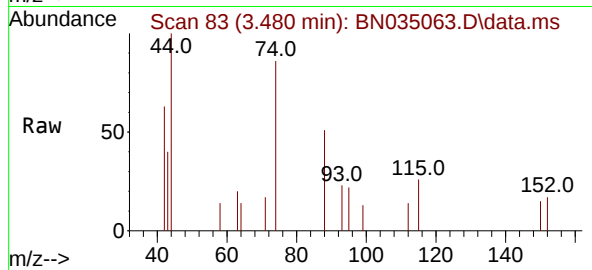




#3  
n-Nitrosodimethylamine  
Concen: 0.194 ng  
RT: 3.480 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

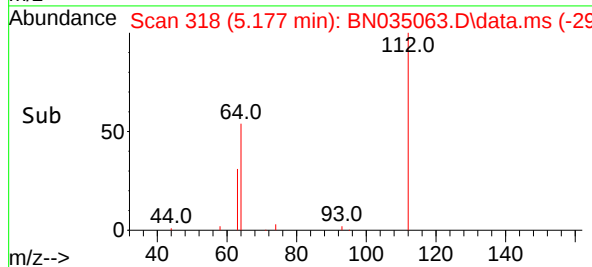
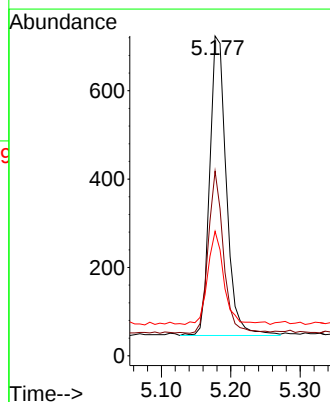
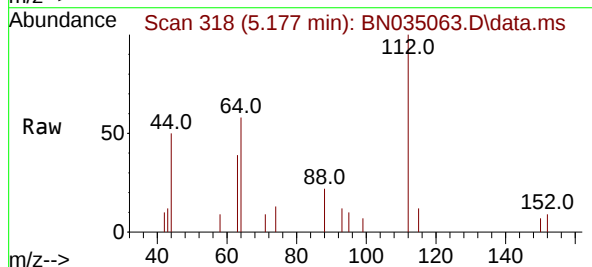
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

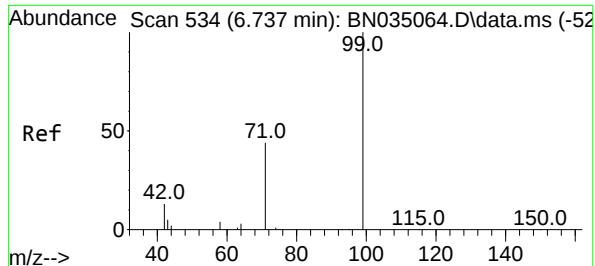
Tgt Ion: 42 Resp: 357  
Ion Ratio Lower Upper  
42 100  
74 149.3 120.8 181.2  
44 22.1 2.9 4.3#



#4  
2-Fluorophenol  
Concen: 0.205 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion: 112 Resp: 1131  
Ion Ratio Lower Upper  
112 100  
64 49.8 39.7 59.5  
63 30.4 23.0 34.4

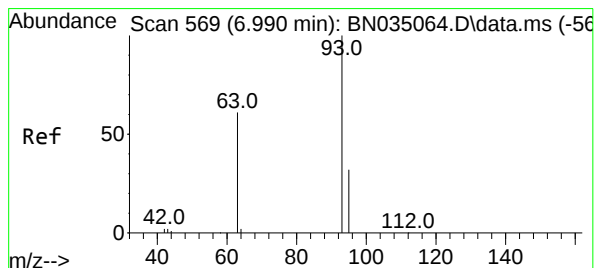
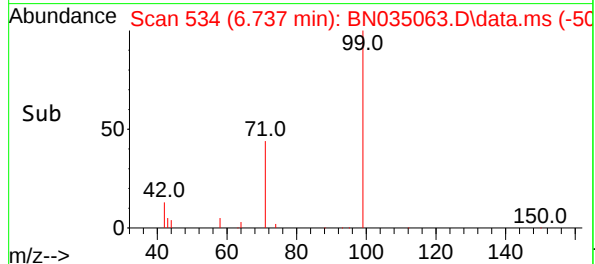
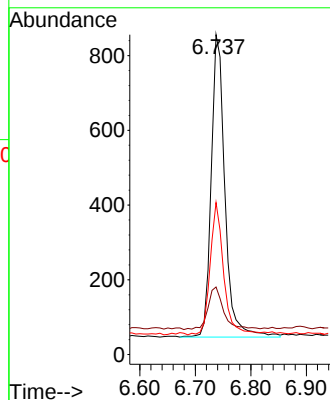
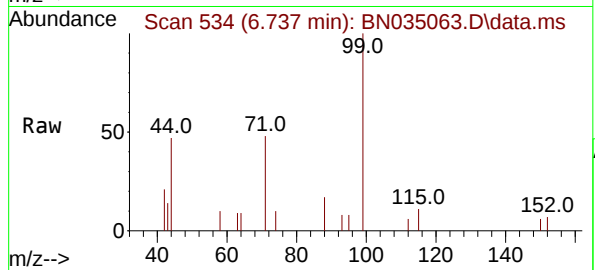




#5  
Phenol-d6  
Concen: 0.201 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

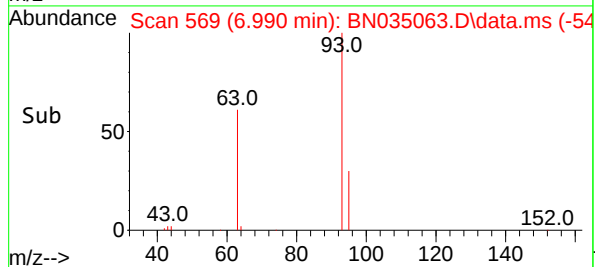
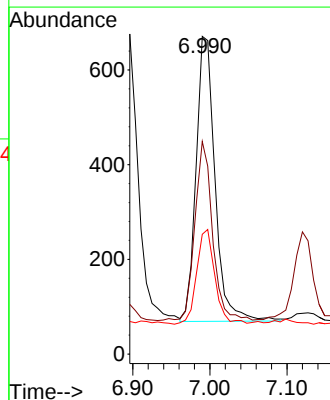
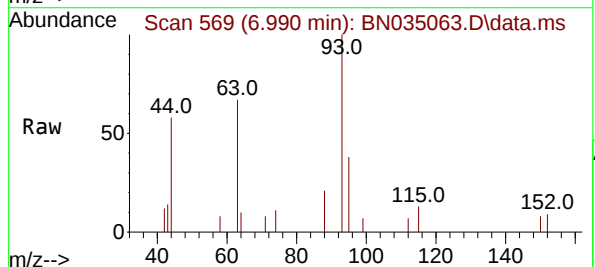
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

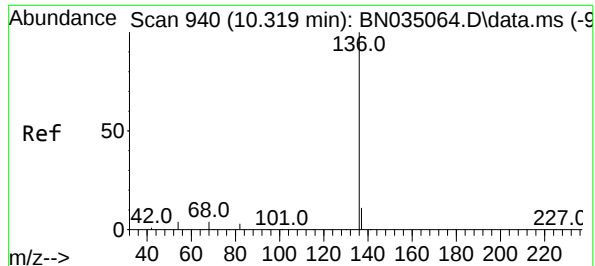
Tgt Ion: 99 Resp: 1392  
Ion Ratio Lower Upper  
99 100  
42 16.1 11.4 17.0  
71 43.0 34.6 51.8



#6  
bis(2-Chloroethyl)ether  
Concen: 0.199 ng  
RT: 6.990 min Scan# 569  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion: 93 Resp: 1033  
Ion Ratio Lower Upper  
93 100  
63 58.2 47.4 71.2  
95 32.1 26.2 39.4

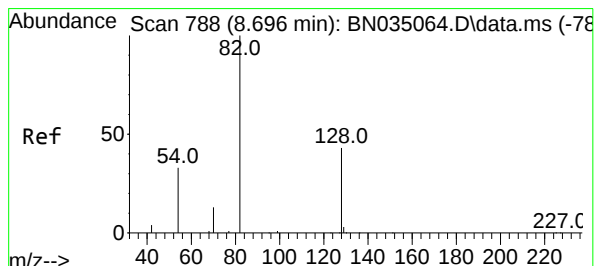
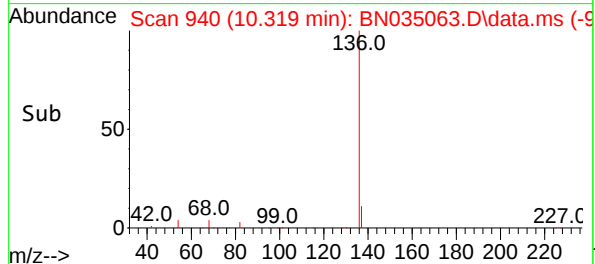
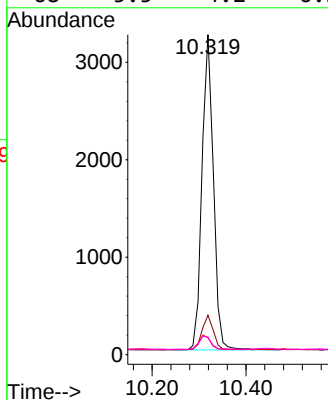
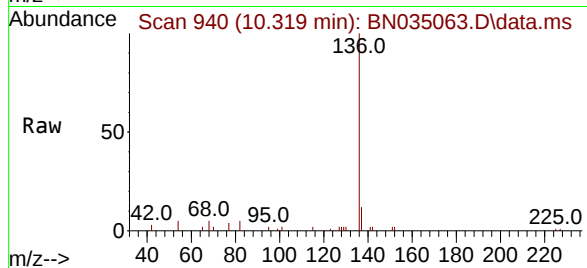




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

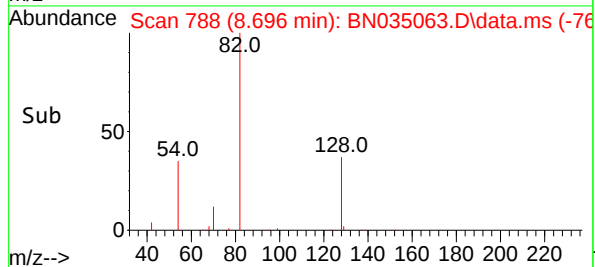
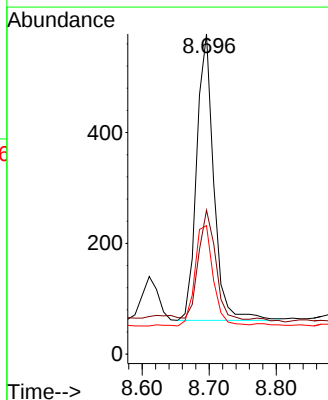
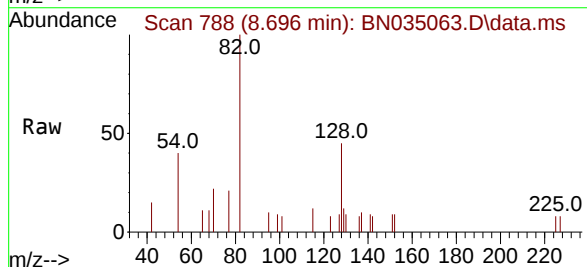
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ClientSampleId :  
SSTDICC0.2

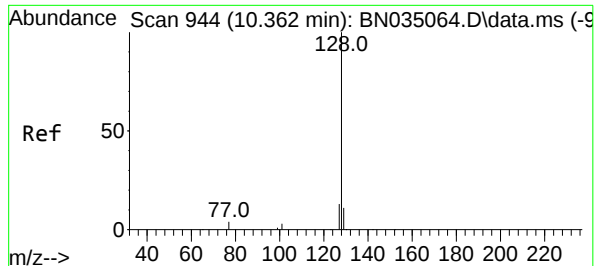
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 5449  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.3  | 9.8   | 14.8  |
| 54       | 5.2   | 4.0   | 6.0   |
| 68       | 5.5   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 0.195 ng  
RT: 8.696 min Scan# 788  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 921   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 45.0  | 36.5  | 54.7  |
| 54       | 40.1  | 28.7  | 43.1  |

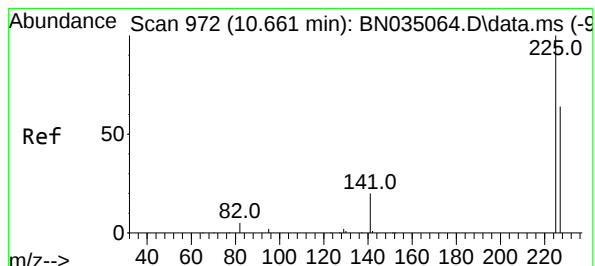
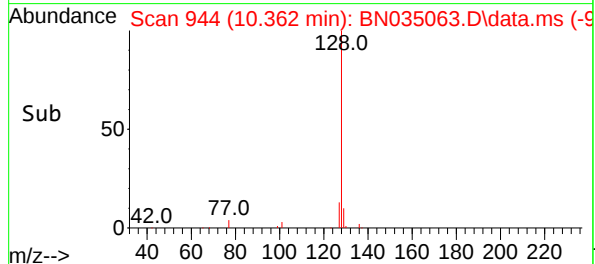
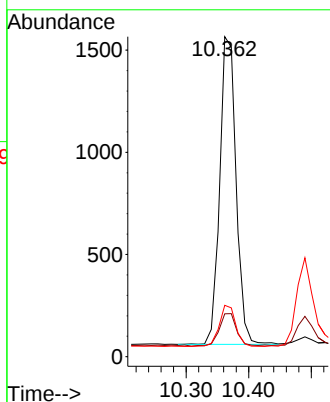
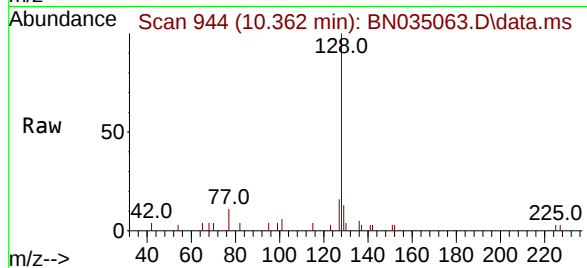




#9  
Naphthalene  
Concen: 0.193 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

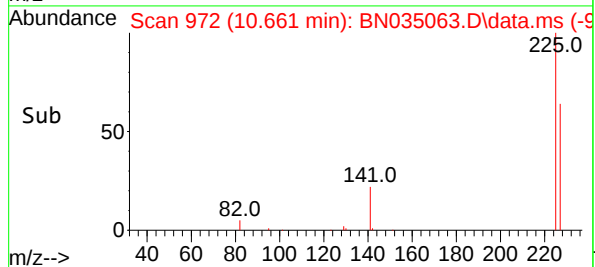
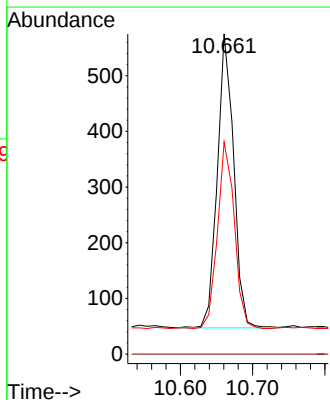
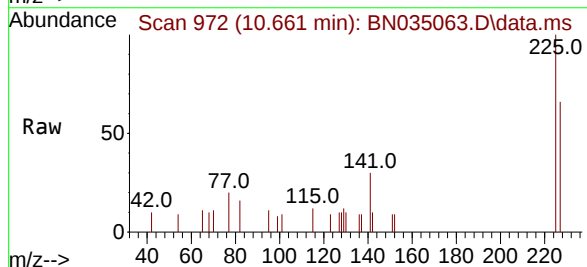
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

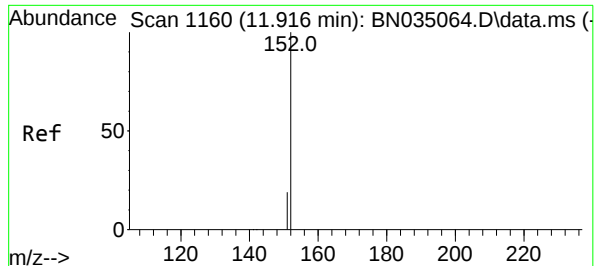
Tgt Ion:128 Resp: 2748  
Ion Ratio Lower Upper  
128 100  
129 13.4 9.6 14.4  
127 16.0 11.6 17.4



#10  
Hexachlorobutadiene  
Concen: 0.200 ng  
RT: 10.661 min Scan# 972  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion:225 Resp: 832  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 65.1 51.5 77.3

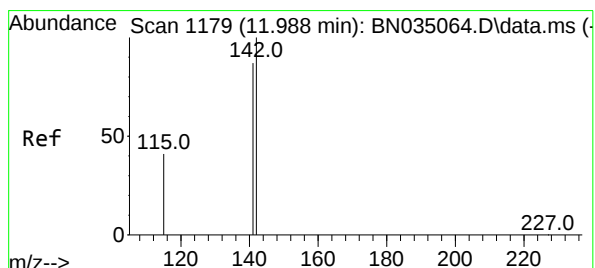
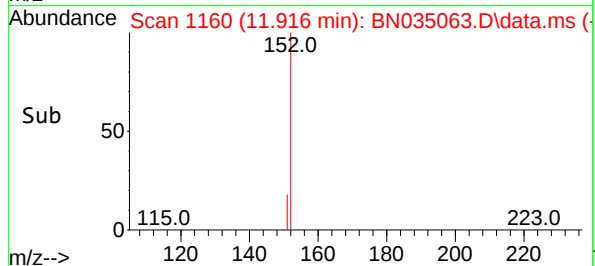
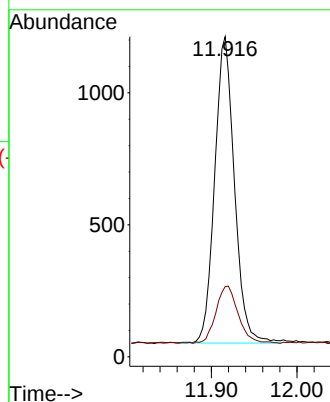
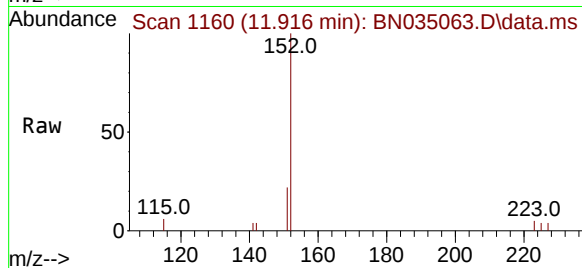




#11  
2-Methylnaphthalene-d10  
Concen: 0.192 ng  
RT: 11.916 min Scan# 1160  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

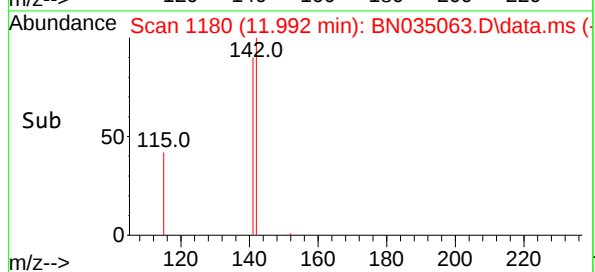
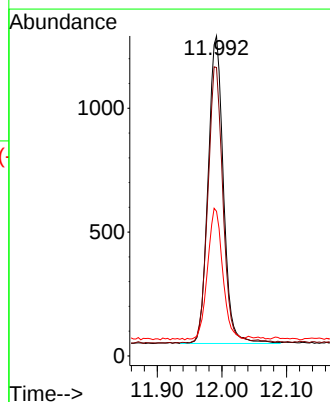
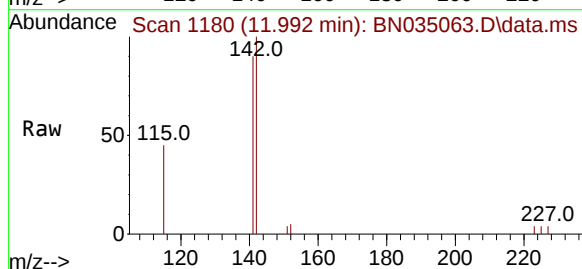
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

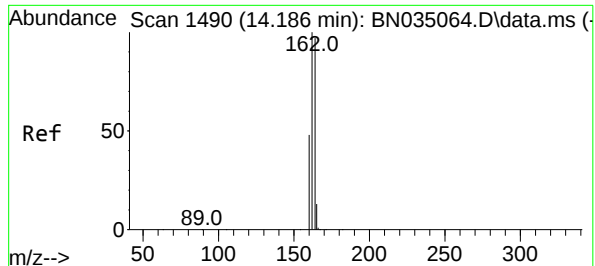
Tgt Ion:152 Resp: 1861  
Ion Ratio Lower Upper  
152 100  
151 21.1 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 0.194 ng  
RT: 11.992 min Scan# 1180  
Delta R.T. 0.004 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion:142 Resp: 2039  
Ion Ratio Lower Upper  
142 100  
141 90.2 70.1 105.1  
115 45.2 34.4 51.6

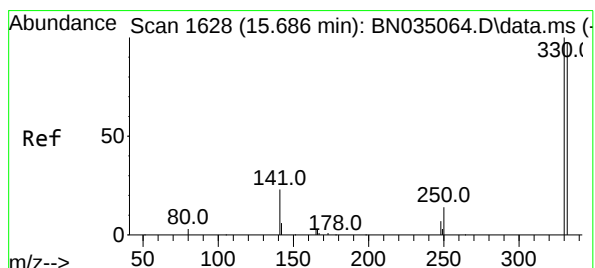
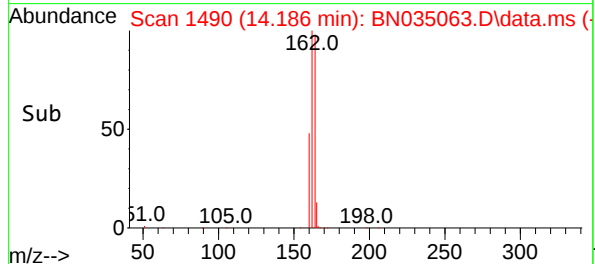
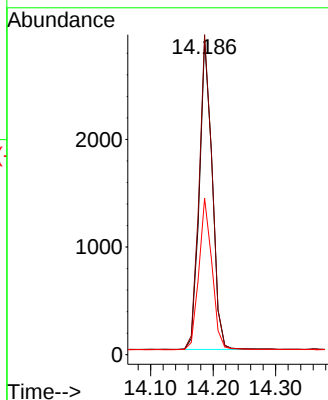
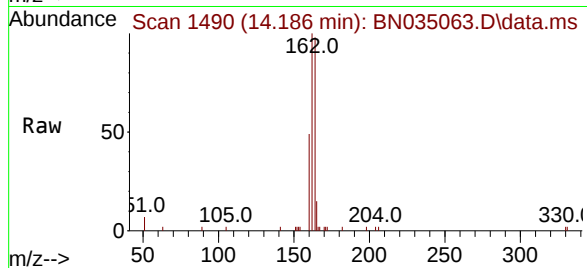




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.186 min Scan# 1490  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

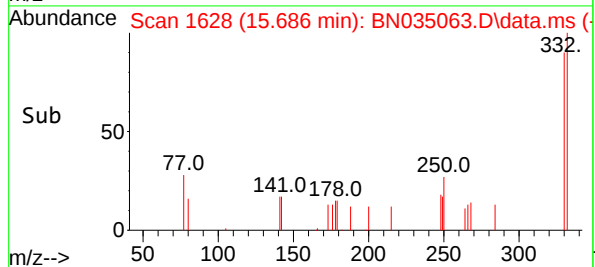
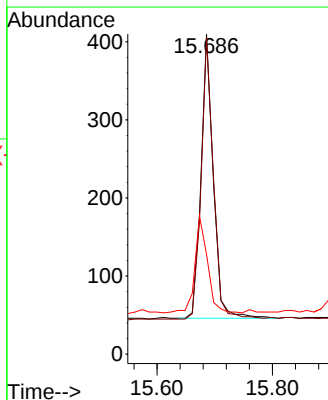
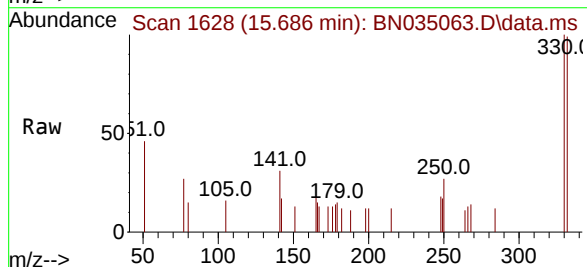
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

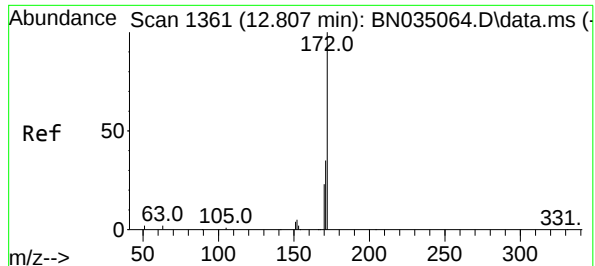
Tgt Ion:164 Resp: 4114  
Ion Ratio Lower Upper  
164 100  
162 101.7 82.2 123.2  
160 49.8 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.181 ng  
RT: 15.686 min Scan# 1628  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion:330 Resp: 538  
Ion Ratio Lower Upper  
330 100  
332 99.1 76.9 115.3  
141 34.8 29.6 44.4

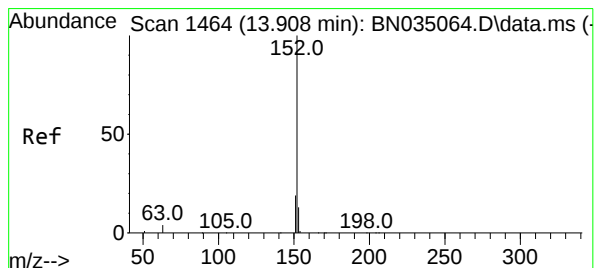
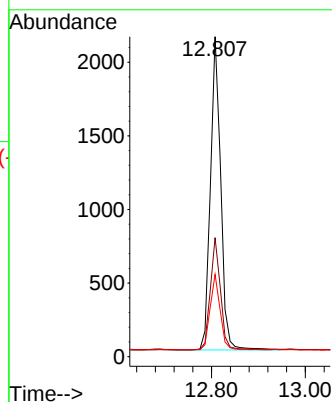
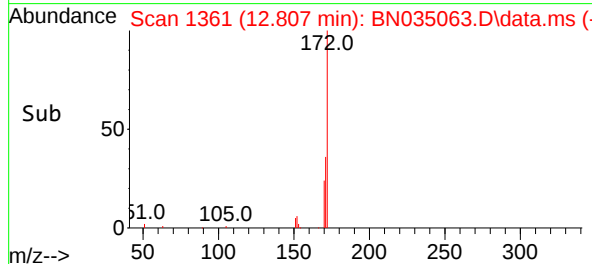
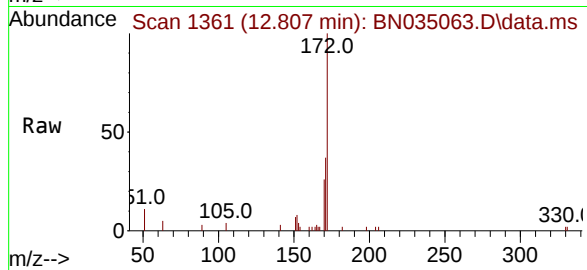




#15  
2-Fluorobiphenyl  
Concen: 0.194 ng  
RT: 12.807 min Scan# 1361  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

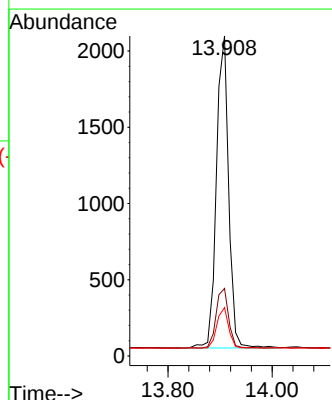
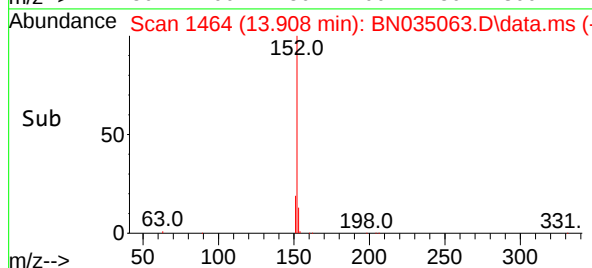
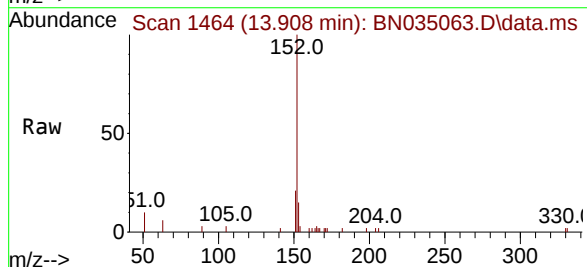
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

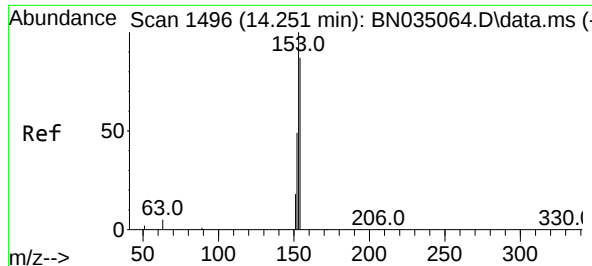
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 37.2  | 28.2  | 42.4  |
| 170     | 25.7  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 0.189 ng  
RT: 13.908 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.6  | 15.8  | 23.8  |
| 153     | 13.0  | 10.2  | 15.4  |

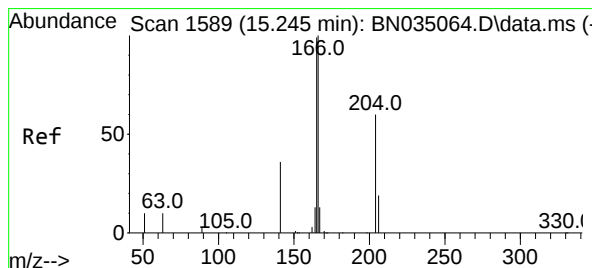
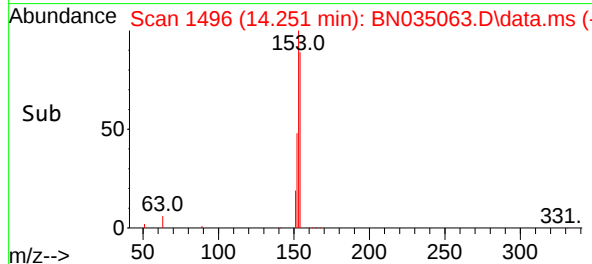
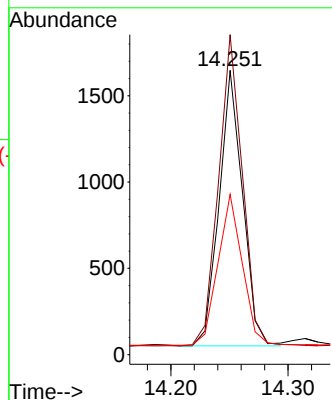
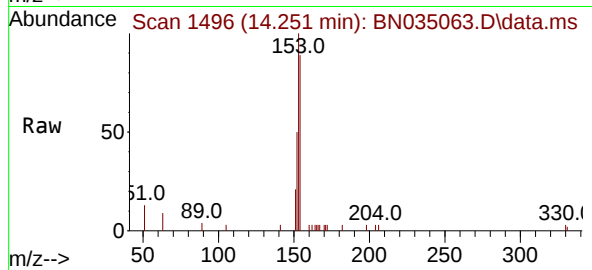




#17  
Acenaphthene  
Concen: 0.193 ng  
RT: 14.251 min Scan# 1496  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

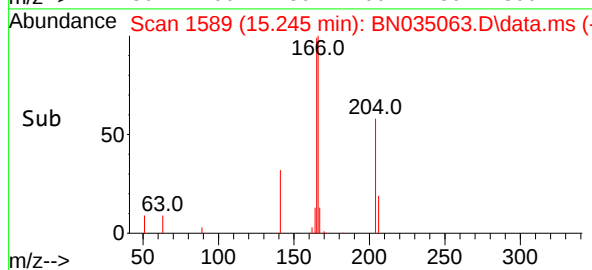
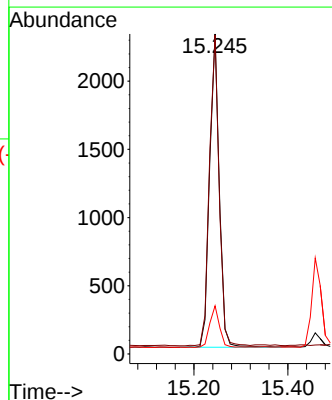
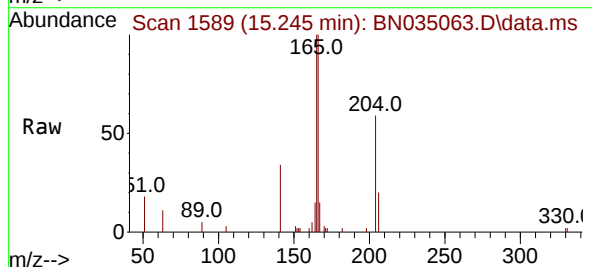
Instrument :  
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ClientSampleId :  
SSTDICC0.2

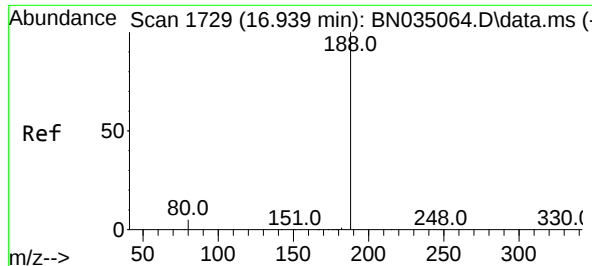
Tgt Ion:154 Resp: 2219  
Ion Ratio Lower Upper  
154 100  
153 114.9 91.6 137.4  
152 57.9 45.8 68.6



#18  
Fluorene  
Concen: 0.193 ng  
RT: 15.245 min Scan# 1589  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion:166 Resp: 3273  
Ion Ratio Lower Upper  
166 100  
165 99.5 79.1 118.7  
167 13.4 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.939 min Scan# 1729

Delta R.T. 0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

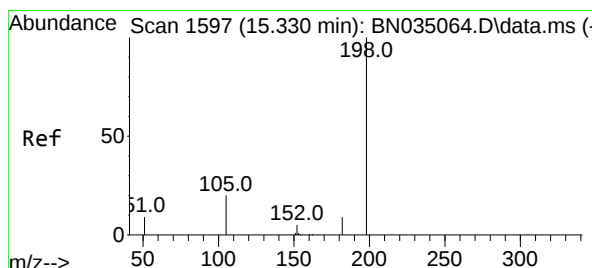
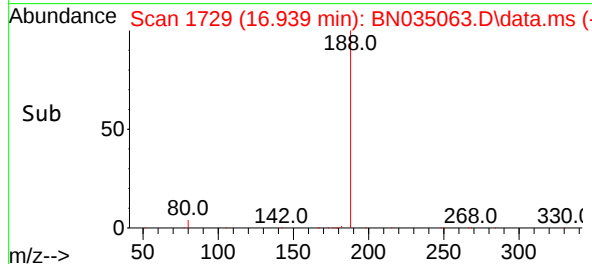
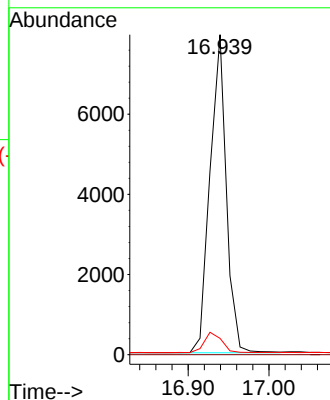
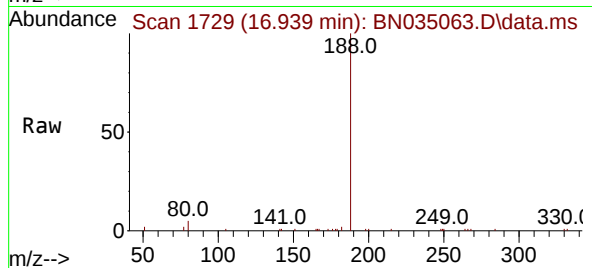
Tgt Ion:188 Resp: 11179

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 5.1 4.3 6.5



#20

4,6-Dinitro-2-methylphenol

Concen: 0.162 ng

RT: 15.330 min Scan# 1597

Delta R.T. 0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

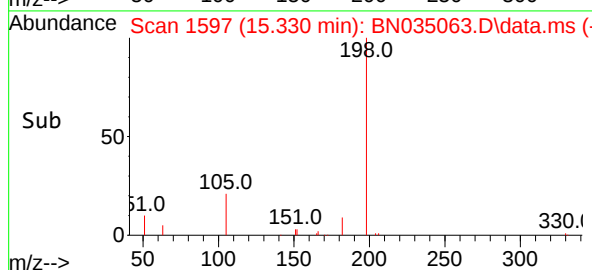
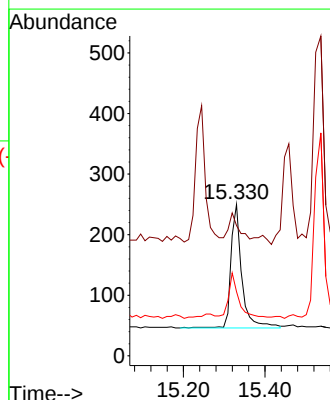
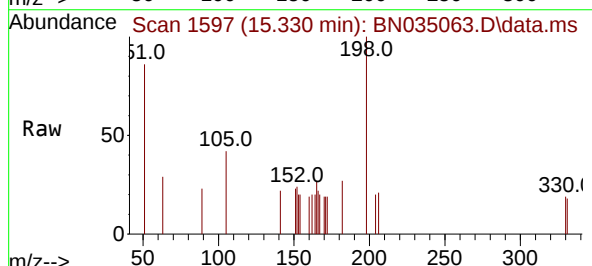
Tgt Ion:198 Resp: 376

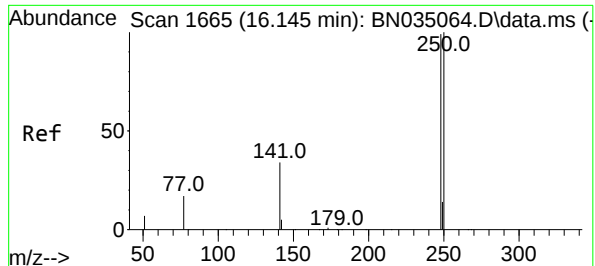
Ion Ratio Lower Upper

198 100

51 86.0 29.9 44.9#

105 42.4 23.7 35.5#

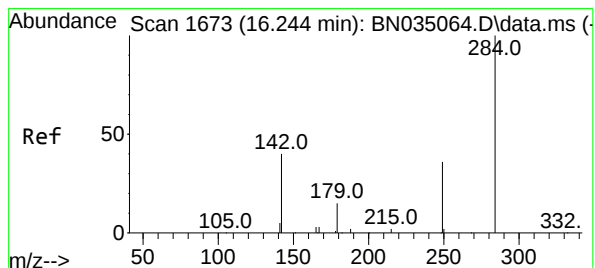
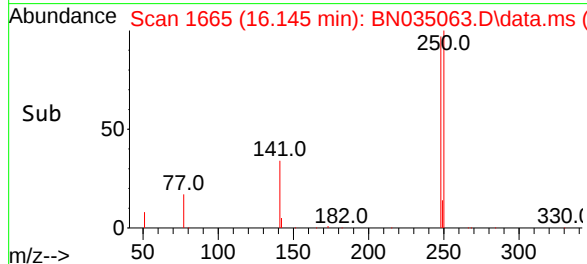
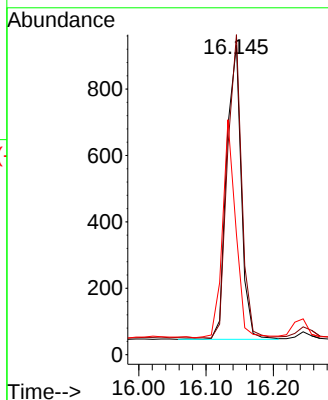
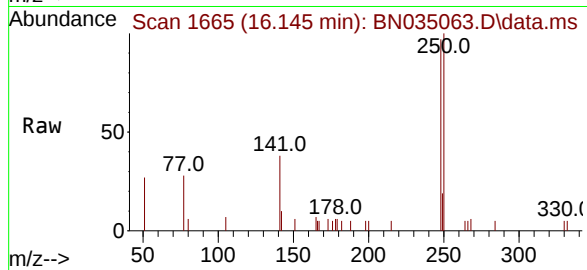




#21  
4-Bromophenyl-phenylether  
Concen: 0.188 ng  
RT: 16.145 min Scan# 1665  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

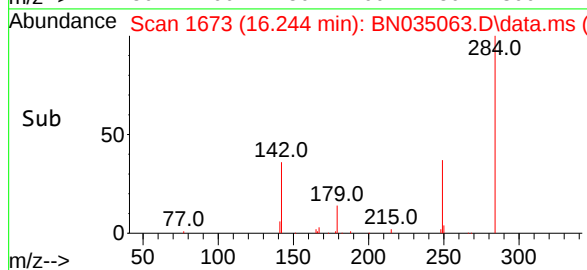
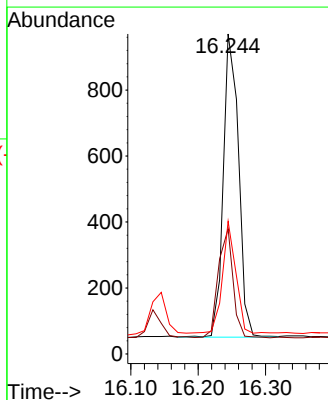
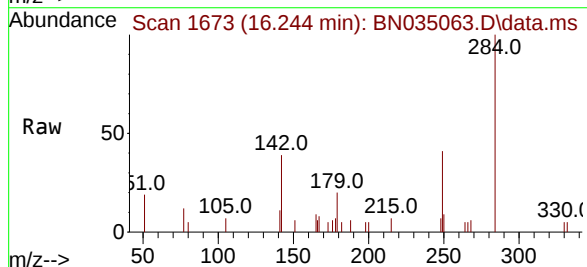
Instrument :  
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ClientSampleId :  
SSTDICC0.2

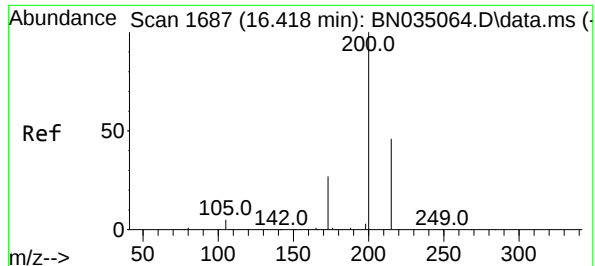
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 103.4 | 81.2  | 121.8 |
| 141     | 38.9  | 29.1  | 43.7  |



#22  
Hexachlorobenzene  
Concen: 0.195 ng  
RT: 16.244 min Scan# 1673  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 34.7  | 28.2  | 42.4  |
| 249     | 32.9  | 26.2  | 39.2  |

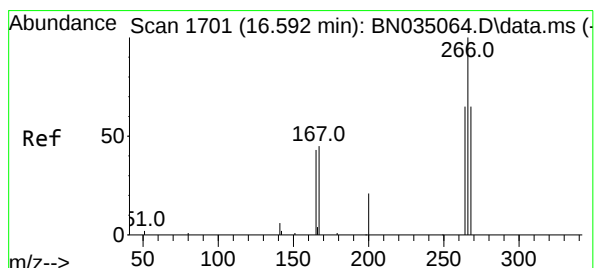
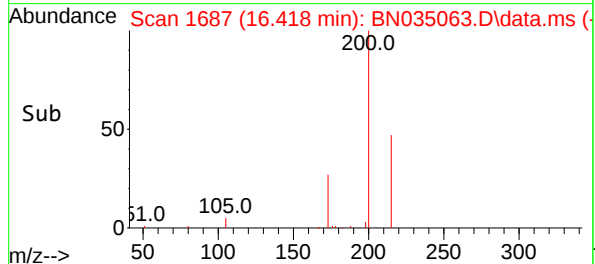
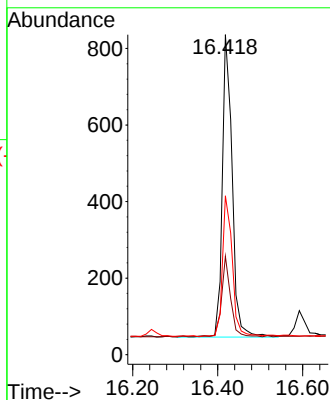
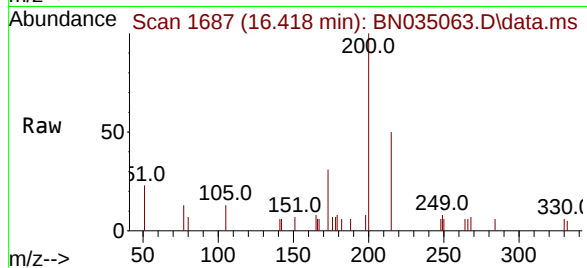




#23  
Atrazine  
Concen: 0.199 ng  
RT: 16.418 min Scan# 1687  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

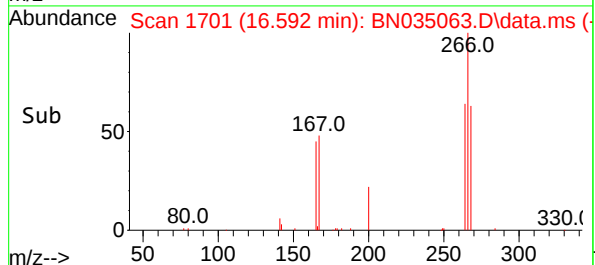
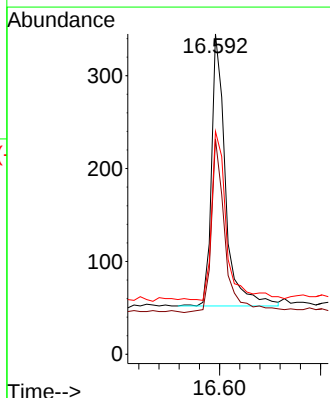
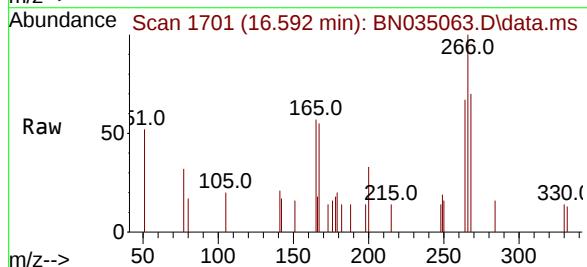
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

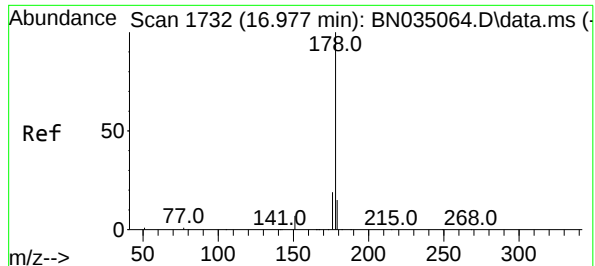
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 200     | 100   |       |       |
| 173     | 30.7  | 22.6  | 33.8  |
| 215     | 49.6  | 37.8  | 56.6  |



#24  
Pentachlorophenol  
Concen: 0.163 ng  
RT: 16.592 min Scan# 1701  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 63.3  | 49.4  | 74.0  |
| 268     | 65.1  | 52.6  | 79.0  |

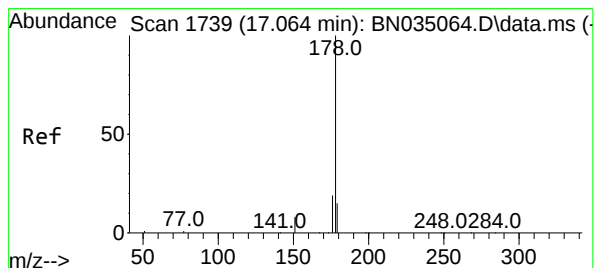
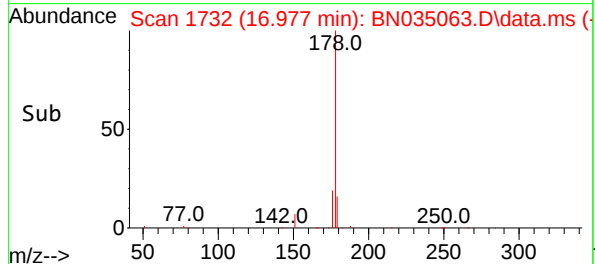
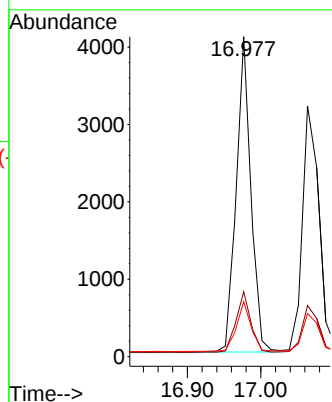
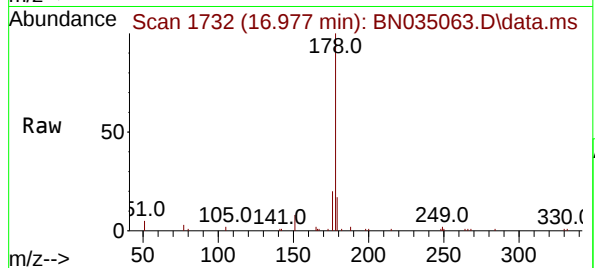




#25  
Phenanthrene  
Concen: 0.193 ng  
RT: 16.977 min Scan# 1732  
Delta R.T. 0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

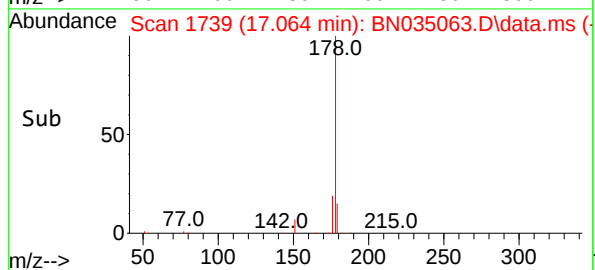
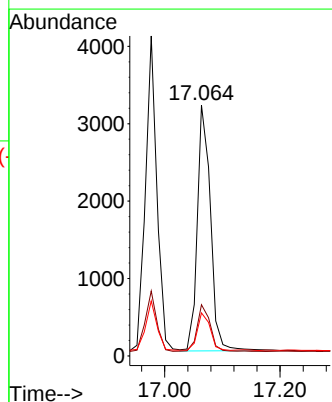
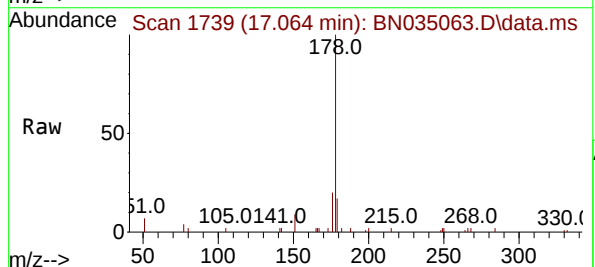
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

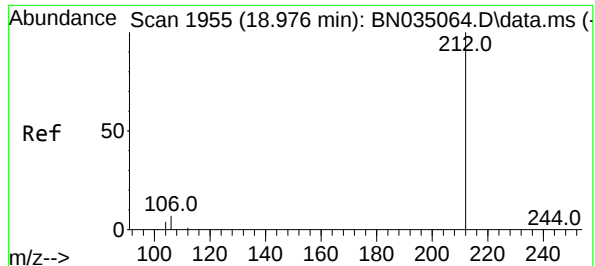
Tgt Ion:178 Resp: 5664  
Ion Ratio Lower Upper  
178 100  
176 19.4 15.2 22.8  
179 16.3 12.6 18.8



#26  
Anthracene  
Concen: 0.187 ng  
RT: 17.064 min Scan# 1739  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion:178 Resp: 5051  
Ion Ratio Lower Upper  
178 100  
176 19.2 14.6 22.0  
179 14.6 12.2 18.2





#27

Fluoranthene-d10

Concen: 0.192 ng

RT: 18.976 min Scan# 1955

Delta R.T. -0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

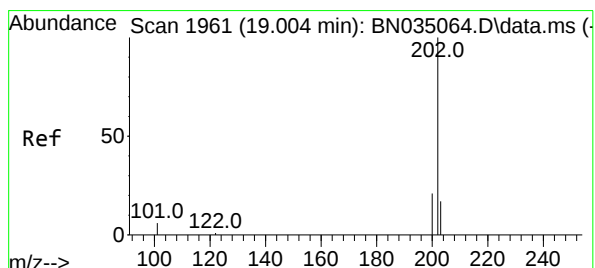
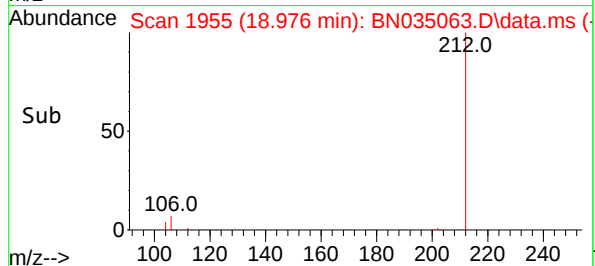
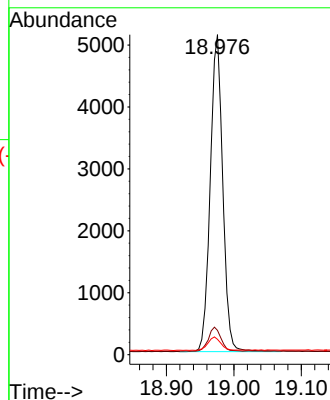
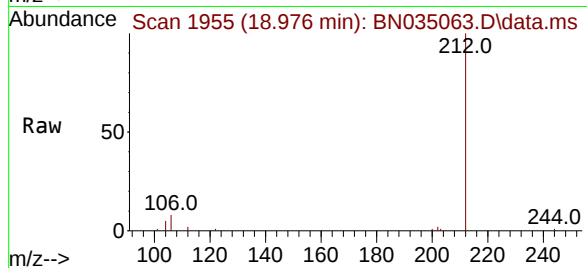
Tgt Ion:212 Resp: 6587

Ion Ratio Lower Upper

212 100

106 7.6 6.0 9.0

104 4.4 3.5 5.3



#28

Fluoranthene

Concen: 0.190 ng

RT: 19.004 min Scan# 1961

Delta R.T. 0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

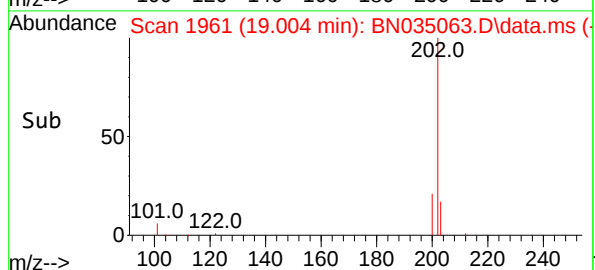
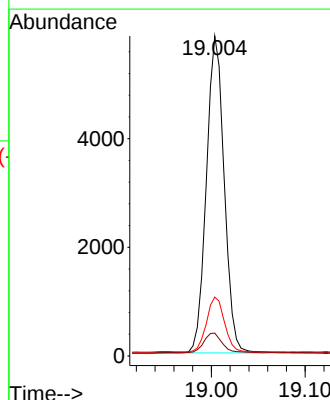
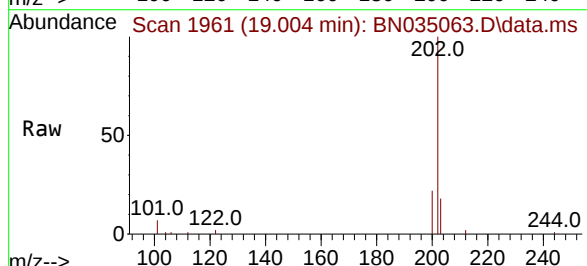
Tgt Ion:202 Resp: 7690

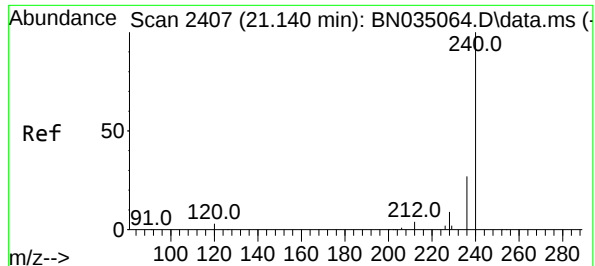
Ion Ratio Lower Upper

202 100

101 7.0 5.2 7.8

203 17.3 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.131 min Scan# 2406

Delta R.T. -0.009 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

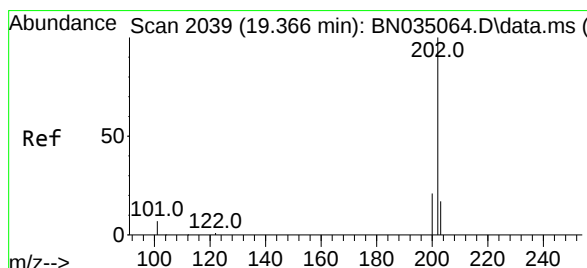
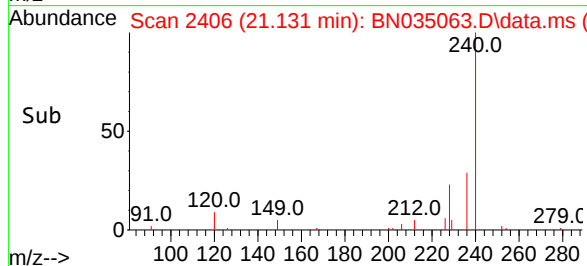
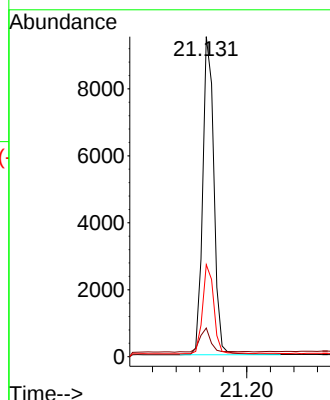
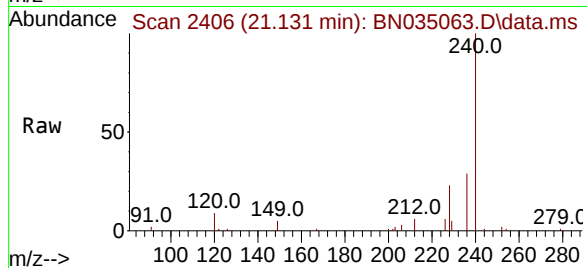
Tgt Ion:240 Resp: 12508

Ion Ratio Lower Upper

240 100

120 9.0 3.8 5.6#

236 28.8 22.2 33.2



#30

Pyrene

Concen: 0.194 ng

RT: 19.366 min Scan# 2039

Delta R.T. -0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

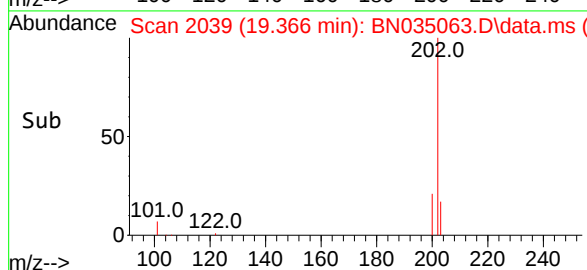
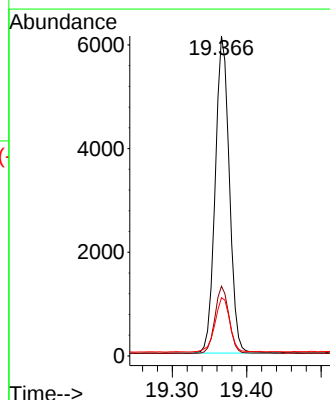
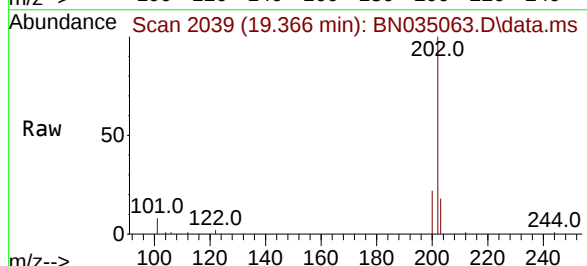
Tgt Ion:202 Resp: 8067

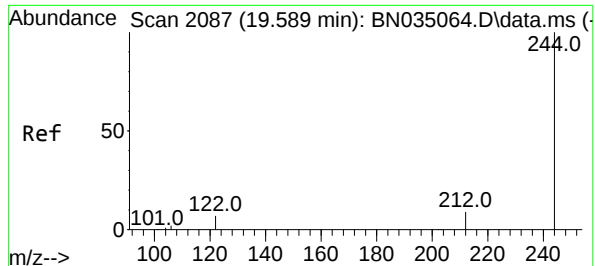
Ion Ratio Lower Upper

202 100

200 21.1 16.7 25.1

203 18.1 14.2 21.4

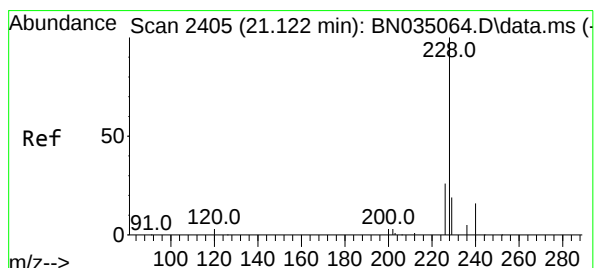
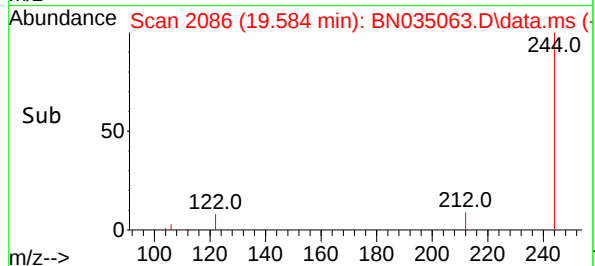
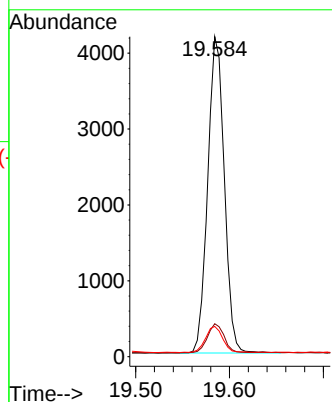
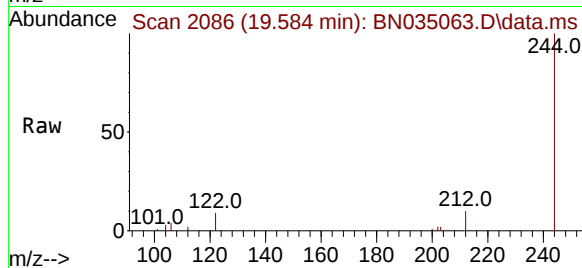




#31  
Terphenyl-d14  
Concen: 0.195 ng  
RT: 19.584 min Scan# 2086  
Delta R.T. -0.005 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

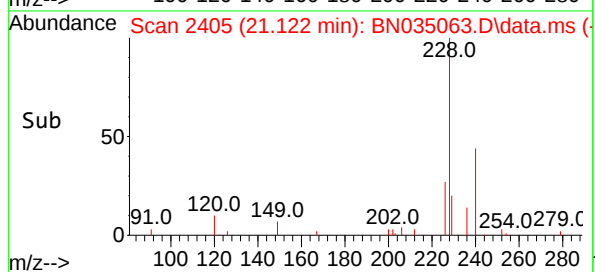
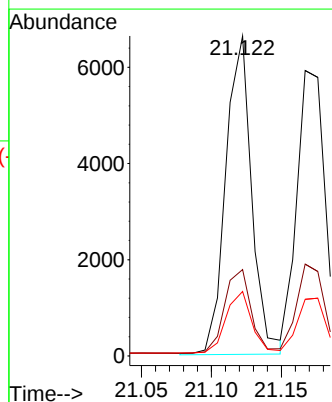
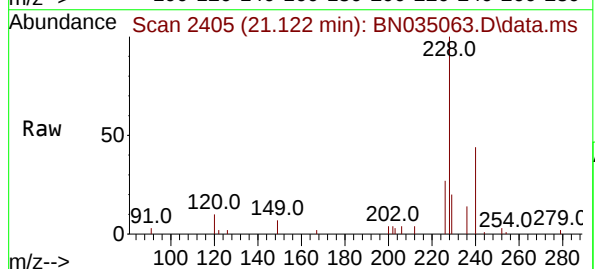
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

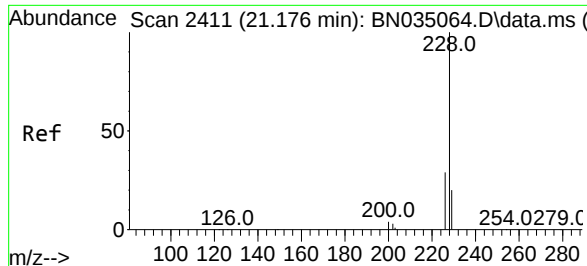
Tgt Ion:244 Resp: 5123  
Ion Ratio Lower Upper  
244 100  
212 10.3 7.6 11.4  
122 9.5 6.1 9.1#



#32  
Benzo(a)anthracene  
Concen: 0.196 ng  
RT: 21.122 min Scan# 2405  
Delta R.T. -0.000 min  
Lab File: BN035063.D  
Acq: 13 Nov 2024 13:16

Tgt Ion:228 Resp: 8558  
Ion Ratio Lower Upper  
228 100  
226 27.0 21.4 32.0  
229 20.1 15.7 23.5





#33

Chrysene

Concen: 0.198 ng

RT: 21.167 min Scan# 2411

Delta R.T. -0.009 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

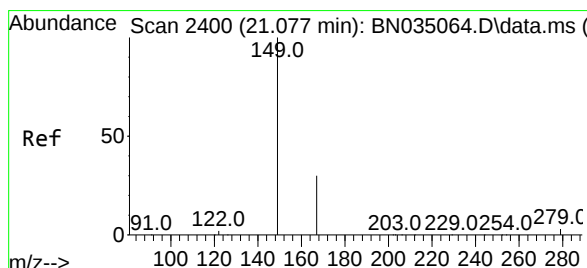
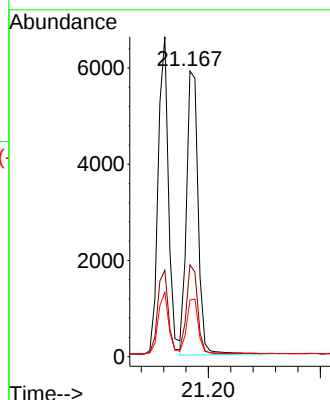
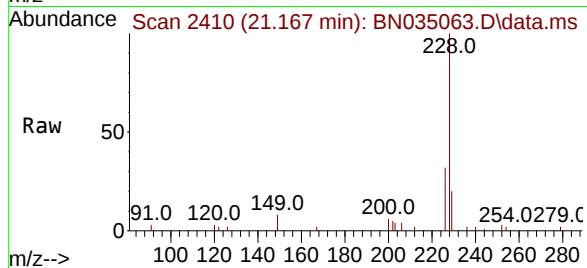
Tgt Ion:228 Resp: 8540

Ion Ratio Lower Upper

228 100

226 32.2 23.7 35.5

229 19.9 16.2 24.4



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.208 ng

RT: 21.077 min Scan# 2400

Delta R.T. -0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

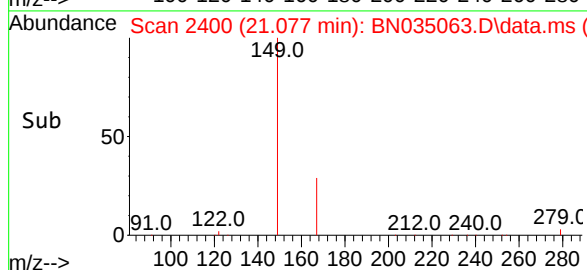
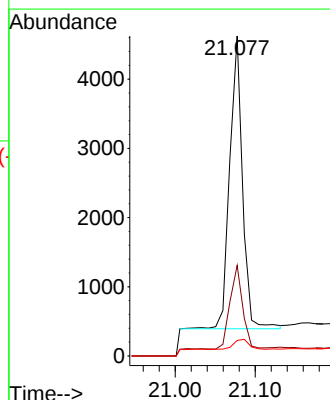
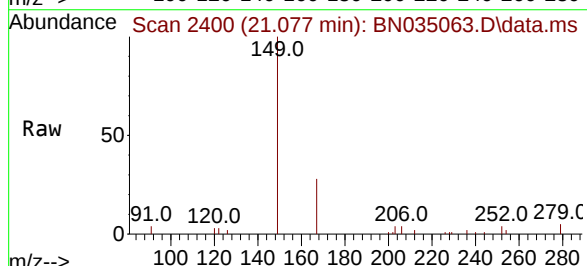
Tgt Ion:149 Resp: 4712

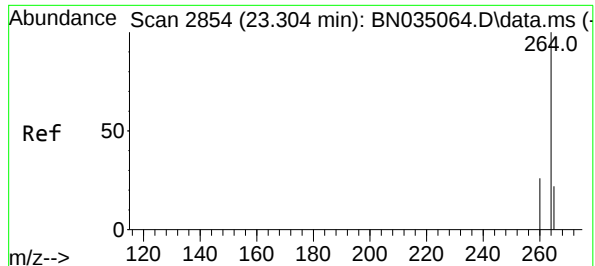
Ion Ratio Lower Upper

149 100

167 28.3 23.2 34.8

279 3.9 3.2 4.8





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.301 min Scan# 21

Delta R.T. -0.003 min

Lab File: BN035063.D

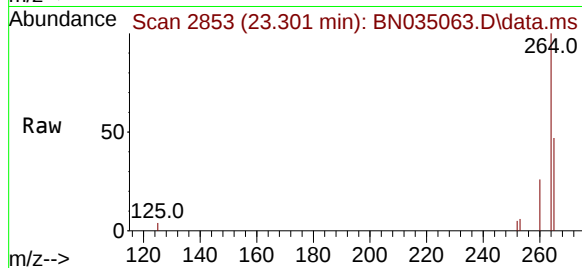
Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2



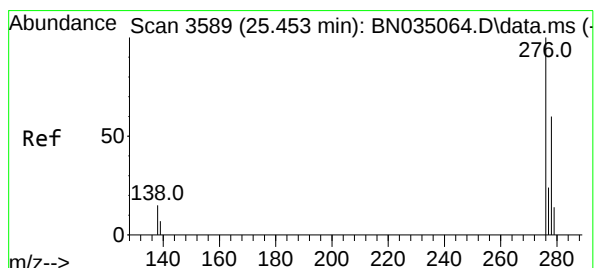
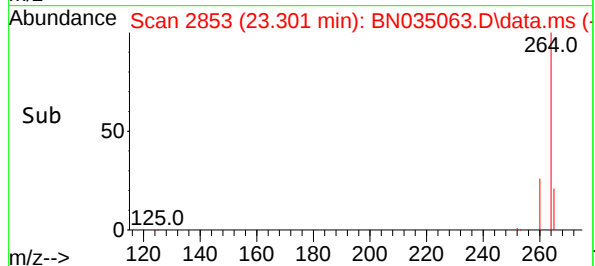
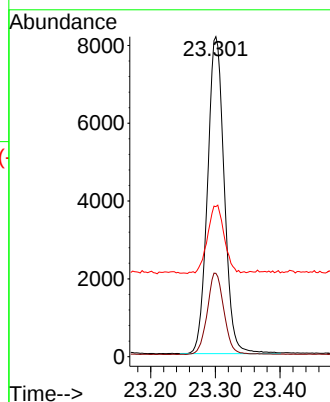
Tgt Ion:264 Resp: 14643

Ion Ratio Lower Upper

264 100

260 26.1 20.9 31.3

265 46.9 35.4 53.2



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.190 ng

RT: 25.450 min Scan# 3588

Delta R.T. -0.003 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

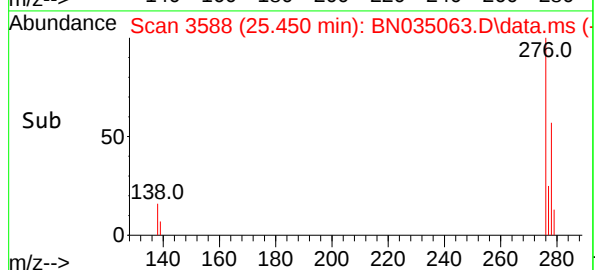
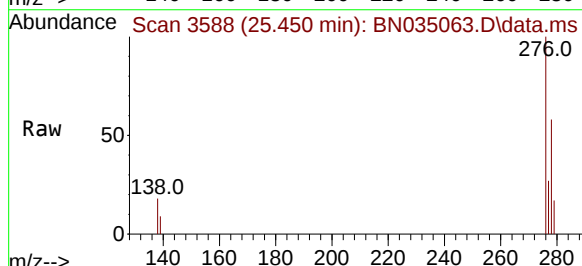
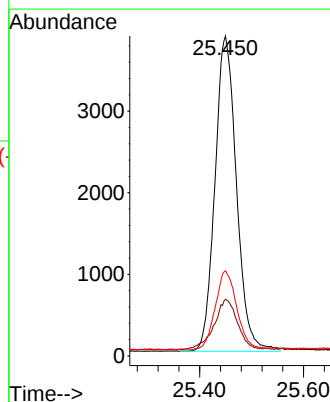
Tgt Ion:276 Resp: 11095

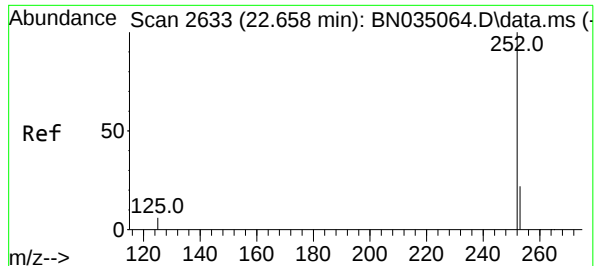
Ion Ratio Lower Upper

276 100

138 17.3 13.0 19.4

277 24.7 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.189 ng

RT: 22.657 min Scan# 2633

Delta R.T. -0.000 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

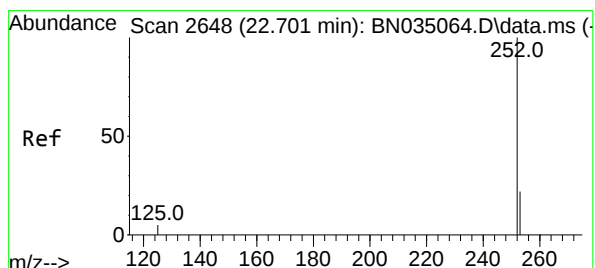
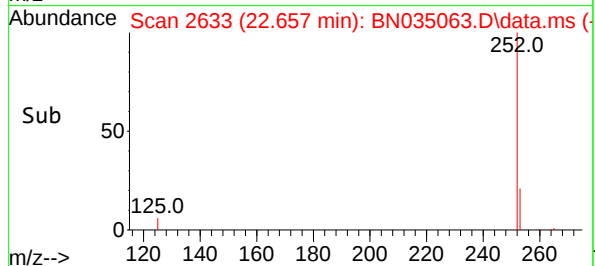
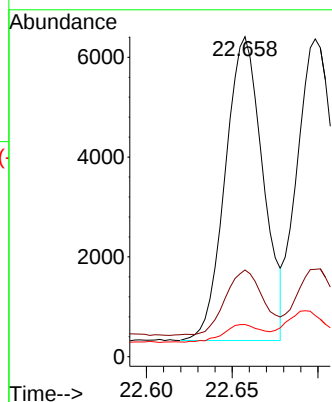
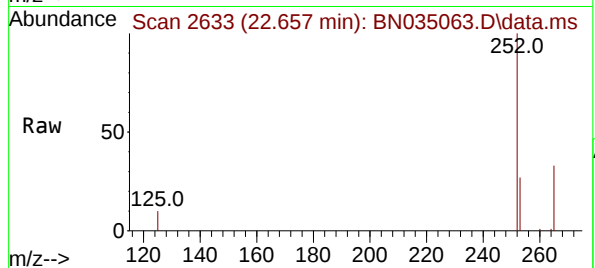
Tgt Ion:252 Resp: 9315

Ion Ratio Lower Upper

252 100

253 27.1 19.3 28.9

125 10.0 6.2 9.2#



#38

Benzo(k)fluoranthene

Concen: 0.191 ng

RT: 22.698 min Scan# 2647

Delta R.T. -0.003 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

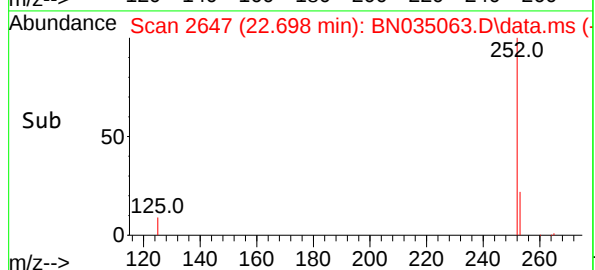
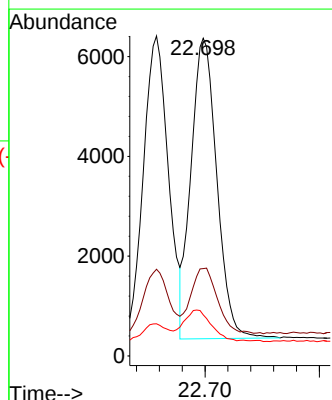
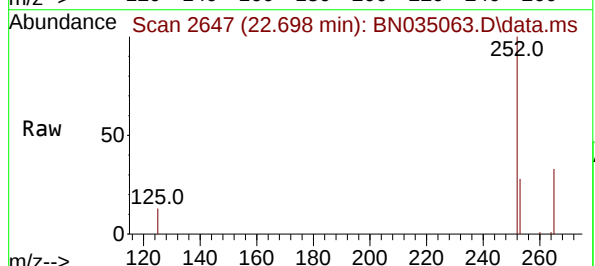
Tgt Ion:252 Resp: 9432

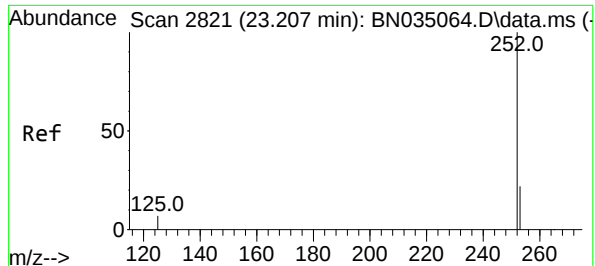
Ion Ratio Lower Upper

252 100

253 27.5 19.5 29.3

125 13.0 6.5 9.7#





#39

Benzo(a)pyrene

Concen: 0.192 ng

RT: 23.204 min Scan# 21

Delta R.T. -0.003 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

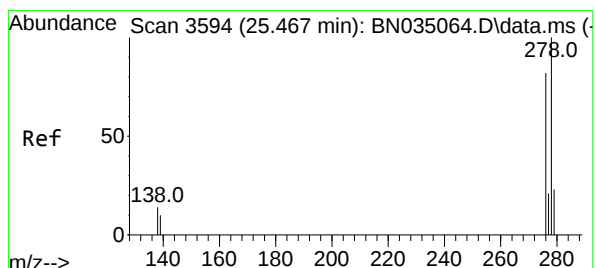
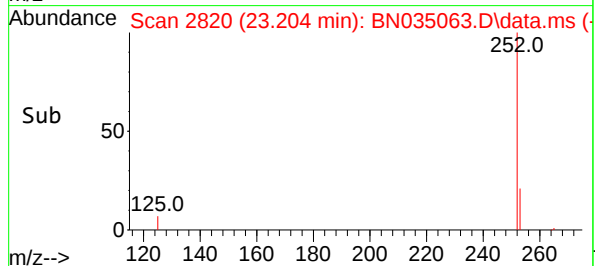
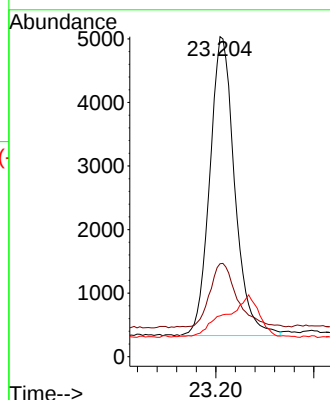
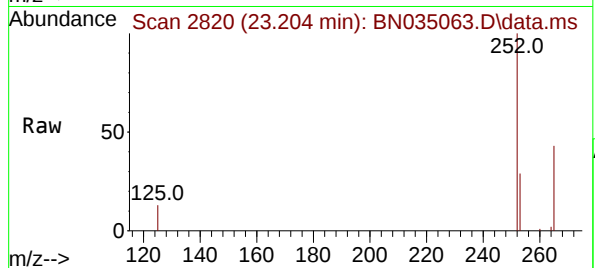
Tgt Ion:252 Resp: 8302

Ion Ratio Lower Upper

252 100

253 29.1 20.1 30.1

125 12.8 7.5 11.3#



#40

Dibenzo(a,h)anthracene

Concen: 0.189 ng

RT: 25.464 min Scan# 3593

Delta R.T. -0.003 min

Lab File: BN035063.D

Acq: 13 Nov 2024 13:16

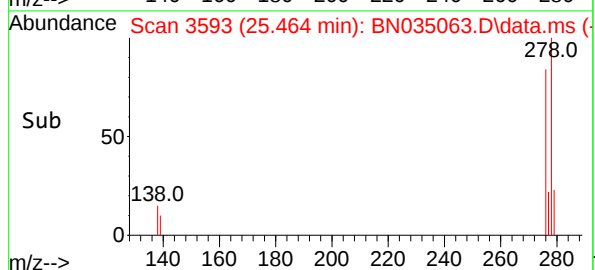
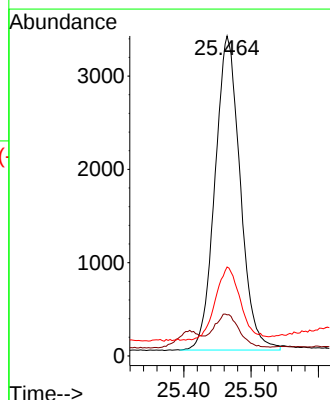
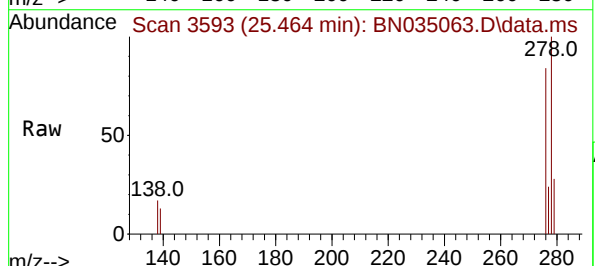
Tgt Ion:278 Resp: 8750

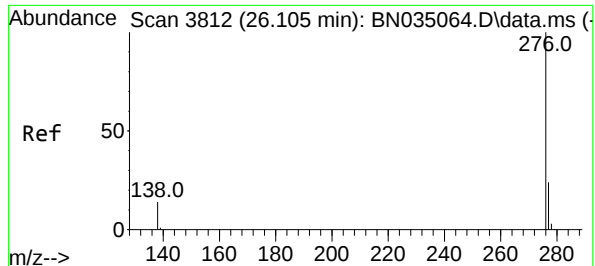
Ion Ratio Lower Upper

278 100

139 12.9 9.3 13.9

279 27.8 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 0.192 ng

RT: 26.099 min Scan# 3810

Delta R.T. -0.006 min

Lab File: BN035063.D

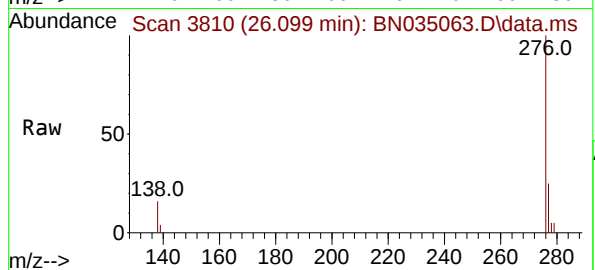
Acq: 13 Nov 2024 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2



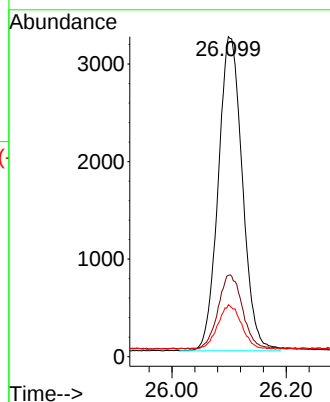
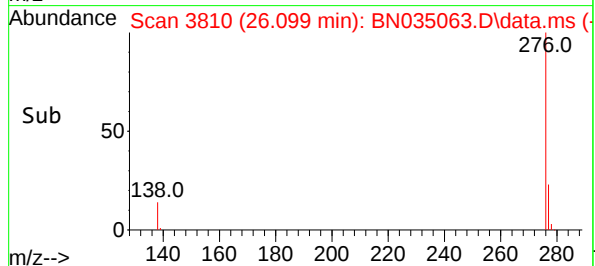
Tgt Ion:276 Resp: 9431

Ion Ratio Lower Upper

276 100

277 25.4 19.9 29.9

138 16.3 11.6 17.4



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035064.D  
 Acq On : 13 Nov 2024 13:52  
 Operator : RC/JU  
 Sample : SSTDICCC0.4  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Quant Time: Nov 13 16:43:40 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

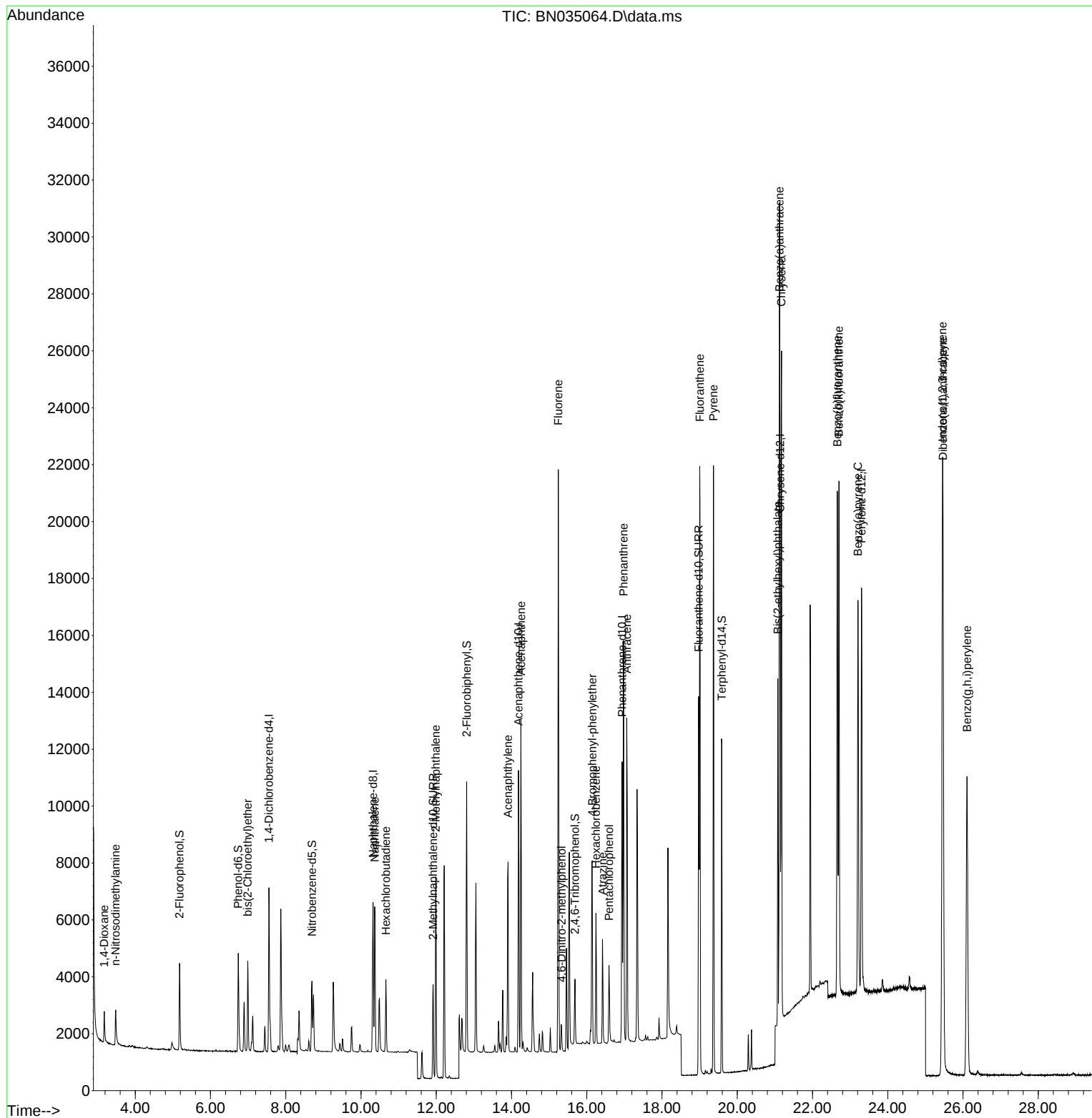
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2804     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 6865     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.186 | 164  | 5401     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.939 | 188  | 13499    | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.140 | 240  | 14946    | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.304 | 264  | 17077    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 2661     | 0.374 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 3250     | 0.364 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.696  | 82   | 2197     | 0.369 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 11.916 | 152  | 4559     | 0.373 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.686 | 330  | 1295     | 0.333 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.807 | 172  | 7888     | 0.360 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.976 | 212  | 15786    | 0.382 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.589 | 244  | 12101    | 0.386 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.177  | 88   | 940      | 0.369 | ng    | 100      |
| 3) n-Nitrosodimethylamine     | 3.480  | 42   | 914      | 0.386 | ng    | 100      |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 2504     | 0.374 | ng    | 100      |
| 9) Naphthalene                | 10.362 | 128  | 6705     | 0.374 | ng    | 100      |
| 10) Hexachlorobutadiene       | 10.661 | 225  | 2010     | 0.383 | ng    | # 100    |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 4884     | 0.369 | ng    | 100      |
| 16) Acenaphthylene            | 13.908 | 152  | 8034     | 0.348 | ng    | 100      |
| 17) Acenaphthene              | 14.251 | 154  | 5401     | 0.357 | ng    | 100      |
| 18) Fluorene                  | 15.245 | 166  | 7900     | 0.355 | ng    | 100      |
| 20) 4,6-Dinitro-2-methylph... | 15.330 | 198  | 979      | 0.348 | ng    | 100      |
| 21) 4-Bromophenyl-phenylether | 16.145 | 248  | 3317     | 0.386 | ng    | 100      |
| 22) Hexachlorobenzene         | 16.244 | 284  | 3412     | 0.382 | ng    | 100      |
| 23) Atrazine                  | 16.418 | 200  | 2925     | 0.379 | ng    | 100      |
| 24) Pentachlorophenol         | 16.592 | 266  | 1402     | 0.336 | ng    | 100      |
| 25) Phenanthrene              | 16.977 | 178  | 13558    | 0.382 | ng    | 100      |
| 26) Anthracene                | 17.064 | 178  | 12422    | 0.381 | ng    | 100      |
| 28) Fluoranthene              | 19.004 | 202  | 18716    | 0.383 | ng    | 100      |
| 30) Pyrene                    | 19.366 | 202  | 19252    | 0.387 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.122 | 228  | 19844    | 0.381 | ng    | 100      |
| 33) Chrysene                  | 21.176 | 228  | 19908    | 0.386 | ng    | 100      |
| 34) Bis(2-ethylhexyl)phtha... | 21.077 | 149  | 9671     | 0.357 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 25.453 | 276  | 25986    | 0.381 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.658 | 252  | 21843    | 0.380 | ng    | 100      |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 21977    | 0.382 | ng    | 100      |
| 39) Benzo(a)pyrene            | 23.207 | 252  | 19170    | 0.379 | ng    | 100      |
| 40) Dibenzo(a,h)anthracene    | 25.467 | 278  | 20655    | 0.383 | ng    | 100      |
| 41) Benzo(g,h,i)perylene      | 26.105 | 276  | 21955    | 0.382 | ng    | 100      |
| -----                         |        |      |          |       |       |          |

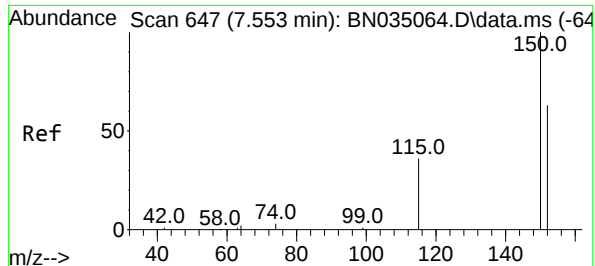
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035064.D  
Acq On : 13 Nov 2024 13:52  
Operator : RC/JU  
Sample : SSTDICCC0.4  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

Quant Time: Nov 13 16:43:40 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 16:42:01 2024  
Response via : Initial Calibration

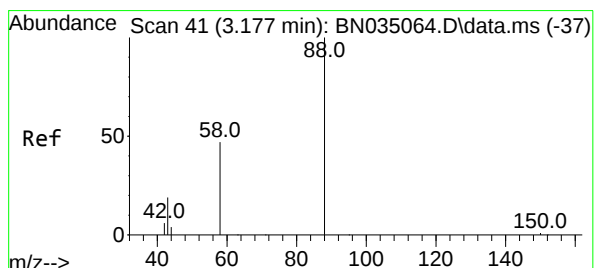
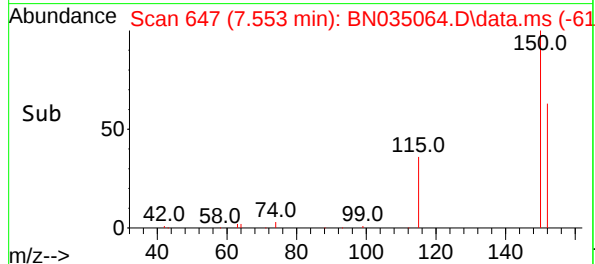
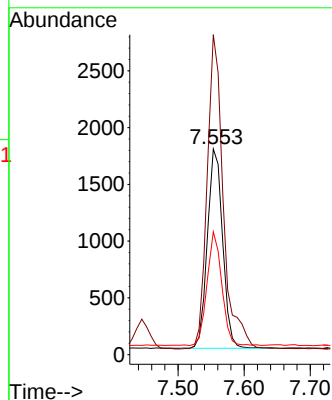
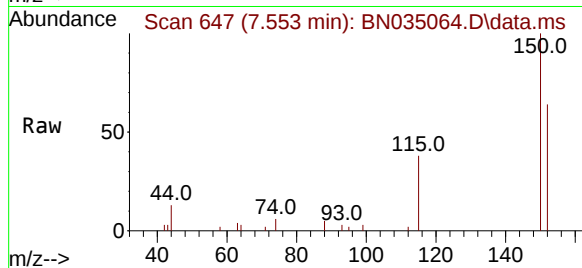




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

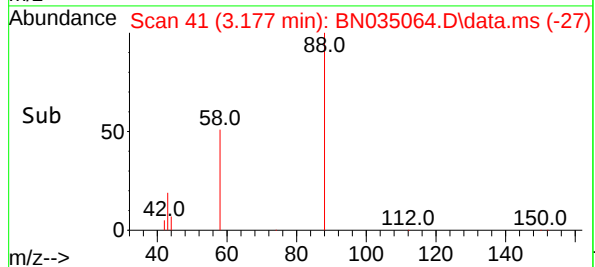
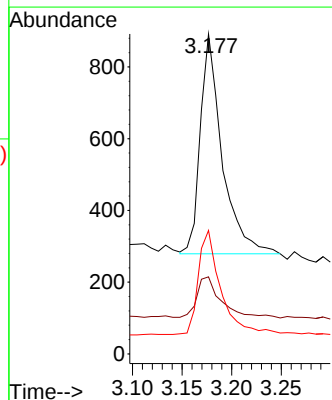
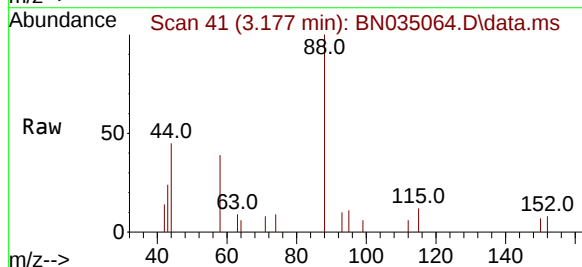
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

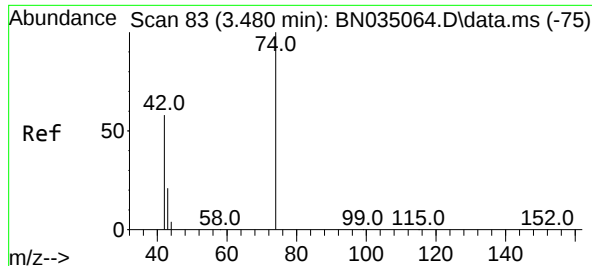
Tgt Ion: 152 Resp: 2804  
Ion Ratio Lower Upper  
152 100  
150 155.6 124.5 186.7  
115 59.7 47.8 71.6



#2  
1,4-Dioxane  
Concen: 0.369 ng  
RT: 3.177 min Scan# 41  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

Tgt Ion: 88 Resp: 940  
Ion Ratio Lower Upper  
88 100  
43 21.1 16.9 25.3  
58 48.7 39.0 58.4

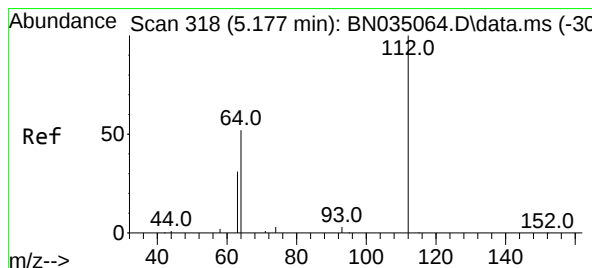
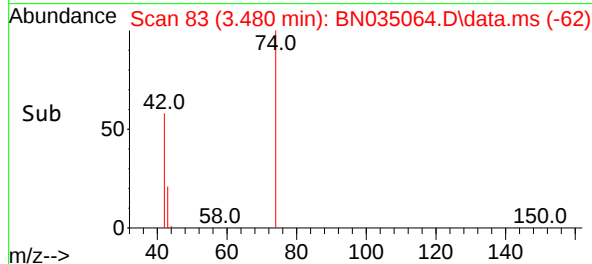
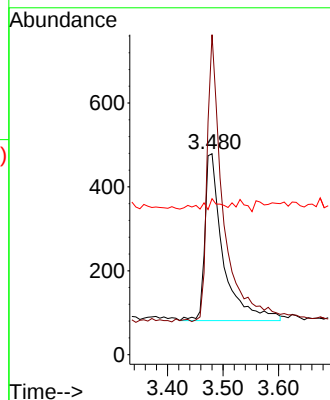
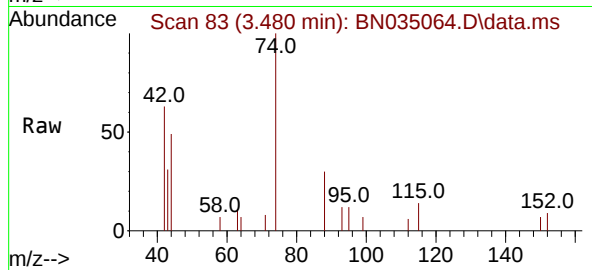




#3  
n-Nitrosodimethylamine  
Concen: 0.386 ng  
RT: 3.480 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

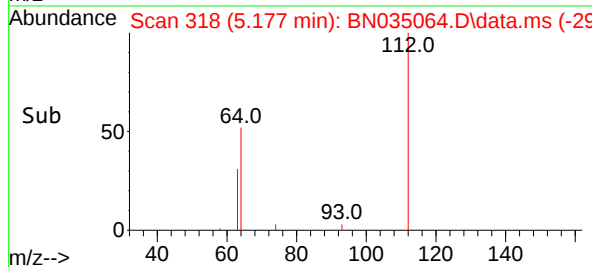
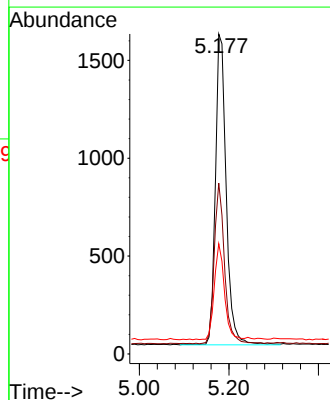
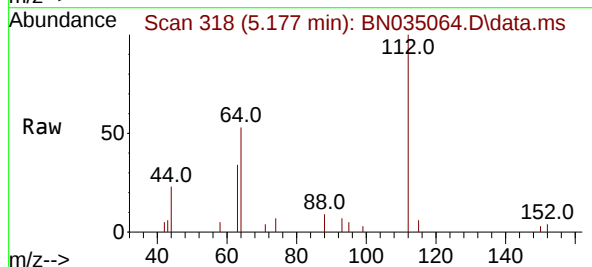
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

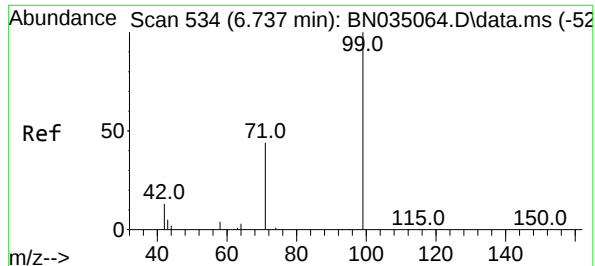
Tgt Ion: 42 Resp: 914  
Ion Ratio Lower Upper  
42 100  
74 151.0 120.8 181.2  
44 3.6 2.9 4.3



#4  
2-Fluorophenol  
Concen: 0.374 ng  
RT: 5.177 min Scan# 318  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

Tgt Ion: 112 Resp: 2661  
Ion Ratio Lower Upper  
112 100  
64 49.6 39.7 59.5  
63 28.7 23.0 34.4





#5

Phenol-d6

Concen: 0.364 ng

RT: 6.737 min Scan# 51

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

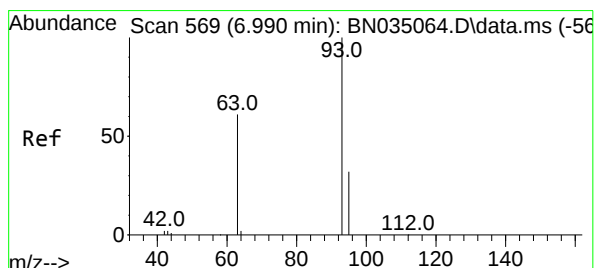
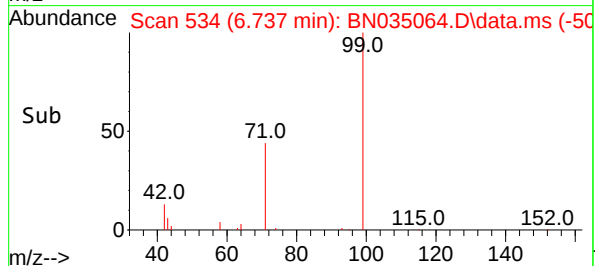
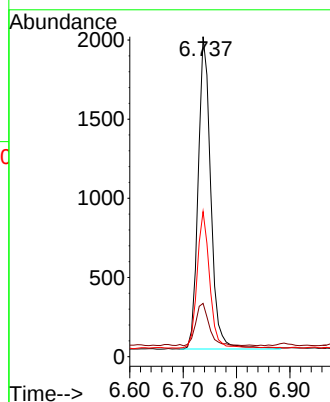
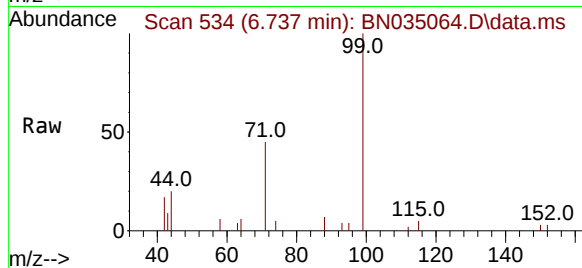
BNA\_N

ClientSampleId :

SSTDICCC0.4

Tgt Ion: 99 Resp: 3250

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 99  | 100   |       |       |
| 42  | 14.2  | 11.4  | 17.0  |
| 71  | 43.2  | 34.6  | 51.8  |



#6

bis(2-Chloroethyl)ether

Concen: 0.374 ng

RT: 6.990 min Scan# 569

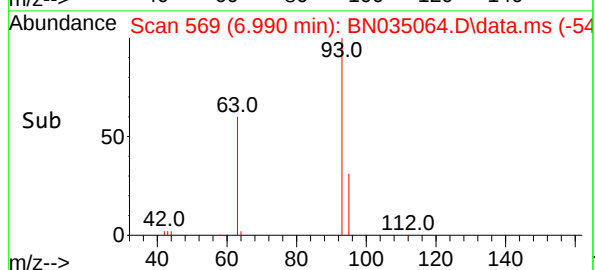
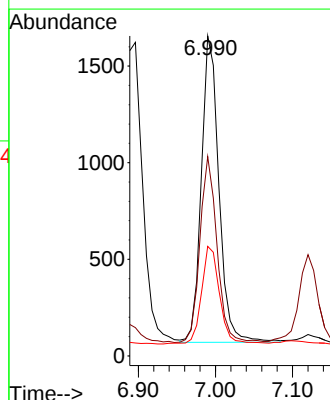
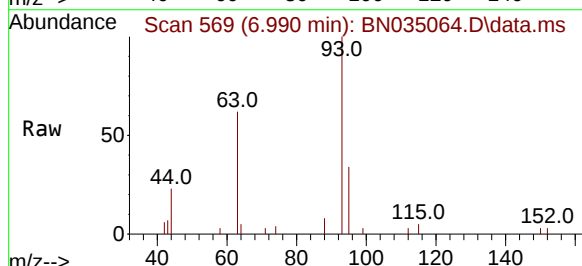
Delta R.T. 0.000 min

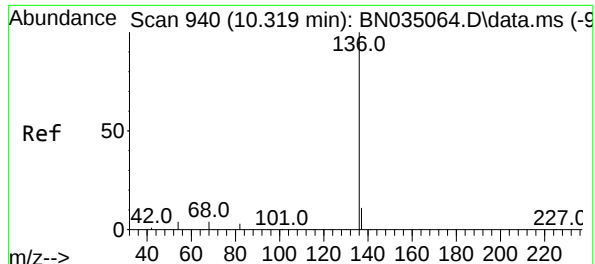
Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Tgt Ion: 93 Resp: 2504

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 93  | 100   |       |       |
| 63  | 59.3  | 47.4  | 71.2  |
| 95  | 32.8  | 26.2  | 39.4  |

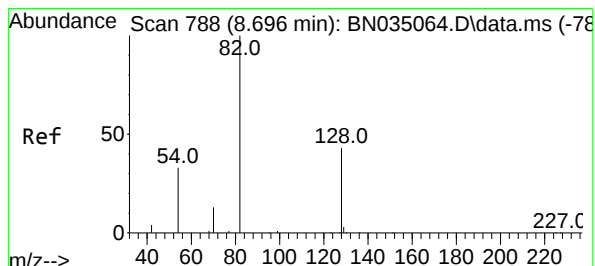
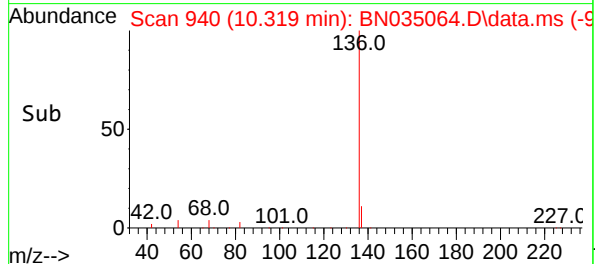
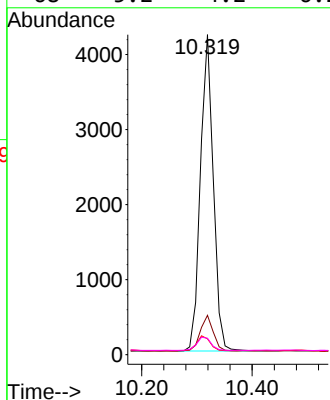
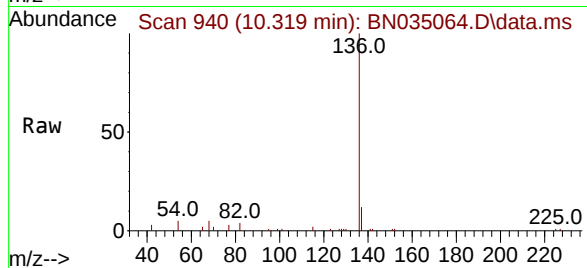




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

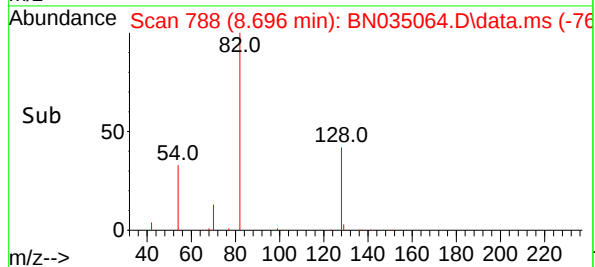
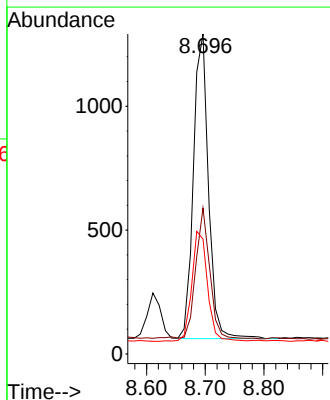
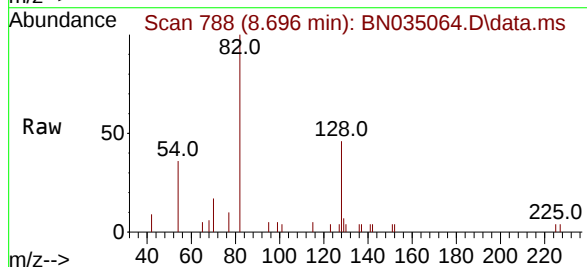
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

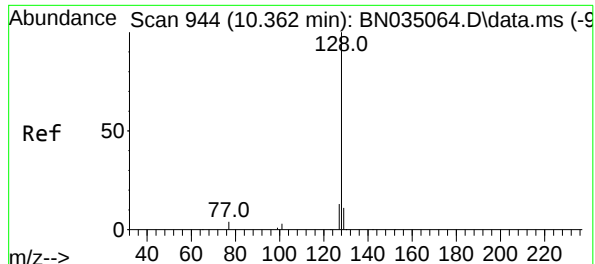
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 6865  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.3  | 9.8   | 14.8  |
| 54       | 5.0   | 4.0   | 6.0   |
| 68       | 5.2   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 0.369 ng  
RT: 8.696 min Scan# 788  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 2197  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 45.6  | 36.5  | 54.7  |
| 54       | 35.9  | 28.7  | 43.1  |

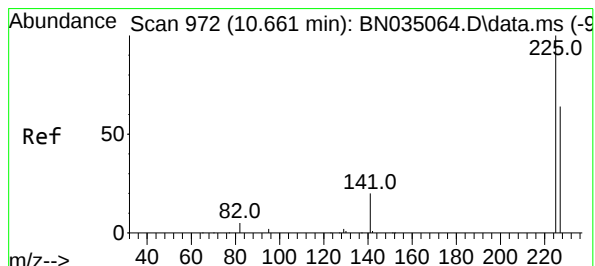
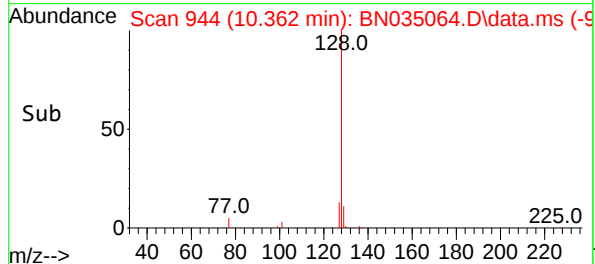
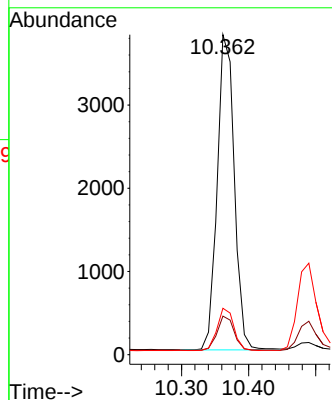
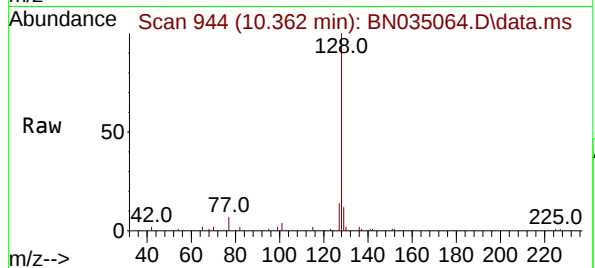




#9  
Naphthalene  
Concen: 0.374 ng  
RT: 10.362 min Scan# 944  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

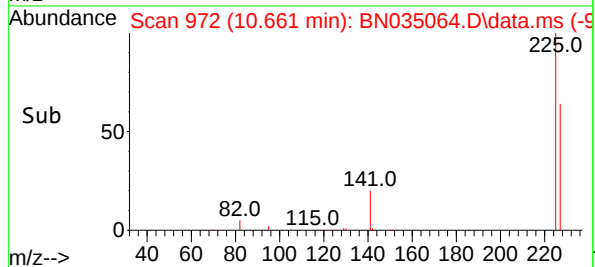
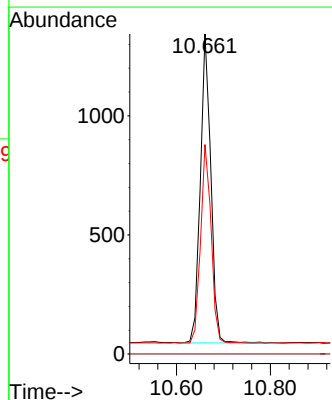
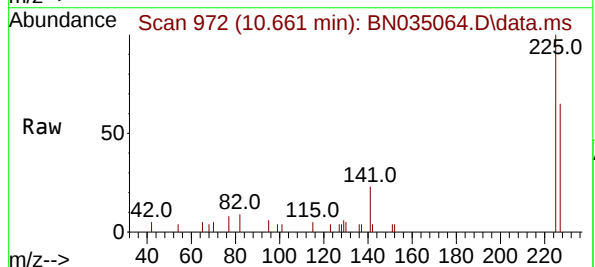
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

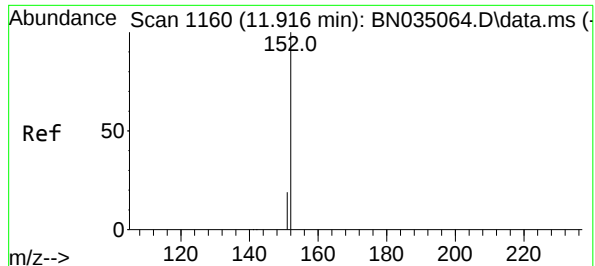
Tgt Ion:128 Resp: 6705  
Ion Ratio Lower Upper  
128 100  
129 12.0 9.6 14.4  
127 14.5 11.6 17.4



#10  
Hexachlorobutadiene  
Concen: 0.383 ng  
RT: 10.661 min Scan# 972  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

Tgt Ion:225 Resp: 2010  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 64.4 51.5 77.3

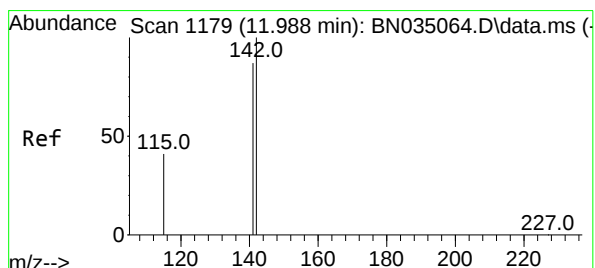
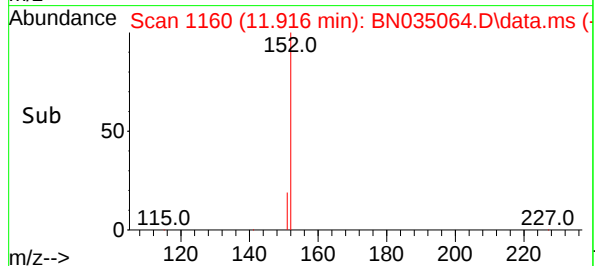
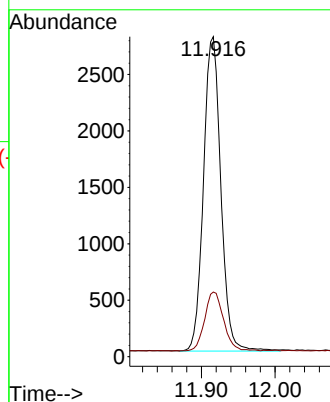
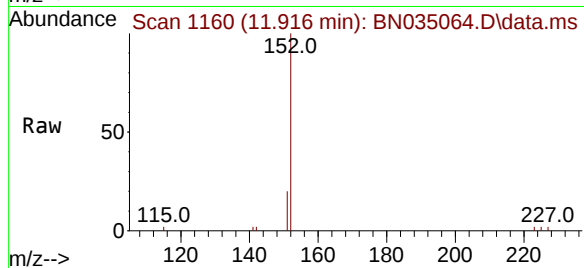




#11  
2-Methylnaphthalene-d10  
Concen: 0.373 ng  
RT: 11.916 min Scan# 1160  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

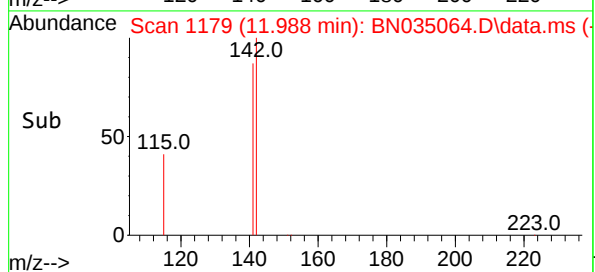
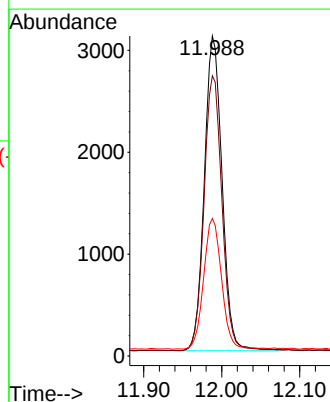
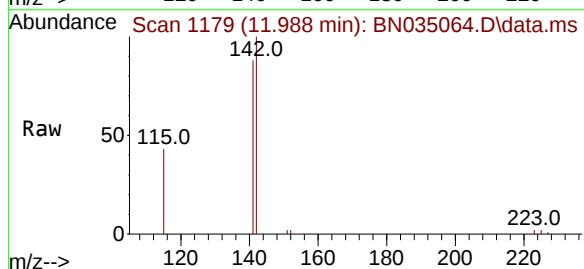
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

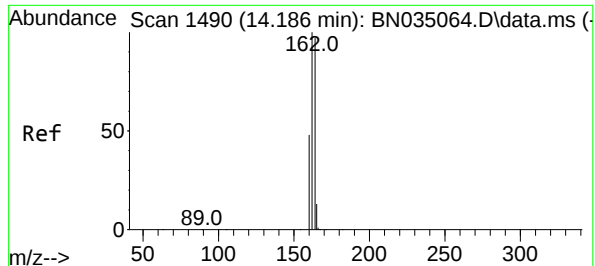
Tgt Ion:152 Resp: 4559  
Ion Ratio Lower Upper  
152 100  
151 20.3 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 0.369 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

Tgt Ion:142 Resp: 4884  
Ion Ratio Lower Upper  
142 100  
141 87.6 70.1 105.1  
115 43.0 34.4 51.6

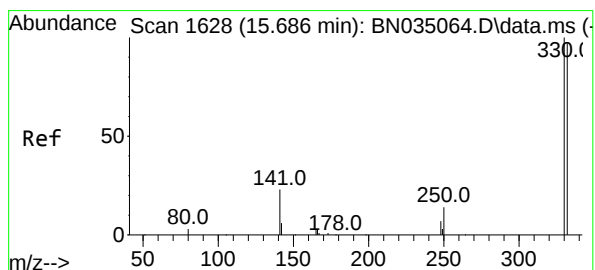
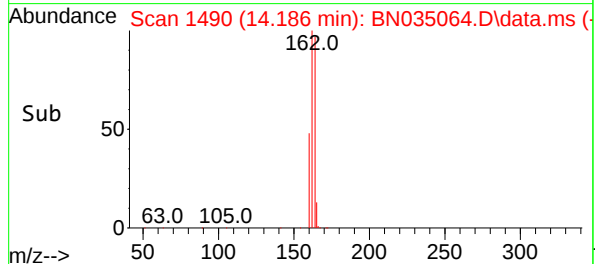
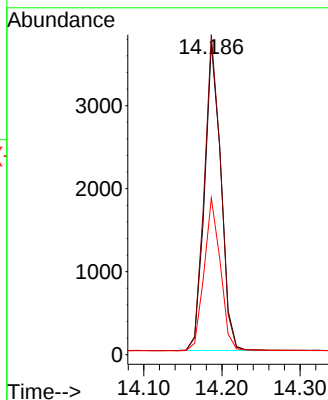
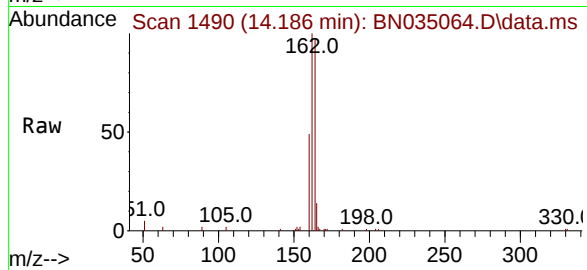




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.186 min Scan# 1490  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

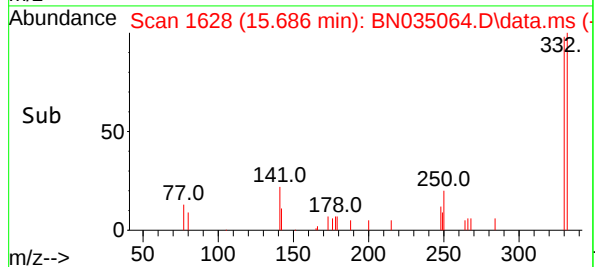
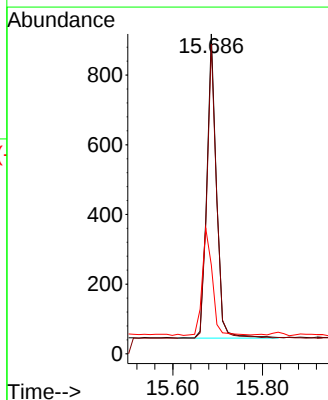
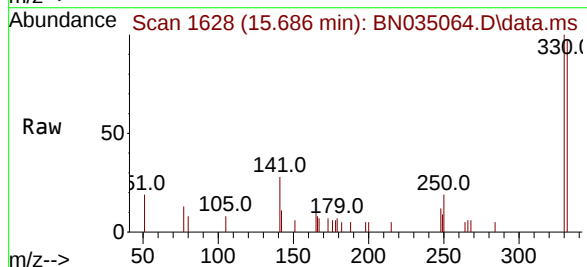
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

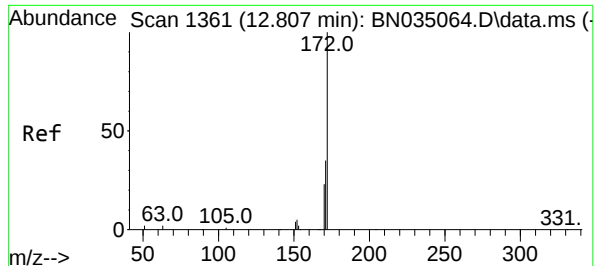
Tgt Ion:164 Resp: 5401  
Ion Ratio Lower Upper  
164 100  
162 102.7 82.2 123.2  
160 50.3 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.333 ng  
RT: 15.686 min Scan# 1628  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

Tgt Ion:330 Resp: 1295  
Ion Ratio Lower Upper  
330 100  
332 96.1 76.9 115.3  
141 37.0 29.6 44.4

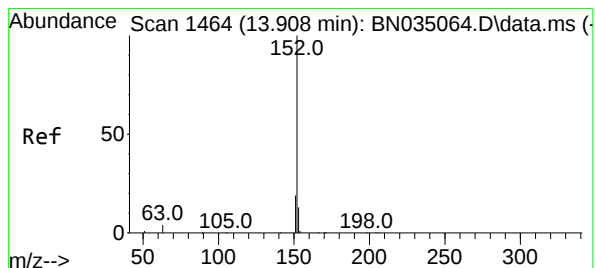
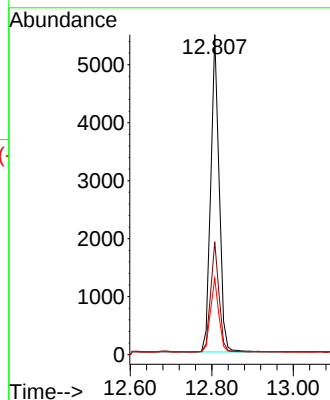
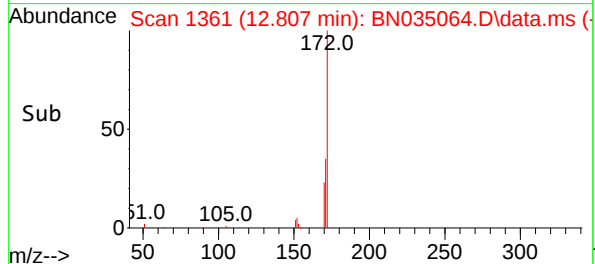
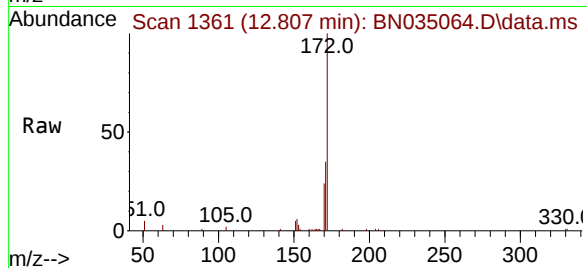




#15  
2-Fluorobiphenyl  
Concen: 0.360 ng  
RT: 12.807 min Scan# 1361  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

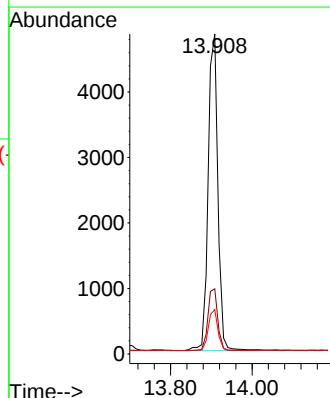
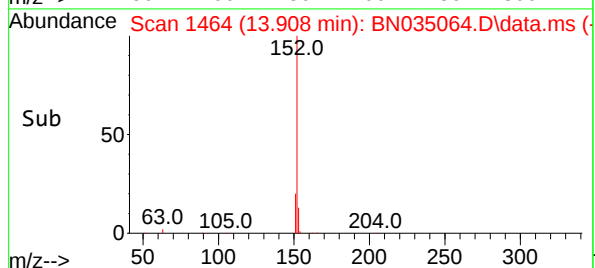
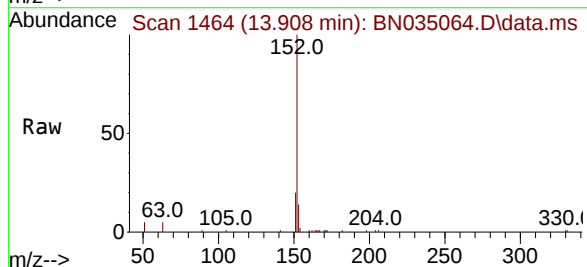
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

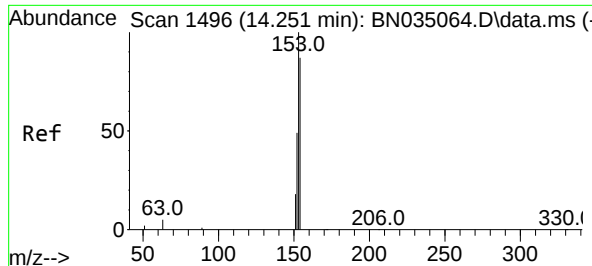
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 35.3  | 28.2  | 42.4  |
| 170     | 23.8  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 0.348 ng  
RT: 13.908 min Scan# 1464  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.8  | 15.8  | 23.8  |
| 153     | 12.8  | 10.2  | 15.4  |

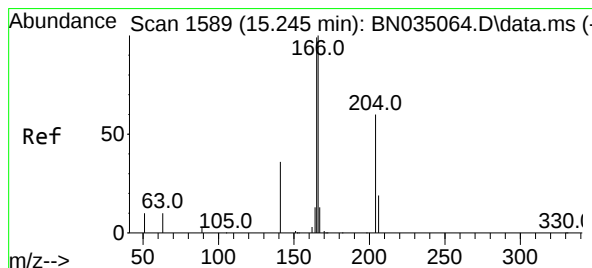
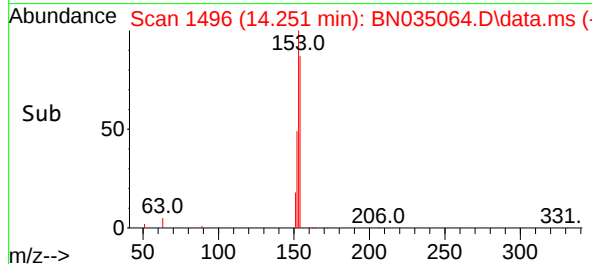
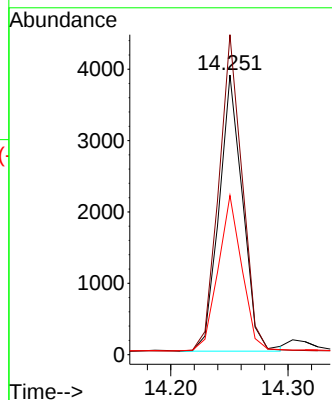
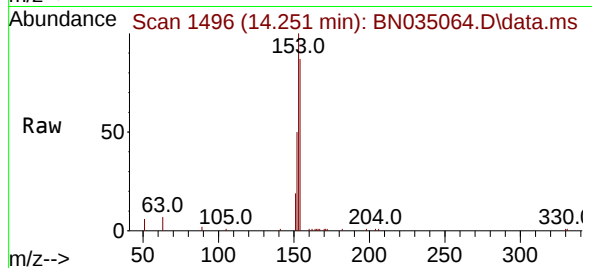




#17  
Acenaphthene  
Concen: 0.357 ng  
RT: 14.251 min Scan# 1496  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

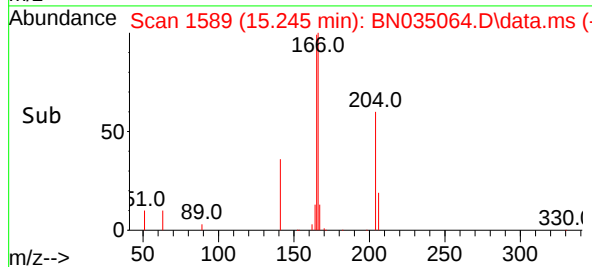
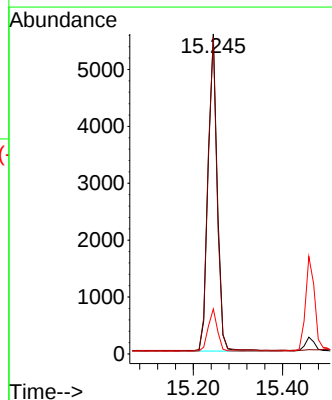
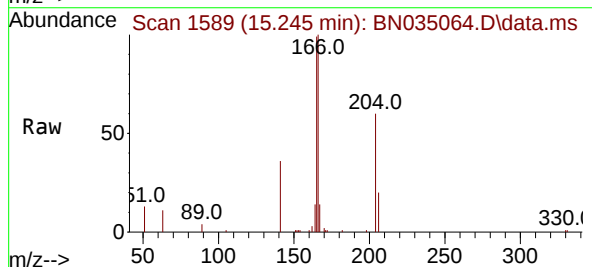
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

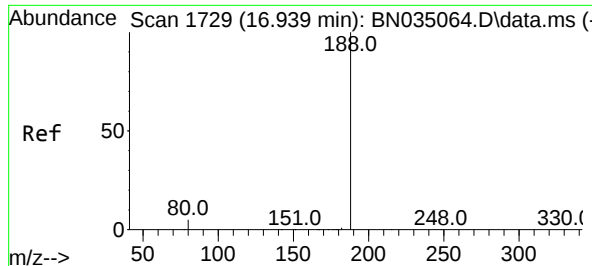
| Tgt Ion   | 154  | 153   | 152  |
|-----------|------|-------|------|
| Resp:     | 5401 |       |      |
| Ion Ratio | 100  | 114.5 | 57.2 |
| Lower     |      | 91.6  | 45.8 |
| Upper     |      | 137.4 | 68.6 |



#18  
Fluorene  
Concen: 0.355 ng  
RT: 15.245 min Scan# 1589  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

| Tgt Ion   | 166  | 165   | 167  |
|-----------|------|-------|------|
| Resp:     | 7900 |       |      |
| Ion Ratio | 100  | 98.9  | 13.3 |
| Lower     |      | 79.1  | 10.6 |
| Upper     |      | 118.7 | 16.0 |





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.939 min Scan# 1729

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

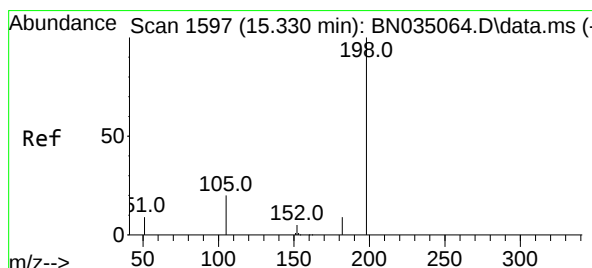
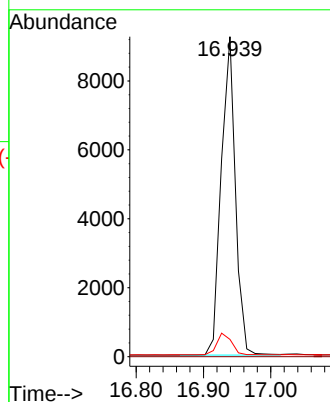
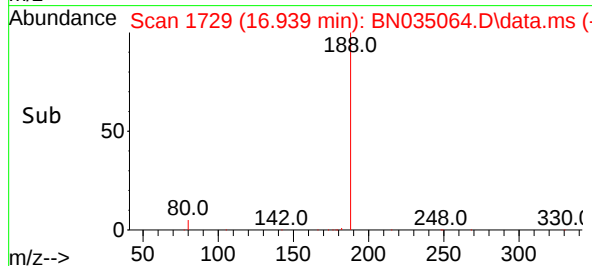
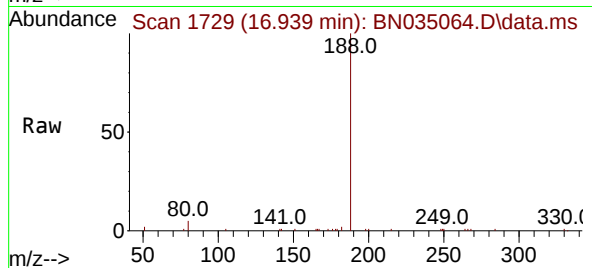
Tgt Ion:188 Resp: 13499

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 5.4 4.3 6.5



#20

4,6-Dinitro-2-methylphenol

Concen: 0.348 ng

RT: 15.330 min Scan# 1597

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

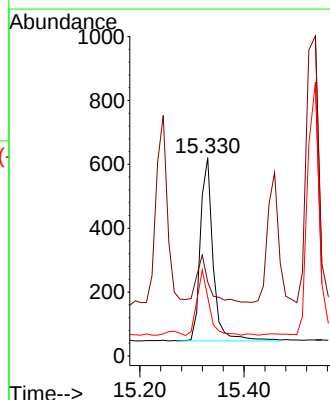
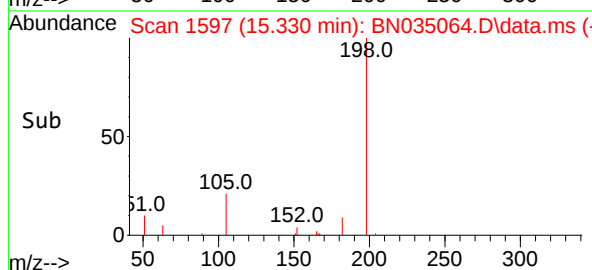
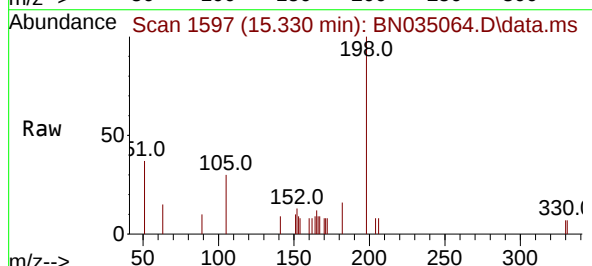
Tgt Ion:198 Resp: 979

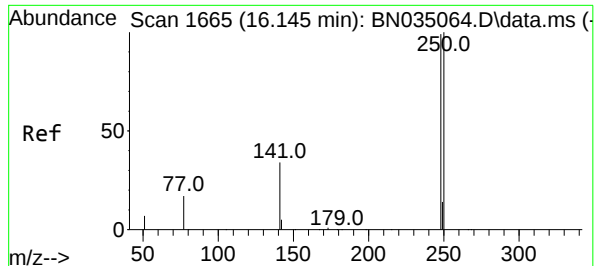
Ion Ratio Lower Upper

198 100

51 37.4 29.9 44.9

105 29.6 23.7 35.5

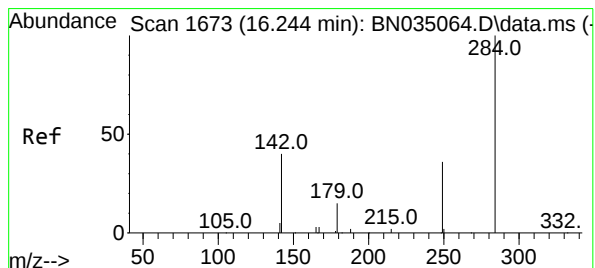
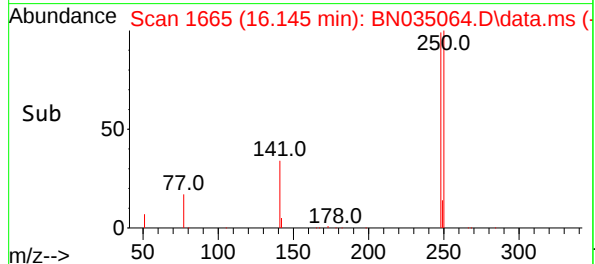
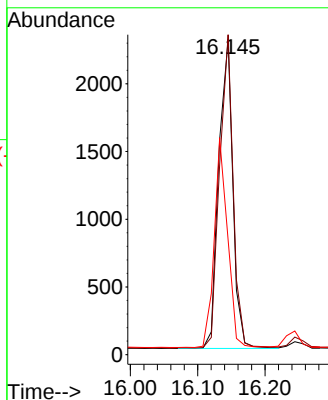
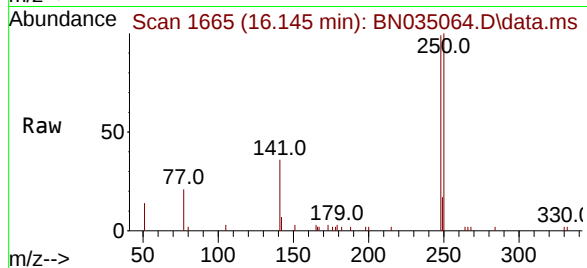




#21  
4-Bromophenyl-phenylether  
Concen: 0.386 ng  
RT: 16.145 min Scan# 1665  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

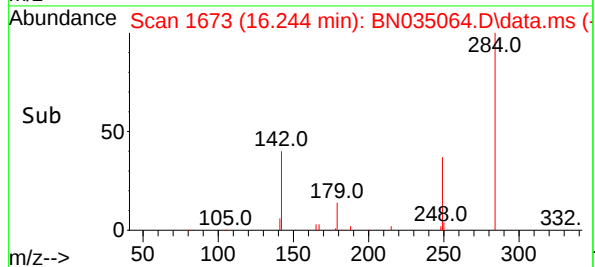
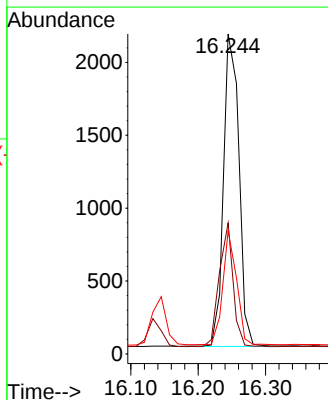
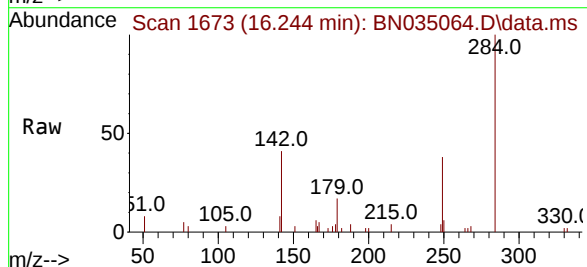
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

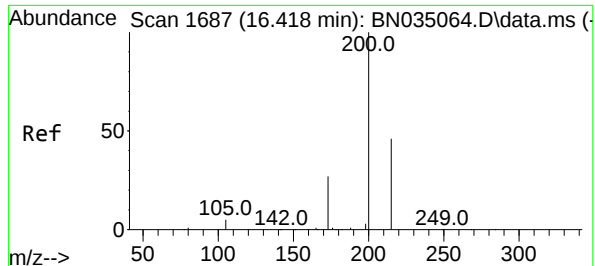
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 101.5 | 81.2  | 121.8 |
| 141     | 36.4  | 29.1  | 43.7  |



#22  
Hexachlorobenzene  
Concen: 0.382 ng  
RT: 16.244 min Scan# 1673  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 35.3  | 28.2  | 42.4  |
| 249     | 32.7  | 26.2  | 39.2  |

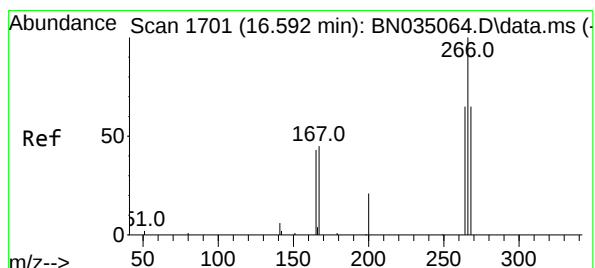
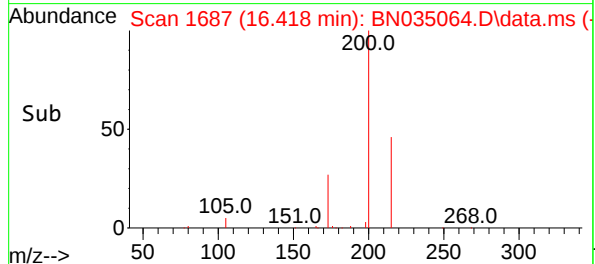
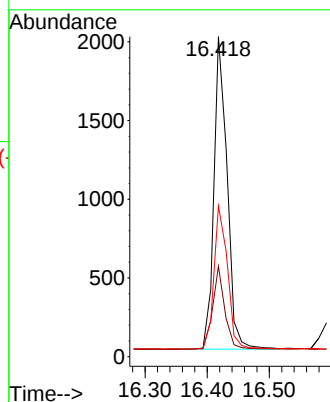
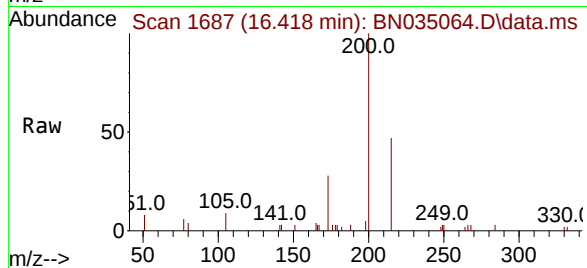




#23  
Atrazine  
Concen: 0.379 ng  
RT: 16.418 min Scan# 1687  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

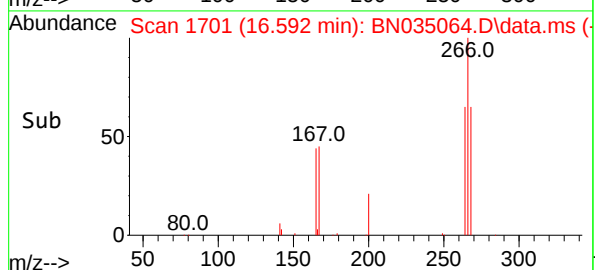
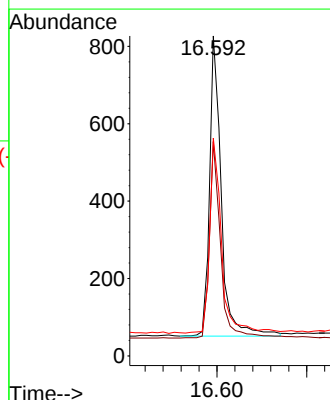
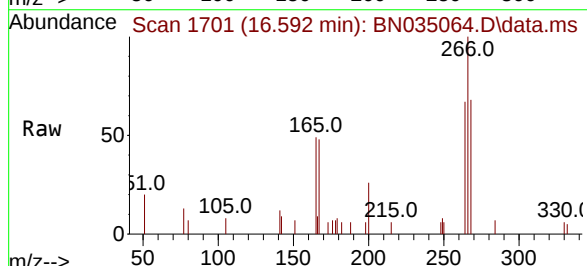
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

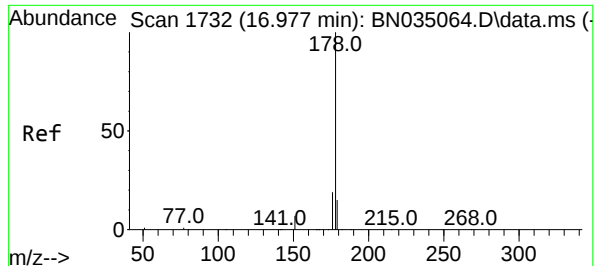
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 200     | 100   |       |       |
| 173     | 28.2  | 22.6  | 33.8  |
| 215     | 47.2  | 37.8  | 56.6  |



#24  
Pentachlorophenol  
Concen: 0.336 ng  
RT: 16.592 min Scan# 1701  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 61.7  | 49.4  | 74.0  |
| 268     | 65.8  | 52.6  | 79.0  |

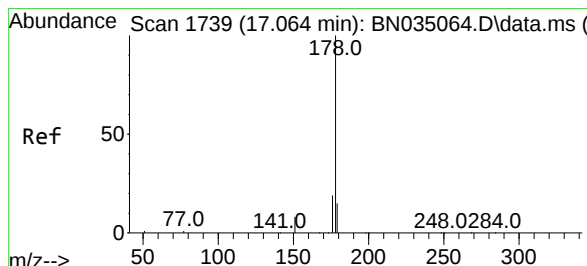
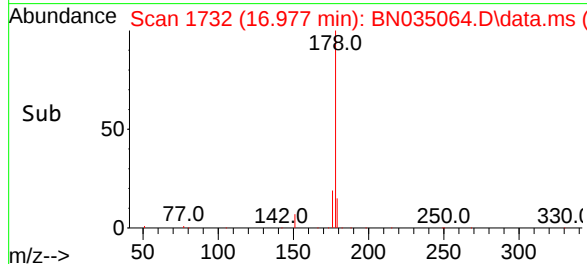
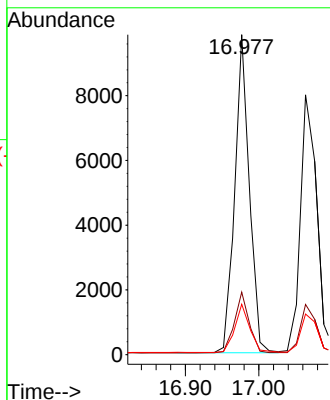
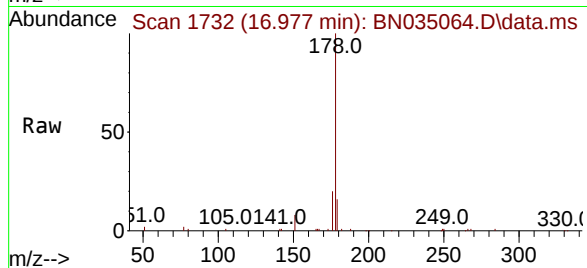




#25  
Phenanthrene  
Concen: 0.382 ng  
RT: 16.977 min Scan# 1732  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

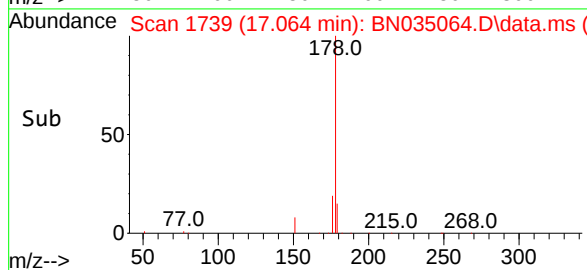
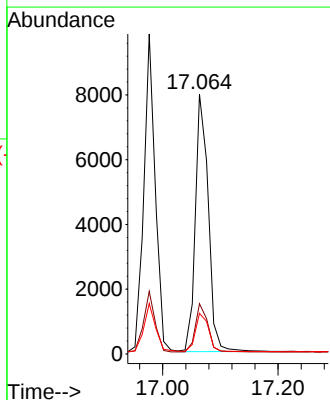
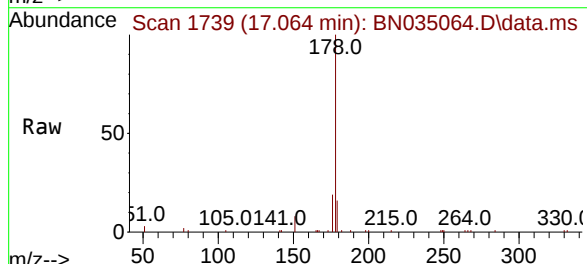
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

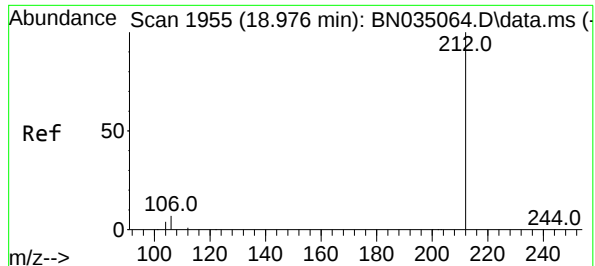
Tgt Ion:178 Resp: 13558  
Ion Ratio Lower Upper  
178 100  
176 19.0 15.2 22.8  
179 15.7 12.6 18.8



#26  
Anthracene  
Concen: 0.381 ng  
RT: 17.064 min Scan# 1739  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

Tgt Ion:178 Resp: 12422  
Ion Ratio Lower Upper  
178 100  
176 18.3 14.6 22.0  
179 15.2 12.2 18.2





#27

Fluoranthene-d10

Concen: 0.382 ng

RT: 18.976 min Scan# 1955

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

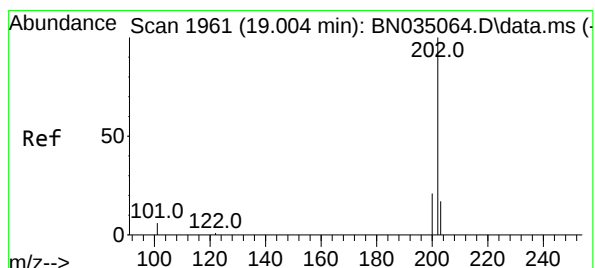
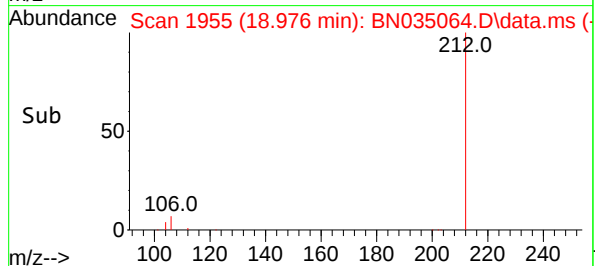
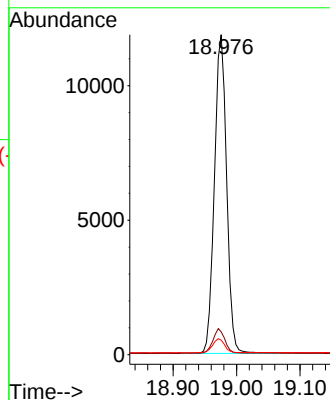
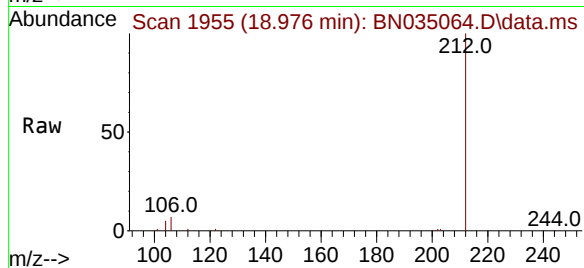
Tgt Ion:212 Resp: 15786

Ion Ratio Lower Upper

212 100

106 7.5 6.0 9.0

104 4.4 3.5 5.3



#28

Fluoranthene

Concen: 0.383 ng

RT: 19.004 min Scan# 1961

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

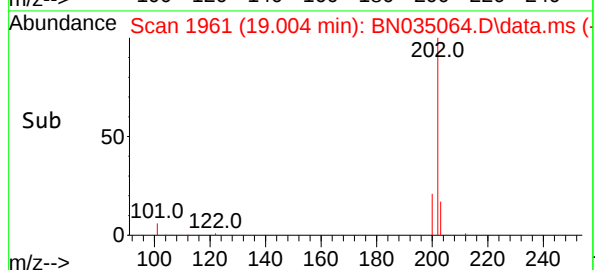
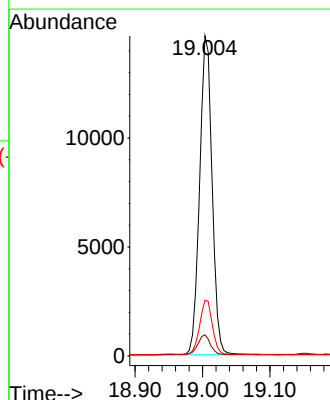
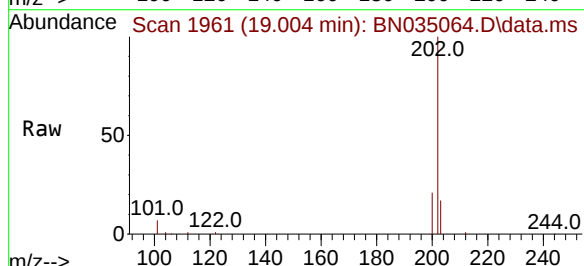
Tgt Ion:202 Resp: 18716

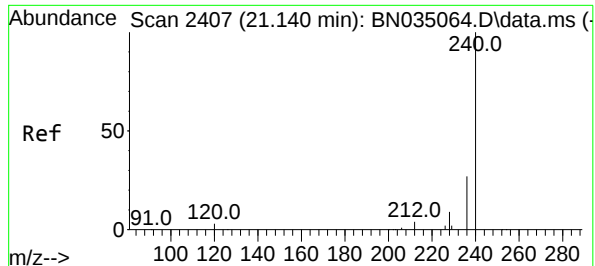
Ion Ratio Lower Upper

202 100

101 6.5 5.2 7.8

203 17.3 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.140 min Scan# 2407

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

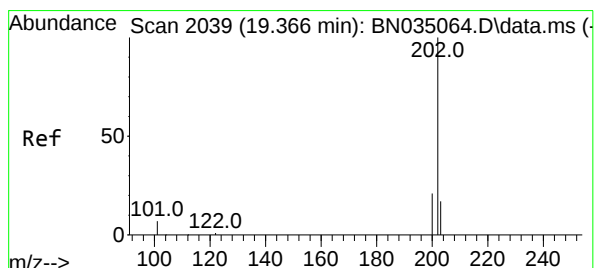
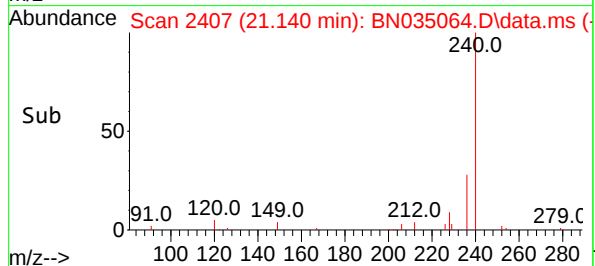
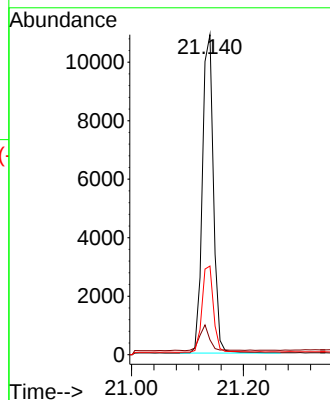
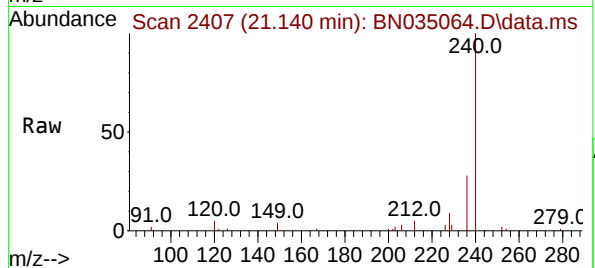
Tgt Ion:240 Resp: 14946

Ion Ratio Lower Upper

240 100

120 4.7 3.8 5.6

236 27.7 22.2 33.2



#30

Pyrene

Concen: 0.387 ng

RT: 19.366 min Scan# 2039

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

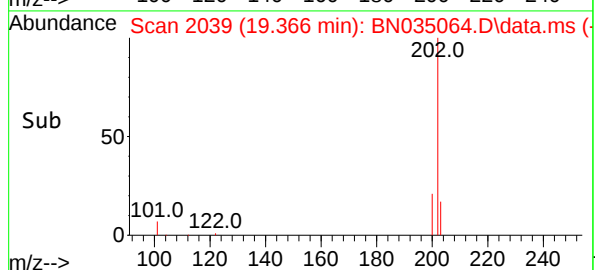
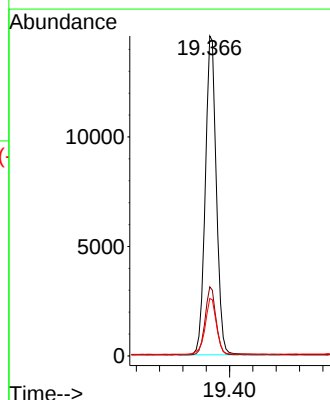
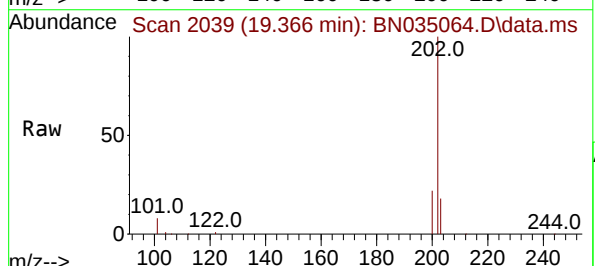
Tgt Ion:202 Resp: 19252

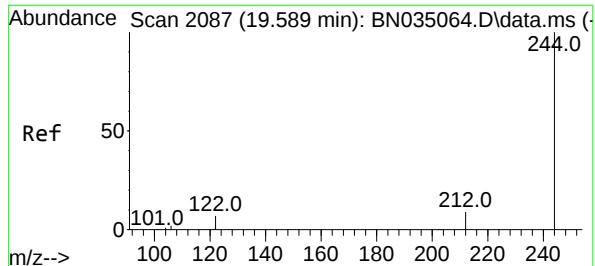
Ion Ratio Lower Upper

202 100

200 20.9 16.7 25.1

203 17.8 14.2 21.4

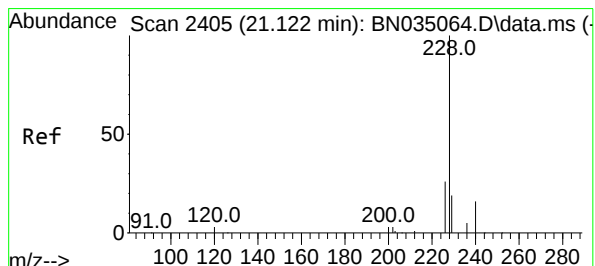
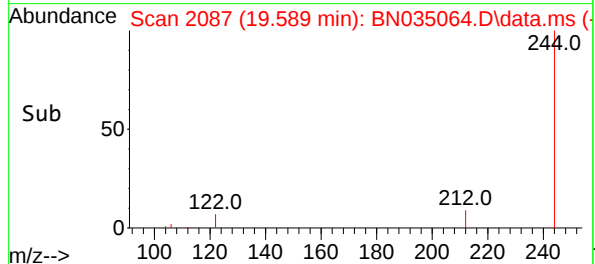
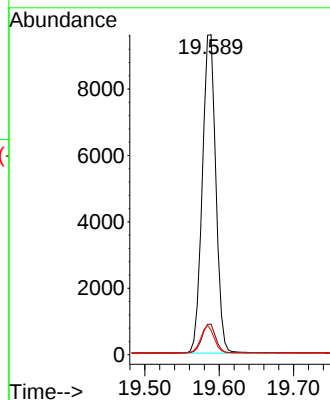
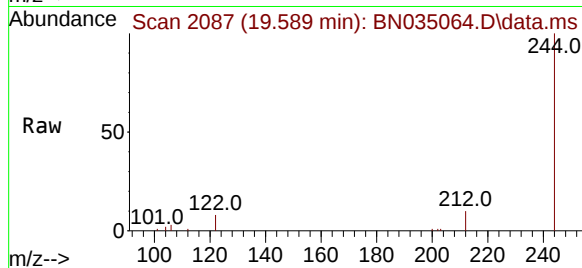




#31  
Terphenyl-d14  
Concen: 0.386 ng  
RT: 19.589 min Scan# 2087  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

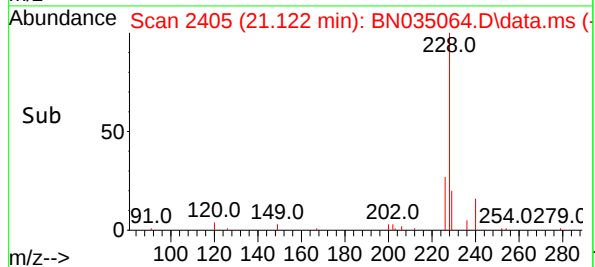
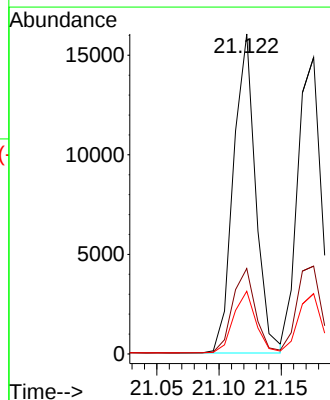
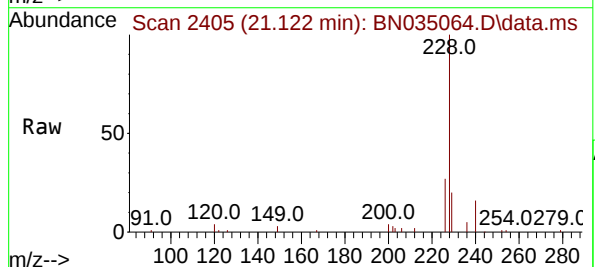
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

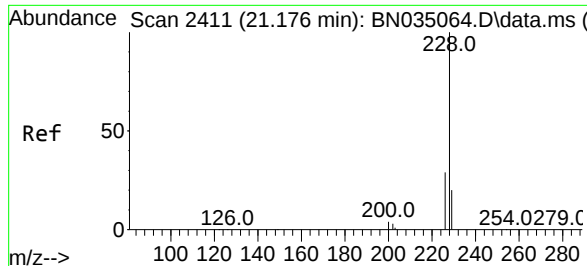
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 9.5   | 7.6   | 11.4  |
| 122     | 7.6   | 6.1   | 9.1   |



#32  
Benzo(a)anthracene  
Concen: 0.381 ng  
RT: 21.122 min Scan# 2405  
Delta R.T. 0.000 min  
Lab File: BN035064.D  
Acq: 13 Nov 2024 13:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 26.7  | 21.4  | 32.0  |
| 229     | 19.6  | 15.7  | 23.5  |





#33

Chrysene

Concen: 0.386 ng

RT: 21.176 min Scan# 2411

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

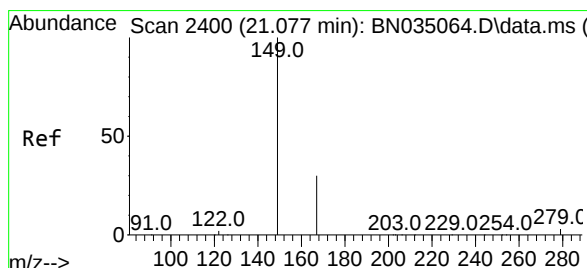
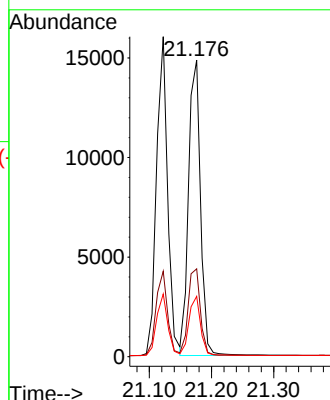
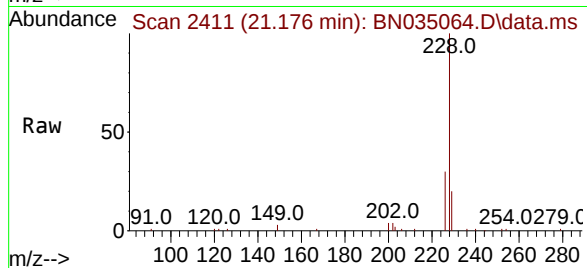
Tgt Ion:228 Resp: 19908

Ion Ratio Lower Upper

228 100

226 29.6 23.7 35.5

229 20.3 16.2 24.4



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.357 ng

RT: 21.077 min Scan# 2400

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

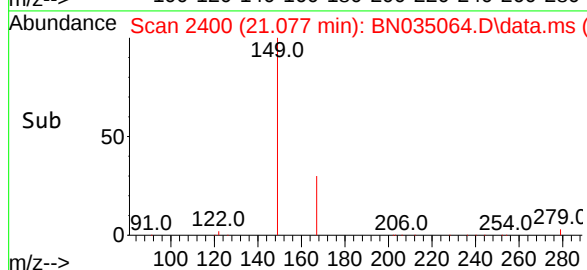
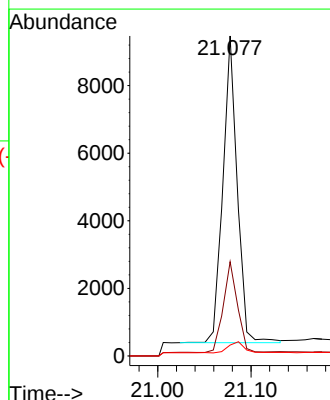
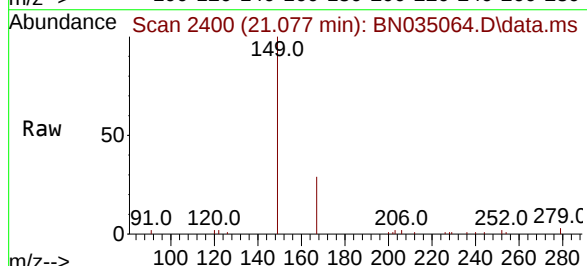
Tgt Ion:149 Resp: 9671

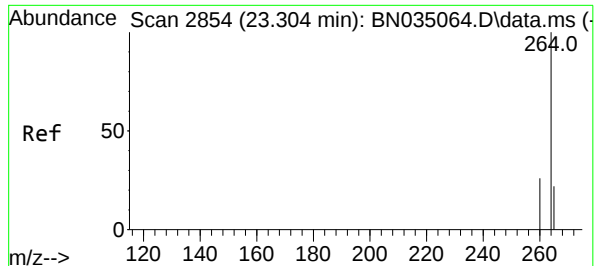
Ion Ratio Lower Upper

149 100

167 29.0 23.2 34.8

279 4.0 3.2 4.8





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.304 min Scan# 2854

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

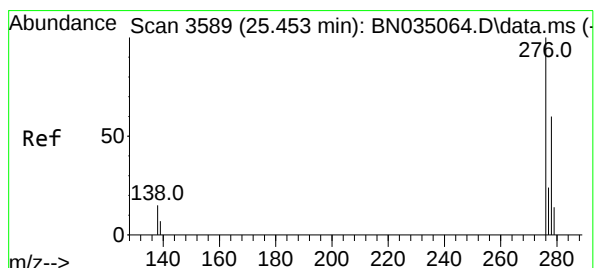
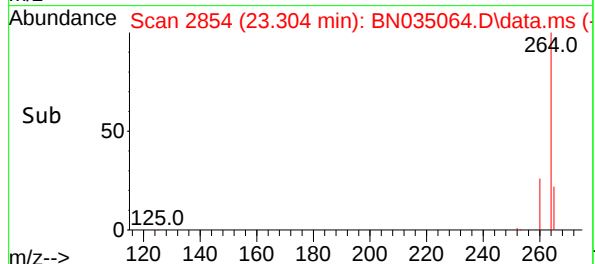
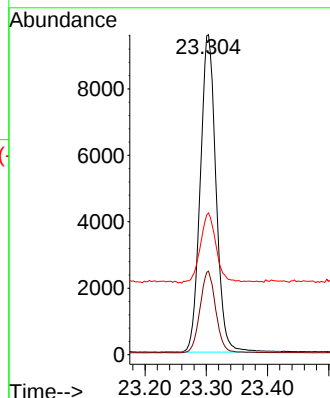
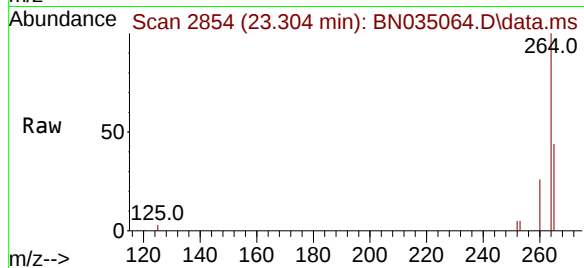
Tgt Ion:264 Resp: 17077

Ion Ratio Lower Upper

264 100

260 26.1 20.9 31.3

265 44.3 35.4 53.2



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.381 ng

RT: 25.453 min Scan# 3589

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

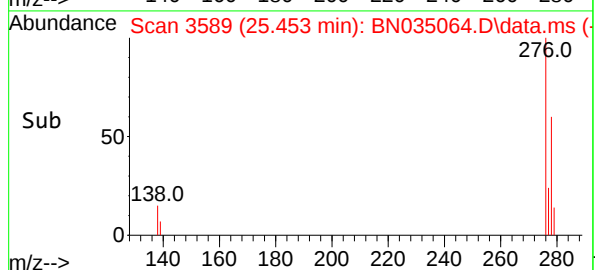
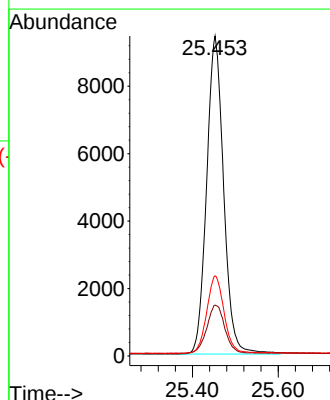
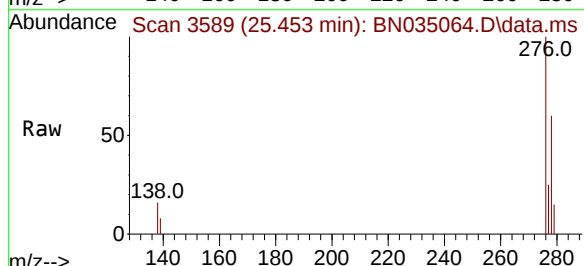
Tgt Ion:276 Resp: 25986

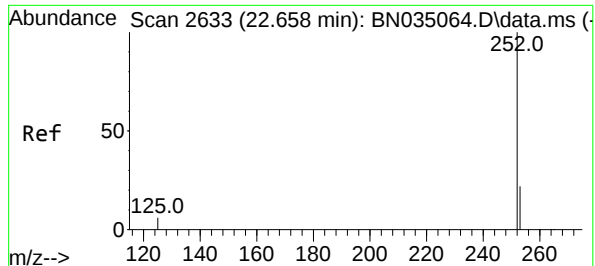
Ion Ratio Lower Upper

276 100

138 16.2 13.0 19.4

277 24.7 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.380 ng

RT: 22.658 min Scan# 2633

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

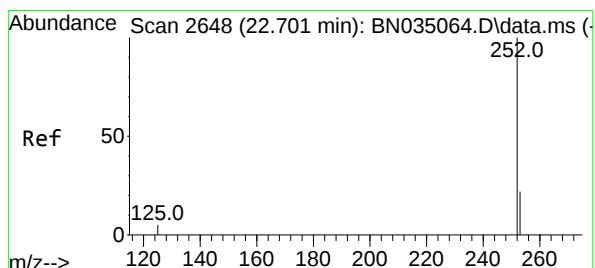
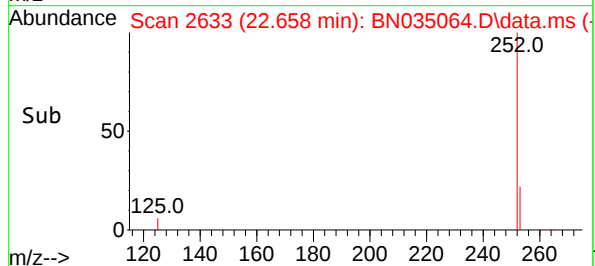
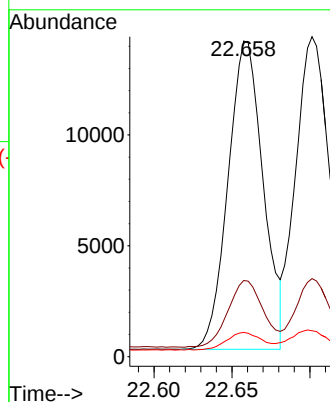
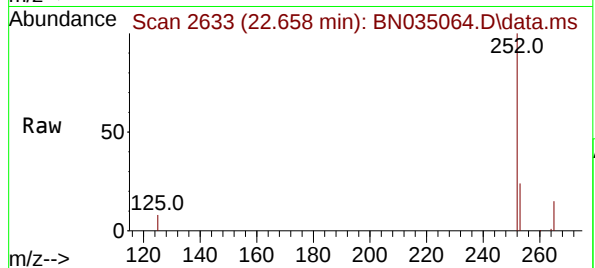
Tgt Ion:252 Resp: 21843

Ion Ratio Lower Upper

252 100

253 24.1 19.3 28.9

125 7.7 6.2 9.2



#38

Benzo(k)fluoranthene

Concen: 0.382 ng

RT: 22.701 min Scan# 2648

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

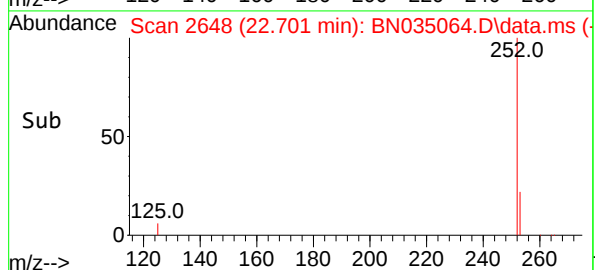
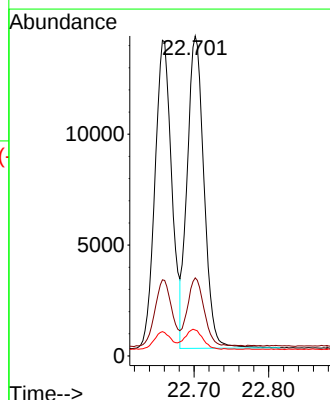
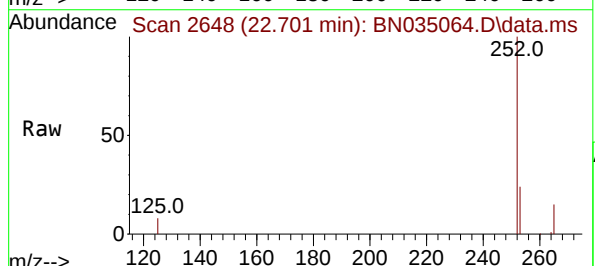
Tgt Ion:252 Resp: 21977

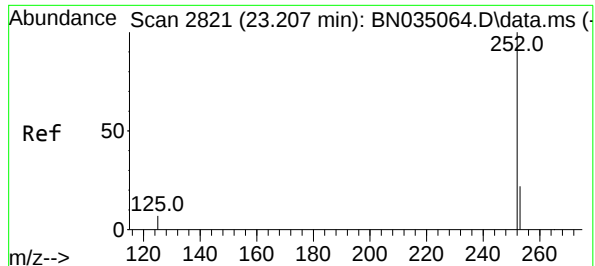
Ion Ratio Lower Upper

252 100

253 24.4 19.5 29.3

125 8.1 6.5 9.7





#39

Benzo(a)pyrene

Concen: 0.379 ng

RT: 23.207 min Scan# 2821

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

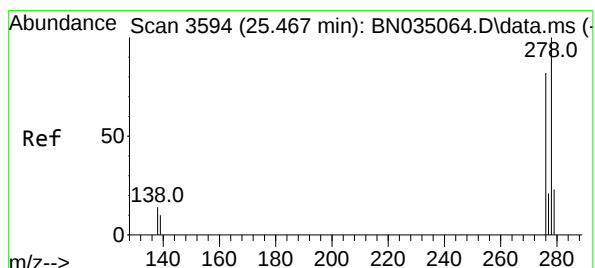
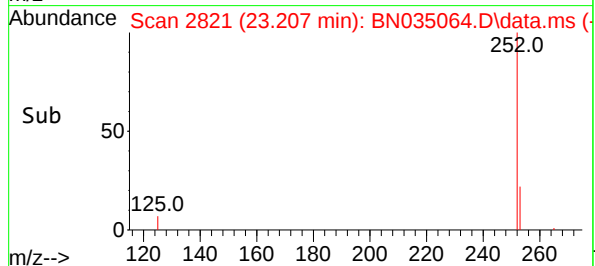
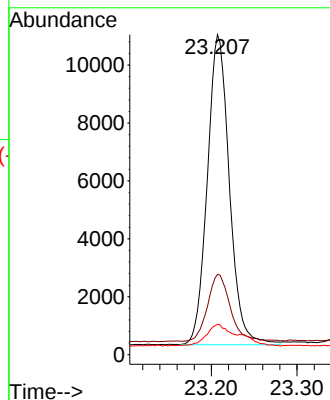
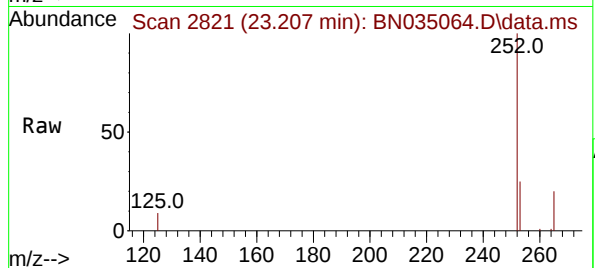
Tgt Ion:252 Resp: 19170

Ion Ratio Lower Upper

252 100

253 25.1 20.1 30.1

125 9.4 7.5 11.3



#40

Dibenzo(a,h)anthracene

Concen: 0.383 ng

RT: 25.467 min Scan# 3594

Delta R.T. 0.000 min

Lab File: BN035064.D

Acq: 13 Nov 2024 13:52

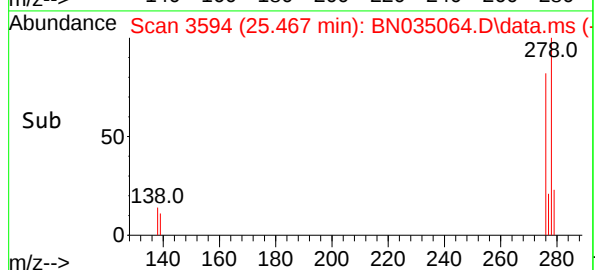
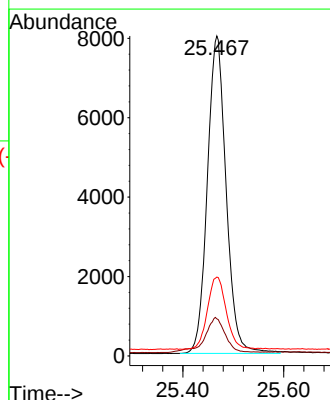
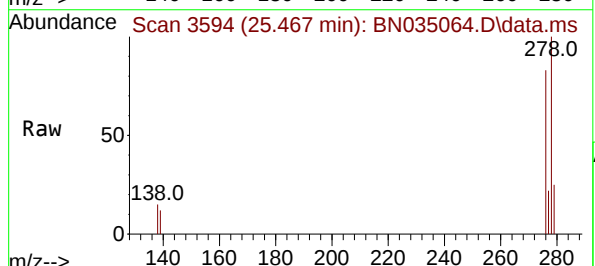
Tgt Ion:278 Resp: 20655

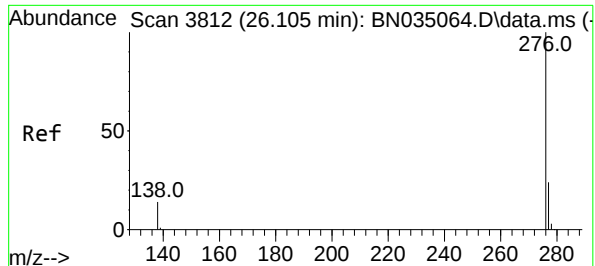
Ion Ratio Lower Upper

278 100

139 11.6 9.3 13.9

279 24.6 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 0.382 ng

RT: 26.105 min Scan# 3812

Delta R.T. 0.000 min

Lab File: BN035064.D

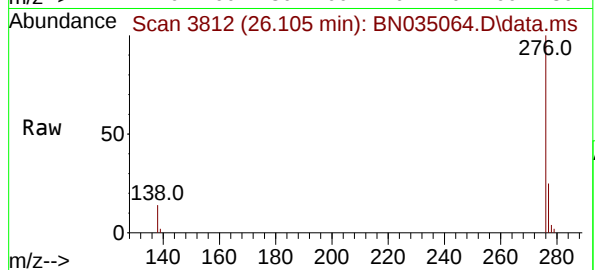
Acq: 13 Nov 2024 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4



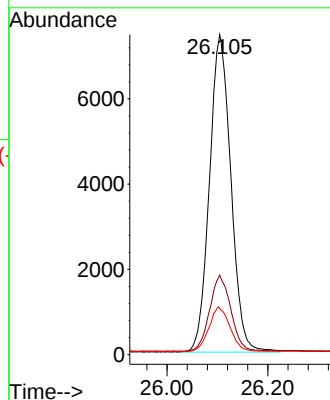
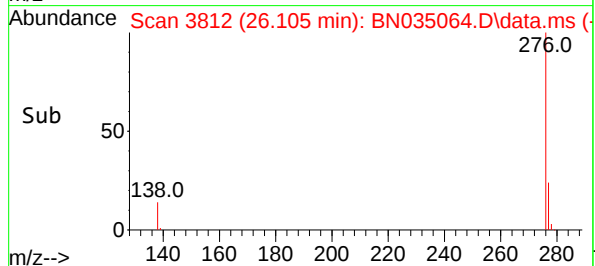
Tgt Ion:276 Resp: 21955

Ion Ratio Lower Upper

276 100

277 24.9 19.9 29.9

138 14.5 11.6 17.4



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035065.D  
 Acq On : 13 Nov 2024 14:28  
 Operator : RC/JU  
 Sample : SSTDICC0.8  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

Quant Time: Nov 13 16:44:09 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

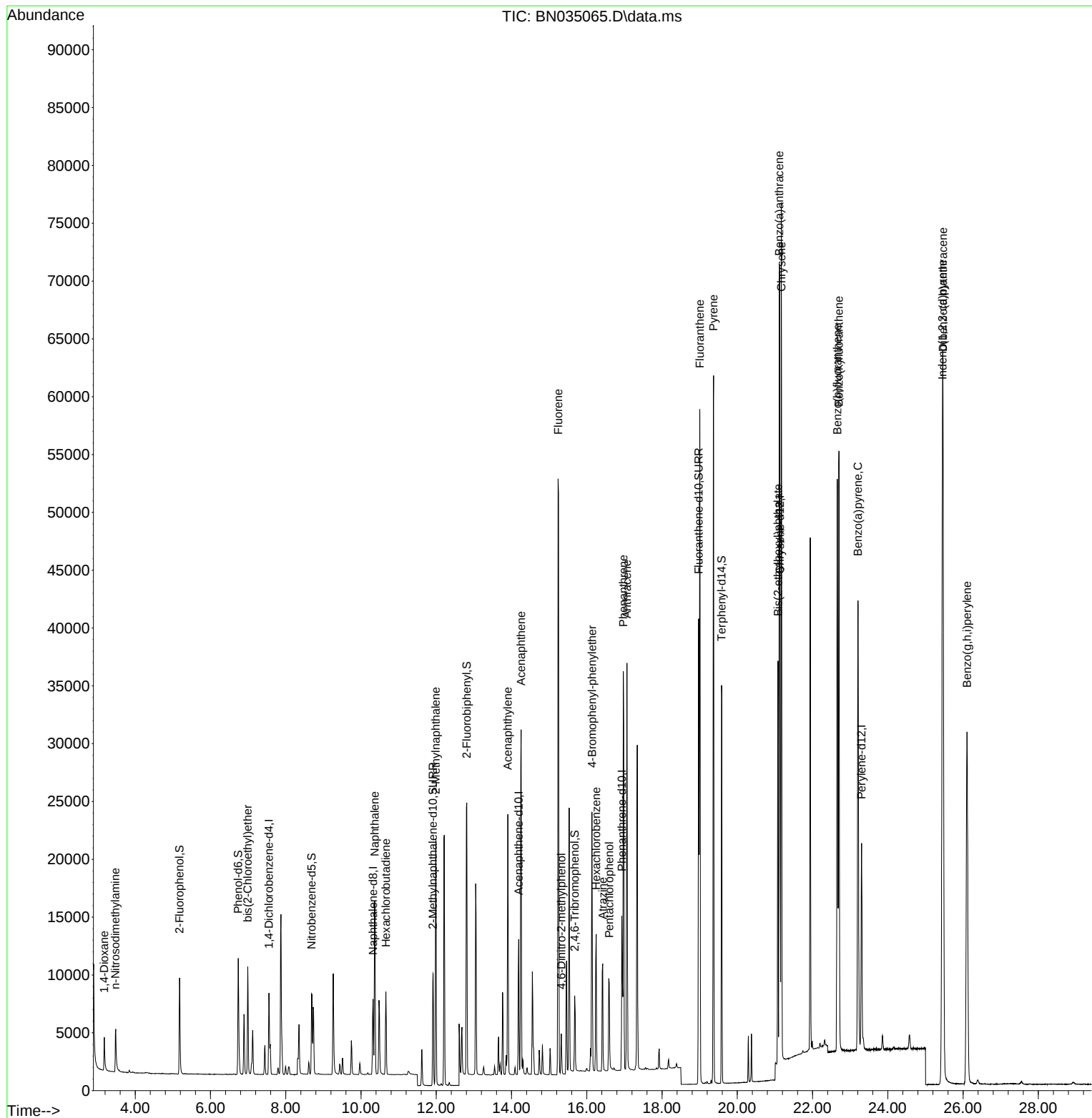
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 3429     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 8612     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 6454     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.933 | 188  | 17302    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.134 | 240  | 19278    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.300 | 264  | 21751    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 7450     | 0.856 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 9293     | 0.851 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.685  | 82   | 6336     | 0.848 | ng    | -0.01    |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 13119    | 0.855 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.679 | 330  | 3866     | 0.831 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.811 | 172  | 22399    | 0.855 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 44583    | 0.841 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.582 | 244  | 34460    | 0.852 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.177  | 88   | 2545     | 0.817 | ng    | 99       |
| 3) n-Nitrosodimethylamine     | 3.473  | 42   | 2466     | 0.853 | ng    | # 96     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 7043     | 0.860 | ng    | 99       |
| 9) Naphthalene                | 10.362 | 128  | 19223    | 0.855 | ng    | 98       |
| 10) Hexachlorobutadiene       | 10.661 | 225  | 5612     | 0.851 | ng    | # 100    |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 14179    | 0.855 | ng    | 99       |
| 16) Acenaphthylene            | 13.902 | 152  | 23520    | 0.853 | ng    | 99       |
| 17) Acenaphthene              | 14.254 | 154  | 15511    | 0.858 | ng    | 99       |
| 18) Fluorene                  | 15.238 | 166  | 22649    | 0.852 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.323 | 198  | 3013     | 0.837 | ng    | # 87     |
| 21) 4-Bromophenyl-phenylether | 16.138 | 248  | 9403     | 0.853 | ng    | # 85     |
| 22) Hexachlorobenzene         | 16.250 | 284  | 9574     | 0.837 | ng    | 99       |
| 23) Atrazine                  | 16.424 | 200  | 8427     | 0.852 | ng    | # 92     |
| 24) Pentachlorophenol         | 16.597 | 266  | 4494     | 0.841 | ng    | 98       |
| 25) Phenanthrene              | 16.970 | 178  | 38573    | 0.847 | ng    | 99       |
| 26) Anthracene                | 17.069 | 178  | 35437    | 0.847 | ng    | 100      |
| 28) Fluoranthene              | 19.006 | 202  | 53391    | 0.853 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 54892    | 0.855 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.116 | 228  | 56460    | 0.841 | ng    | 98       |
| 33) Chrysene                  | 21.169 | 228  | 57039    | 0.858 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 29628    | 0.848 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 25.452 | 276  | 75270    | 0.867 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.657 | 252  | 62606    | 0.855 | ng    | 97       |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 61702    | 0.843 | ng    | 96       |
| 39) Benzo(a)pyrene            | 23.206 | 252  | 54251    | 0.842 | ng    | # 95     |
| 40) Dibenzo(a,h)anthracene    | 25.466 | 278  | 59829    | 0.870 | ng    | 99       |
| 41) Benzo(g,h,i)perylene      | 26.104 | 276  | 63167    | 0.864 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

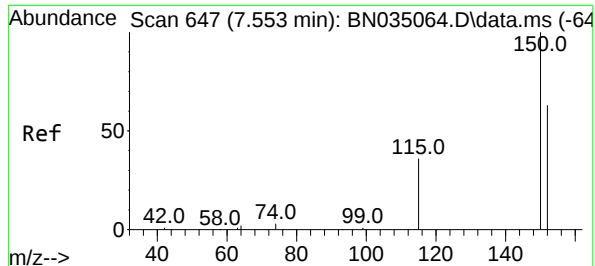
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035065.D  
Acq On : 13 Nov 2024 14:28  
Operator : RC/JU  
Sample : SSTDICC0.8  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

Quant Time: Nov 13 16:44:09 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 16:42:01 2024  
Response via : Initial Calibration

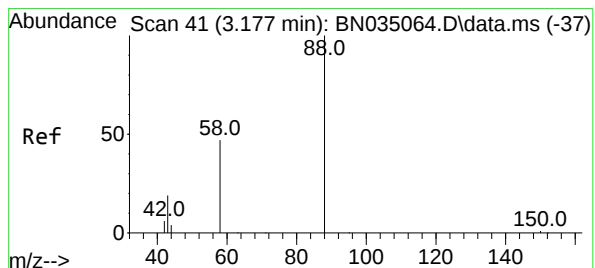
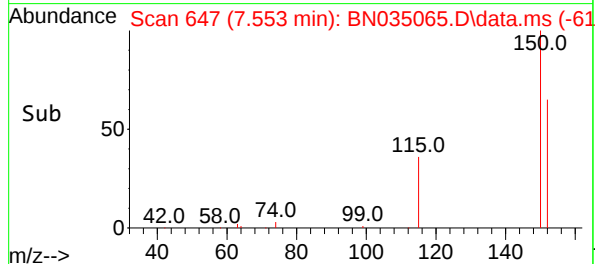
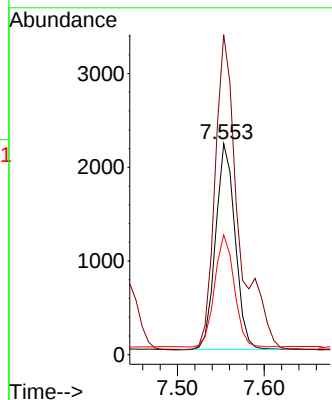
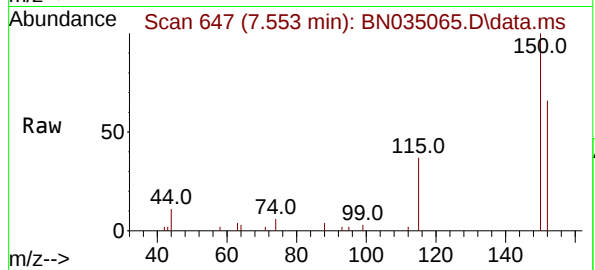




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

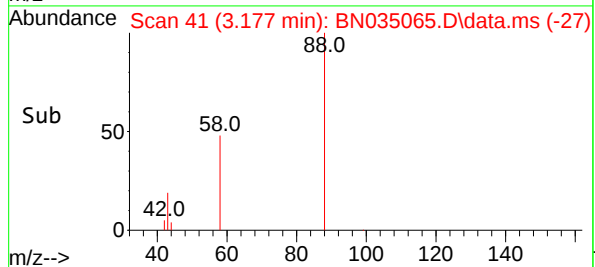
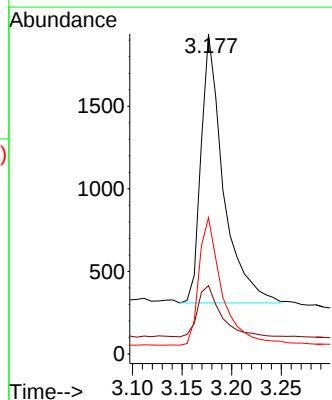
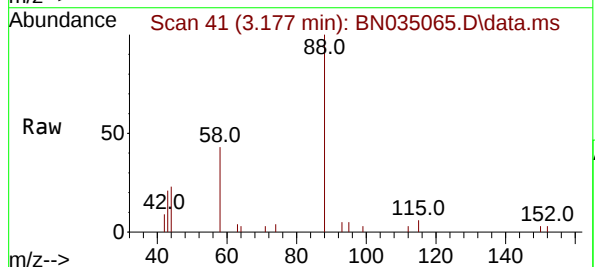
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

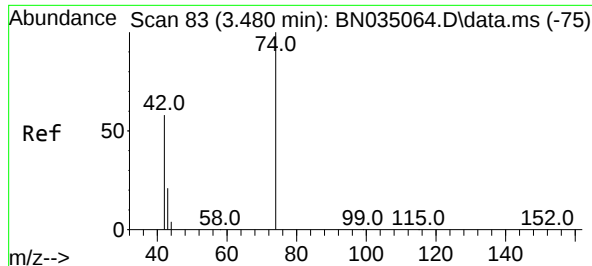
Tgt Ion:152 Resp: 3429  
Ion Ratio Lower Upper  
152 100  
150 151.6 124.5 186.7  
115 56.8 47.8 71.6



#2  
1,4-Dioxane  
Concen: 0.817 ng  
RT: 3.177 min Scan# 41  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion: 88 Resp: 2545  
Ion Ratio Lower Upper  
88 100  
43 19.8 16.9 25.3  
58 49.3 39.0 58.4

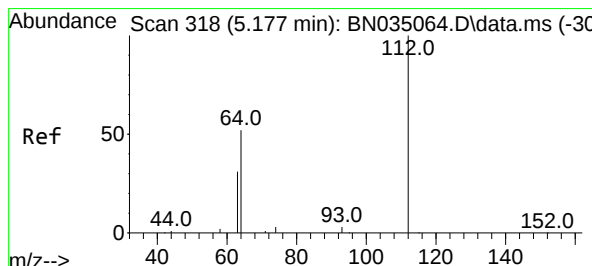
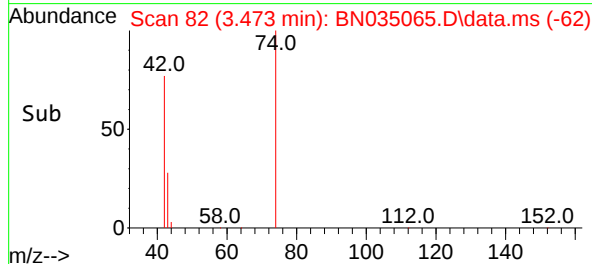
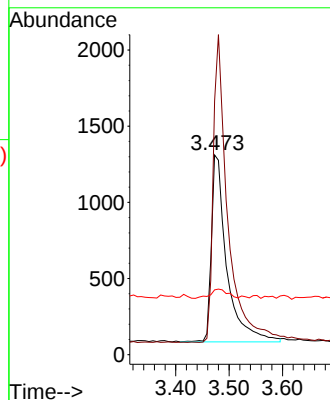
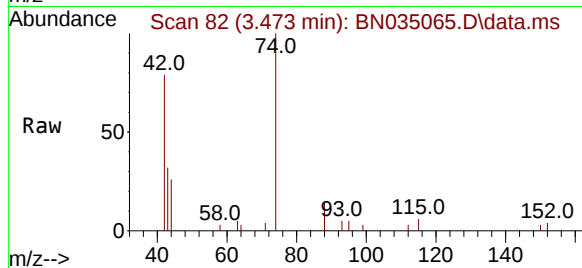




#3  
n-Nitrosodimethylamine  
Concen: 0.853 ng  
RT: 3.473 min Scan# 81  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

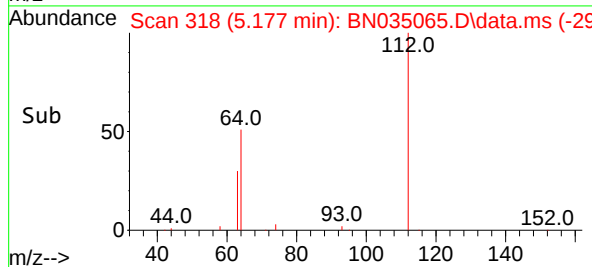
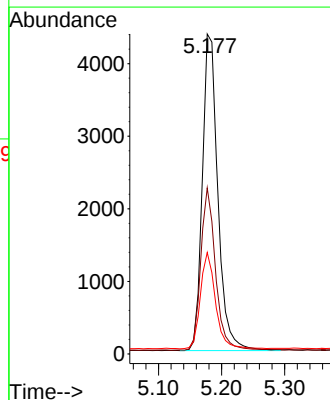
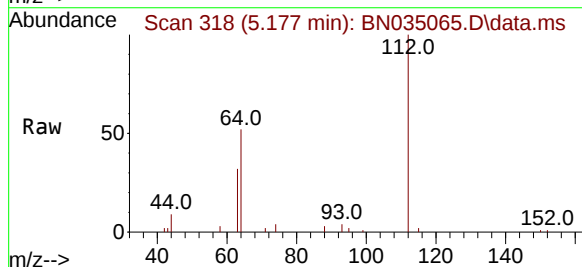
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

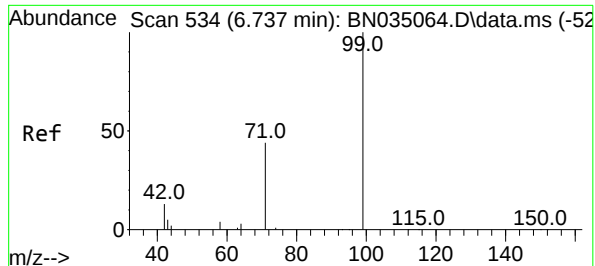
Tgt Ion: 42 Resp: 2466  
Ion Ratio Lower Upper  
42 100  
74 155.8 120.8 181.2  
44 5.4 2.9 4.3#



#4  
2-Fluorophenol  
Concen: 0.856 ng  
RT: 5.177 min Scan# 318  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion: 112 Resp: 7450  
Ion Ratio Lower Upper  
112 100  
64 49.1 39.7 59.5  
63 29.6 23.0 34.4

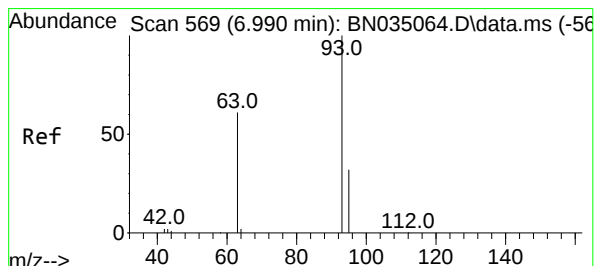
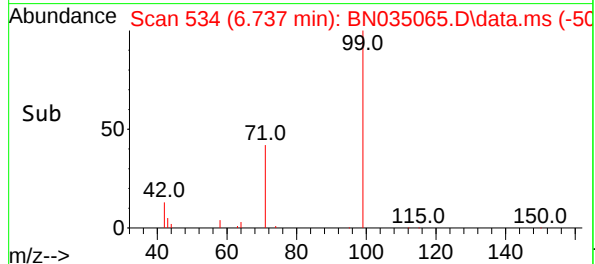
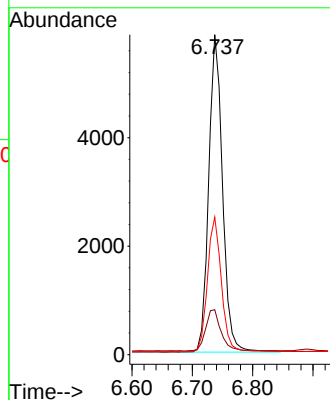
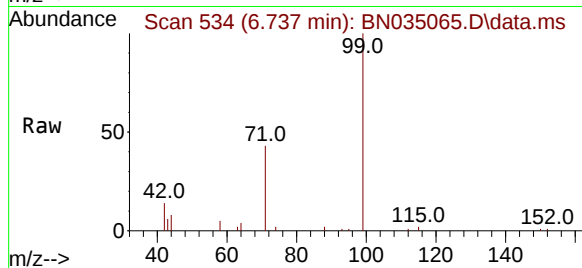




#5  
Phenol-d6  
Concen: 0.851 ng  
RT: 6.737 min Scan# 51  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

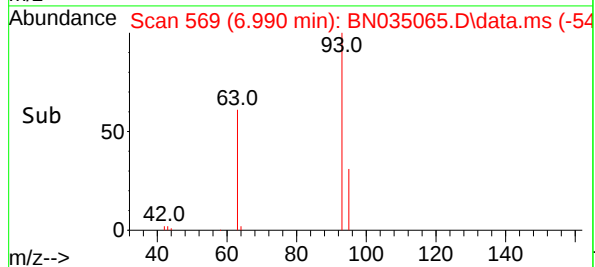
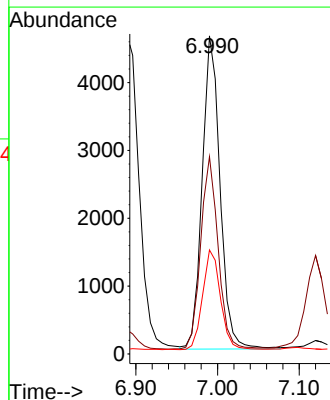
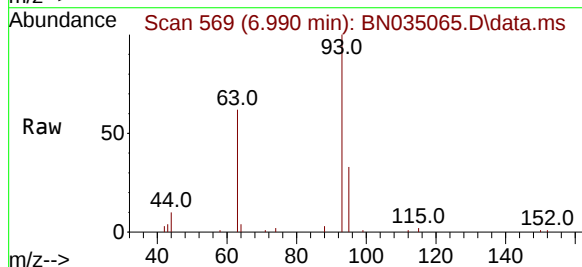
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

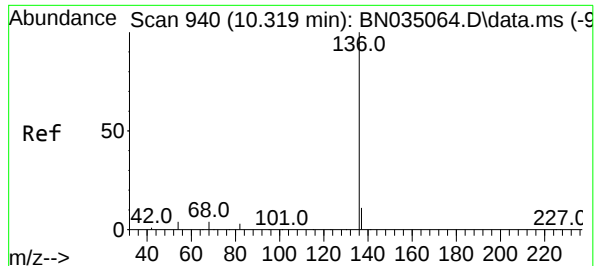
Tgt Ion: 99 Resp: 9293  
Ion Ratio Lower Upper  
99 100  
42 14.5 11.4 17.0  
71 42.9 34.6 51.8



#6  
bis(2-Chloroethyl)ether  
Concen: 0.860 ng  
RT: 6.990 min Scan# 569  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion: 93 Resp: 7043  
Ion Ratio Lower Upper  
93 100  
63 60.1 47.4 71.2  
95 31.8 26.2 39.4

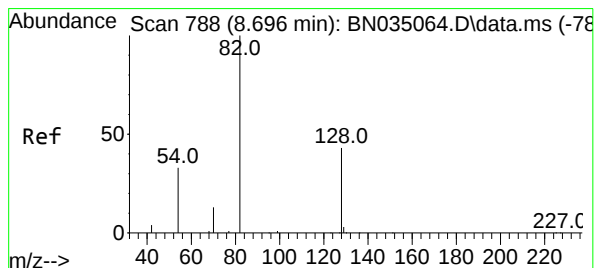
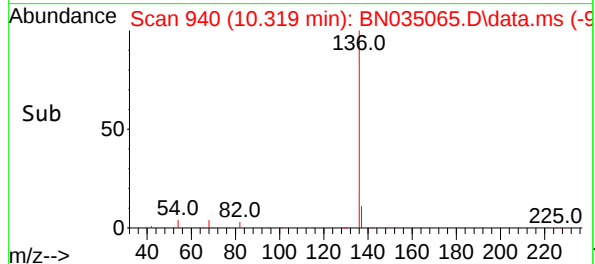
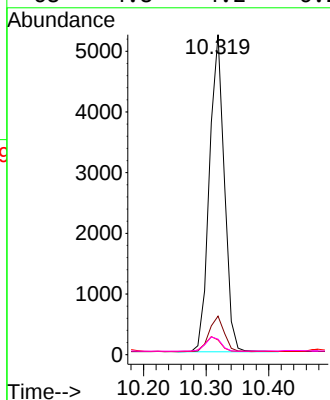
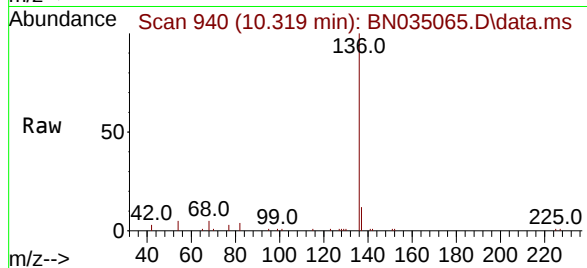




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

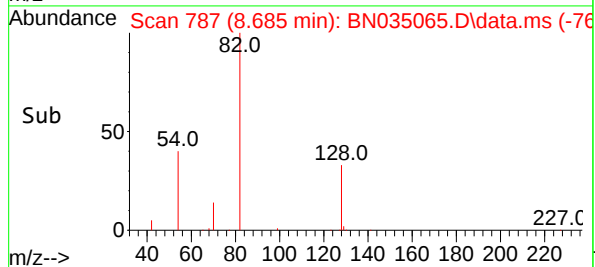
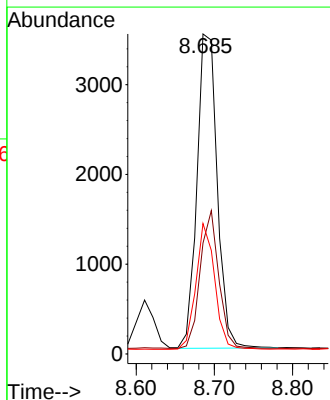
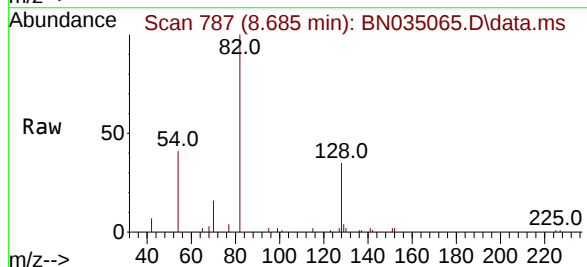
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

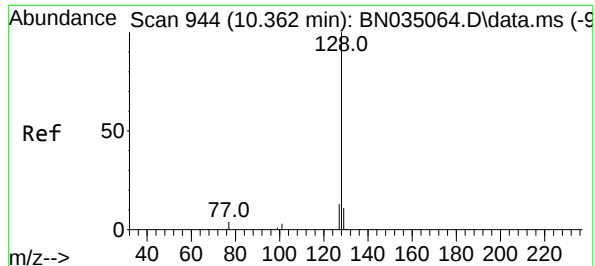
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 8612  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.1  | 9.8   | 14.8  |
| 54       | 4.6   | 4.0   | 6.0   |
| 68       | 4.8   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 0.848 ng  
RT: 8.685 min Scan# 787  
Delta R.T. -0.011 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 6336  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 34.6  | 36.5  | 54.7# |
| 54       | 40.8  | 28.7  | 43.1  |

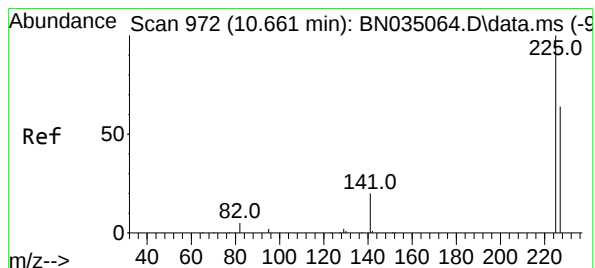
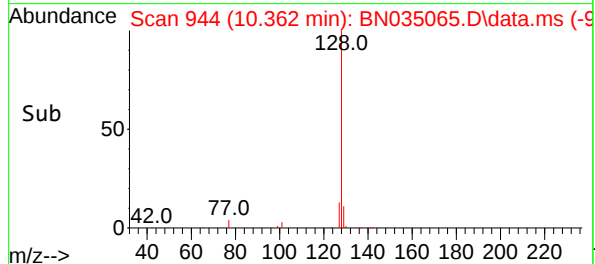
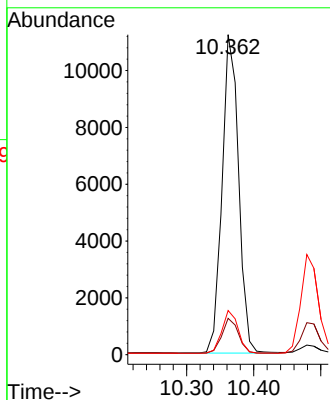
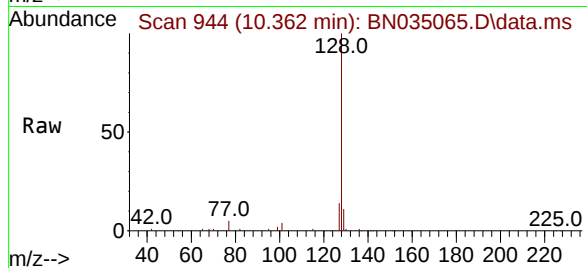




#9  
Naphthalene  
Concen: 0.855 ng  
RT: 10.362 min Scan# 944  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

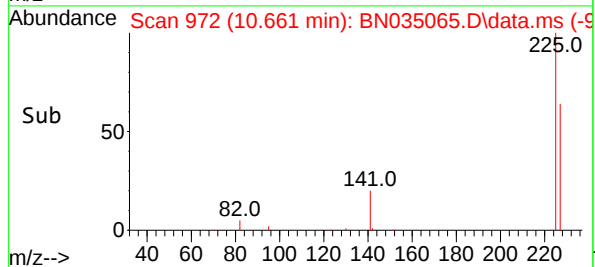
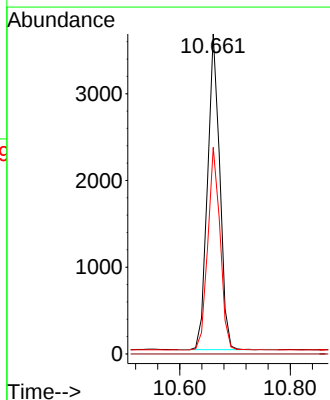
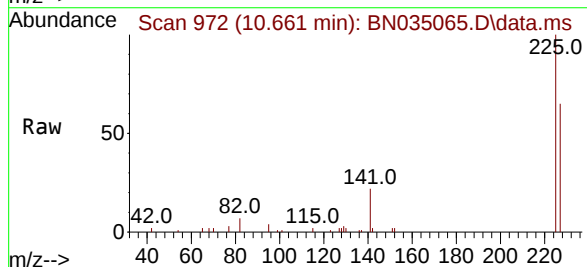
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

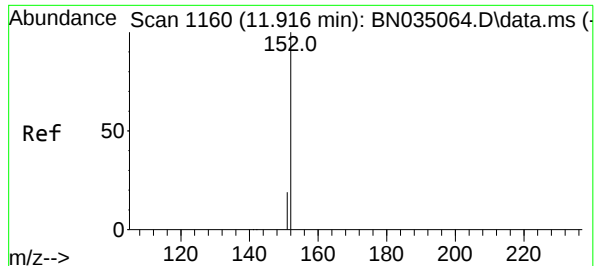
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.4  | 9.6   | 14.4  |
| 127     | 13.8  | 11.6  | 17.4  |



#10  
Hexachlorobutadiene  
Concen: 0.851 ng  
RT: 10.661 min Scan# 972  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 0.0   | 0.0   | 0.0   |
| 227     | 64.5  | 51.5  | 77.3  |

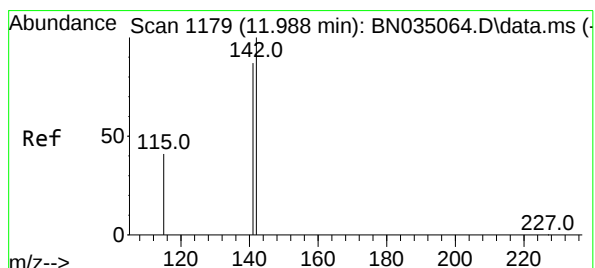
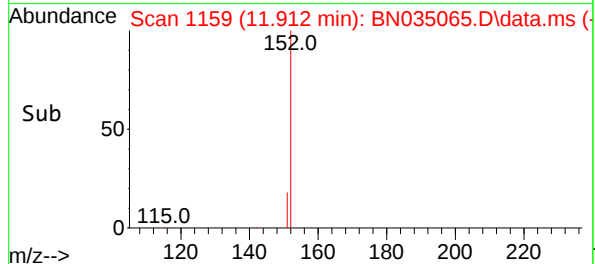
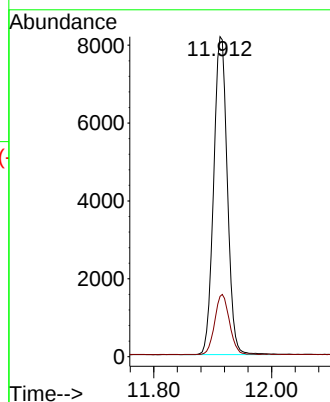
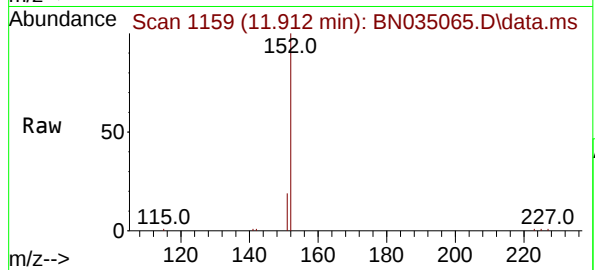




#11  
2-Methylnaphthalene-d10  
Concen: 0.855 ng  
RT: 11.912 min Scan# 1159  
Delta R.T. -0.004 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

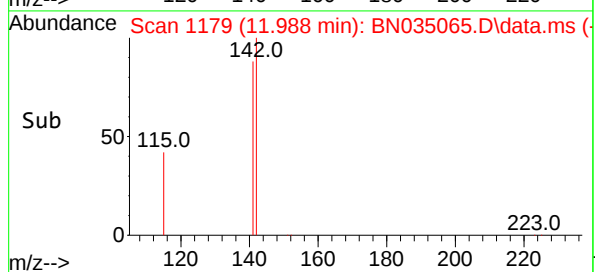
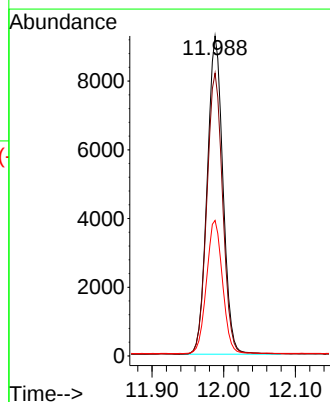
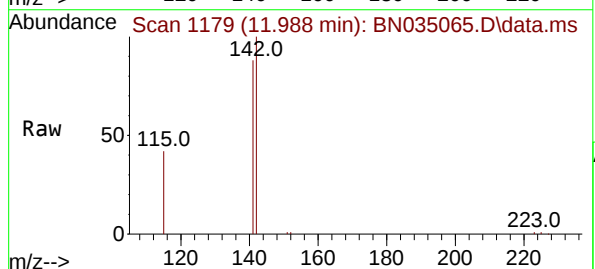
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

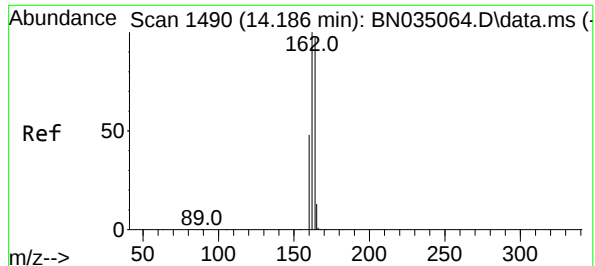
Tgt Ion:152 Resp: 13119  
Ion Ratio Lower Upper  
152 100  
151 20.3 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 0.855 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. 0.000 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:142 Resp: 14179  
Ion Ratio Lower Upper  
142 100  
141 88.4 70.1 105.1  
115 42.4 34.4 51.6

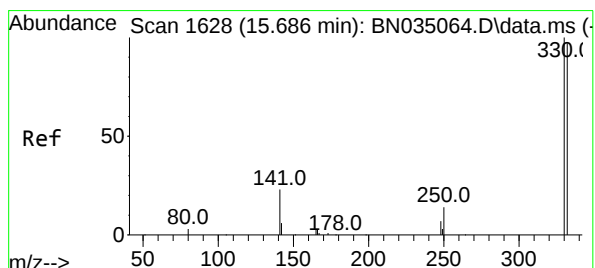
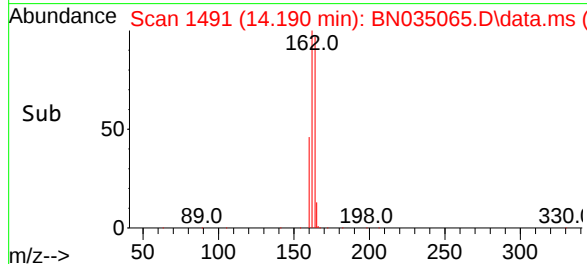
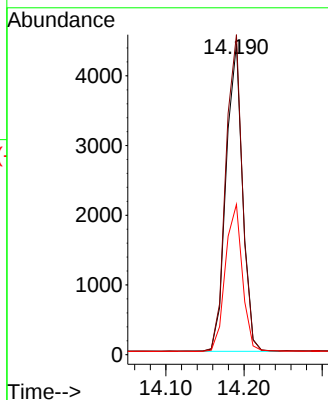
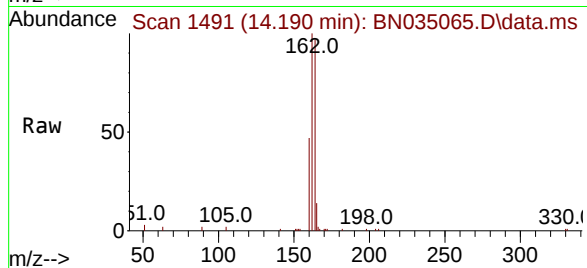




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

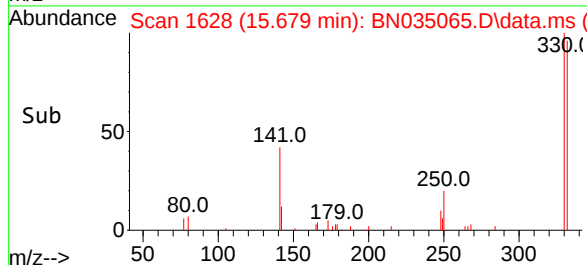
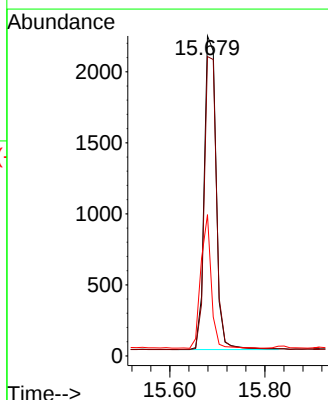
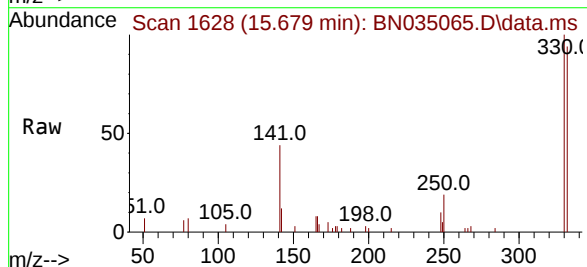
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

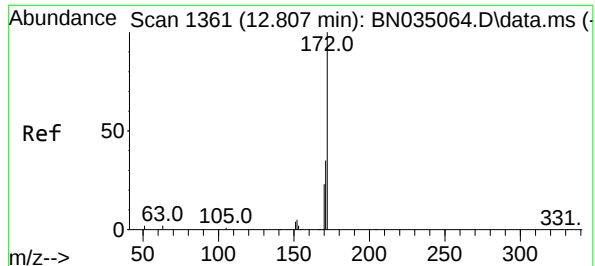
Tgt Ion:164 Resp: 6454  
Ion Ratio Lower Upper  
164 100  
162 102.9 82.2 123.2  
160 48.3 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.831 ng  
RT: 15.679 min Scan# 1628  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:330 Resp: 3866  
Ion Ratio Lower Upper  
330 100  
332 95.2 76.9 115.3  
141 36.9 29.6 44.4

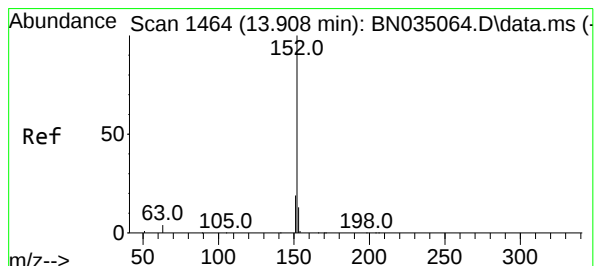
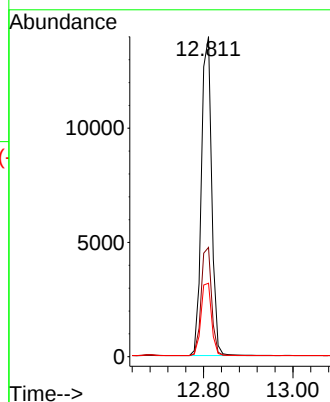
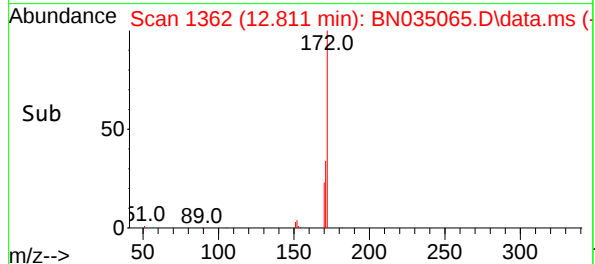
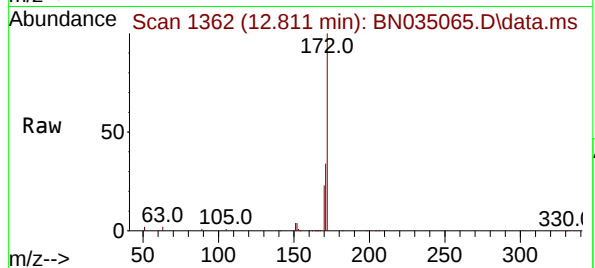




#15  
2-Fluorobiphenyl  
Concen: 0.855 ng  
RT: 12.811 min Scan# 1362  
Delta R.T. 0.004 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

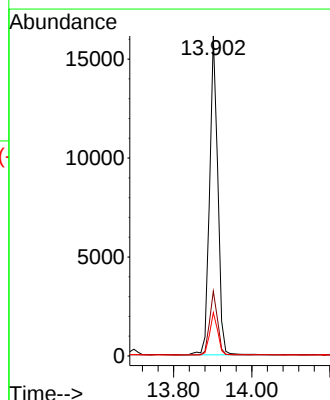
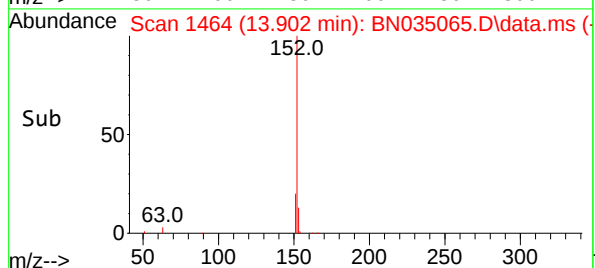
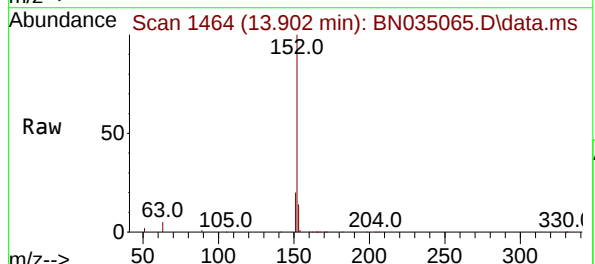
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

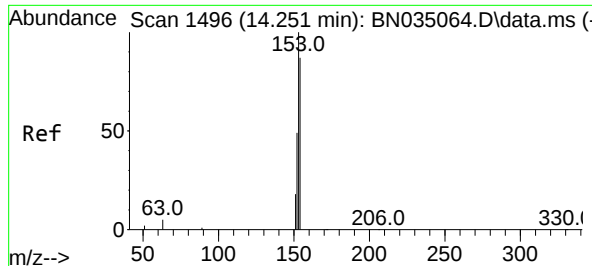
Tgt Ion:172 Resp: 22399  
Ion Ratio Lower Upper  
172 100  
171 34.1 28.2 42.4  
170 22.9 19.0 28.6



#16  
Acenaphthylene  
Concen: 0.853 ng  
RT: 13.902 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:152 Resp: 23520  
Ion Ratio Lower Upper  
152 100  
151 19.6 15.8 23.8  
153 13.1 10.2 15.4

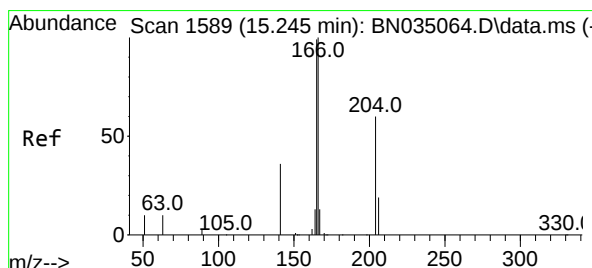
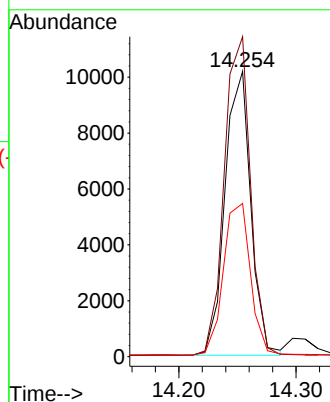
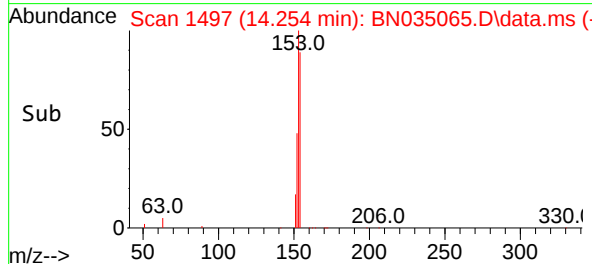
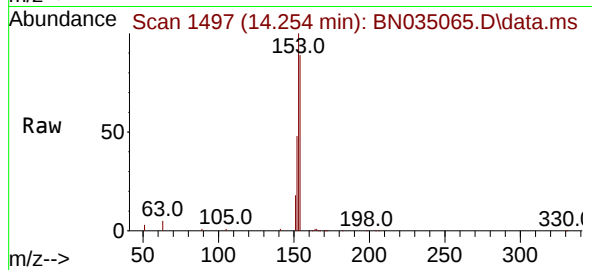




#17  
Acenaphthene  
Concen: 0.858 ng  
RT: 14.254 min Scan# 1497  
Delta R.T. 0.004 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

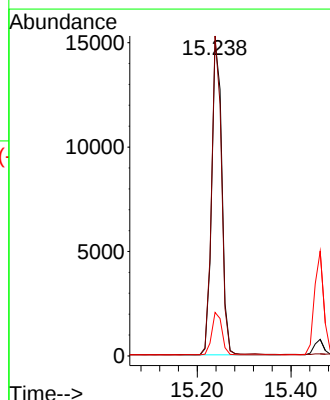
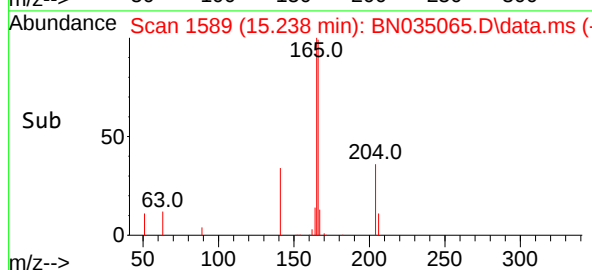
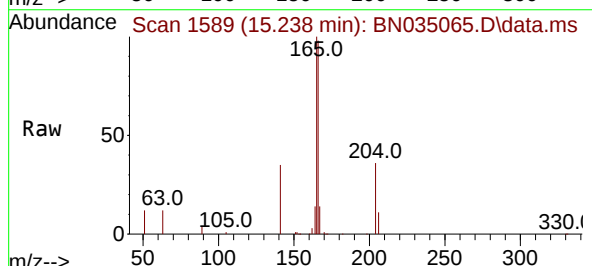
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

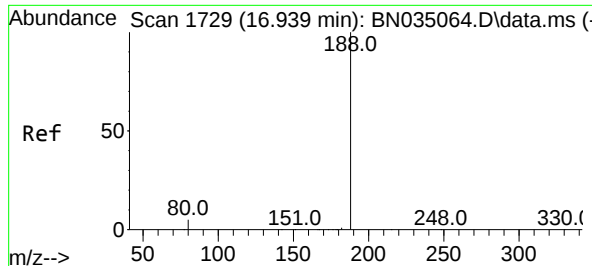
Tgt Ion:154 Resp: 15511  
Ion Ratio Lower Upper  
154 100  
153 114.0 91.6 137.4  
152 56.6 45.8 68.6



#18  
Fluorene  
Concen: 0.852 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:166 Resp: 22649  
Ion Ratio Lower Upper  
166 100  
165 98.3 79.1 118.7  
167 13.6 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.933 min Scan# 1729

Delta R.T. -0.007 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

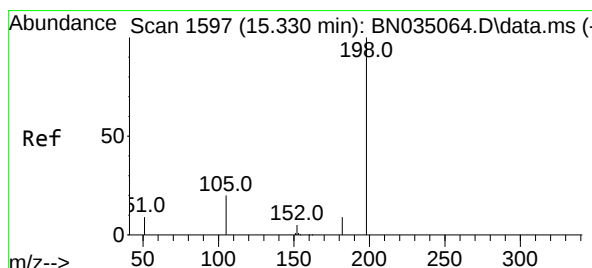
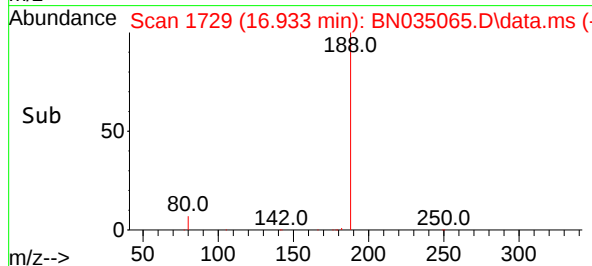
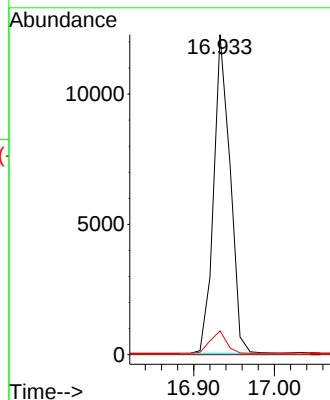
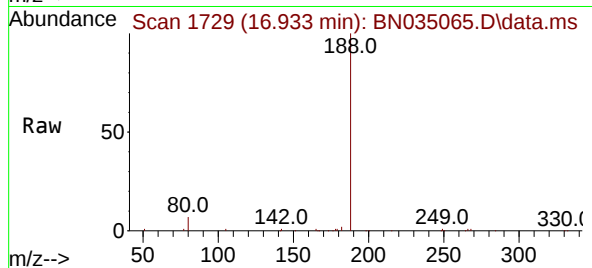
Tgt Ion:188 Resp: 17302

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 7.5 4.3 6.5#



#20

4,6-Dinitro-2-methylphenol

Concen: 0.837 ng

RT: 15.323 min Scan# 1597

Delta R.T. -0.007 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

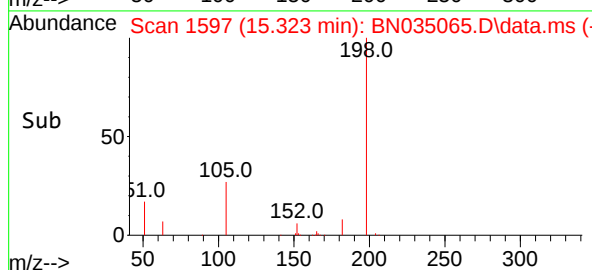
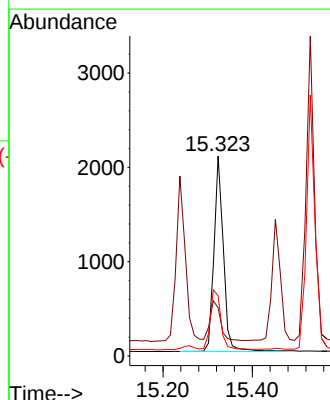
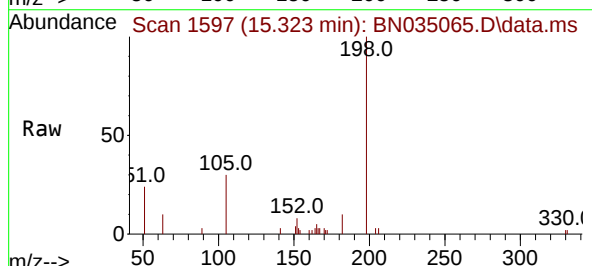
Tgt Ion:198 Resp: 3013

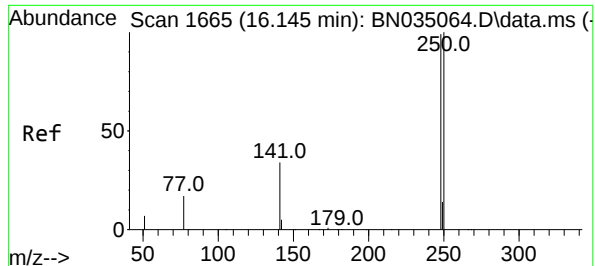
Ion Ratio Lower Upper

198 100

51 24.1 29.9 44.9#

105 30.0 23.7 35.5

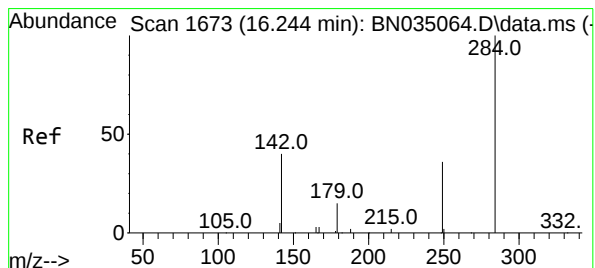
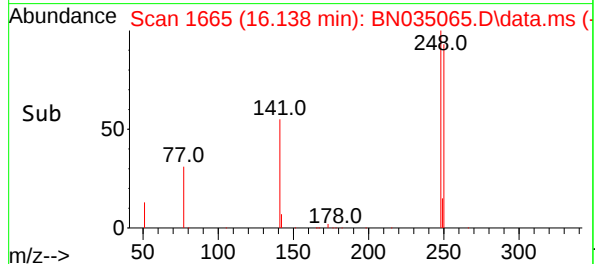
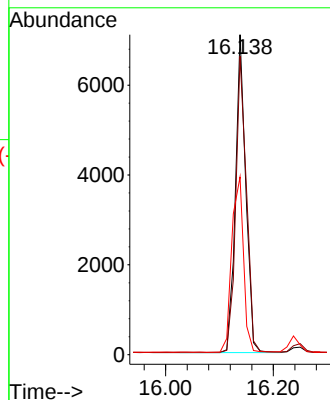
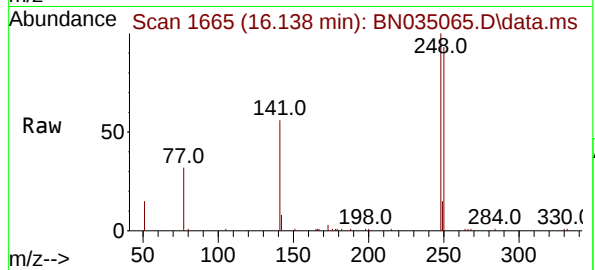




#21  
4-Bromophenyl-phenylether  
Concen: 0.853 ng  
RT: 16.138 min Scan# 1665  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

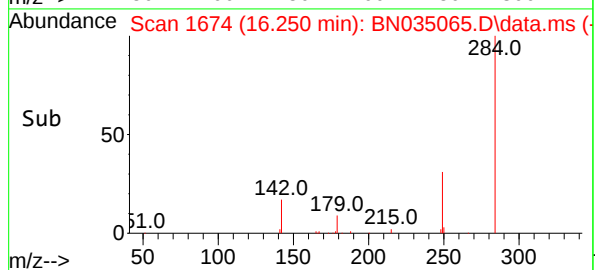
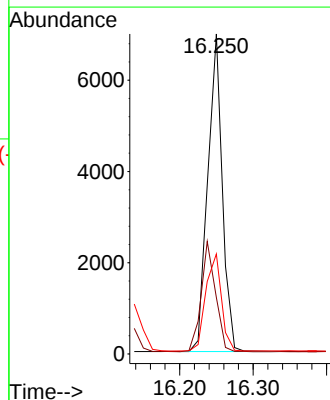
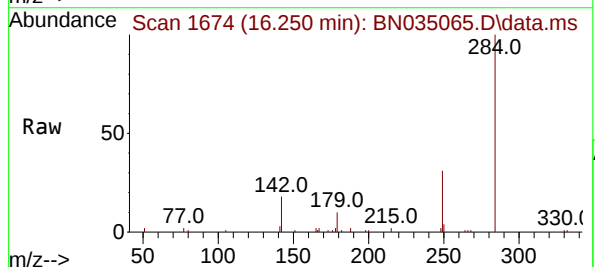
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

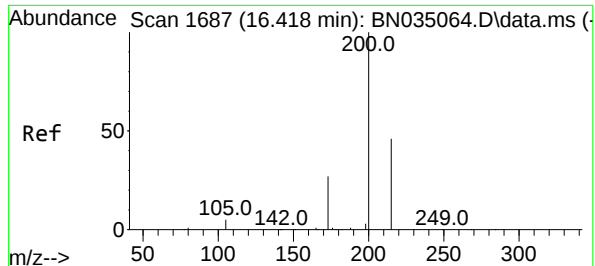
Tgt Ion:248 Resp: 9403  
Ion Ratio Lower Upper  
248 100  
250 93.3 81.2 121.8  
141 55.6 29.1 43.7#



#22  
Hexachlorobenzene  
Concen: 0.837 ng  
RT: 16.250 min Scan# 1674  
Delta R.T. 0.006 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:284 Resp: 9574  
Ion Ratio Lower Upper  
284 100  
142 34.4 28.2 42.4  
249 32.9 26.2 39.2

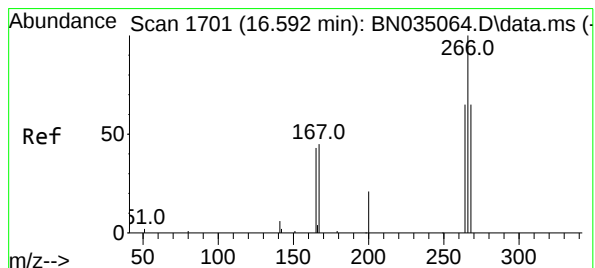
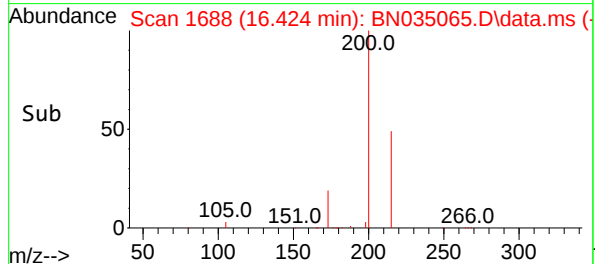
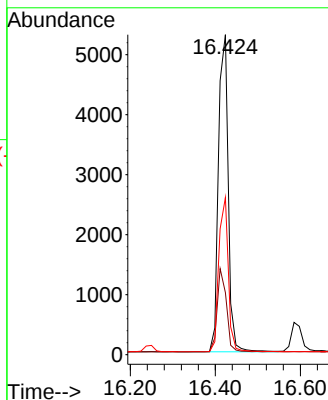
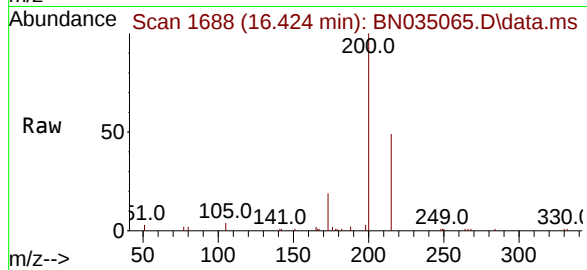




#23  
Atrazine  
Concen: 0.852 ng  
RT: 16.424 min Scan# 1  
Delta R.T. 0.006 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

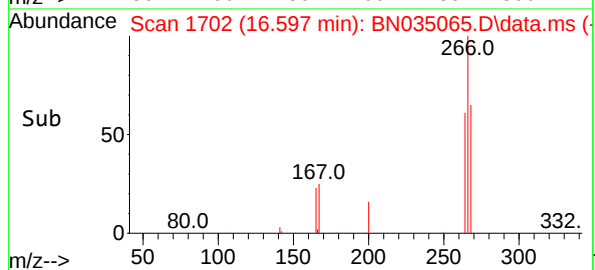
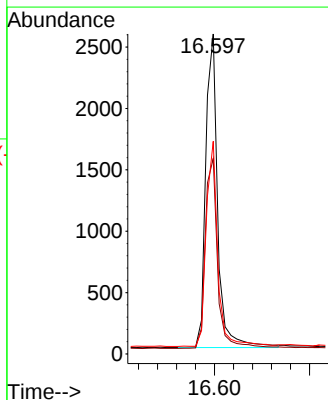
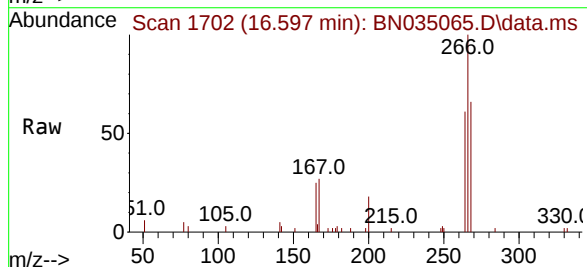
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

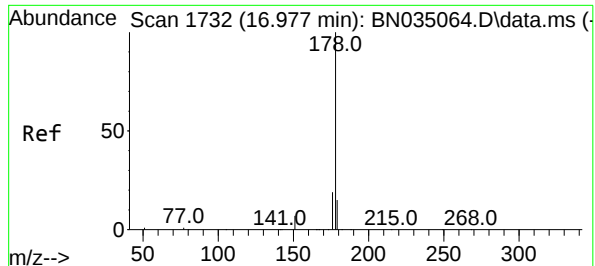
Tgt Ion:200 Resp: 8427  
Ion Ratio Lower Upper  
200 100  
173 19.4 22.6 33.8#  
215 49.1 37.8 56.6



#24  
Pentachlorophenol  
Concen: 0.841 ng  
RT: 16.597 min Scan# 1702  
Delta R.T. 0.006 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:266 Resp: 4494  
Ion Ratio Lower Upper  
266 100  
264 62.3 49.4 74.0  
268 63.1 52.6 79.0

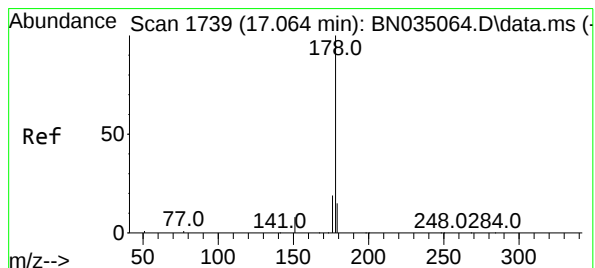
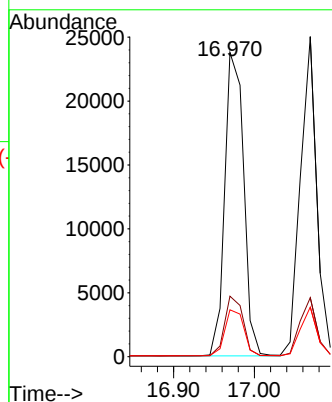
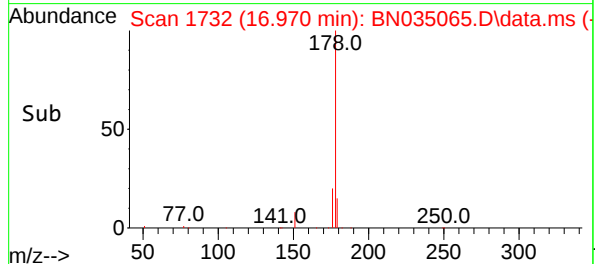
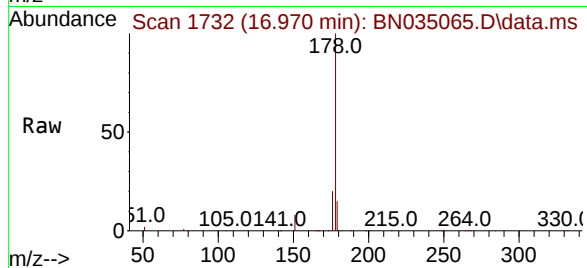




#25  
Phenanthrene  
Concen: 0.847 ng  
RT: 16.970 min Scan# 1732  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

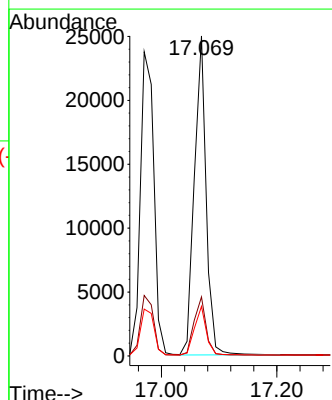
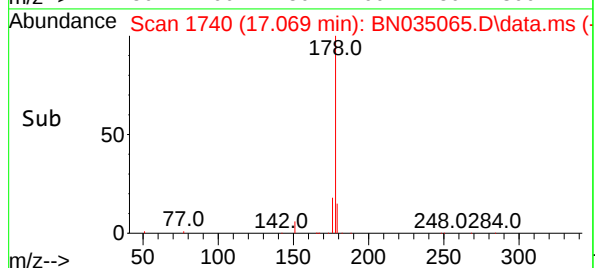
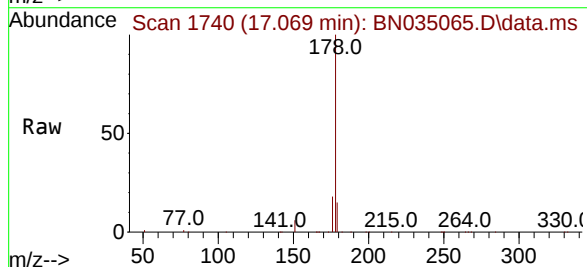
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

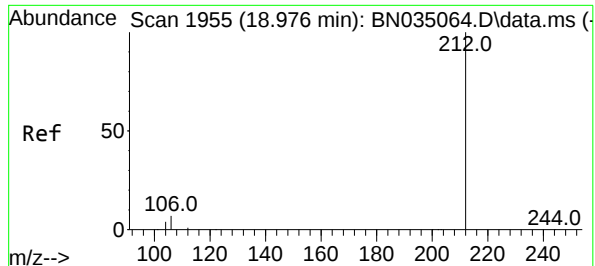
Tgt Ion:178 Resp: 38573  
Ion Ratio Lower Upper  
178 100  
176 19.3 15.2 22.8  
179 15.3 12.6 18.8



#26  
Anthracene  
Concen: 0.847 ng  
RT: 17.069 min Scan# 1740  
Delta R.T. 0.006 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:178 Resp: 35437  
Ion Ratio Lower Upper  
178 100  
176 18.6 14.6 22.0  
179 15.2 12.2 18.2





#27

Fluoranthene-d10

Concen: 0.841 ng

RT: 18.973 min Scan# 1955

Delta R.T. -0.002 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

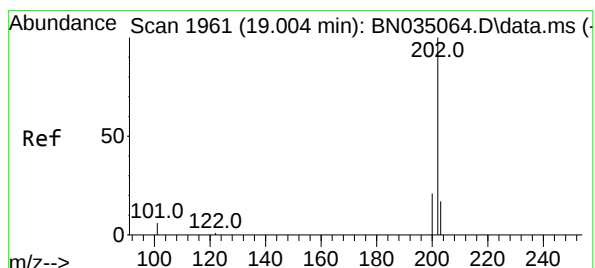
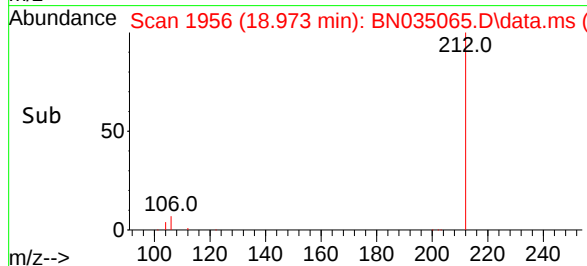
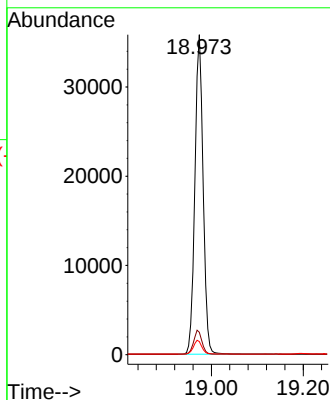
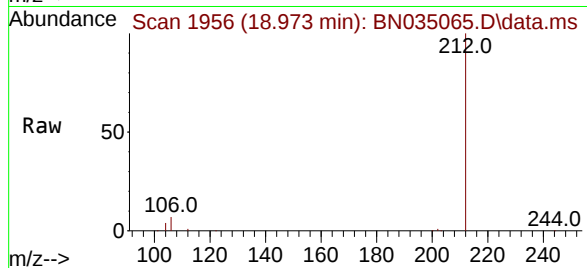
Tgt Ion:212 Resp: 44583

Ion Ratio Lower Upper

212 100

106 7.5 6.0 9.0

104 4.4 3.5 5.3



#28

Fluoranthene

Concen: 0.853 ng

RT: 19.006 min Scan# 1963

Delta R.T. 0.002 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

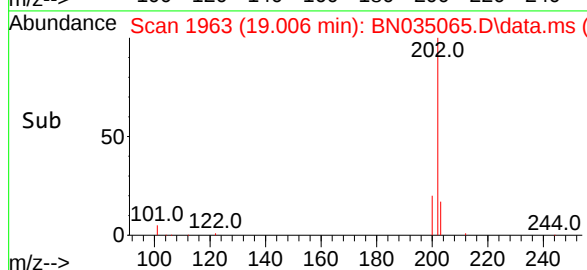
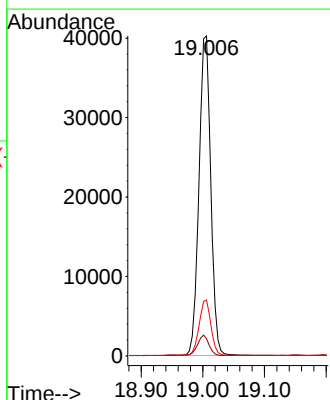
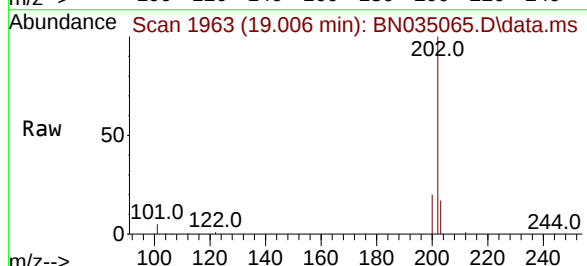
Tgt Ion:202 Resp: 53391

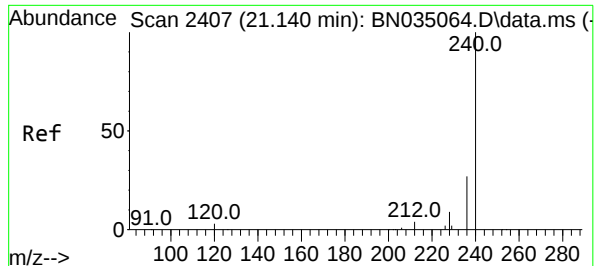
Ion Ratio Lower Upper

202 100

101 6.3 5.2 7.8

203 17.3 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.134 min Scan# 2408

Delta R.T. -0.007 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

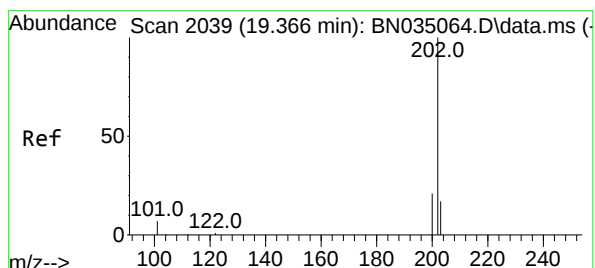
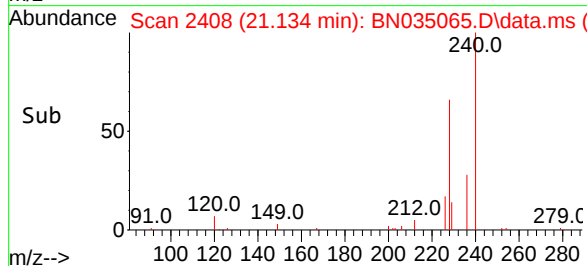
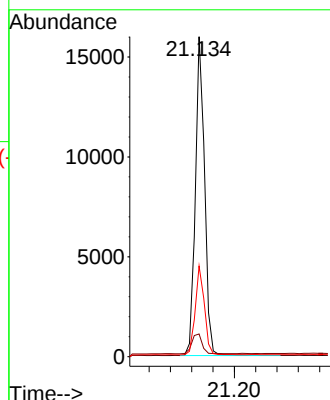
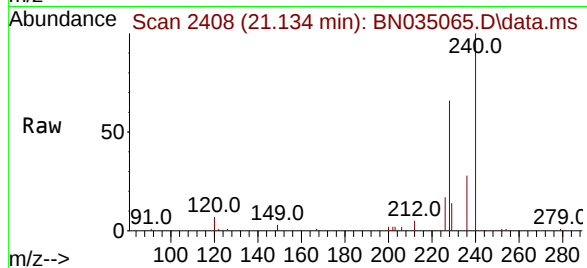
Tgt Ion:240 Resp: 19278

Ion Ratio Lower Upper

240 100

120 7.1 3.8 5.6#

236 28.4 22.2 33.2



#30

Pyrene

Concen: 0.855 ng

RT: 19.368 min Scan# 2041

Delta R.T. 0.002 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

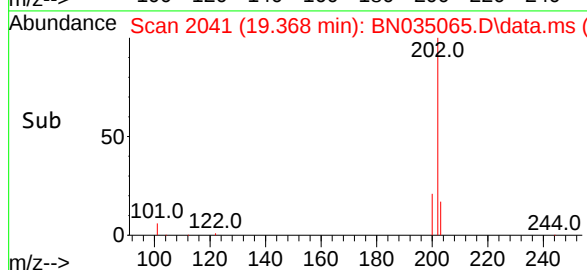
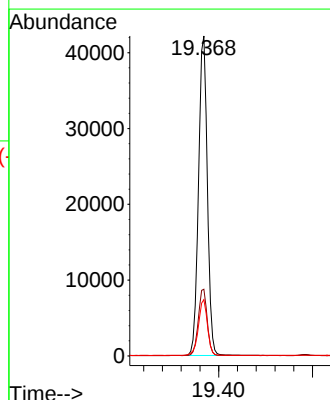
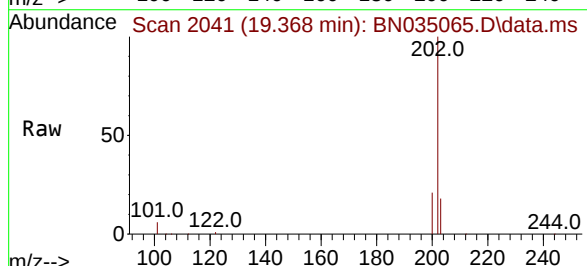
Tgt Ion:202 Resp: 54892

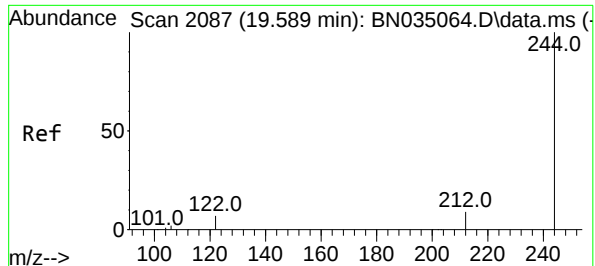
Ion Ratio Lower Upper

202 100

200 21.0 16.7 25.1

203 17.8 14.2 21.4

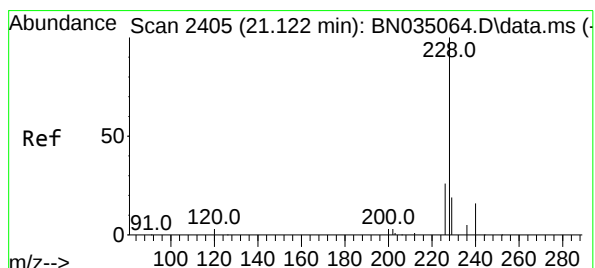
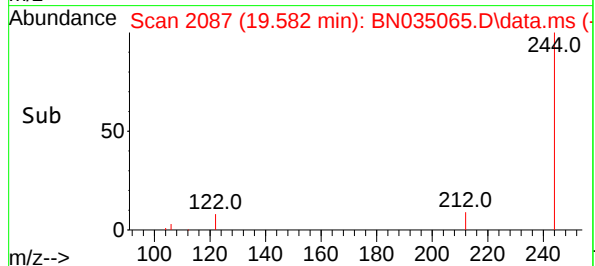
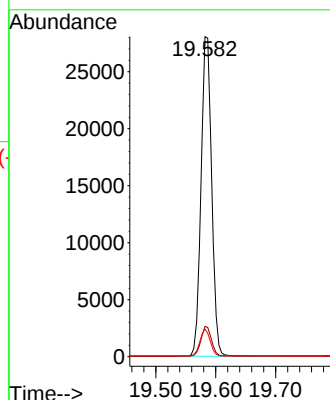
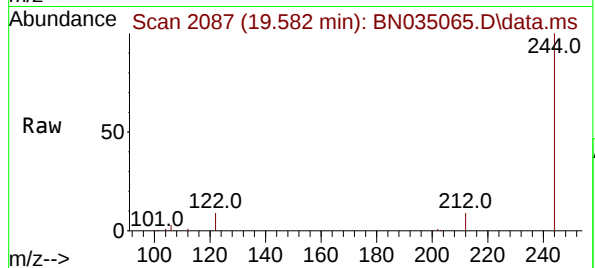




#31  
Terphenyl-d14  
Concen: 0.852 ng  
RT: 19.582 min Scan# 2087  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

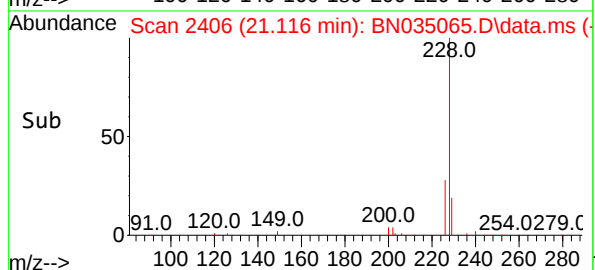
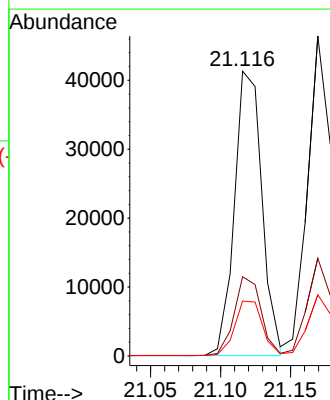
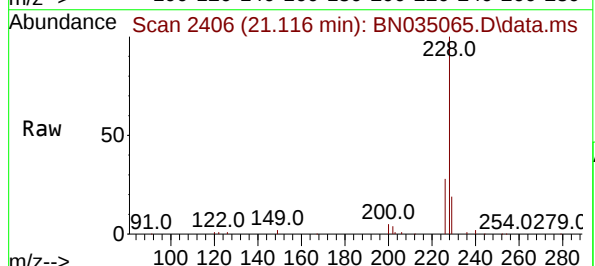
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

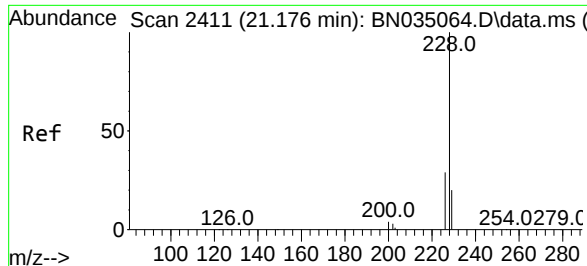
Tgt Ion:244 Resp: 34460  
Ion Ratio Lower Upper  
244 100  
212 9.5 7.6 11.4  
122 8.6 6.1 9.1



#32  
Benzo(a)anthracene  
Concen: 0.841 ng  
RT: 21.116 min Scan# 2406  
Delta R.T. -0.007 min  
Lab File: BN035065.D  
Acq: 13 Nov 2024 14:28

Tgt Ion:228 Resp: 56460  
Ion Ratio Lower Upper  
228 100  
226 27.8 21.4 32.0  
229 19.3 15.7 23.5





#33

Chrysene

Concen: 0.858 ng

RT: 21.169 min Scan# 2411

Delta R.T. -0.007 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

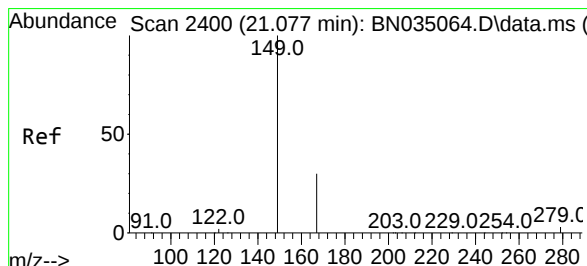
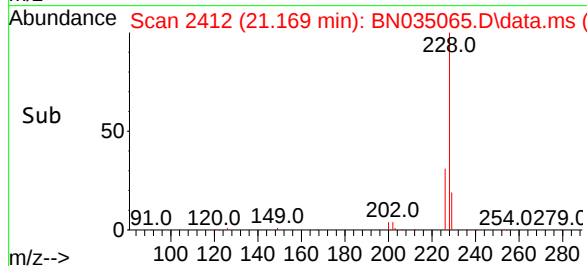
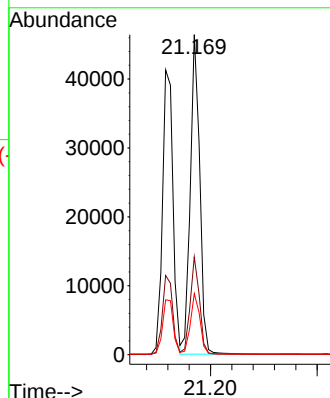
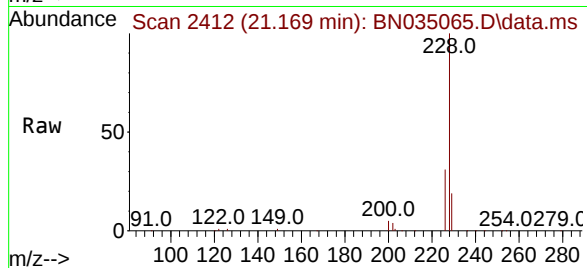
Tgt Ion:228 Resp: 57039

Ion Ratio Lower Upper

228 100

226 30.5 23.7 35.5

229 19.1 16.2 24.4



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.848 ng

RT: 21.080 min Scan# 2402

Delta R.T. 0.002 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

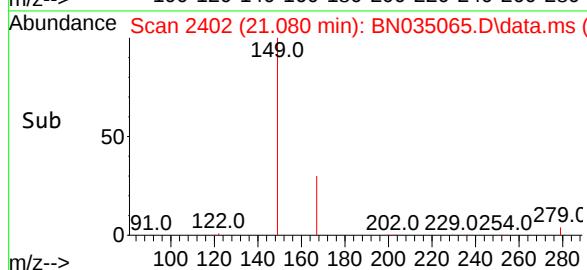
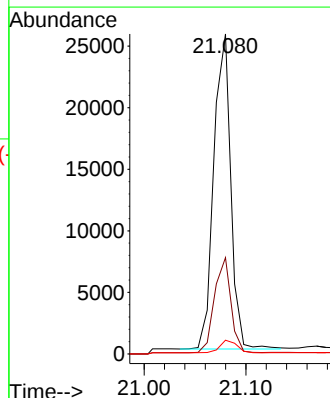
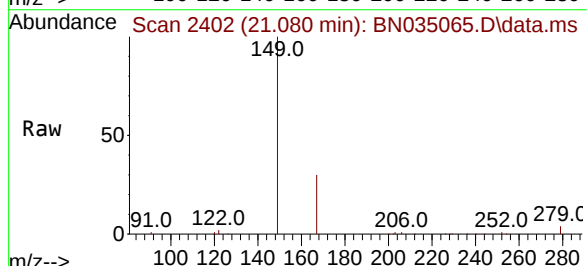
Tgt Ion:149 Resp: 29628

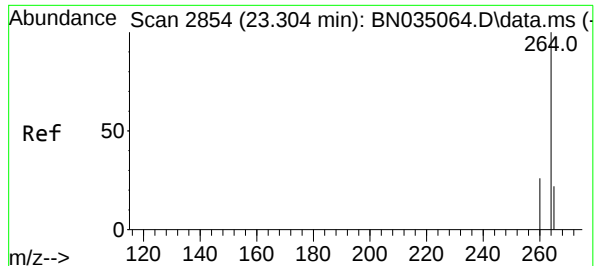
Ion Ratio Lower Upper

149 100

167 29.1 23.2 34.8

279 4.0 3.2 4.8





#35  
Perylene-d12

Concen: 0.400 ng

RT: 23.300 min Scan# 21

Delta R.T. -0.004 min

Lab File: BN035065.D

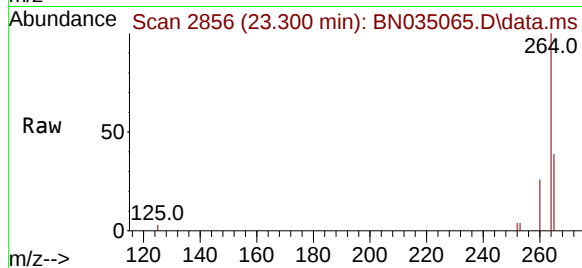
Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8



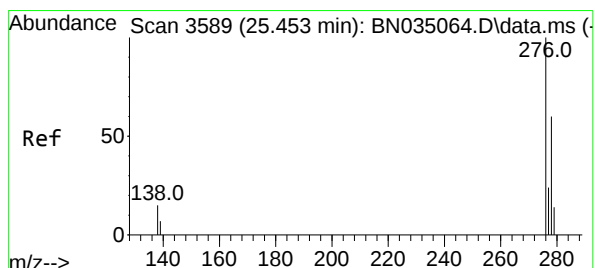
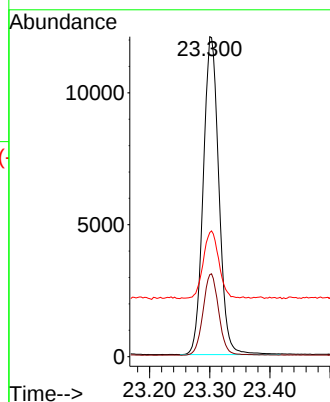
Tgt Ion:264 Resp: 21751

Ion Ratio Lower Upper

264 100

260 25.6 20.9 31.3

265 38.8 35.4 53.2



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.867 ng

RT: 25.452 min Scan# 3592

Delta R.T. -0.001 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

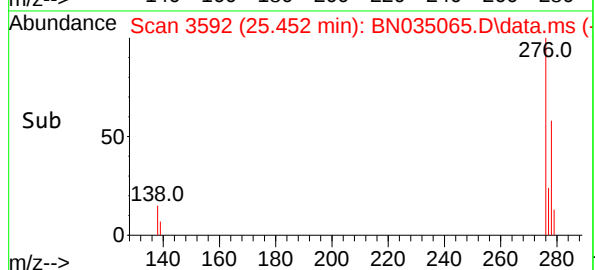
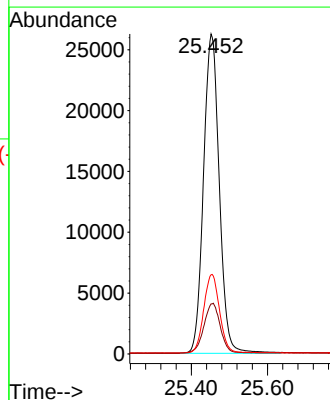
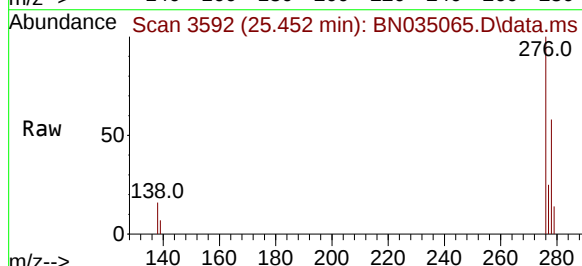
Tgt Ion:276 Resp: 75270

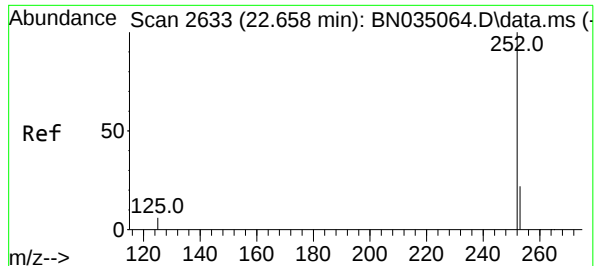
Ion Ratio Lower Upper

276 100

138 16.2 13.0 19.4

277 24.7 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.855 ng

RT: 22.657 min Scan# 2636

Delta R.T. -0.001 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

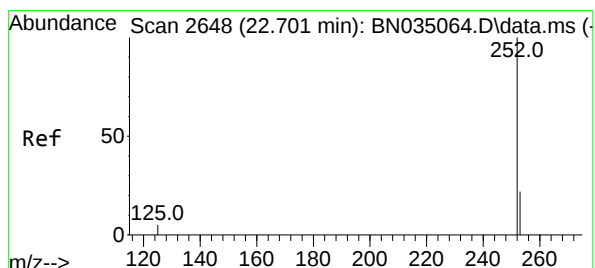
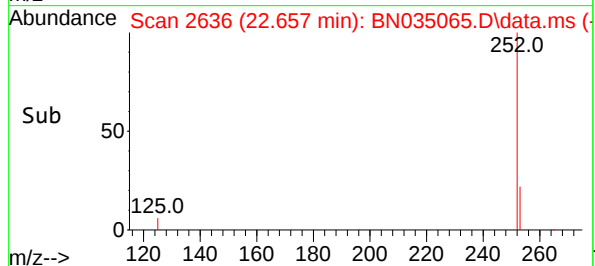
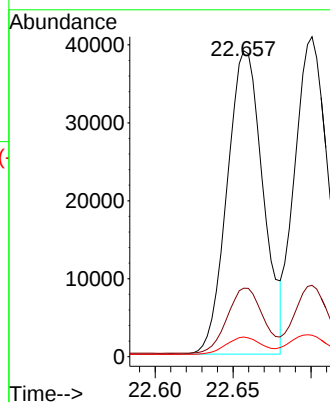
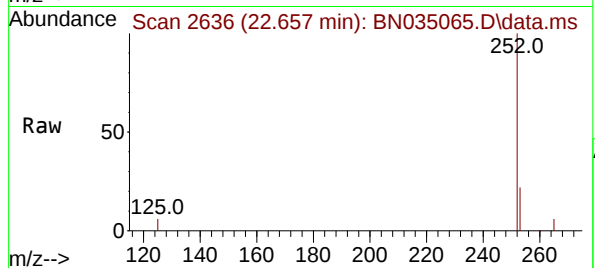
Tgt Ion:252 Resp: 62606

Ion Ratio Lower Upper

252 100

253 22.4 19.3 28.9

125 6.5 6.2 9.2



#38

Benzo(k)fluoranthene

Concen: 0.843 ng

RT: 22.701 min Scan# 2651

Delta R.T. -0.001 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

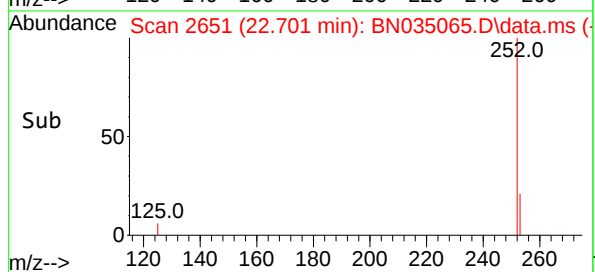
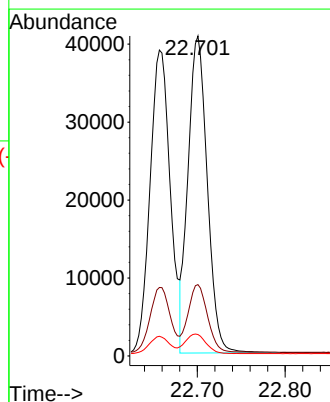
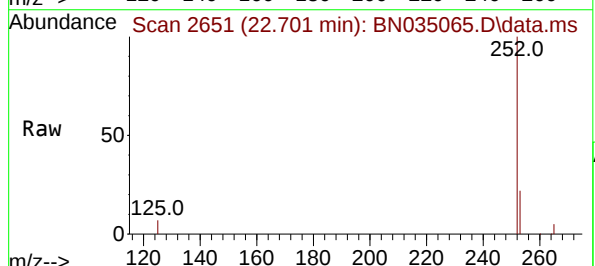
Tgt Ion:252 Resp: 61702

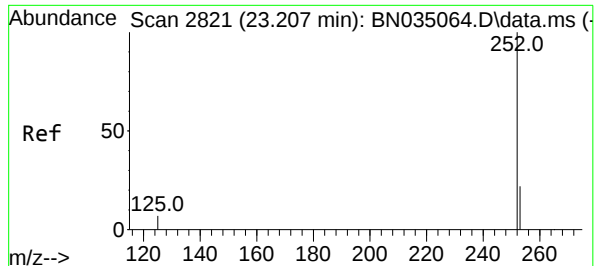
Ion Ratio Lower Upper

252 100

253 22.3 19.5 29.3

125 6.7 6.5 9.7





#39

Benzo(a)pyrene

Concen: 0.842 ng

RT: 23.206 min Scan# 21

Delta R.T. -0.001 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

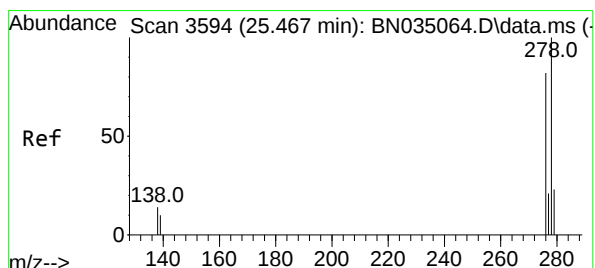
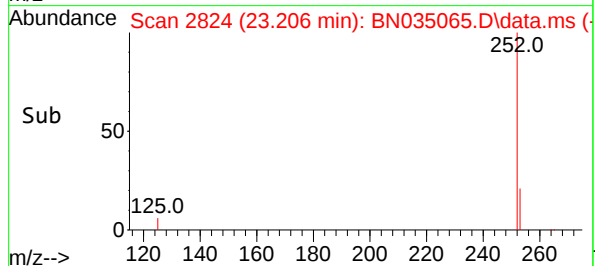
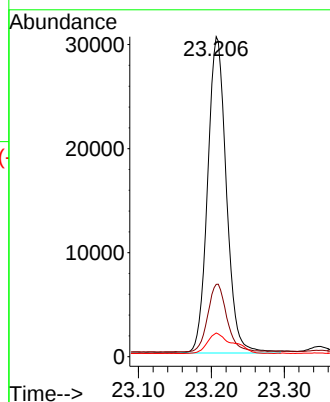
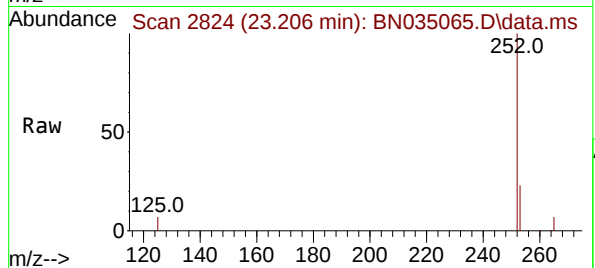
Tgt Ion:252 Resp: 54251

Ion Ratio Lower Upper

252 100

253 22.6 20.1 30.1

125 7.4 7.5 11.3#



#40

Dibenzo(a,h)anthracene

Concen: 0.870 ng

RT: 25.466 min Scan# 3597

Delta R.T. -0.001 min

Lab File: BN035065.D

Acq: 13 Nov 2024 14:28

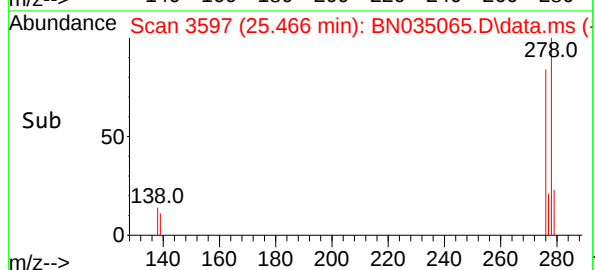
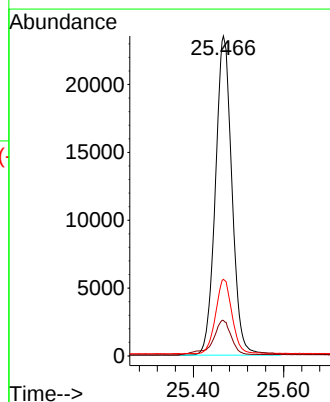
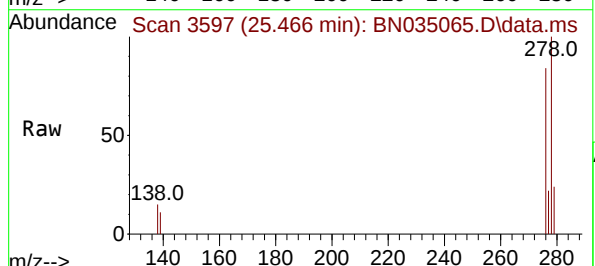
Tgt Ion:278 Resp: 59829

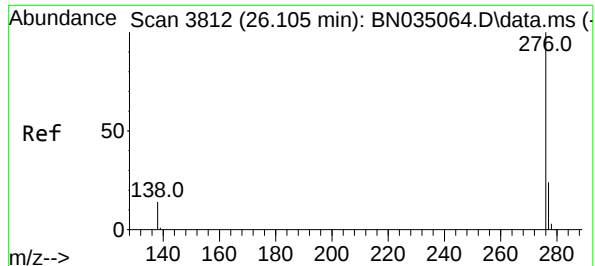
Ion Ratio Lower Upper

278 100

139 11.1 9.3 13.9

279 24.0 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 0.864 ng

RT: 26.104 min Scan# 3812

Delta R.T. -0.001 min

Lab File: BN035065.D

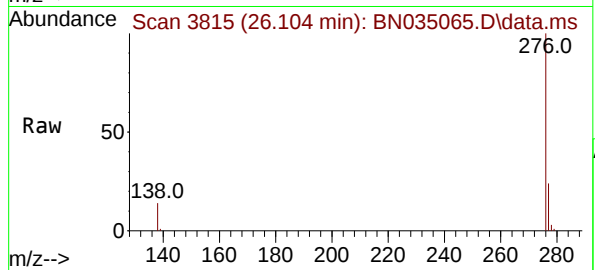
Acq: 13 Nov 2024 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8



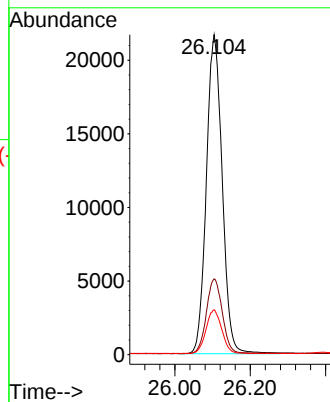
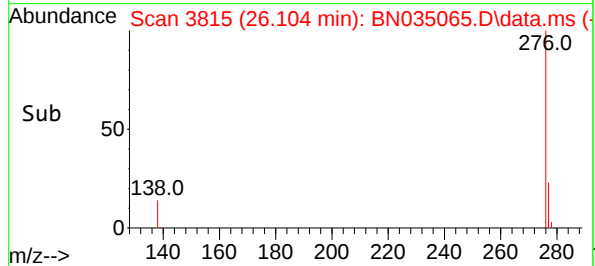
Tgt Ion:276 Resp: 63167

Ion Ratio Lower Upper

276 100

277 23.7 19.9 29.9

138 14.0 11.6 17.4



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035066.D  
 Acq On : 13 Nov 2024 15:04  
 Operator : RC/JU  
 Sample : SSTDICC1.6  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Manual Integrations  
 APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
 Supervised By :mohammad ahmed 11/14/2024

Quant Time: Nov 13 16:44:39 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2280     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 5826     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 4517     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.932 | 188  | 12068    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.133 | 240  | 13823    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.303 | 264  | 15060    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 9427     | 1.629 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 12023    | 1.657 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.696  | 82   | 8306     | 1.643 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 17545    | 1.690 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.691 | 330  | 5402     | 1.659 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.811 | 172  | 30472    | 1.661 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 61972    | 1.676 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.587 | 244  | 47914    | 1.652 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.169  | 88   | 3351     | 1.618 | ng    | 98       |
| 3) n-Nitrosodimethylamine     | 3.465  | 42   | 3168     | 1.647 | ng    | # 97     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 9071     | 1.665 | ng    | 99       |
| 9) Naphthalene                | 10.362 | 128  | 25283    | 1.662 | ng    | 98       |
| 10) Hexachlorobutadiene       | 10.660 | 225  | 7338     | 1.646 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 18997    | 1.693 | ng    | 99       |
| 16) Acenaphthylene            | 13.901 | 152  | 32064    | 1.661 | ng    | 99       |
| 17) Acenaphthene              | 14.254 | 154  | 20910    | 1.653 | ng    | 99       |
| 18) Fluorene                  | 15.238 | 166  | 30868    | 1.659 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.323 | 198  | 4259     | 1.695 | ng    | # 84     |
| 21) 4-Bromophenyl-phenylether | 16.138 | 248  | 12888    | 1.676 | ng    | # 86     |
| 22) Hexachlorobenzene         | 16.250 | 284  | 13172    | 1.651 | ng    | 99       |
| 23) Atrazine                  | 16.424 | 200  | 11471    | 1.663 | ng    | # 93     |
| 24) Pentachlorophenol         | 16.597 | 266  | 6275     | 1.683 | ng    | 98       |
| 25) Phenanthrene              | 16.982 | 178  | 52915    | 1.666 | ng    | 99       |
| 26) Anthracene                | 17.069 | 178  | 49046    | 1.681 | ng    | 100      |
| 28) Fluoranthene              | 19.006 | 202  | 73694    | 1.687 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 75558    | 1.641 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.125 | 228  | 78298    | 1.627 | ng    | 100      |
| 33) Chrysene                  | 21.169 | 228  | 78533    | 1.647 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 38807    | 1.549 | ng    | 99       |
| 36) Indeno(1,2,3-cd)pyrene    | 25.452 | 276  | 99936    | 1.663 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.660 | 252  | 85426m   | 1.686 | ng    |          |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 84960    | 1.676 | ng    | # 95     |
| 39) Benzo(a)pyrene            | 23.209 | 252  | 74668    | 1.675 | ng    | # 94     |
| 40) Dibenzo(a,h)anthracene    | 25.469 | 278  | 79628    | 1.673 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.107 | 276  | 83498    | 1.649 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

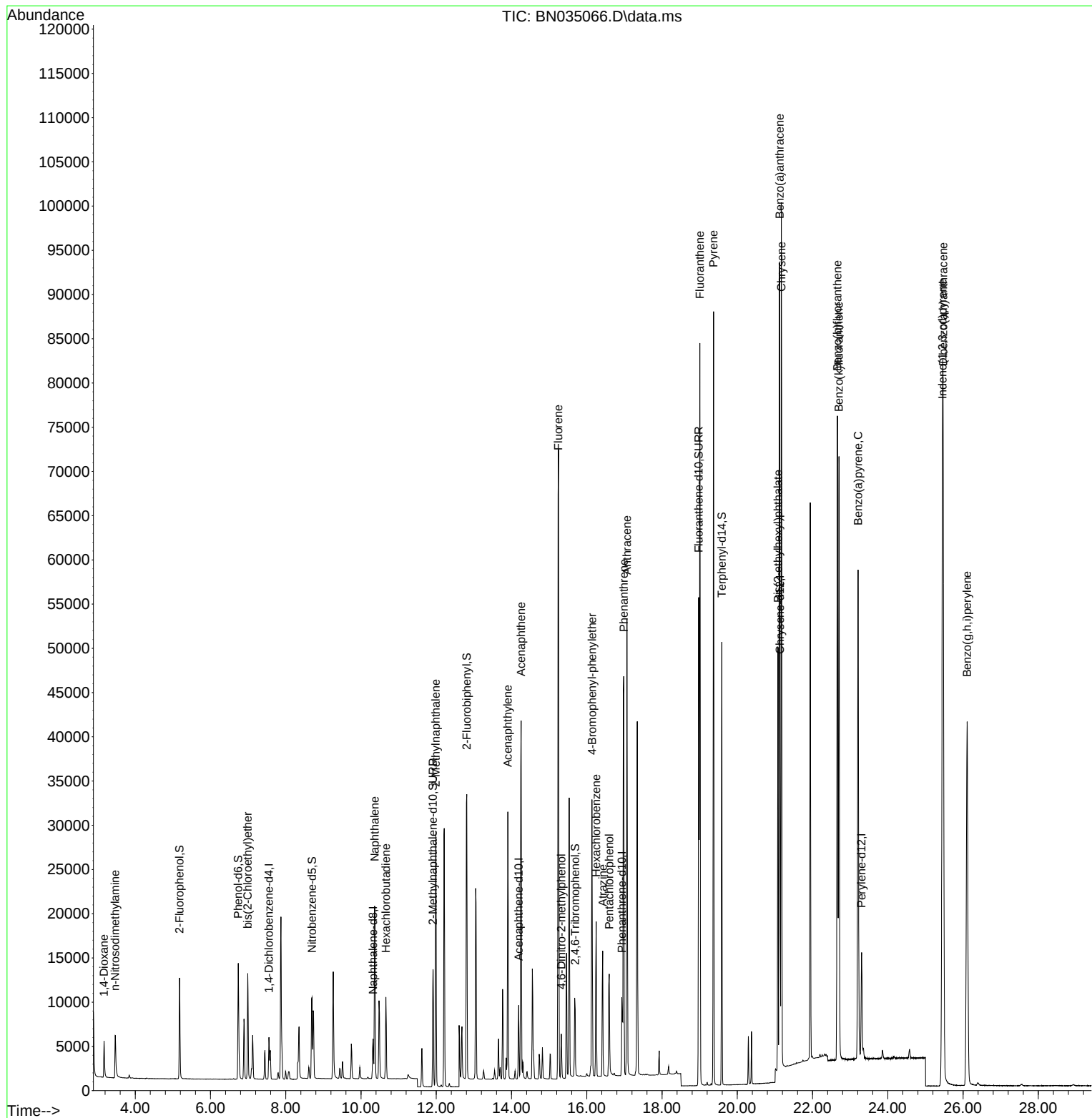
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 Data File : BN035066.D  
 Acq On : 13 Nov 2024 15:04  
 Operator : RC/JU  
 Sample : SSTDICC1.6  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

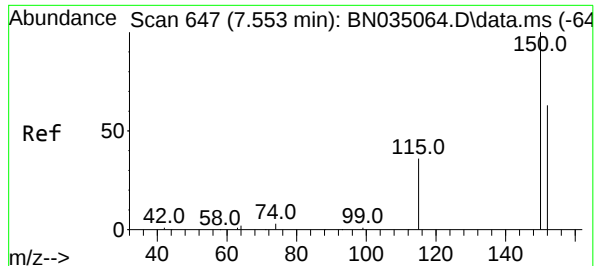
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Quant Time: Nov 13 16:44:39 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

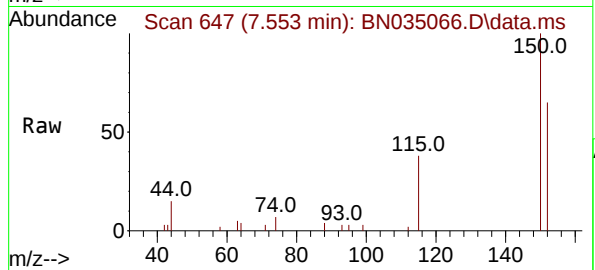
Reviewed By :Yogesh Patel 11/14/2024  
 Supervised By :mohammad ahmed 11/14/2024





#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

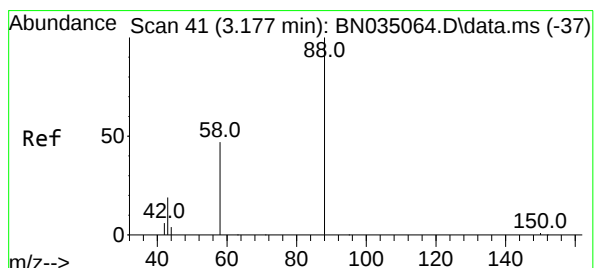
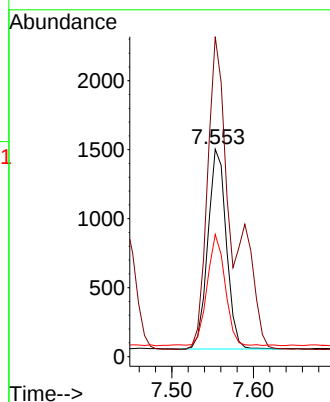
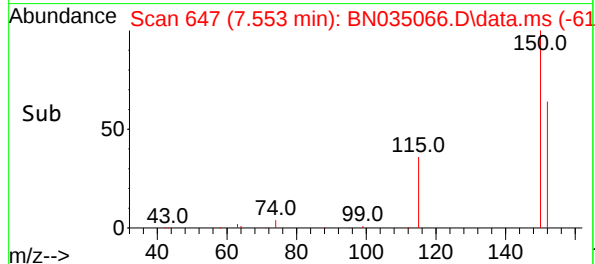
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:152 Resp: 2280  
Ion Ratio Lower Upper  
152 100  
150 154.2 124.5 186.7  
115 58.9 47.8 71.6

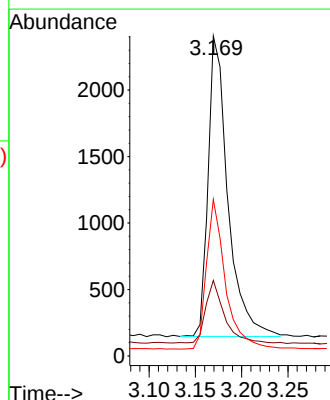
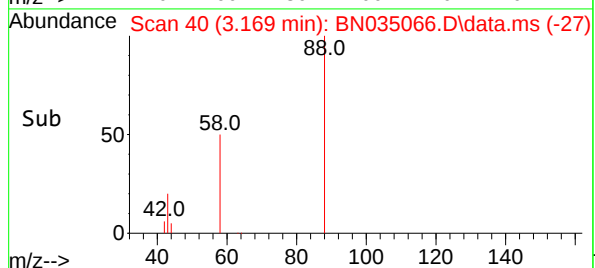
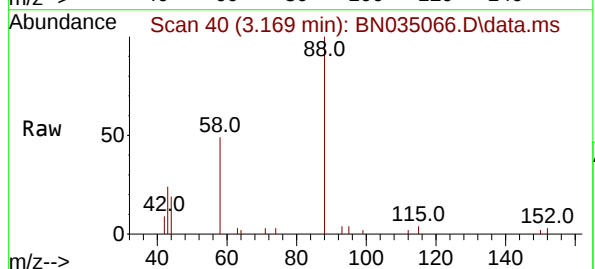
Manual Integrations  
APPROVED

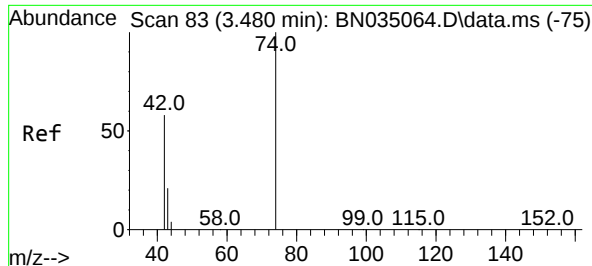
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#2  
1,4-Dioxane  
Concen: 1.618 ng  
RT: 3.169 min Scan# 40  
Delta R.T. -0.007 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

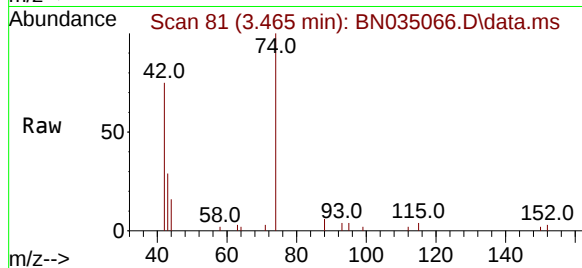
Tgt Ion: 88 Resp: 3351  
Ion Ratio Lower Upper  
88 100  
43 20.3 16.9 25.3  
58 47.7 39.0 58.4





#3  
n-Nitrosodimethylamine  
Concen: 1.647 ng  
RT: 3.465 min Scan# 81  
Delta R.T. -0.015 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

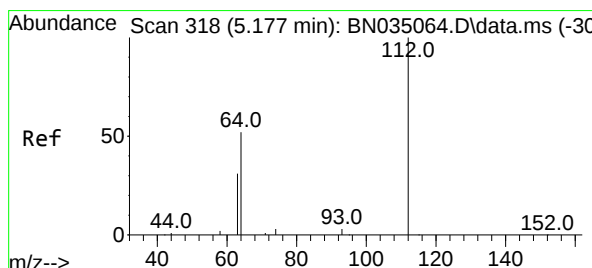
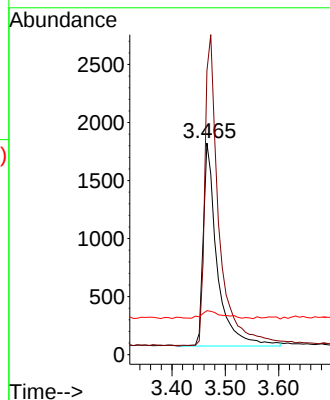
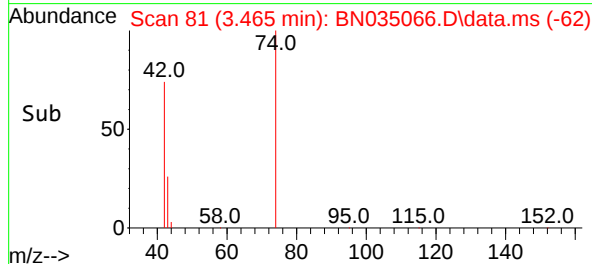
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion: 42 Resp: 3168  
Ion Ratio Lower Upper  
42 100  
74 155.0 120.8 181.2  
44 6.3 2.9 4.3

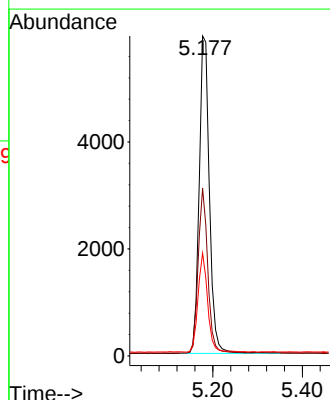
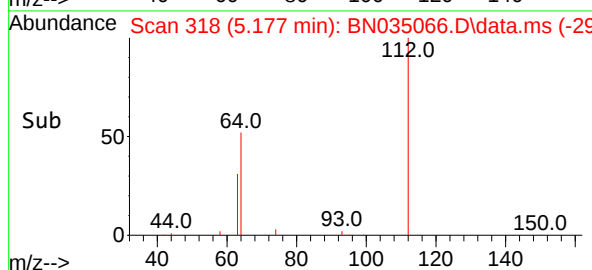
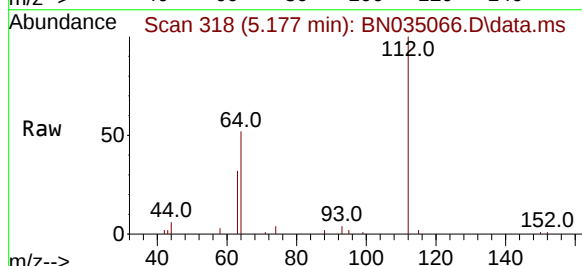
Manual Integrations  
APPROVED

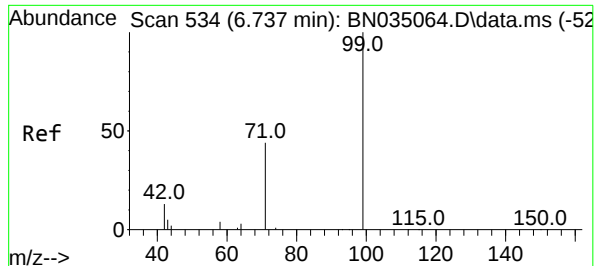
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#4  
2-Fluorophenol  
Concen: 1.629 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Tgt Ion:112 Resp: 9427  
Ion Ratio Lower Upper  
112 100  
64 48.8 39.7 59.5  
63 29.4 23.0 34.4





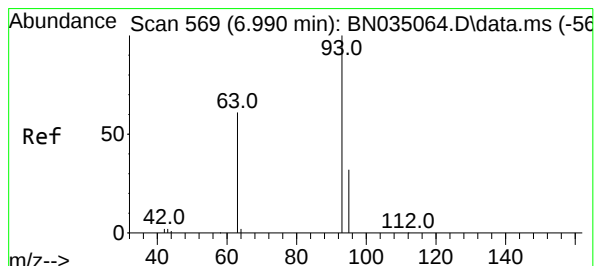
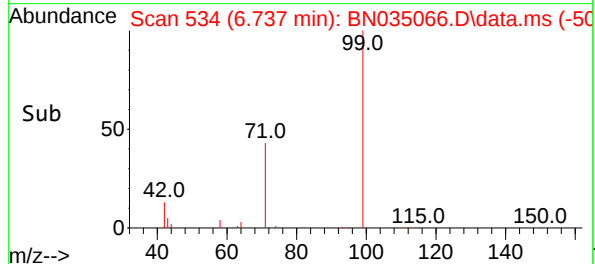
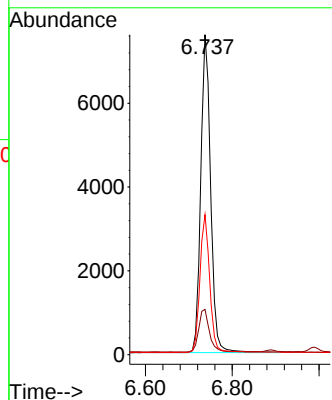
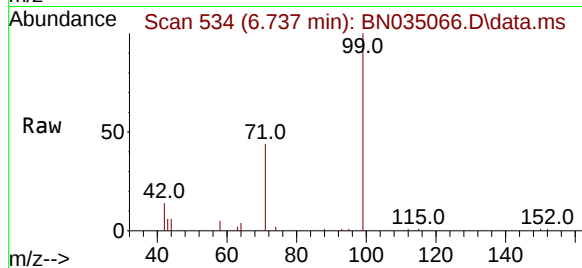
#5  
Phenol-d6  
Concen: 1.657 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Tgt Ion: 99 Resp: 1202  
Ion Ratio Lower Upper  
99 100  
42 14.5 11.4 17.0  
71 42.9 34.6 51.8

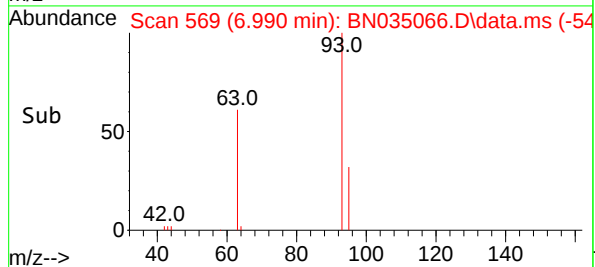
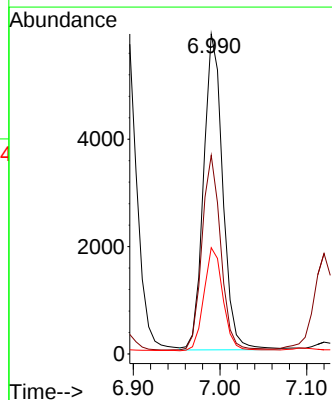
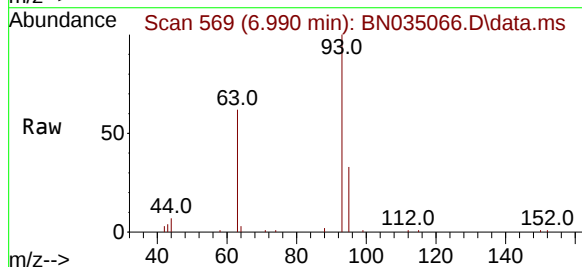
Manual Integrations  
APPROVED

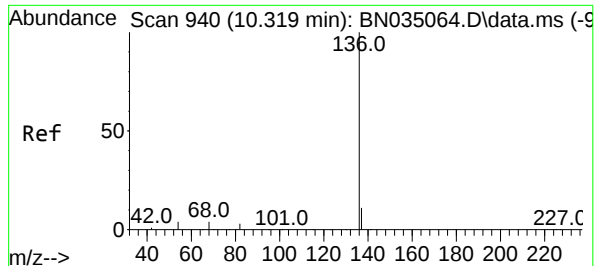
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#6  
bis(2-Chloroethyl)ether  
Concen: 1.665 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Tgt Ion: 93 Resp: 9071  
Ion Ratio Lower Upper  
93 100  
63 60.3 47.4 71.2  
95 32.3 26.2 39.4





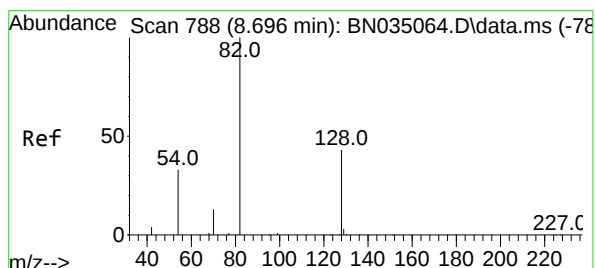
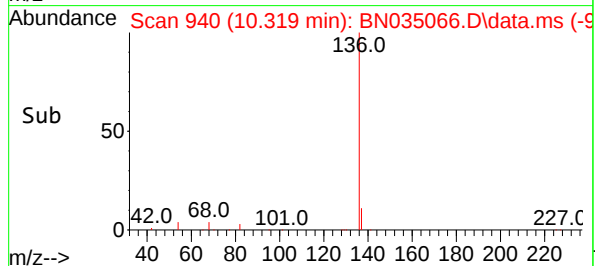
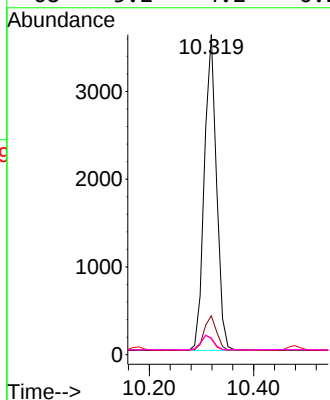
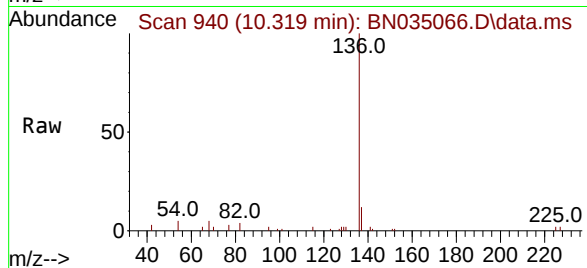
#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 136     | 100   |       |       |
| 137     | 12.2  | 9.8   | 14.8  |
| 54      | 5.0   | 4.0   | 6.0   |
| 68      | 5.2   | 4.2   | 6.2   |

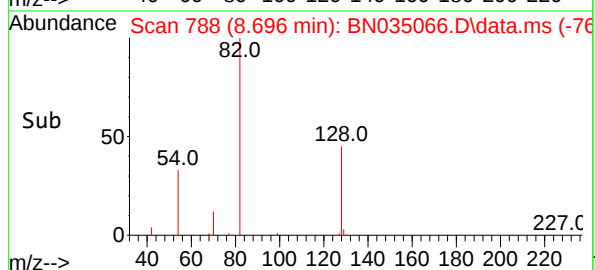
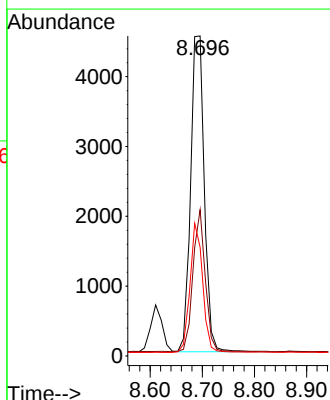
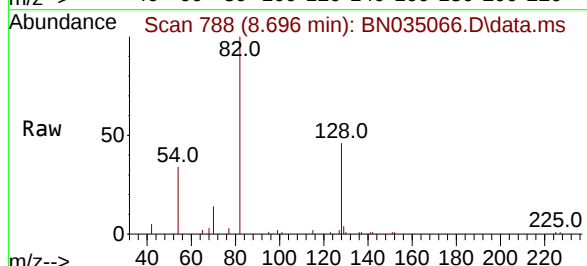
Manual Integrations  
APPROVED

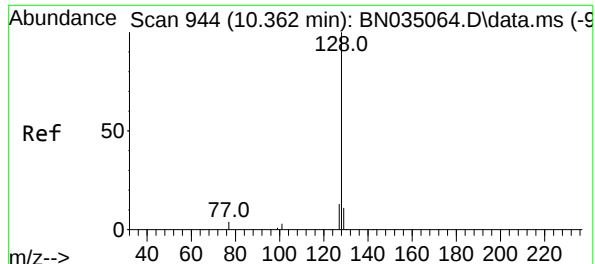
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#8  
Nitrobenzene-d5  
Concen: 1.643 ng  
RT: 8.696 min Scan# 788  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 82      | 100   |       |       |
| 128     | 45.7  | 36.5  | 54.7  |
| 54      | 34.0  | 28.7  | 43.1  |





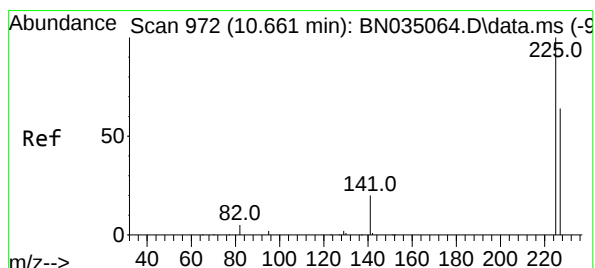
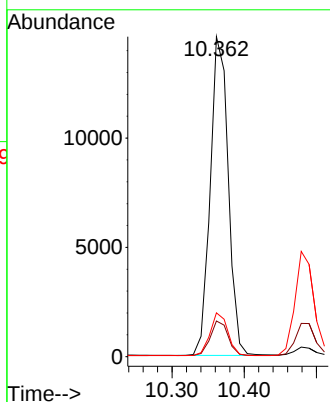
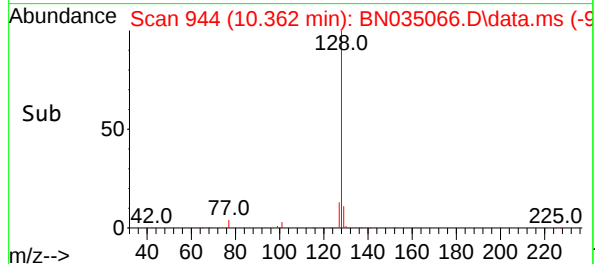
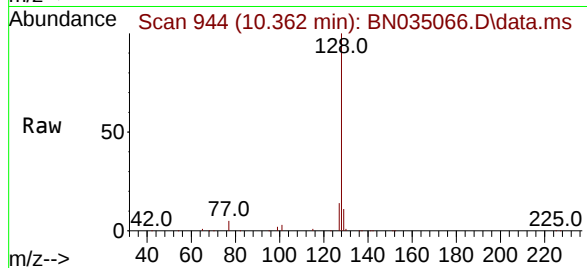
#9  
Naphthalene  
Concen: 1.662 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Tgt Ion:128 Resp: 2528  
Ion Ratio Lower Upper  
128 100  
129 11.2 9.6 14.4  
127 13.7 11.6 17.4

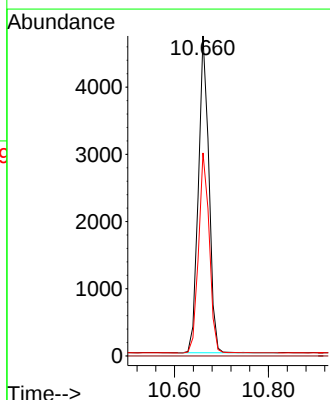
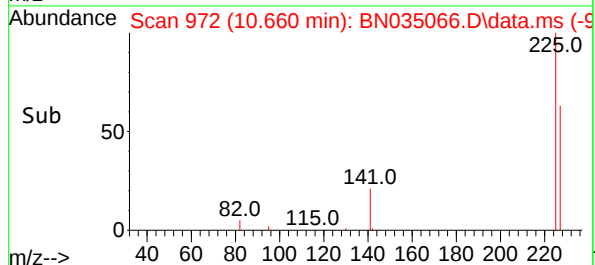
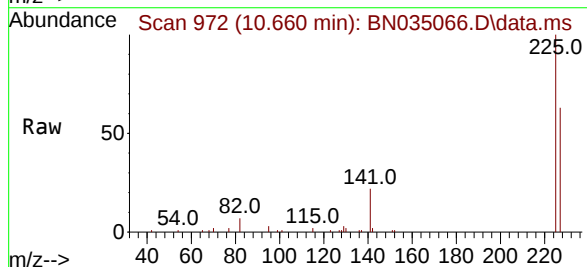
Manual Integrations  
APPROVED

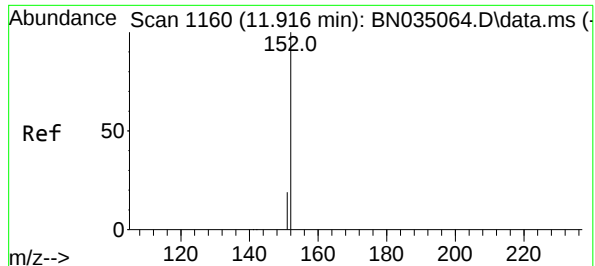
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#10  
Hexachlorobutadiene  
Concen: 1.646 ng  
RT: 10.660 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

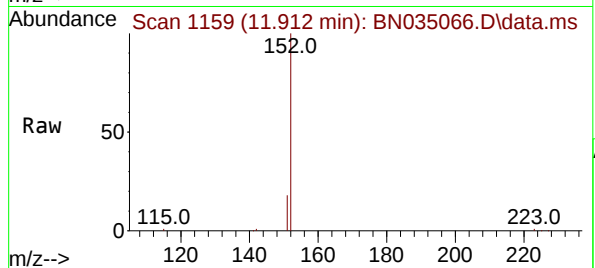
Tgt Ion:225 Resp: 7338  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 64.0 51.5 77.3





#11  
2-Methylnaphthalene-d10  
Concen: 1.690 ng  
RT: 11.912 min Scan# 1159  
Delta R.T. -0.004 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

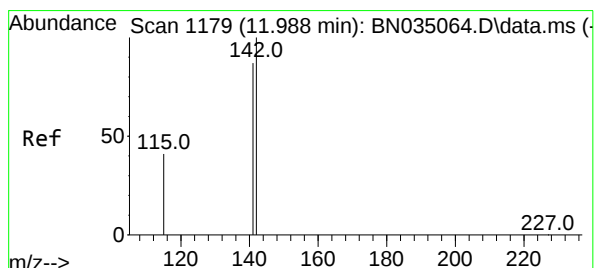
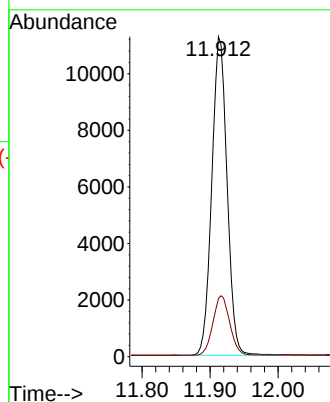
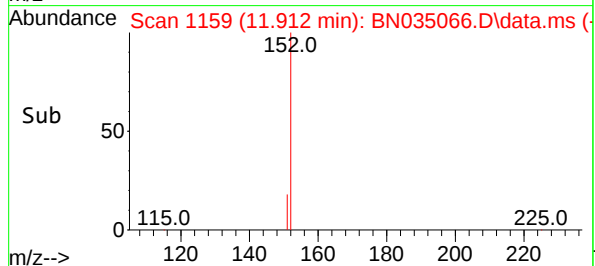
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:152 Resp: 17549  
Ion Ratio Lower Upper  
152 100  
151 20.6 16.2 24.4

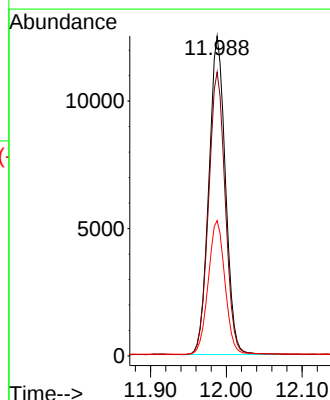
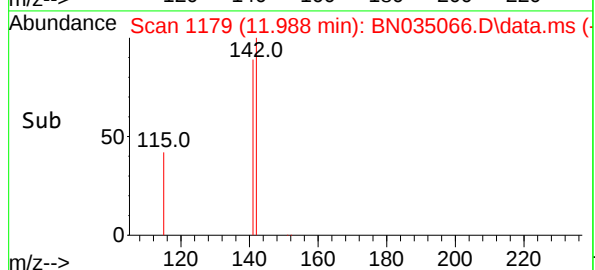
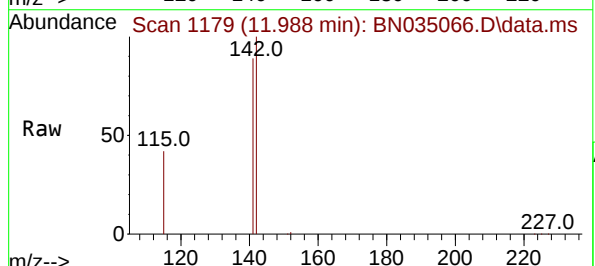
Manual Integrations  
APPROVED

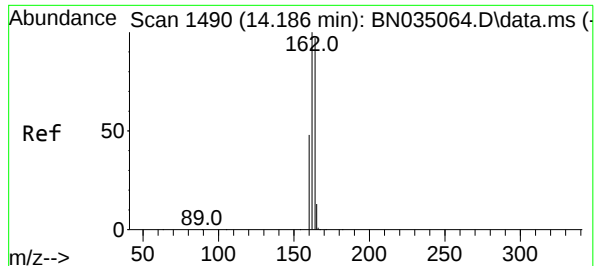
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#12  
2-Methylnaphthalene  
Concen: 1.693 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. -0.000 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

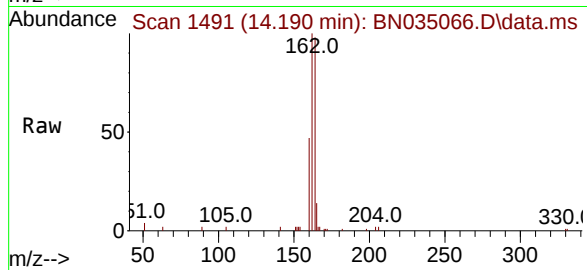
Tgt Ion:142 Resp: 18997  
Ion Ratio Lower Upper  
142 100  
141 88.8 70.1 105.1  
115 42.3 34.4 51.6





#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1490  
Delta R.T. 0.004 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

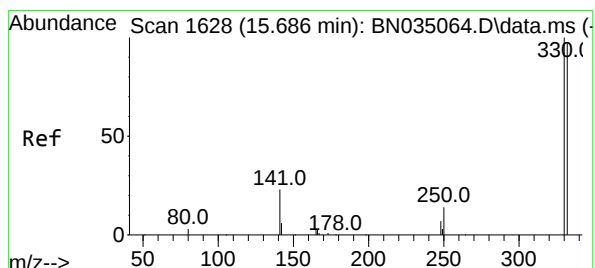
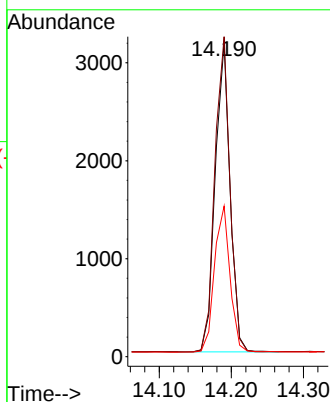
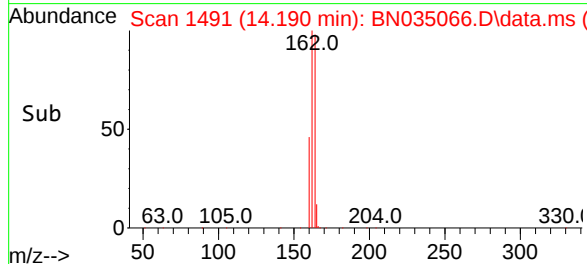
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



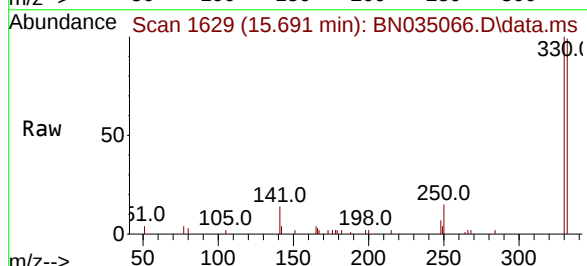
Tgt Ion:164 Resp: 451  
Ion Ratio Lower Upper  
164 100  
162 101.8 82.2 123.2  
160 47.9 40.2 60.4

Manual Integrations  
APPROVED

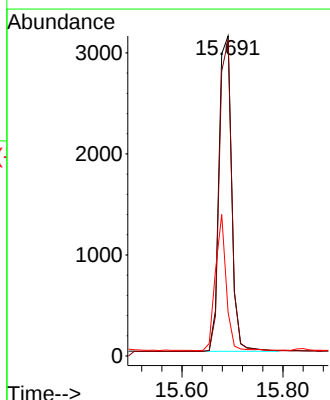
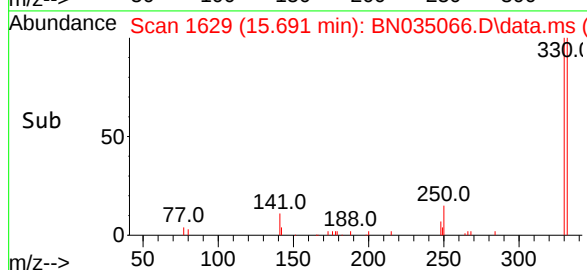
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024

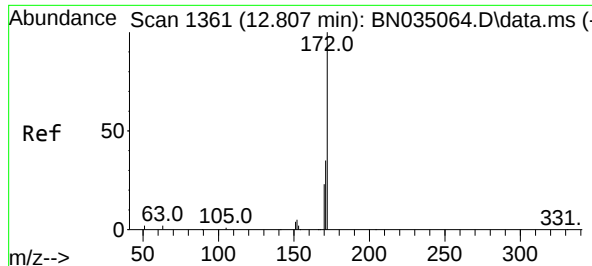


#14  
2,4,6-Tribromophenol  
Concen: 1.659 ng  
RT: 15.691 min Scan# 1629  
Delta R.T. 0.005 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04



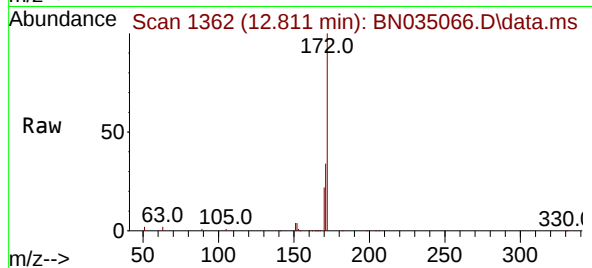
Tgt Ion:330 Resp: 5402  
Ion Ratio Lower Upper  
330 100  
332 96.8 76.9 115.3  
141 37.2 29.6 44.4





#15  
2-Fluorobiphenyl  
Concen: 1.661 ng  
RT: 12.811 min Scan# 1361  
Delta R.T. 0.004 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

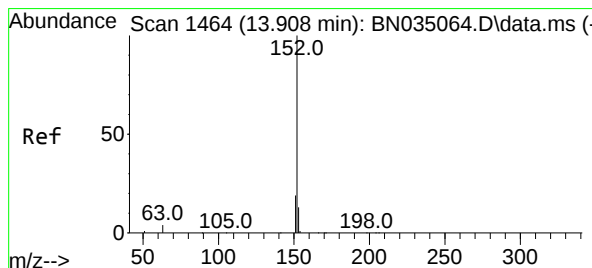
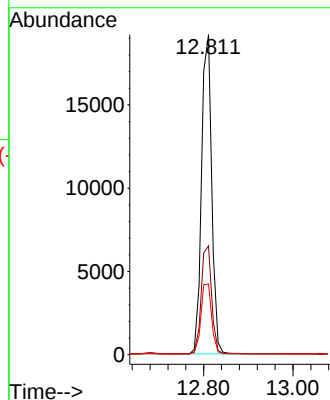
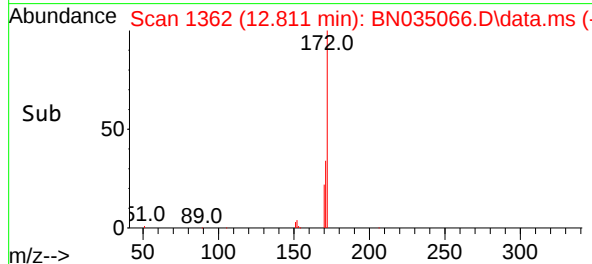
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:172 Resp: 30472  
Ion Ratio Lower Upper  
172 100  
171 34.0 28.2 42.4  
170 22.1 19.0 28.6

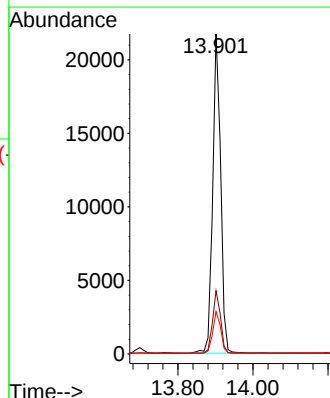
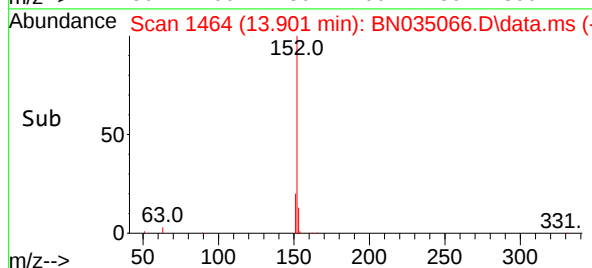
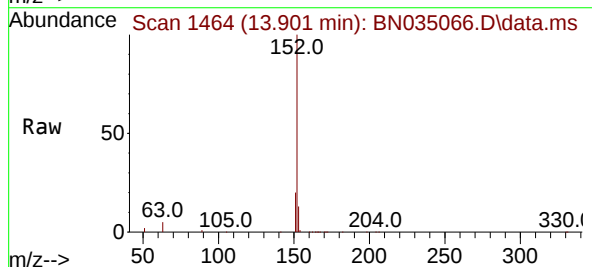
Manual Integrations  
APPROVED

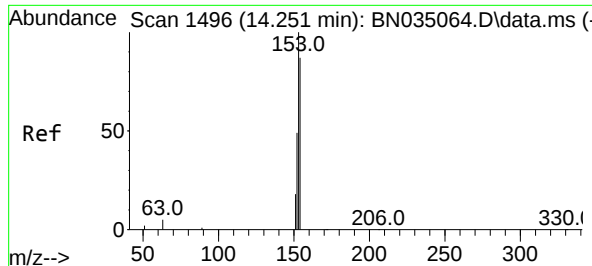
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#16  
Acenaphthylene  
Concen: 1.661 ng  
RT: 13.901 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

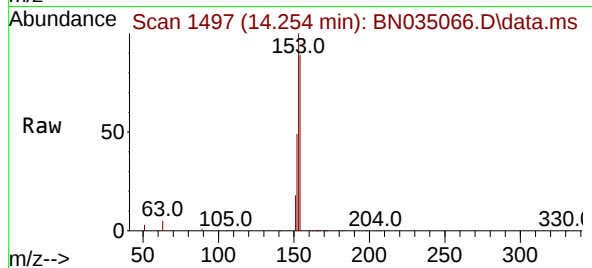
Tgt Ion:152 Resp: 32064  
Ion Ratio Lower Upper  
152 100  
151 19.5 15.8 23.8  
153 13.1 10.2 15.4





#17  
Acenaphthene  
Concen: 1.653 ng  
RT: 14.254 min Scan# 1496  
Delta R.T. 0.004 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

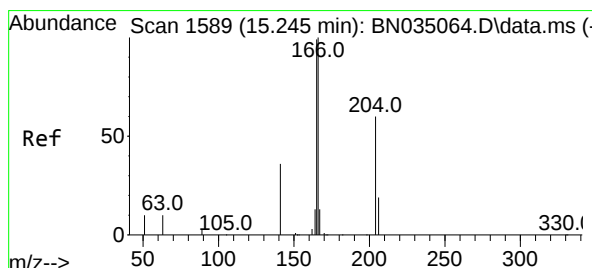
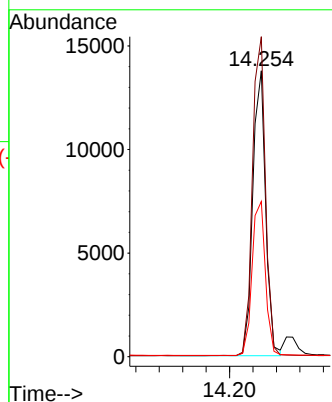
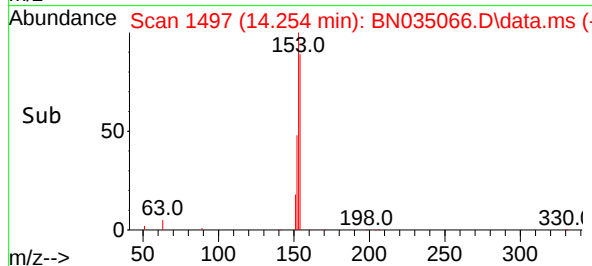
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:154 Resp: 20910  
Ion Ratio Lower Upper  
154 100  
153 113.4 91.6 137.4  
152 56.5 45.8 68.6

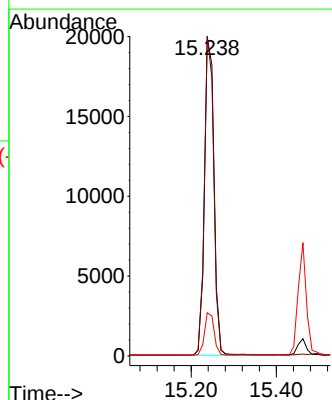
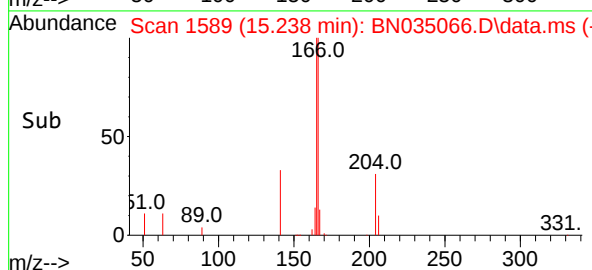
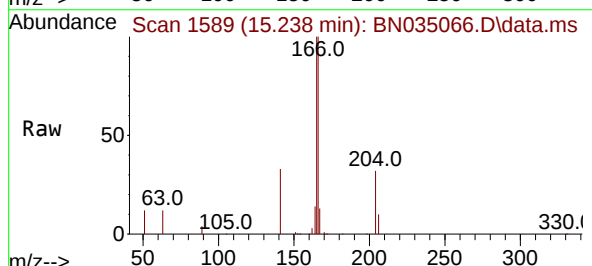
Manual Integrations  
APPROVED

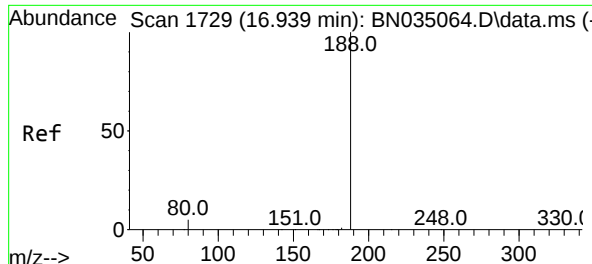
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#18  
Fluorene  
Concen: 1.659 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Tgt Ion:166 Resp: 30868  
Ion Ratio Lower Upper  
166 100  
165 98.0 79.1 118.7  
167 13.4 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.932 min Scan# 1729

Delta R.T. -0.007 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

Tgt Ion:188 Resp: 12068

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

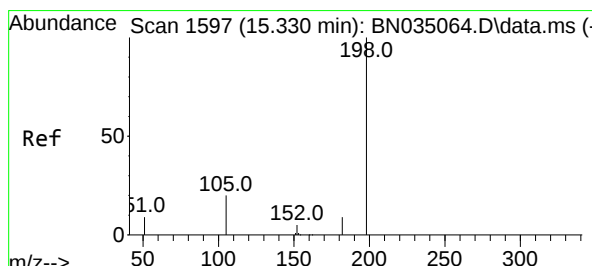
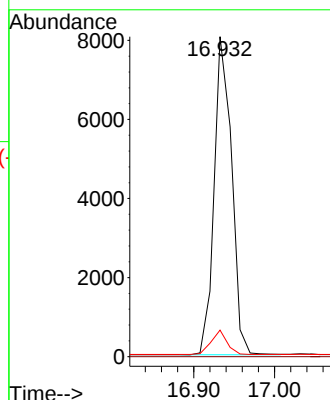
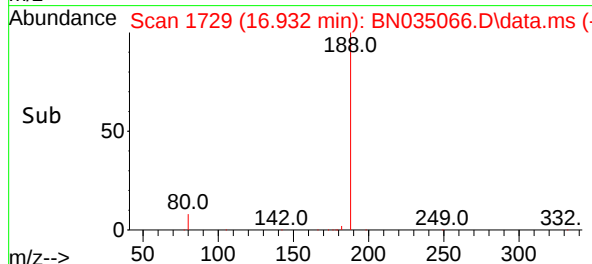
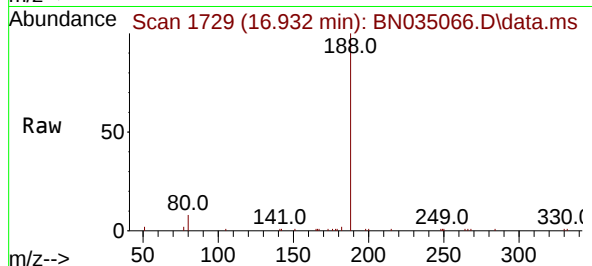
80 8.3 4.3 6.5

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#20

4,6-Dinitro-2-methylphenol

Concen: 1.695 ng

RT: 15.323 min Scan# 1597

Delta R.T. -0.007 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

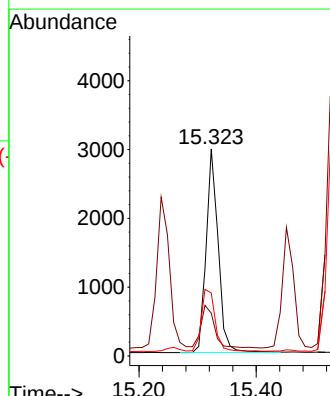
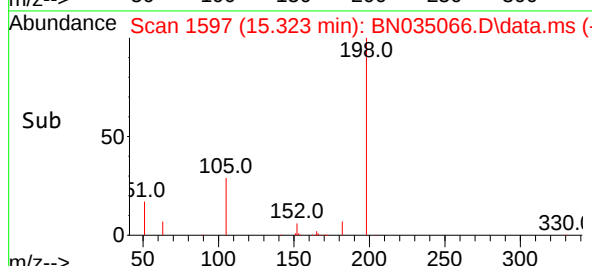
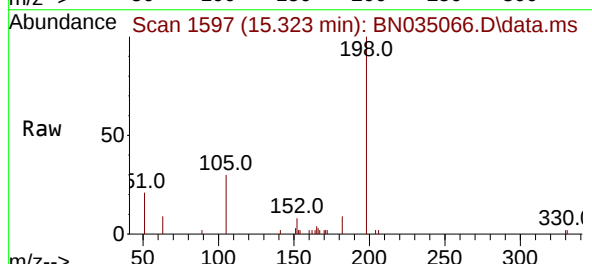
Tgt Ion:198 Resp: 4259

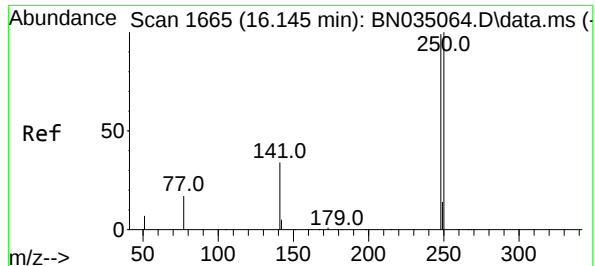
Ion Ratio Lower Upper

198 100

51 20.7 29.9 44.9

105 30.5 23.7 35.5





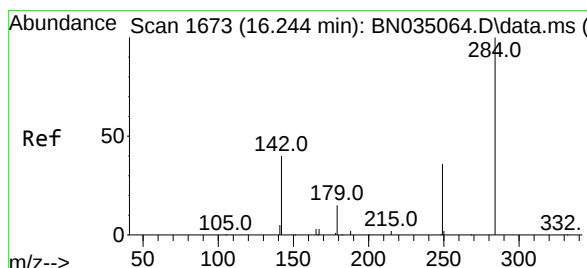
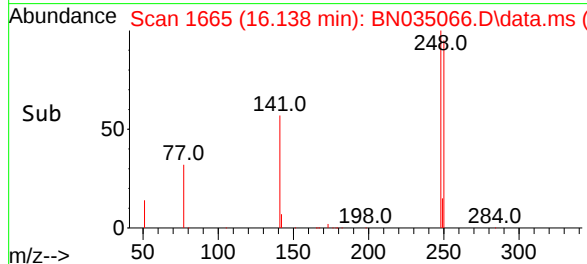
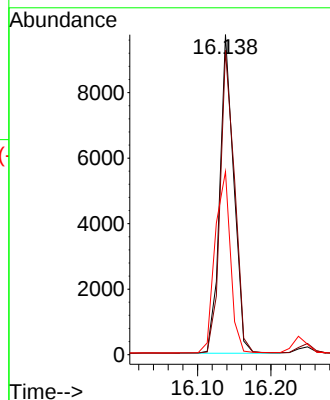
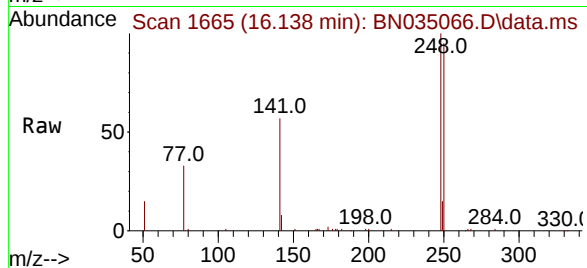
#21  
4-Bromophenyl-phenylether  
Concen: 1.676 ng  
RT: 16.138 min Scan# 1665  
Delta R.T. -0.007 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Tgt Ion:248 Resp: 1288  
Ion Ratio Lower Upper  
248 100  
250 95.0 81.2 121.8  
141 57.2 29.1 43.7

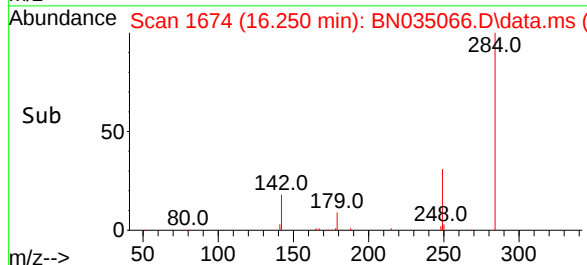
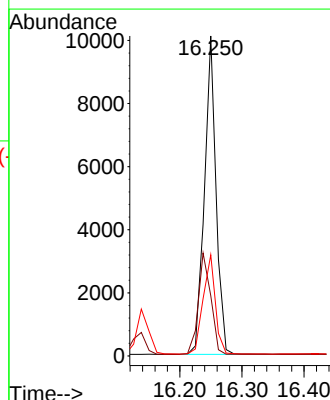
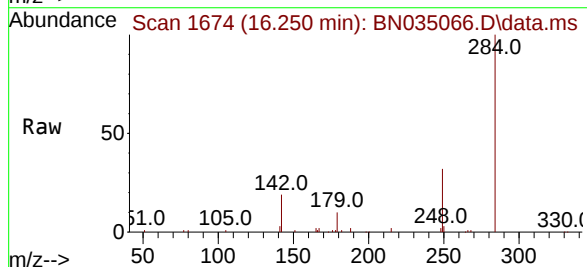
Manual Integrations  
APPROVED

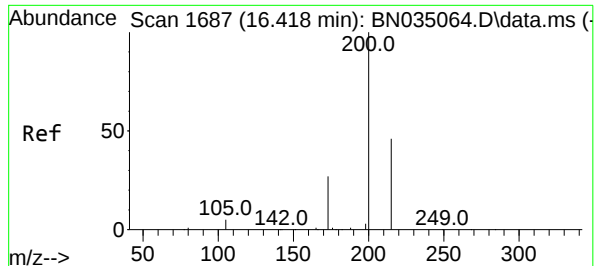
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#22  
Hexachlorobenzene  
Concen: 1.651 ng  
RT: 16.250 min Scan# 1674  
Delta R.T. 0.005 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Tgt Ion:284 Resp: 13172  
Ion Ratio Lower Upper  
284 100  
142 34.0 28.2 42.4  
249 32.5 26.2 39.2





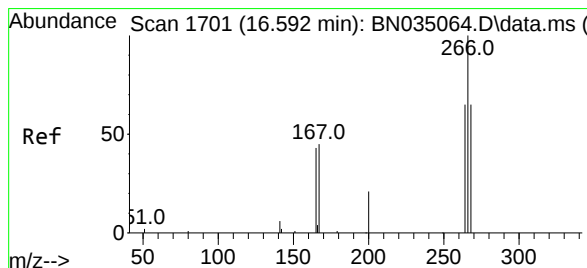
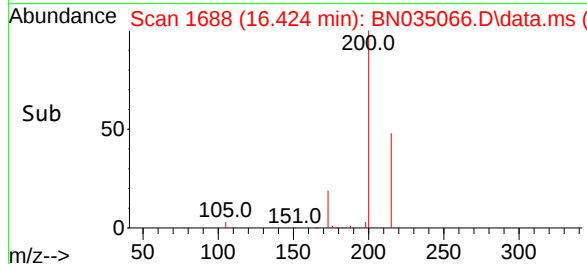
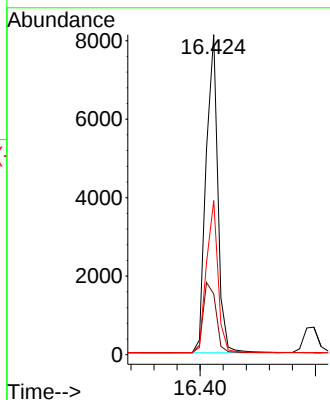
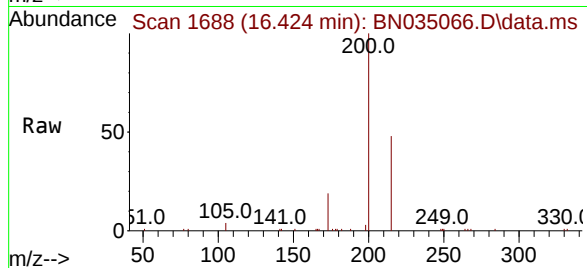
#23  
Atrazine  
Concen: 1.663 ng  
RT: 16.424 min Scan# 1147  
Delta R.T. 0.005 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Tgt Ion:200 Resp: 1147  
Ion Ratio Lower Upper  
200 100  
173 19.0 22.6 33.8  
215 48.2 37.8 56.6

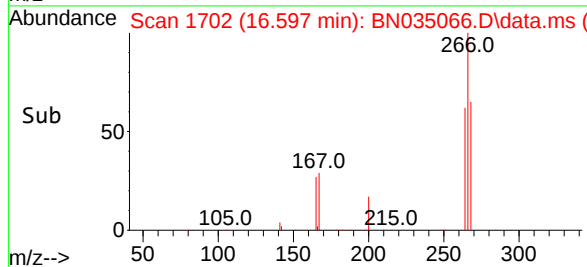
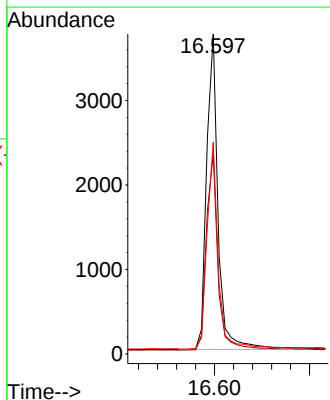
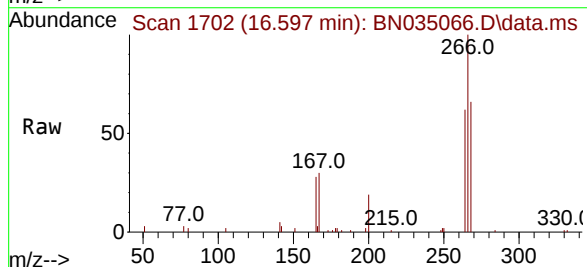
Manual Integrations  
APPROVED

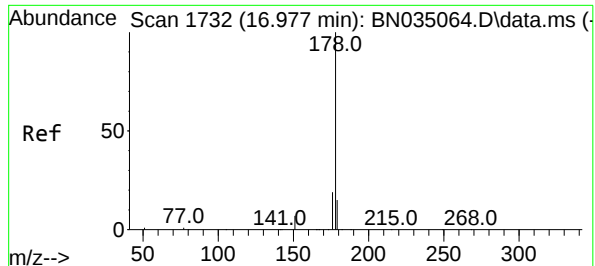
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#24  
Pentachlorophenol  
Concen: 1.683 ng  
RT: 16.597 min Scan# 1702  
Delta R.T. 0.005 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

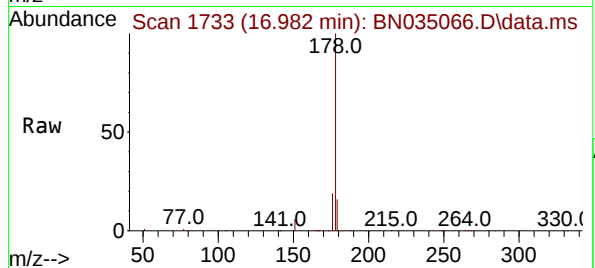
Tgt Ion:266 Resp: 6275  
Ion Ratio Lower Upper  
266 100  
264 63.2 49.4 74.0  
268 63.7 52.6 79.0





#25  
Phenanthrene  
Concen: 1.666 ng  
RT: 16.982 min Scan# 1740  
Delta R.T. 0.005 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

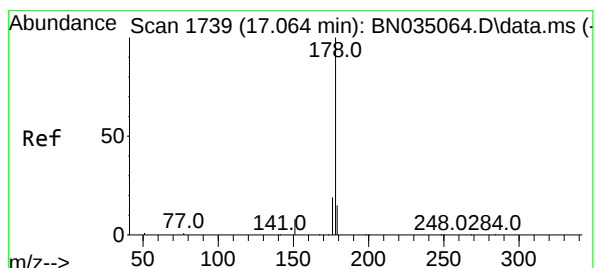
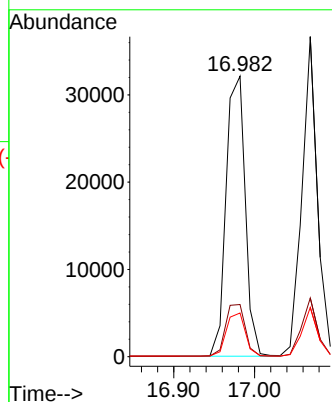
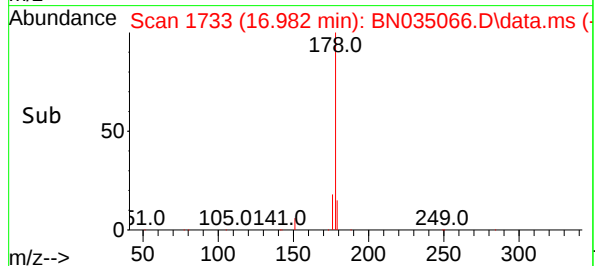
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:178 Resp: 52915  
Ion Ratio Lower Upper  
178 100  
176 19.1 15.2 22.8  
179 15.3 12.6 18.8

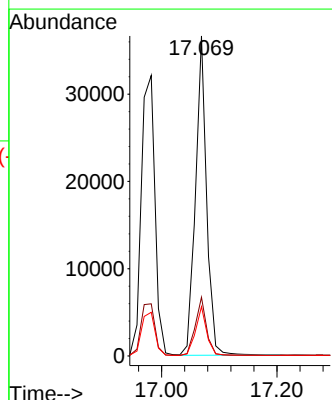
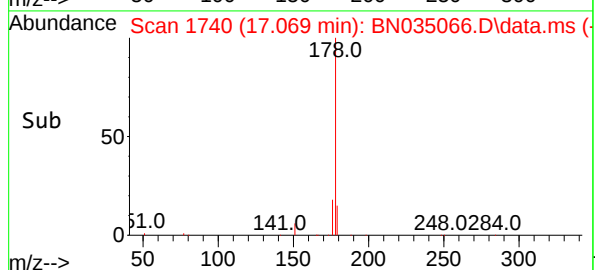
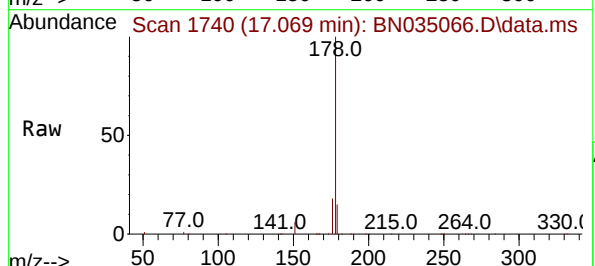
Manual Integrations  
APPROVED

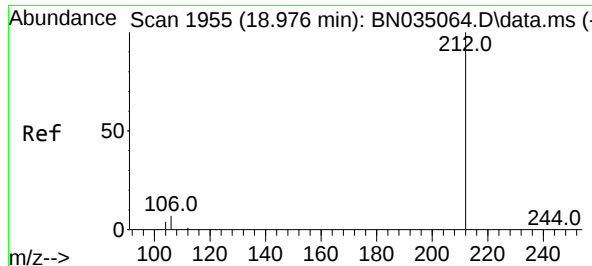
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#26  
Anthracene  
Concen: 1.681 ng  
RT: 17.069 min Scan# 1740  
Delta R.T. 0.005 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

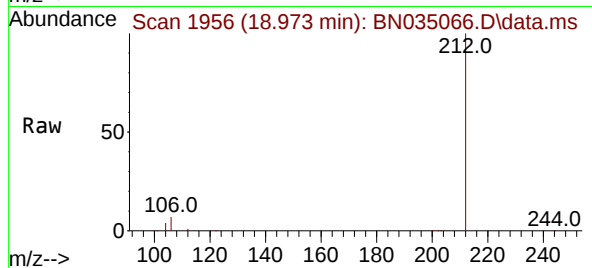
Tgt Ion:178 Resp: 49046  
Ion Ratio Lower Upper  
178 100  
176 18.4 14.6 22.0  
179 15.3 12.2 18.2





#27  
Fluoranthene-d10  
Concen: 1.676 ng  
RT: 18.973 min Scan# 1955  
Delta R.T. -0.002 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

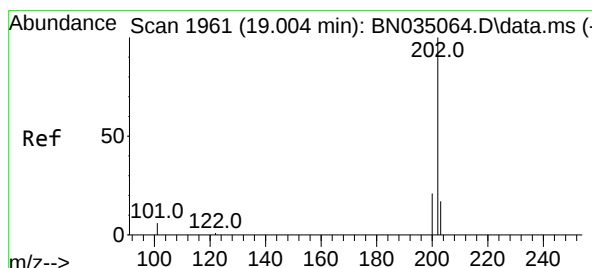
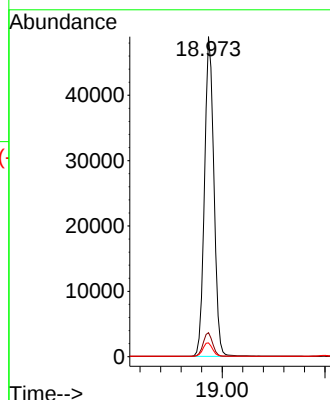
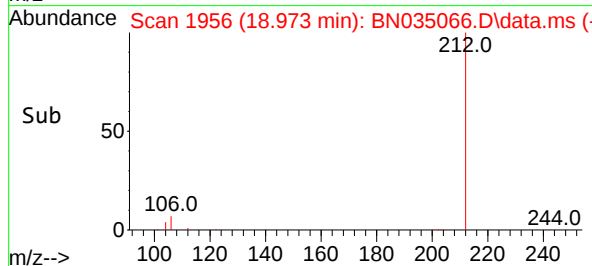
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:212 Resp: 61972  
Ion Ratio Lower Upper  
212 100  
106 7.5 6.0 9.0  
104 4.3 3.5 5.3

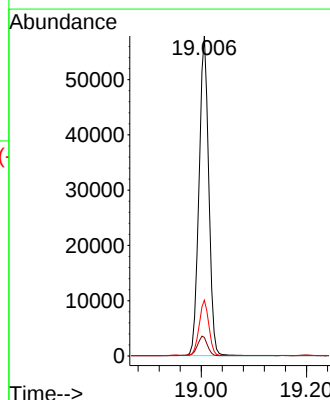
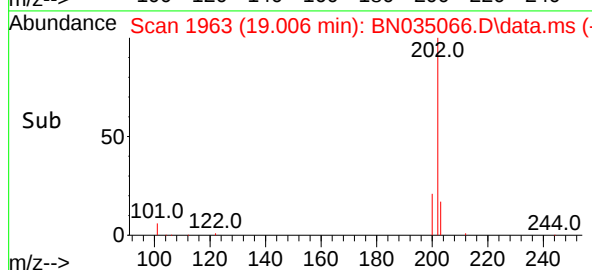
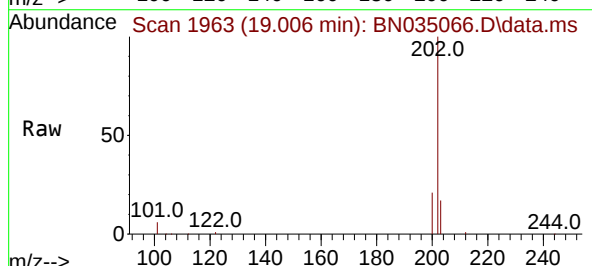
Manual Integrations  
APPROVED

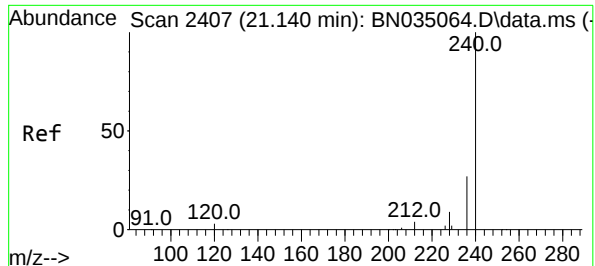
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#28  
Fluoranthene  
Concen: 1.687 ng  
RT: 19.006 min Scan# 1963  
Delta R.T. 0.002 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Tgt Ion:202 Resp: 73694  
Ion Ratio Lower Upper  
202 100  
101 6.3 5.2 7.8  
203 17.4 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.133 min Scan# 2408

Delta R.T. -0.007 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

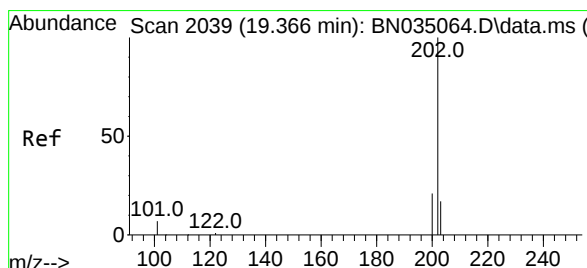
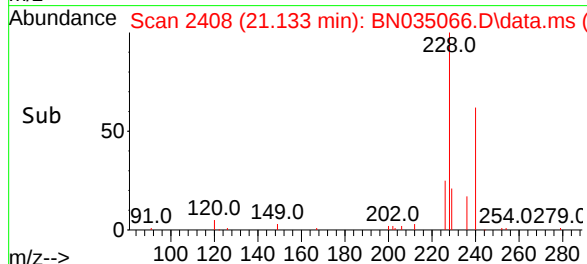
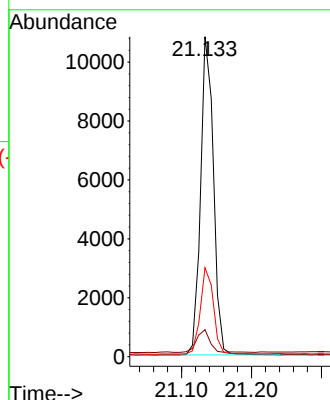
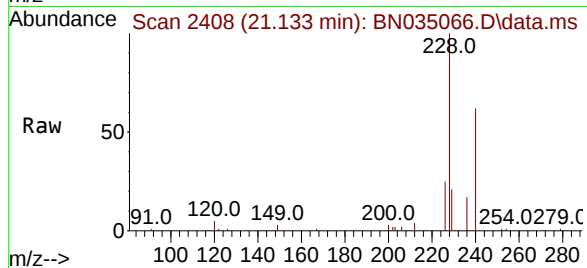
SSTDICC1.6

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 8.5   | 3.8   | 5.6   |
| 236     | 27.8  | 22.2  | 33.2  |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#30

Pyrene

Concen: 1.641 ng

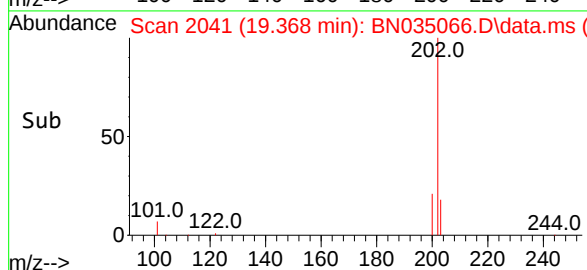
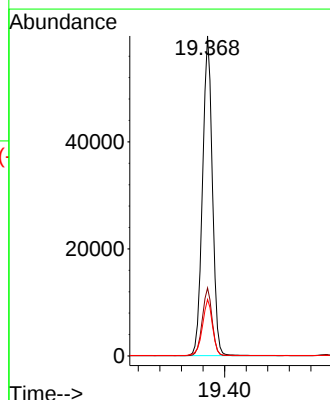
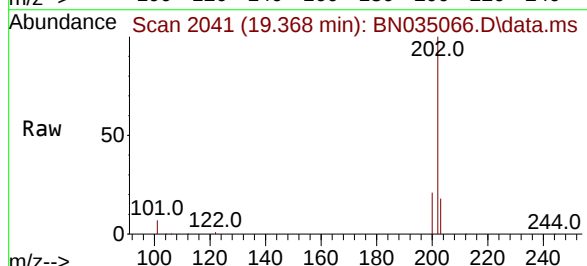
RT: 19.368 min Scan# 2041

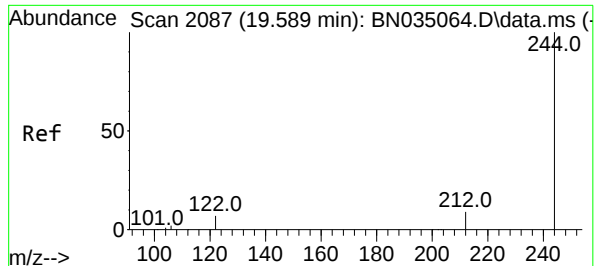
Delta R.T. 0.002 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.0  | 16.7  | 25.1  |
| 203     | 17.9  | 14.2  | 21.4  |





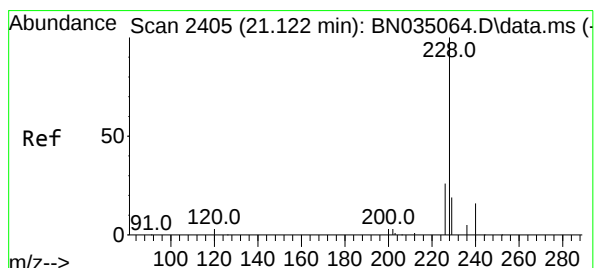
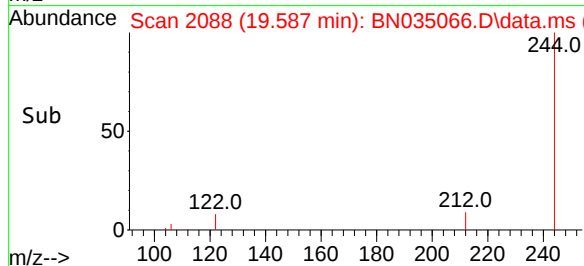
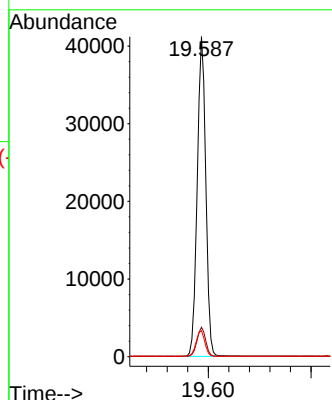
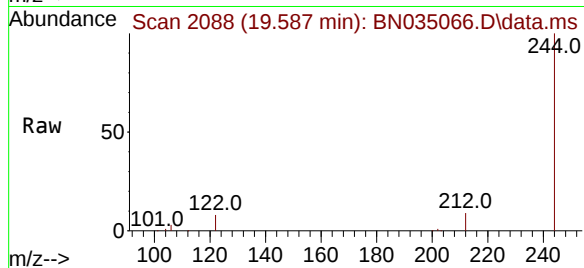
#31  
Terphenyl-d14  
Concen: 1.652 ng  
RT: 19.587 min Scan# 2087  
Delta R.T. -0.002 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Tgt Ion:244 Resp: 47914  
Ion Ratio Lower Upper  
244 100  
212 9.2 7.6 11.4  
122 8.1 6.1 9.1

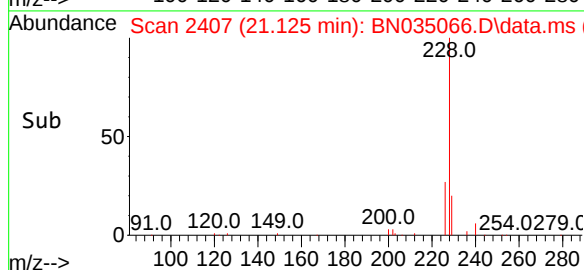
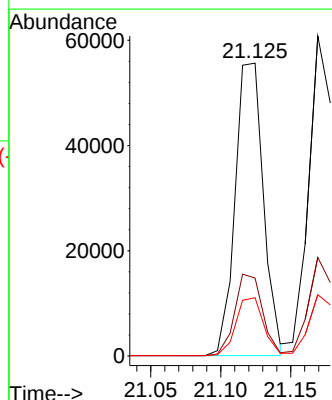
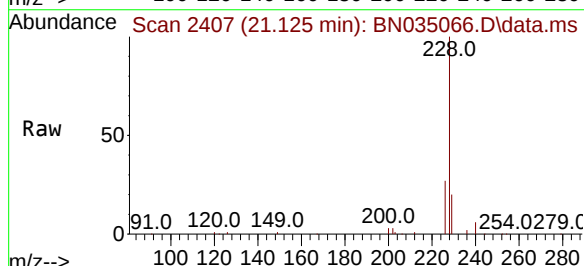
Manual Integrations  
APPROVED

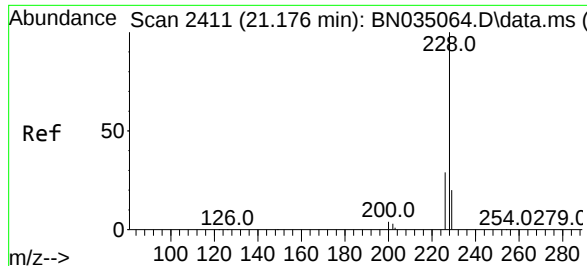
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#32  
Benzo(a)anthracene  
Concen: 1.627 ng  
RT: 21.125 min Scan# 2407  
Delta R.T. 0.002 min  
Lab File: BN035066.D  
Acq: 13 Nov 2024 15:04

Tgt Ion:228 Resp: 78298  
Ion Ratio Lower Upper  
228 100  
226 26.6 21.4 32.0  
229 19.9 15.7 23.5





#33

Chrysene

Concen: 1.647 ng

RT: 21.169 min Scan# 2411

Delta R.T. -0.007 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

Tgt Ion:228 Resp: 7853

Ion Ratio Lower Upper

228 100

226 30.8 23.7 35.5

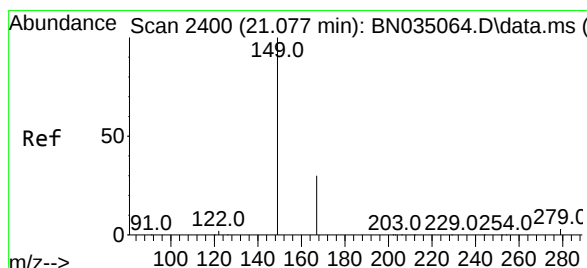
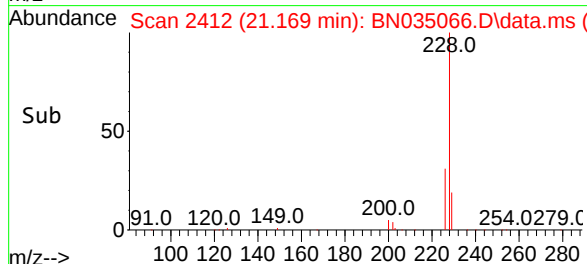
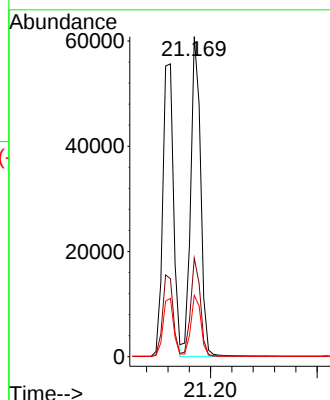
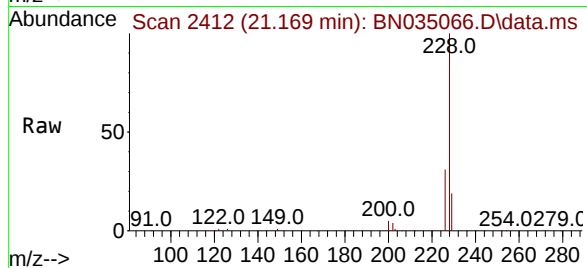
229 19.2 16.2 24.4

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#34

Bis(2-ethylhexyl)phthalate

Concen: 1.549 ng

RT: 21.080 min Scan# 2402

Delta R.T. 0.002 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

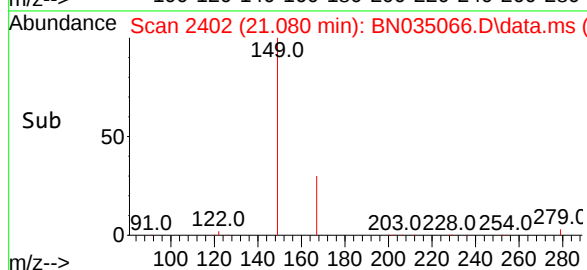
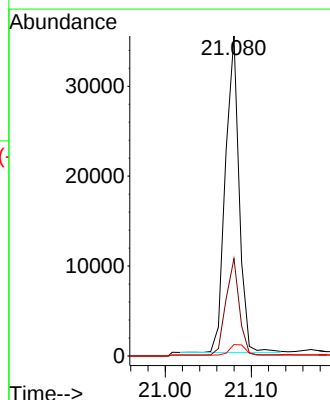
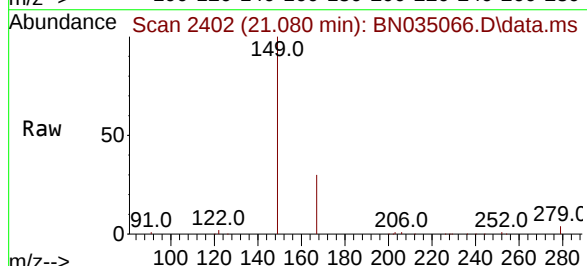
Tgt Ion:149 Resp: 38807

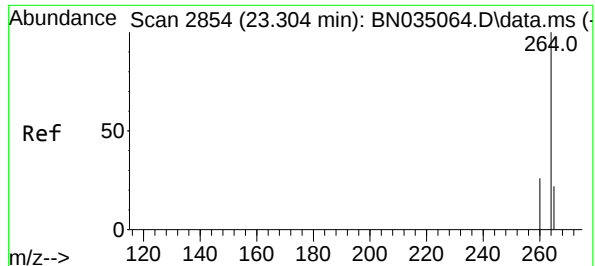
Ion Ratio Lower Upper

149 100

167 29.5 23.2 34.8

279 3.9 3.2 4.8





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.303 min Scan# 21

Delta R.T. -0.001 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

Tgt Ion:264 Resp: 15060

Ion Ratio Lower Upper

264 100

260 26.0 20.9 31.3

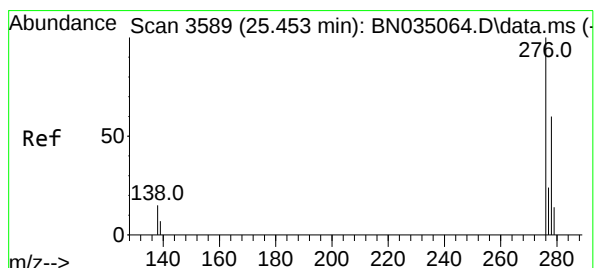
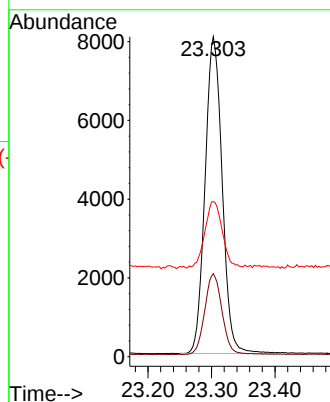
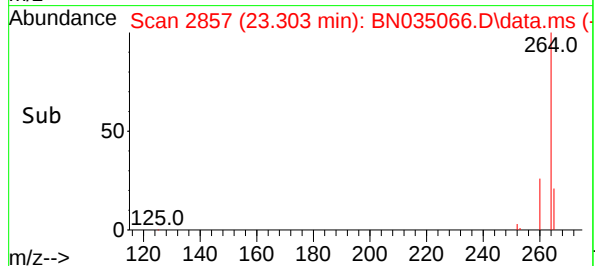
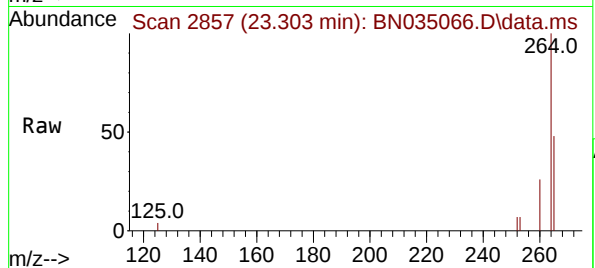
265 48.5 35.4 53.2

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#36

Indeno(1,2,3-cd)pyrene

Concen: 1.663 ng

RT: 25.452 min Scan# 3592

Delta R.T. -0.001 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

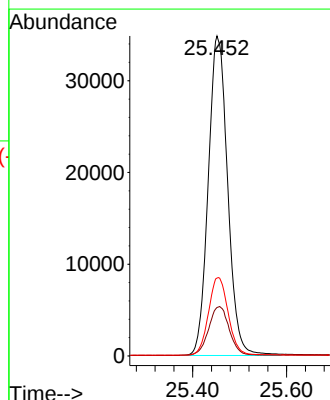
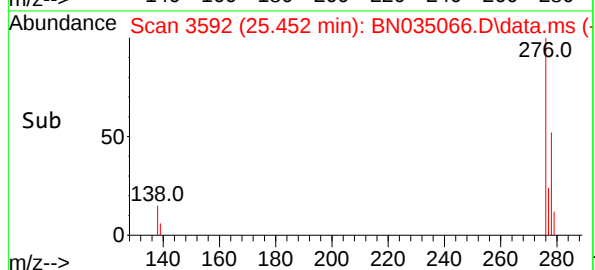
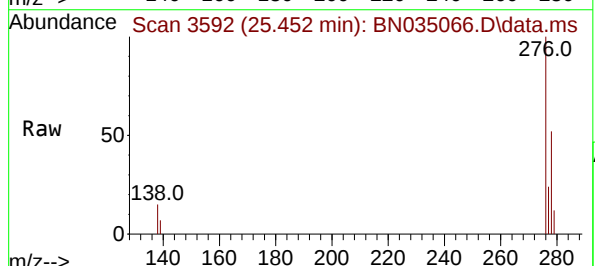
Tgt Ion:276 Resp: 99936

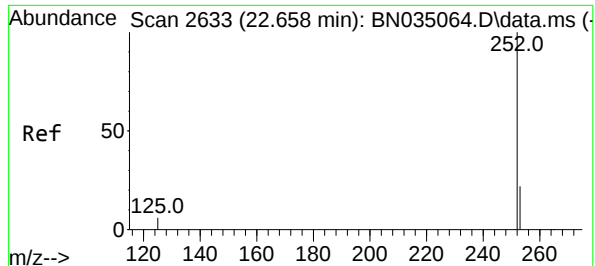
Ion Ratio Lower Upper

276 100

138 16.1 13.0 19.4

277 24.8 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 1.686 ng m

RT: 22.660 min Scan# 2637

Delta R.T. 0.002 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

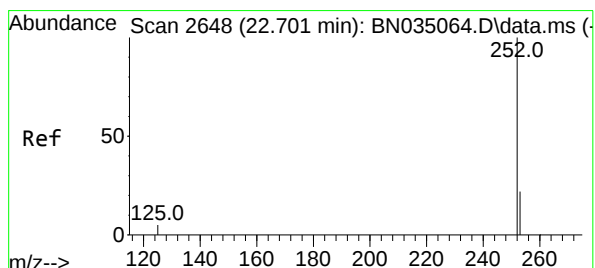
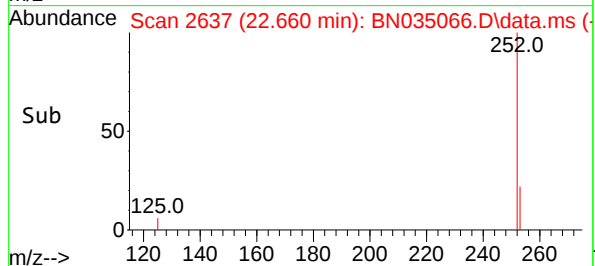
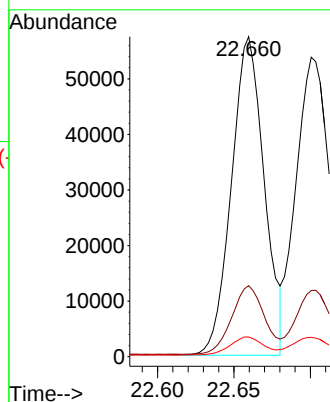
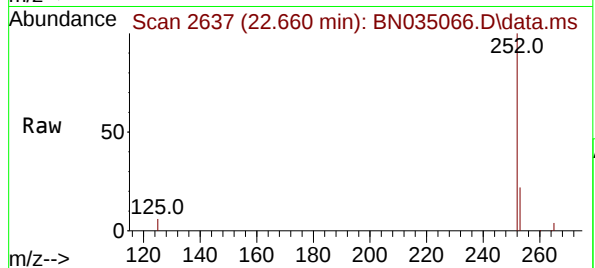
Tgt Ion:252 Resp: 85420

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 22.2  | 19.3  | 28.9  |
| 125 | 6.1   | 6.2   | 9.2   |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#38

Benzo(k)fluoranthene

Concen: 1.676 ng

RT: 22.701 min Scan# 2651

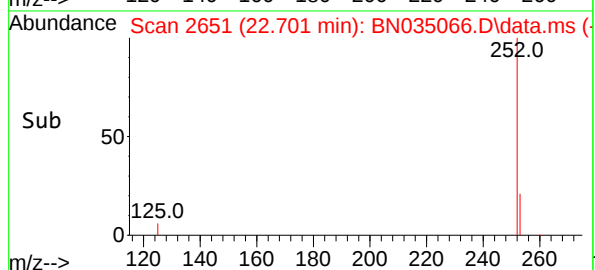
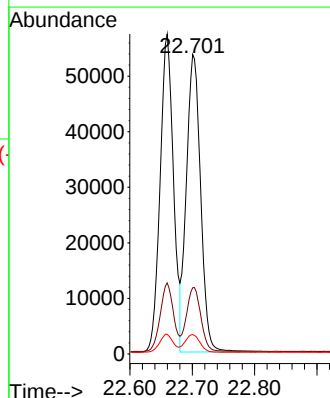
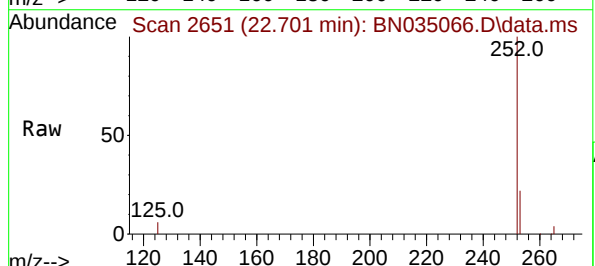
Delta R.T. -0.001 min

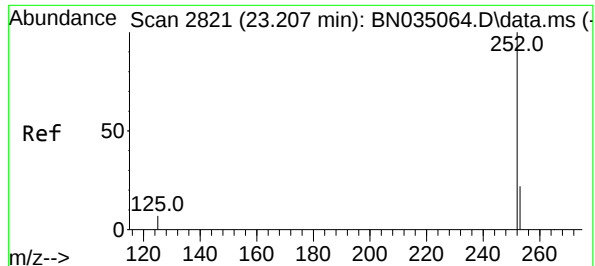
Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Tgt Ion:252 Resp: 84960

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 252 | 100   |       |       |
| 253 | 22.1  | 19.5  | 29.3  |
| 125 | 6.5   | 6.5   | 9.7   |





#39

Benzo(a)pyrene

Concen: 1.675 ng

RT: 23.209 min Scan# 2825

Delta R.T. 0.002 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

Tgt Ion:252 Resp: 7466

Ion Ratio Lower Upper

252 100

253 22.3 20.1 30.1

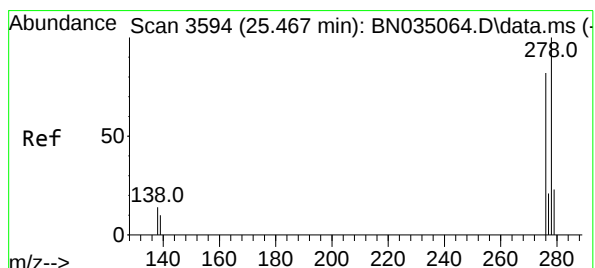
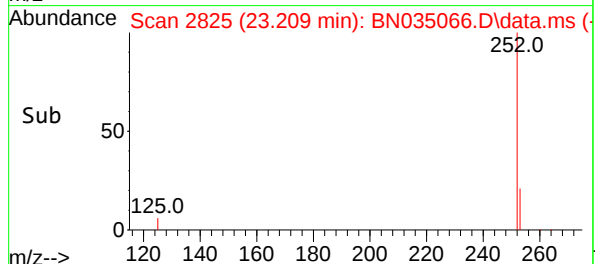
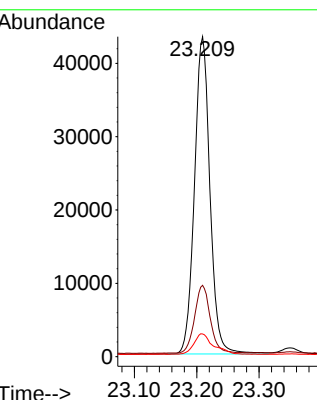
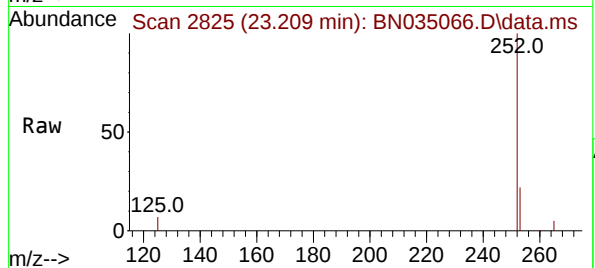
125 7.1 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#40

Dibenzo(a,h)anthracene

Concen: 1.673 ng

RT: 25.469 min Scan# 3598

Delta R.T. 0.002 min

Lab File: BN035066.D

Acq: 13 Nov 2024 15:04

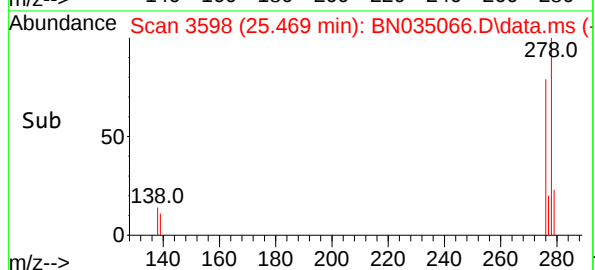
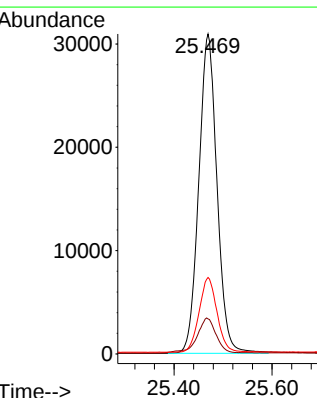
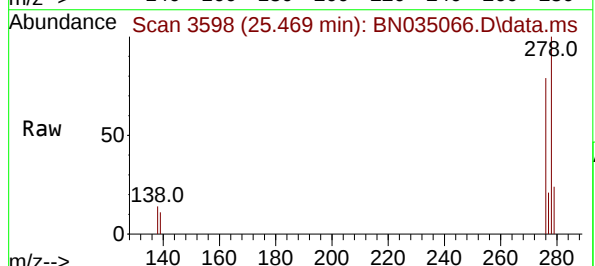
Tgt Ion:278 Resp: 79628

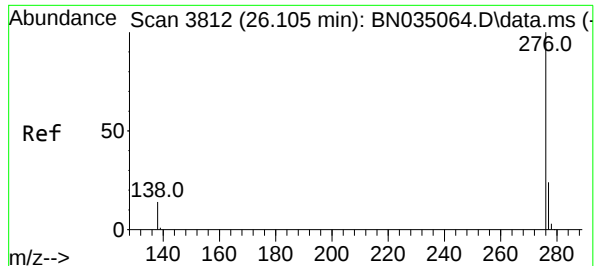
Ion Ratio Lower Upper

278 100

139 10.9 9.3 13.9

279 23.9 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 1.649 ng

RT: 26.107 min Scan# 3812

Delta R.T. 0.002 min

Lab File: BN035066.D

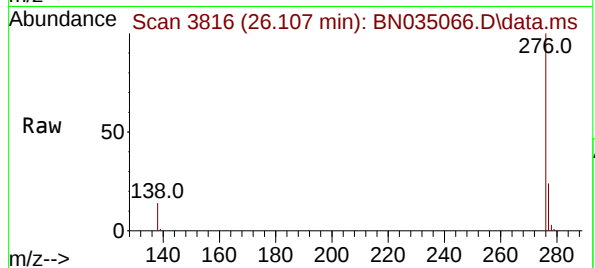
Acq: 13 Nov 2024 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6



Tgt Ion:276 Resp: 83498

Ion Ratio Lower Upper

276 100

277 23.7 19.9 29.9

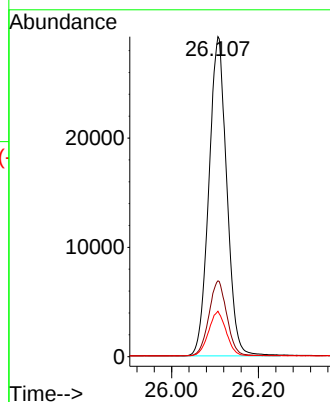
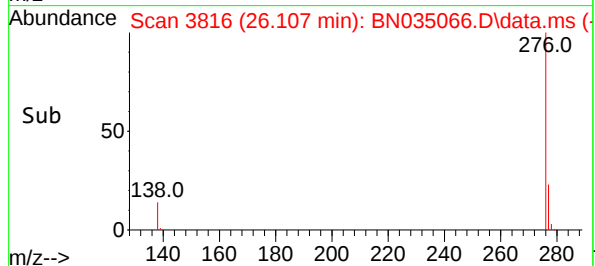
138 14.2 11.6 17.4

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035067.D  
 Acq On : 13 Nov 2024 15:39  
 Operator : RC/JU  
 Sample : SSTDICC3.2  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

## Instrument :

BNA\_N

## ClientSampleId :

SSTDICC3.2

## Manual Integrations

## APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024

Quant Time: Nov 13 16:45:11 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 13 16:42:01 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2920     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 7487     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 5593     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.932 | 188  | 14864    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.133 | 240  | 17096    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.303 | 264  | 18582    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 22571    | 3.045 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 29328    | 3.155 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.696  | 82   | 20578    | 3.167 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 42128    | 3.157 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.691 | 330  | 13778    | 3.417 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.811 | 172  | 71543    | 3.150 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 145321   | 3.191 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.587 | 244  | 111732   | 3.115 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.177  | 88   | 8131     | 3.066 | ng    | 99       |
| 3) n-Nitrosodimethylamine     | 3.465  | 42   | 7509     | 3.049 | ng    | # 93     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 21619    | 3.099 | ng    | 99       |
| 9) Naphthalene                | 10.362 | 128  | 60468    | 3.093 | ng    | 98       |
| 10) Hexachlorobutadiene       | 10.660 | 225  | 17300    | 3.019 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 45806    | 3.176 | ng    | 98       |
| 16) Acenaphthylene            | 13.901 | 152  | 78553    | 3.286 | ng    | 99       |
| 17) Acenaphthene              | 14.254 | 154  | 50542    | 3.227 | ng    | 98       |
| 18) Fluorene                  | 15.238 | 166  | 74092    | 3.215 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.323 | 198  | 11328    | 3.661 | ng    | # 83     |
| 21) 4-Bromophenyl-phenylether | 16.138 | 248  | 30013    | 3.169 | ng    | # 85     |
| 22) Hexachlorobenzene         | 16.250 | 284  | 30635    | 3.117 | ng    | 99       |
| 23) Atrazine                  | 16.424 | 200  | 26567    | 3.127 | ng    | # 93     |
| 24) Pentachlorophenol         | 16.597 | 266  | 16789    | 3.656 | ng    | 98       |
| 25) Phenanthrene              | 16.982 | 178  | 123000   | 3.144 | ng    | 99       |
| 26) Anthracene                | 17.069 | 178  | 117301   | 3.265 | ng    | 100      |
| 28) Fluoranthene              | 19.006 | 202  | 172759   | 3.212 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 177937   | 3.125 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.125 | 228  | 185345   | 3.114 | ng    | 99       |
| 33) Chrysene                  | 21.169 | 228  | 182053   | 3.087 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 94826    | 3.061 | ng    | 99       |
| 36) Indeno(1,2,3-cd)pyrene    | 25.455 | 276  | 230419   | 3.108 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.660 | 252  | 197259m  | 3.155 | ng    |          |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 196686   | 3.144 | ng    | # 95     |
| 39) Benzo(a)pyrene            | 23.209 | 252  | 173547   | 3.155 | ng    | # 93     |
| 40) Dibenzo(a,h)anthracene    | 25.466 | 278  | 183641   | 3.127 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.107 | 276  | 192341   | 3.079 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

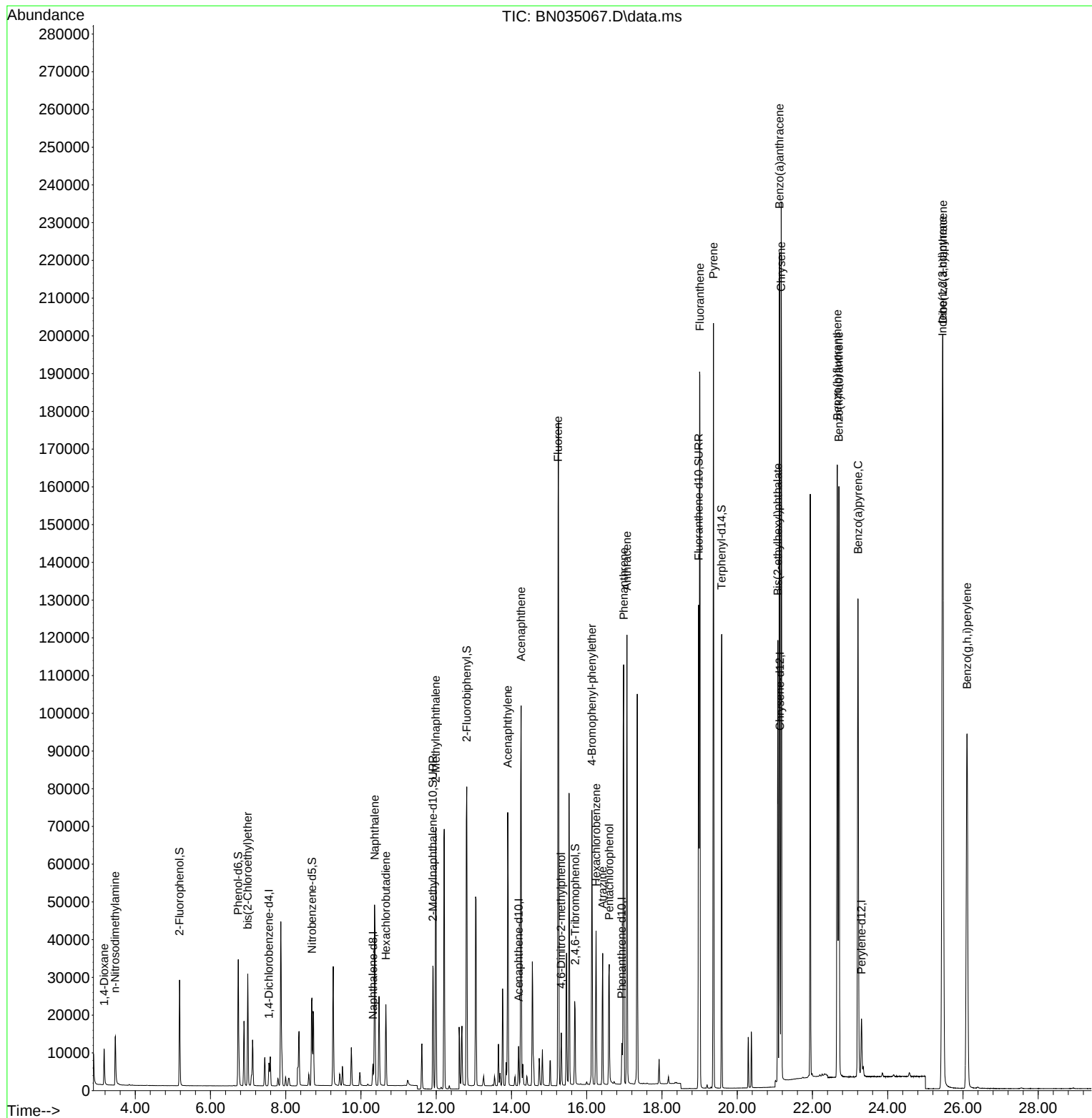
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035067.D  
 Acq On : 13 Nov 2024 15:39  
 Operator : RC/JU  
 Sample : SSTDICC3.2  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

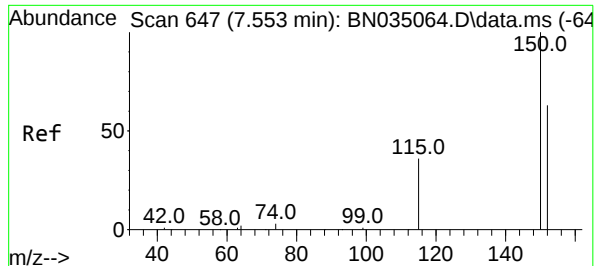
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

### Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
 Supervised By :mohammad ahmed 11/14/2024

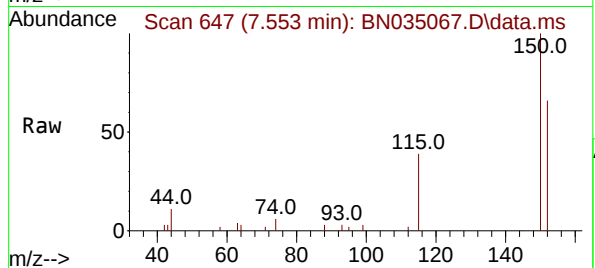
Quant Time: Nov 13 16:45:11 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration





#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 647  
Delta R.T. 0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

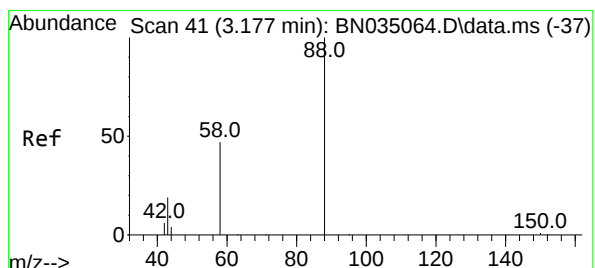
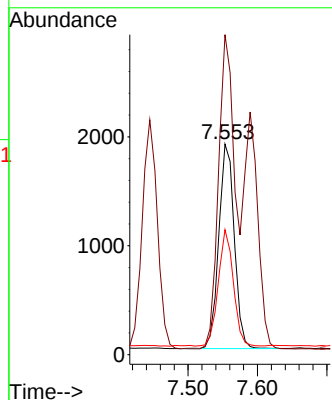
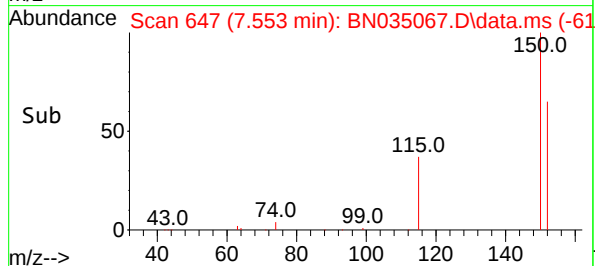
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion: 152 Resp: 2920  
Ion Ratio Lower Upper  
152 100  
150 152.0 124.5 186.7  
115 59.4 47.8 71.6

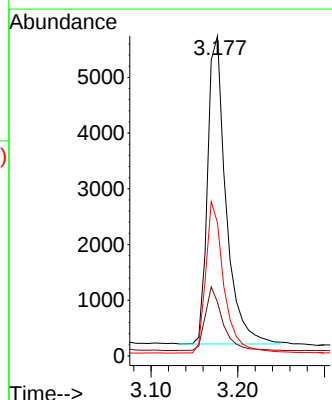
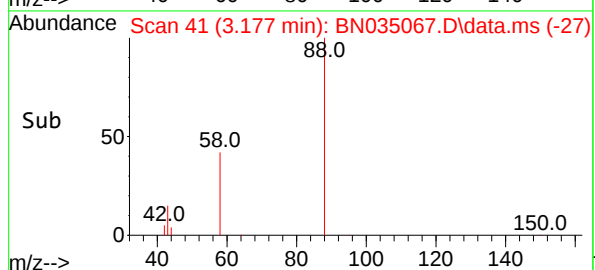
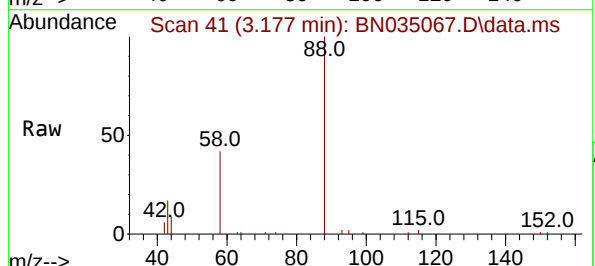
Manual Integrations  
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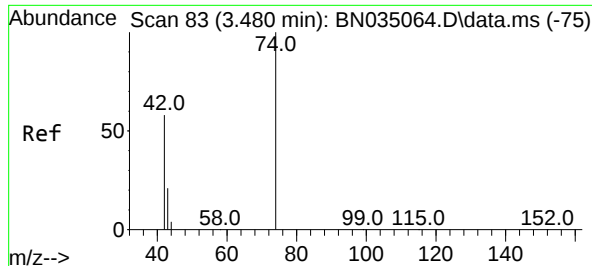
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#2  
1,4-Dioxane  
Concen: 3.066 ng  
RT: 3.177 min Scan# 41  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

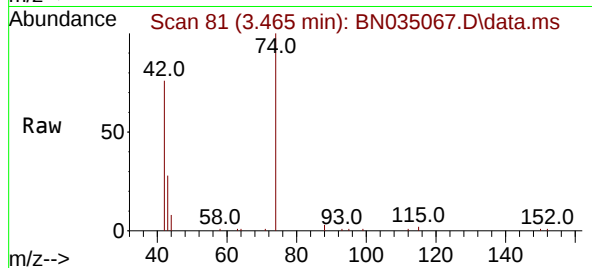
Tgt Ion: 88 Resp: 8131  
Ion Ratio Lower Upper  
88 100  
43 19.5 16.9 25.3  
58 48.4 39.0 58.4





#3  
n-Nitrosodimethylamine  
Concen: 3.049 ng  
RT: 3.465 min Scan# 81  
Delta R.T. -0.015 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

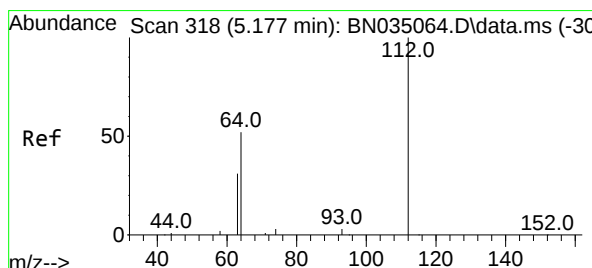
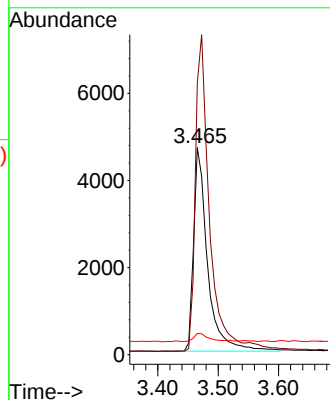
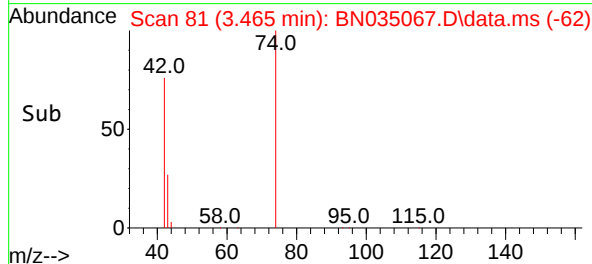
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion: 42 Resp: 7509  
Ion Ratio Lower Upper  
42 100  
74 159.4 120.8 181.2  
44 4.7 2.9 4.3

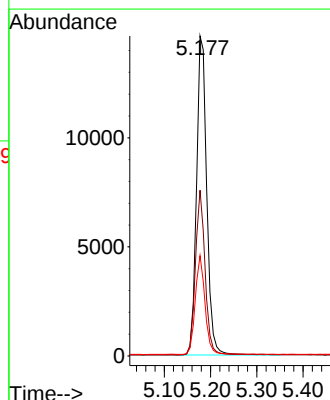
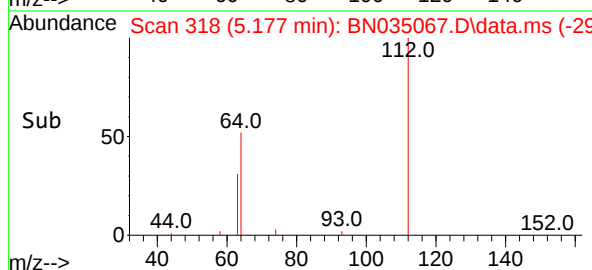
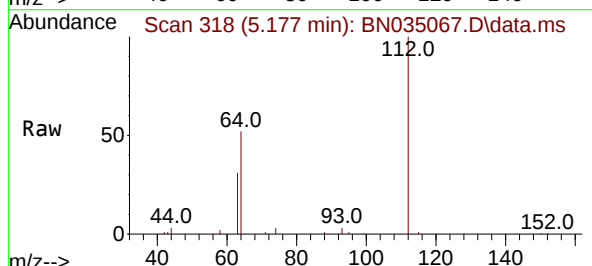
Manual Integrations  
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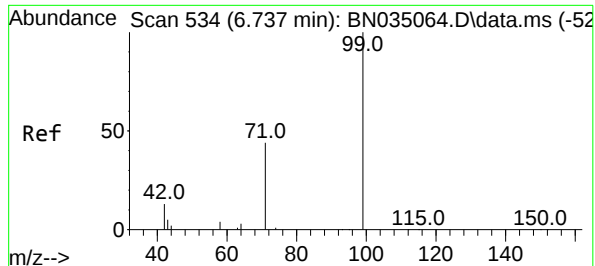
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#4  
2-Fluorophenol  
Concen: 3.045 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:112 Resp: 22571  
Ion Ratio Lower Upper  
112 100  
64 48.8 39.7 59.5  
63 29.4 23.0 34.4





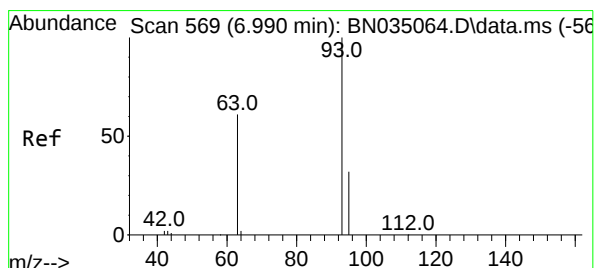
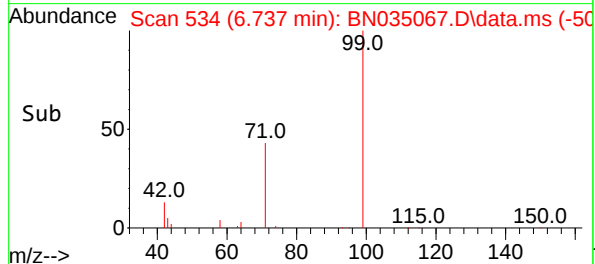
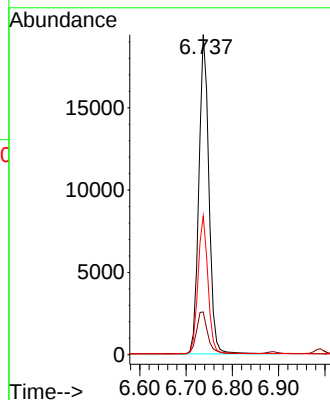
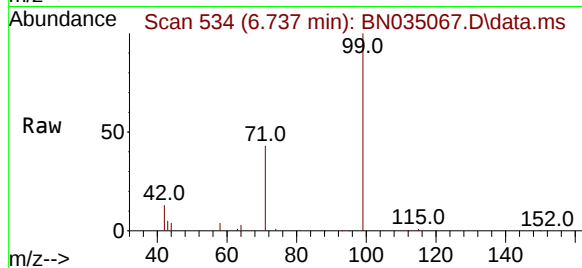
#5  
Phenol-d6  
Concen: 3.155 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion: 99 Resp: 29328  
Ion Ratio Lower Upper  
99 100  
42 14.5 11.4 17.0  
71 43.0 34.6 51.8

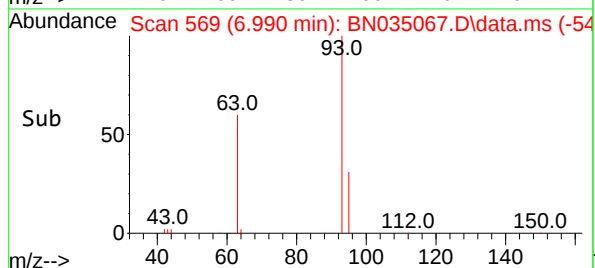
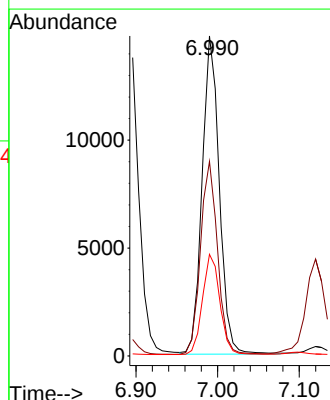
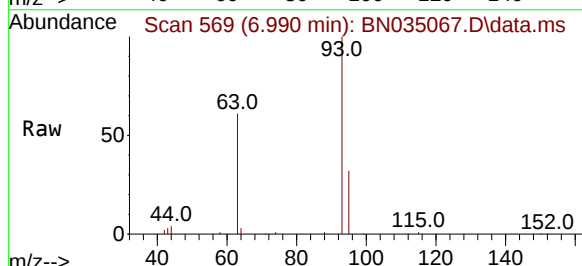
Manual Integrations  
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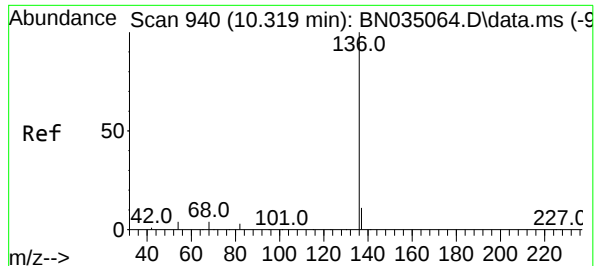
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#6  
bis(2-Chloroethyl)ether  
Concen: 3.099 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion: 93 Resp: 21619  
Ion Ratio Lower Upper  
93 100  
63 60.2 47.4 71.2  
95 31.9 26.2 39.4





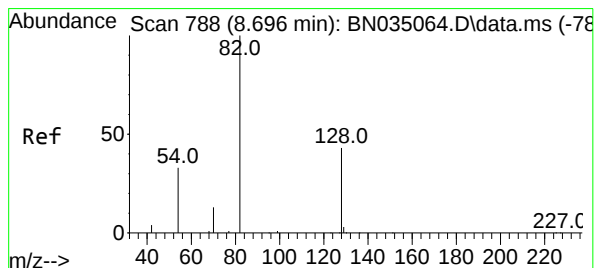
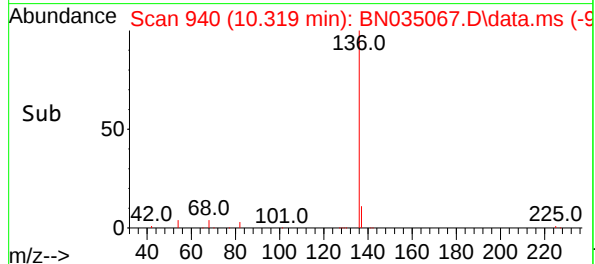
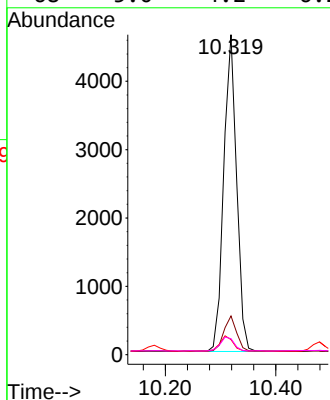
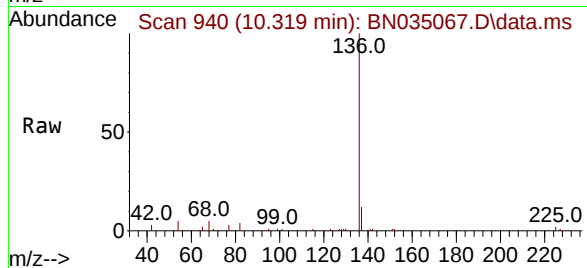
#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 748   |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.1  | 9.8   | 14.8  |
| 54       | 4.7   | 4.0   | 6.0   |
| 68       | 5.0   | 4.2   | 6.2   |

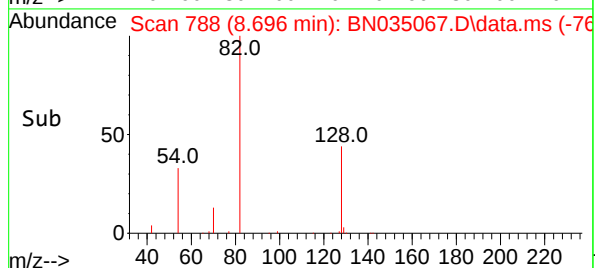
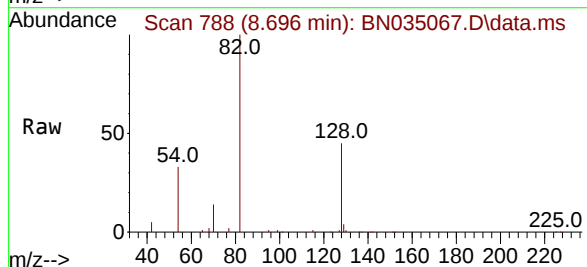
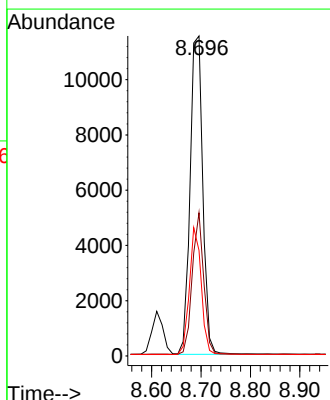
Manual Integrations  
APPROVED

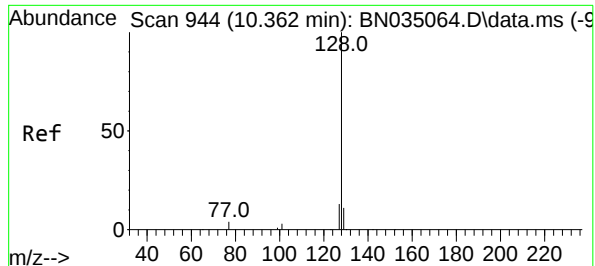
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#8  
Nitrobenzene-d5  
Concen: 3.167 ng  
RT: 8.696 min Scan# 788  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 20578 |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 44.7  | 36.5  | 54.7  |
| 54       | 33.0  | 28.7  | 43.1  |





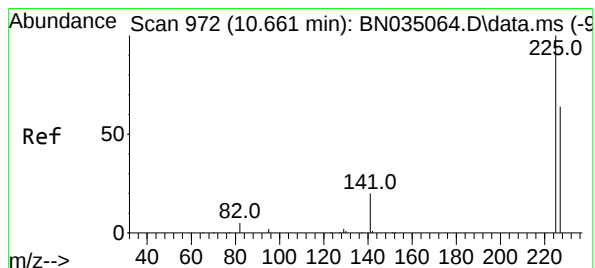
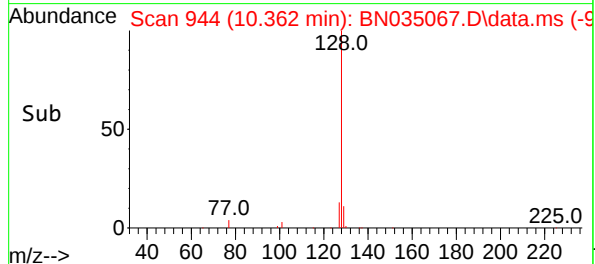
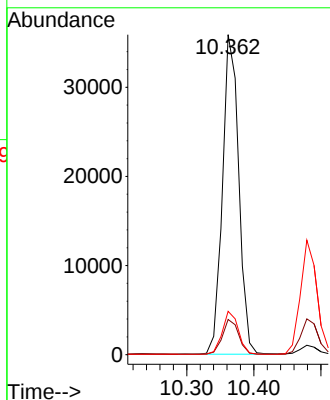
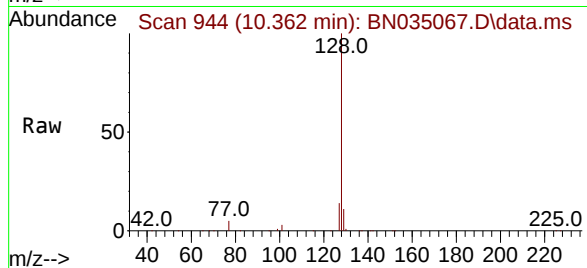
#9  
Naphthalene  
Concen: 3.093 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion:128 Resp: 60468  
Ion Ratio Lower Upper  
128 100  
129 11.0 9.6 14.4  
127 13.6 11.6 17.4

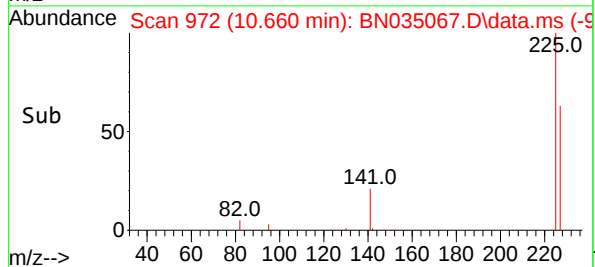
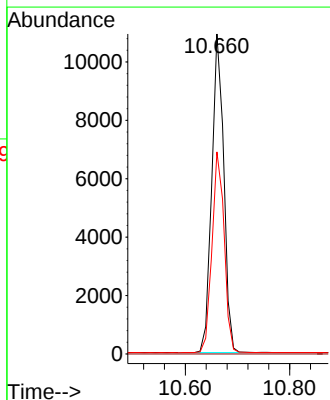
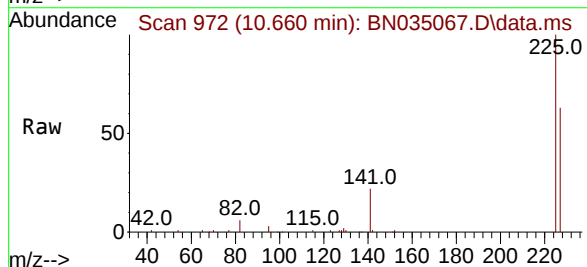
Manual Integrations  
APPROVED

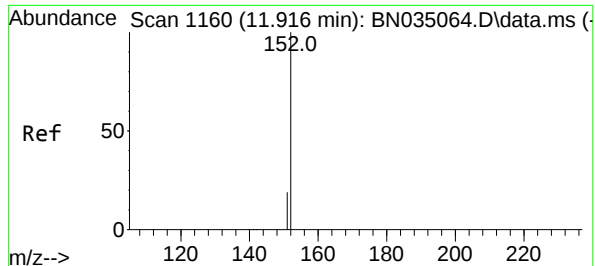
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#10  
Hexachlorobutadiene  
Concen: 3.019 ng  
RT: 10.660 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

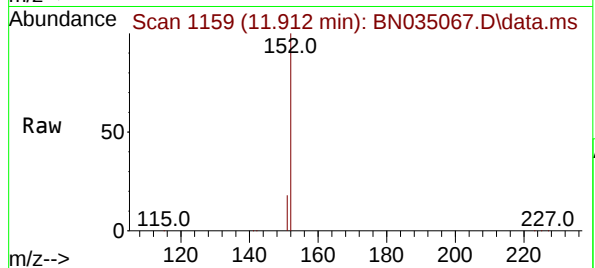
Tgt Ion:225 Resp: 17300  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 63.8 51.5 77.3





#11  
2-Methylnaphthalene-d10  
Concen: 3.157 ng  
RT: 11.912 min Scan# 1159  
Delta R.T. -0.004 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

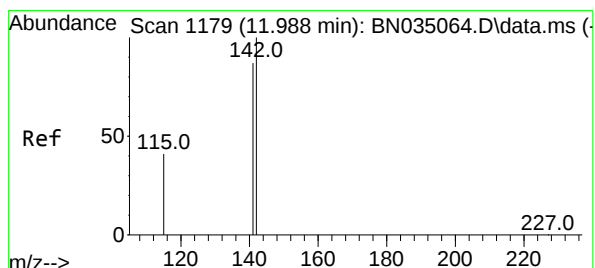
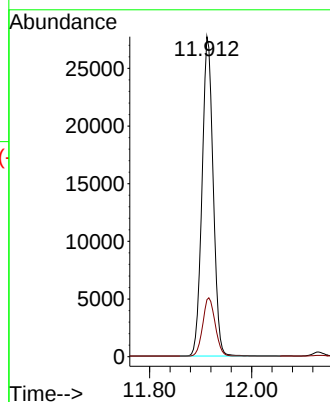
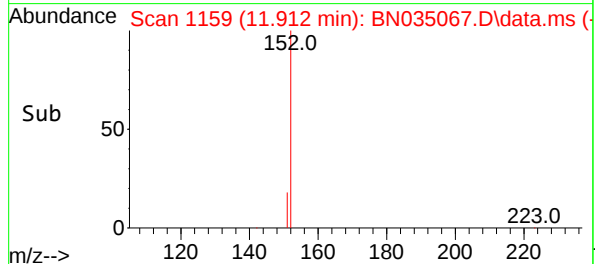
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion:152 Resp: 42128  
Ion Ratio Lower Upper  
152 100  
151 20.4 16.2 24.4

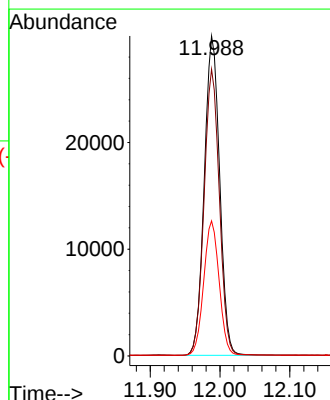
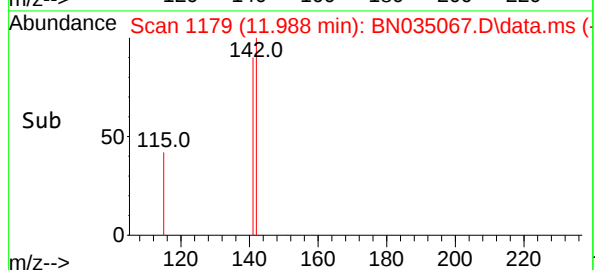
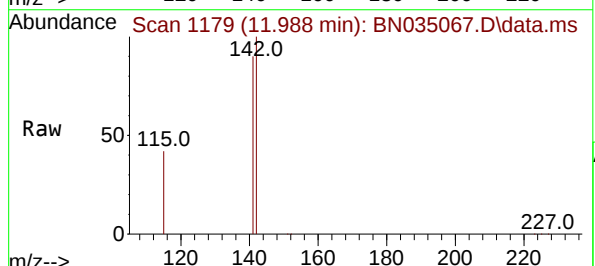
Manual Integrations  
APPROVED

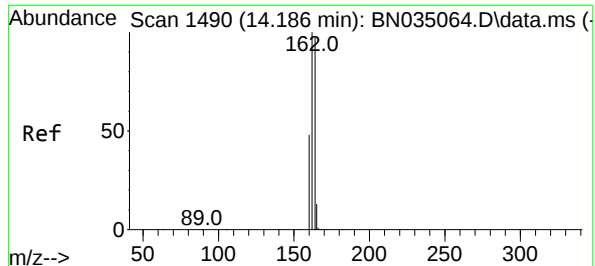
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#12  
2-Methylnaphthalene  
Concen: 3.176 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. -0.000 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

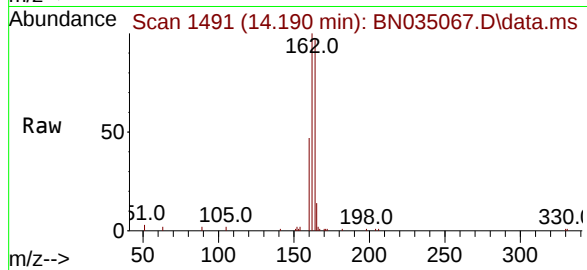
Tgt Ion:142 Resp: 45806  
Ion Ratio Lower Upper  
142 100  
141 89.6 70.1 105.1  
115 42.2 34.4 51.6





#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

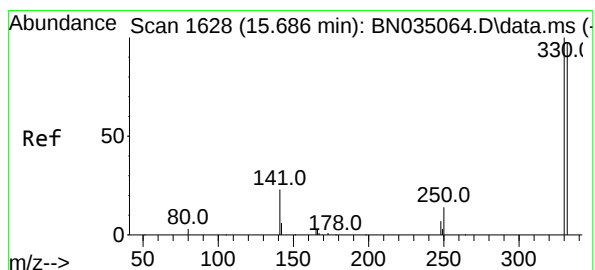
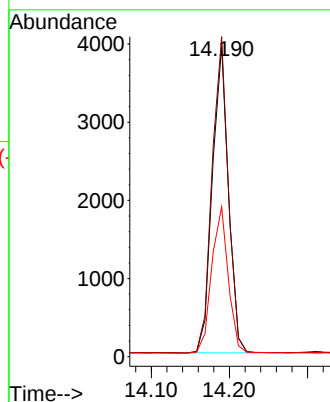
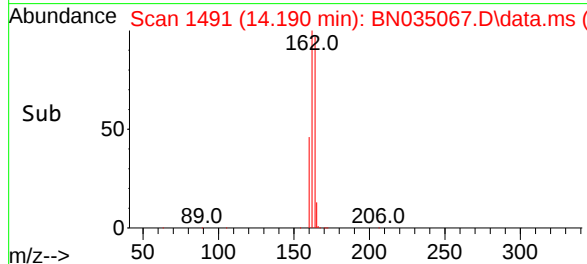
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



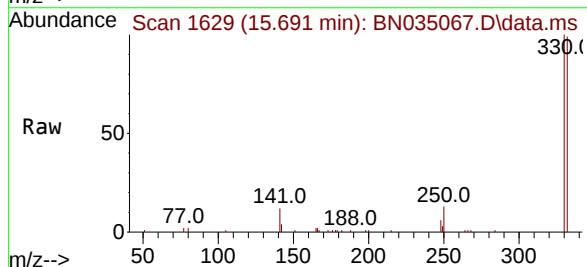
Tgt Ion:164 Resp: 559  
Ion Ratio Lower Upper  
164 100  
162 102.9 82.2 123.2  
160 48.2 40.2 60.4

Manual Integrations  
APPROVED

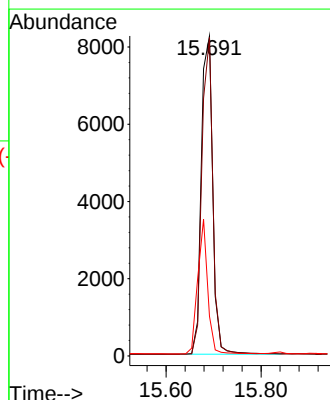
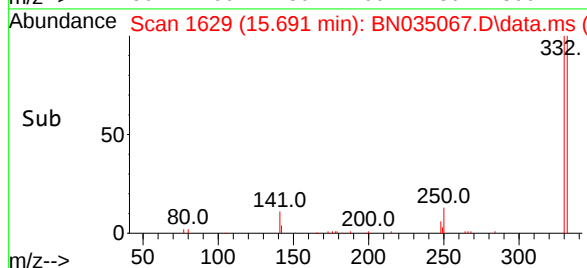
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024

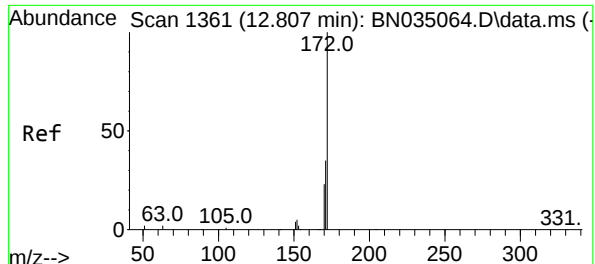


#14  
2,4,6-Tribromophenol  
Concen: 3.417 ng  
RT: 15.691 min Scan# 1629  
Delta R.T. 0.005 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39



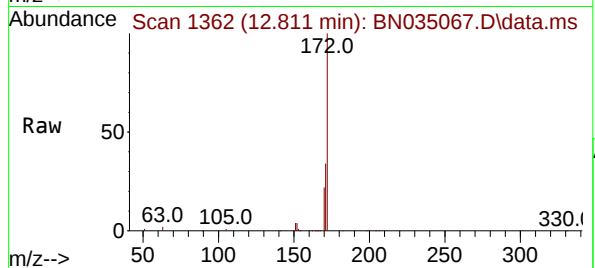
Tgt Ion:330 Resp: 13778  
Ion Ratio Lower Upper  
330 100  
332 95.5 76.9 115.3  
141 36.6 29.6 44.4





#15  
2-Fluorobiphenyl  
Concen: 3.150 ng  
RT: 12.811 min Scan# 1361  
Delta R.T. 0.004 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

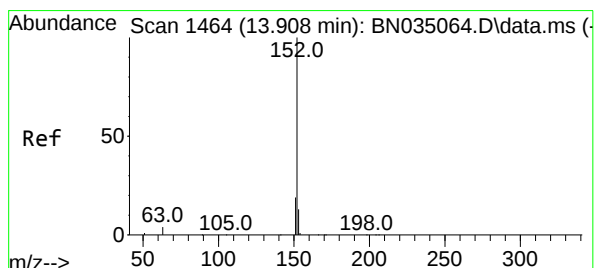
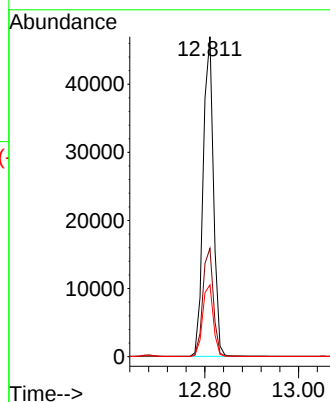
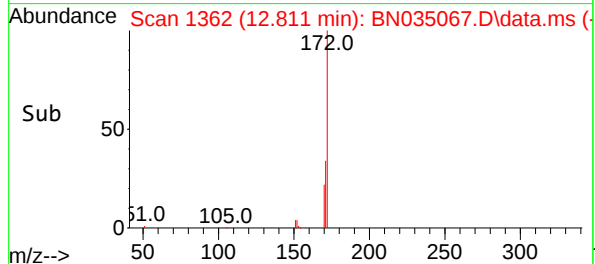
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion:172 Resp: 7154  
Ion Ratio Lower Upper  
172 100  
171 33.9 28.2 42.4  
170 22.5 19.0 28.6

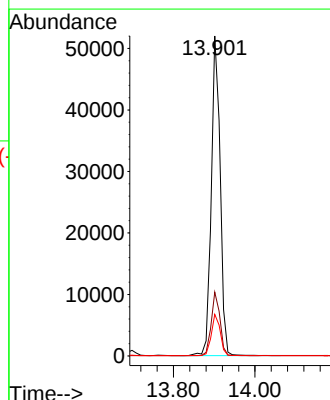
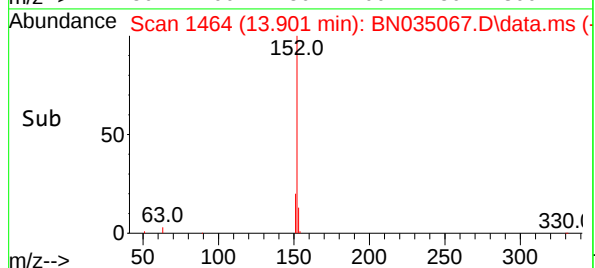
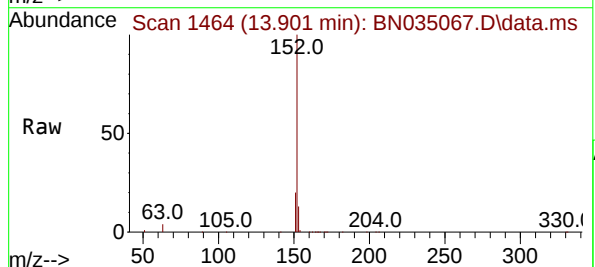
Manual Integrations  
APPROVED

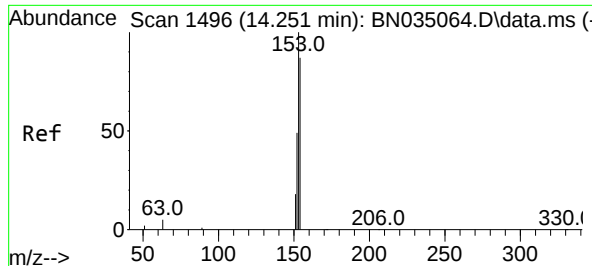
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#16  
Acenaphthylene  
Concen: 3.286 ng  
RT: 13.901 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:152 Resp: 78553  
Ion Ratio Lower Upper  
152 100  
151 19.5 15.8 23.8  
153 13.0 10.2 15.4





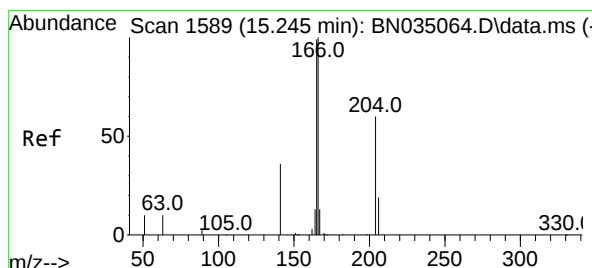
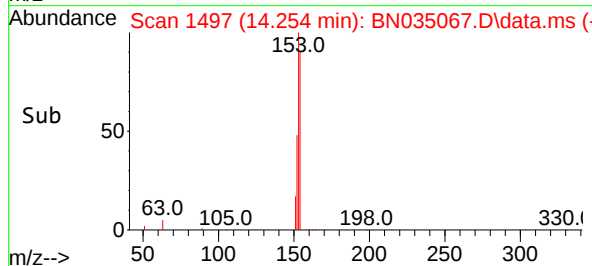
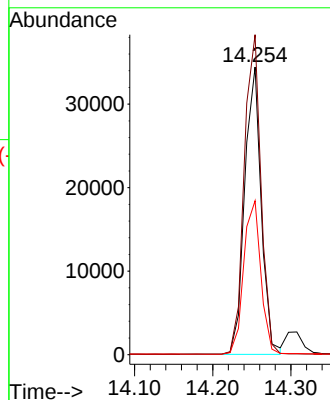
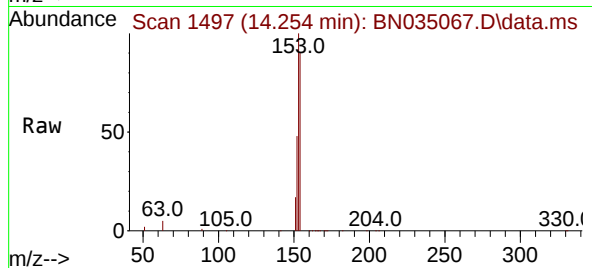
#17  
Acenaphthene  
Concen: 3.227 ng  
RT: 14.254 min Scan# 1496  
Delta R.T. 0.004 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion:154 Resp: 5054  
Ion Ratio Lower Upper  
154 100  
153 112.9 91.6 137.4  
152 55.6 45.8 68.6

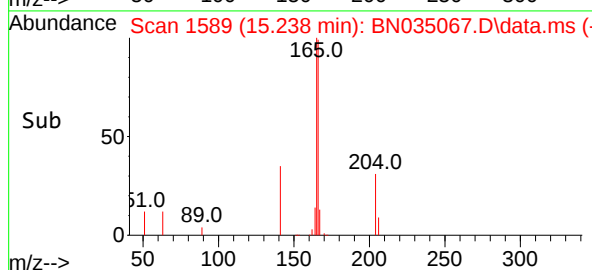
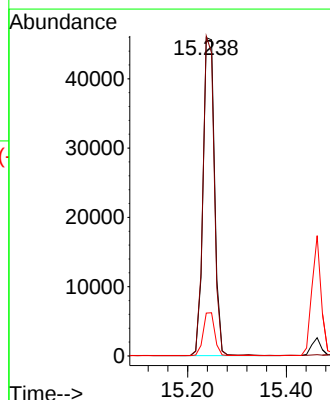
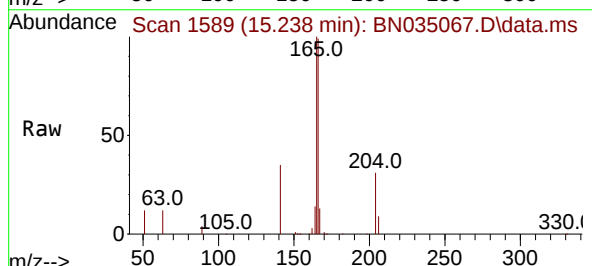
Manual Integrations  
APPROVED

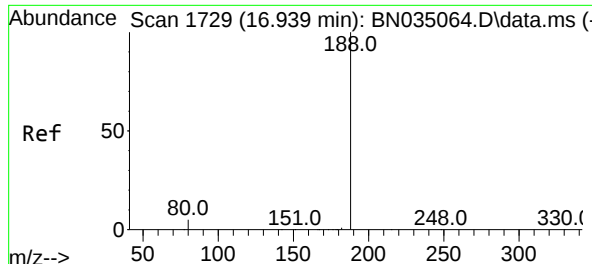
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#18  
Fluorene  
Concen: 3.215 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:166 Resp: 74092  
Ion Ratio Lower Upper  
166 100  
165 97.9 79.1 118.7  
167 13.5 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.932 min Scan# 1729

Delta R.T. -0.007 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

Tgt Ion:188 Resp: 14864

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

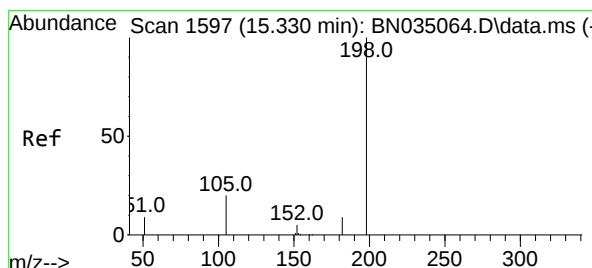
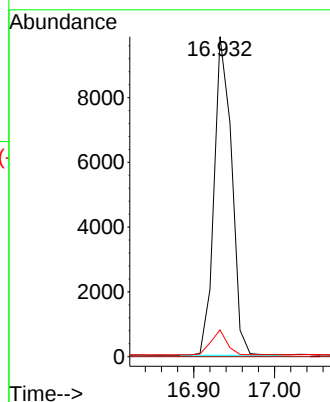
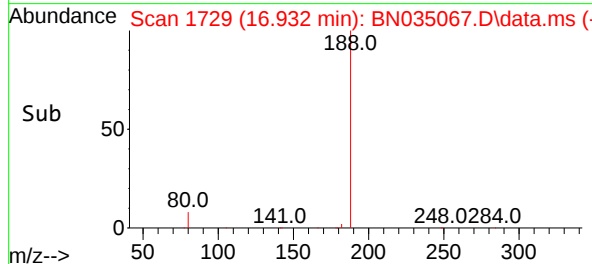
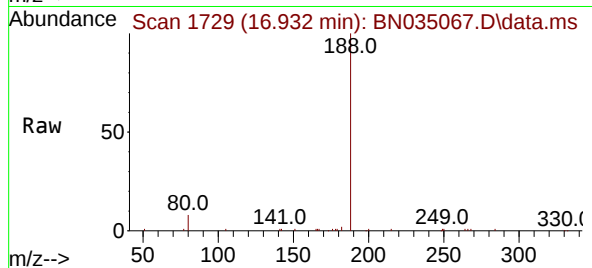
80 8.3 4.3 6.5

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#20

4,6-Dinitro-2-methylphenol

Concen: 3.661 ng

RT: 15.323 min Scan# 1597

Delta R.T. -0.007 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

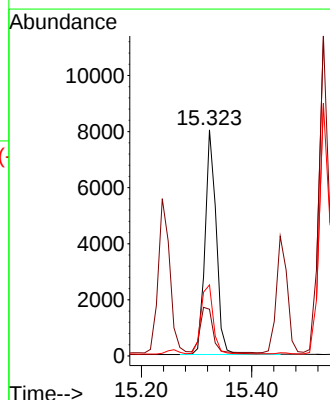
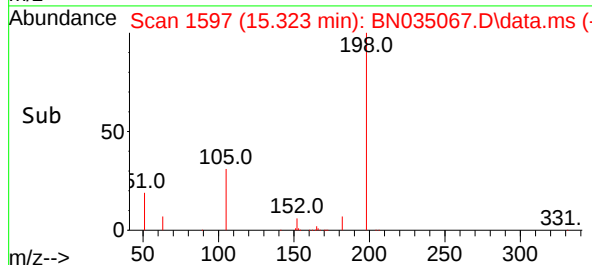
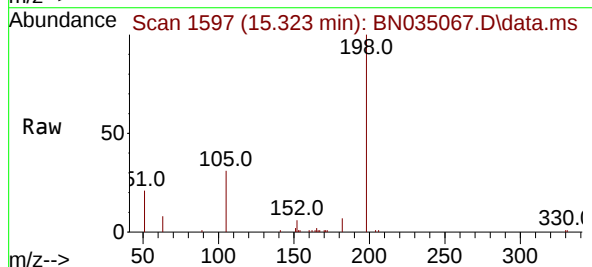
Tgt Ion:198 Resp: 11328

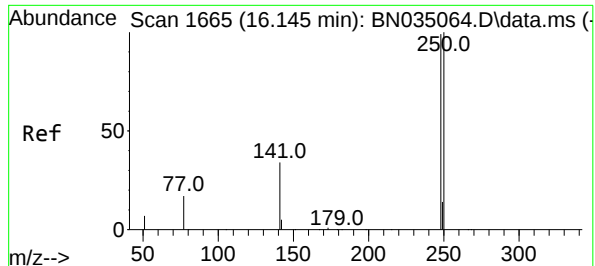
Ion Ratio Lower Upper

198 100

51 20.6 29.9 44.9

105 31.4 23.7 35.5





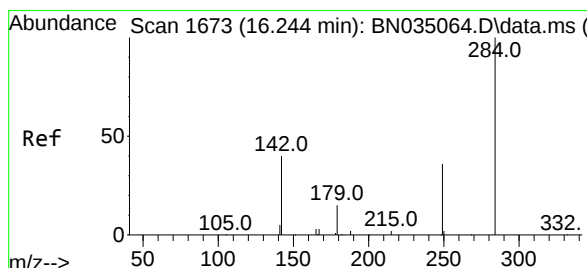
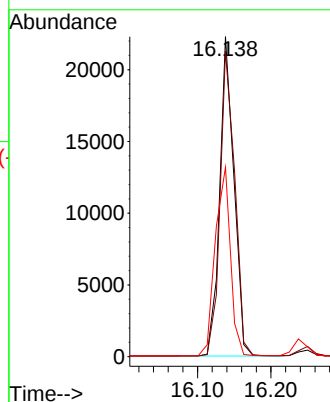
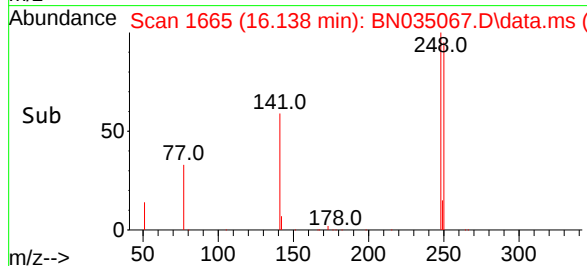
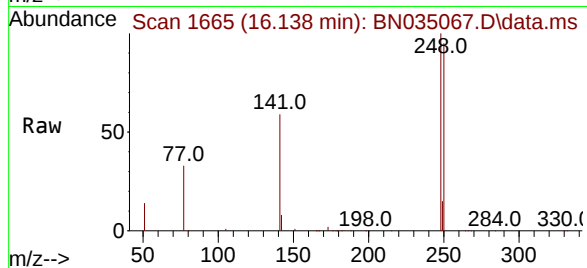
#21  
4-Bromophenyl-phenylether  
Concen: 3.169 ng  
RT: 16.138 min Scan# 1665  
Delta R.T. -0.007 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion:248 Resp: 3001  
Ion Ratio Lower Upper  
248 100  
250 95.4 81.2 121.8  
141 59.2 29.1 43.7

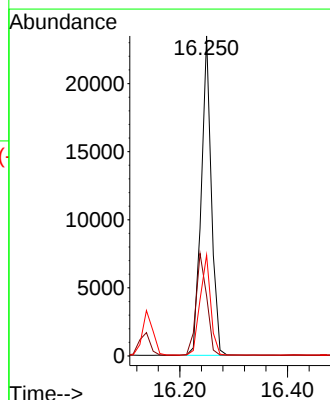
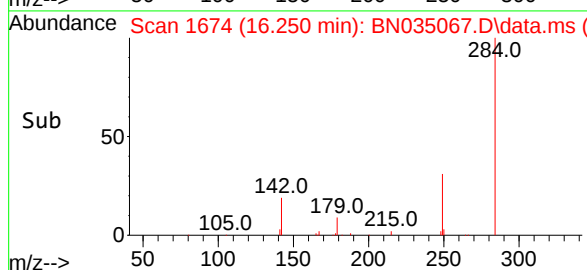
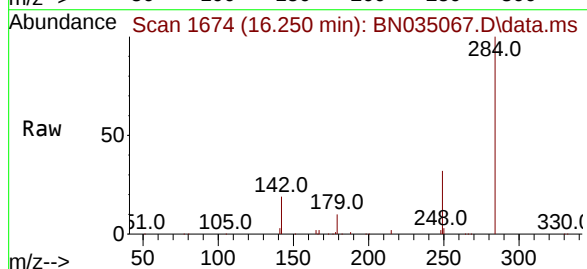
Manual Integrations  
APPROVED

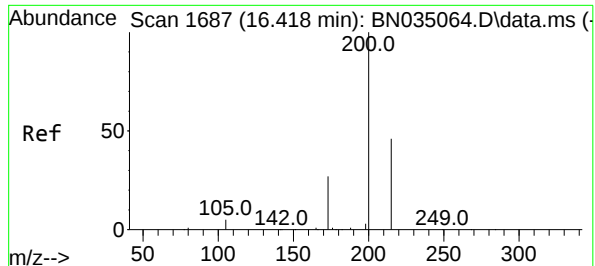
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#22  
Hexachlorobenzene  
Concen: 3.117 ng  
RT: 16.250 min Scan# 1674  
Delta R.T. 0.005 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:284 Resp: 30635  
Ion Ratio Lower Upper  
284 100  
142 33.9 28.2 42.4  
249 32.8 26.2 39.2





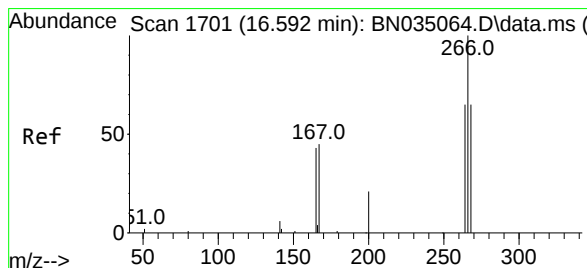
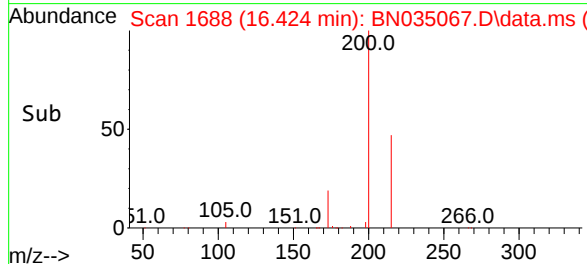
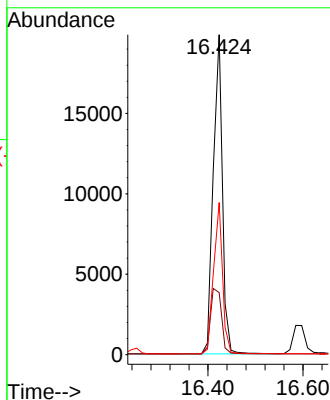
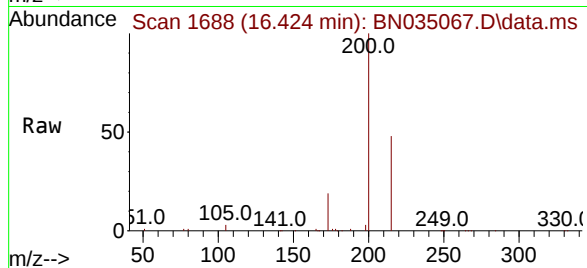
#23  
Atrazine  
Concen: 3.127 ng  
RT: 16.424 min Scan# 1687  
Delta R.T. 0.005 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion:200 Resp: 2656  
Ion Ratio Lower Upper  
200 100  
173 19.4 22.6 33.8  
215 47.5 37.8 56.6

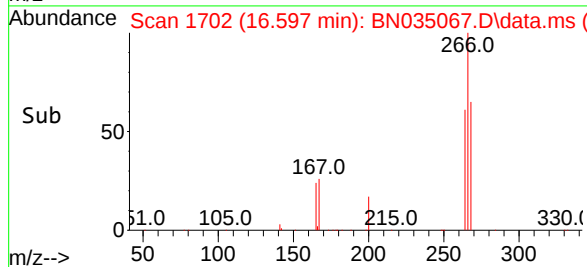
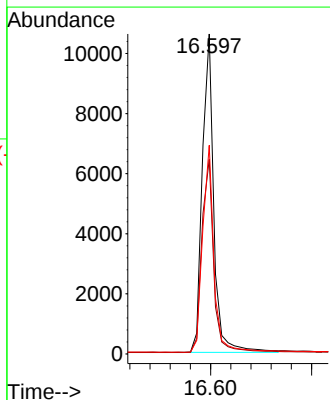
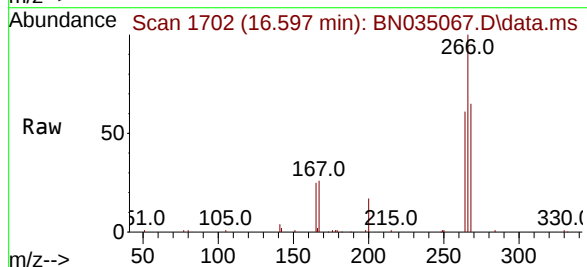
Manual Integrations  
APPROVED

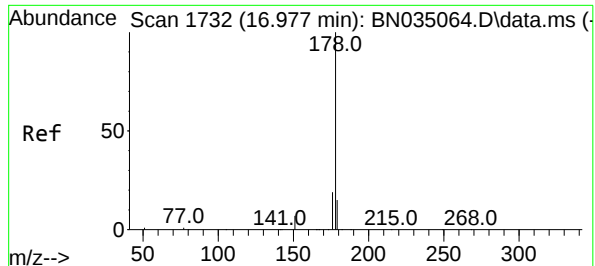
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#24  
Pentachlorophenol  
Concen: 3.656 ng  
RT: 16.597 min Scan# 1702  
Delta R.T. 0.005 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:266 Resp: 16789  
Ion Ratio Lower Upper  
266 100  
264 62.8 49.4 74.0  
268 64.0 52.6 79.0





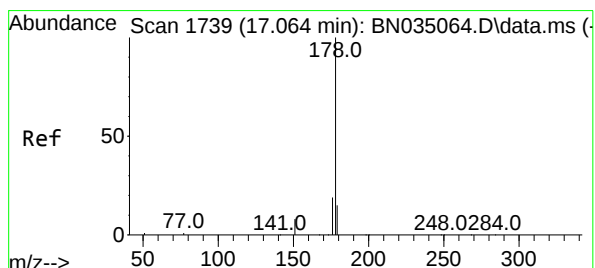
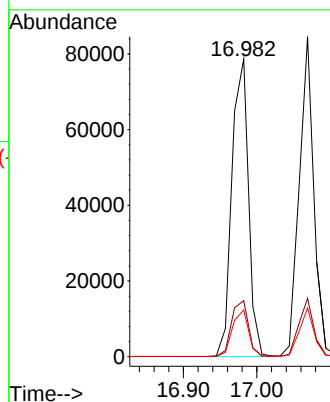
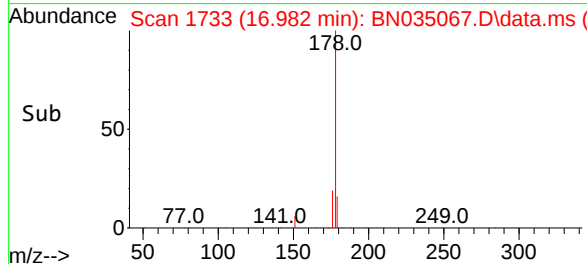
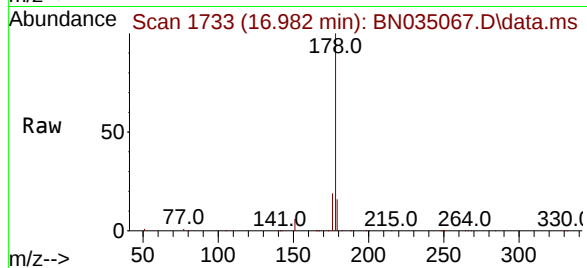
#25  
Phenanthrene  
Concen: 3.144 ng  
RT: 16.982 min Scan# 1733  
Delta R.T. 0.005 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion:178 Resp: 123000  
Ion Ratio Lower Upper  
178 100  
176 19.2 15.2 22.8  
179 15.3 12.6 18.8

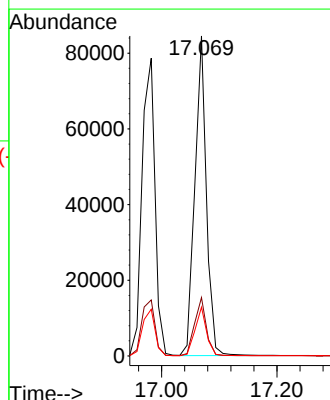
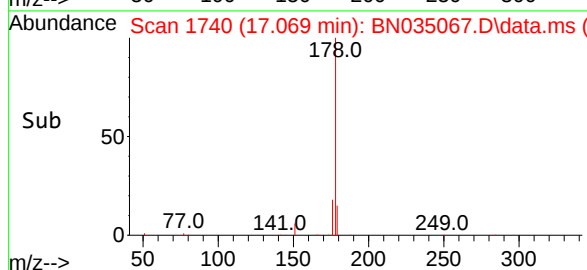
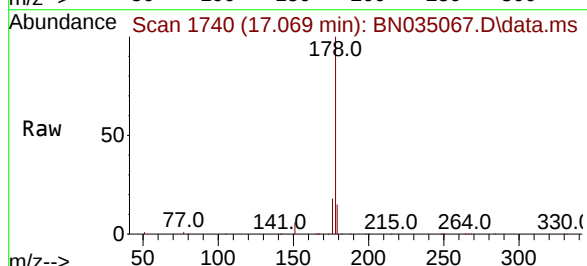
Manual Integrations  
APPROVED

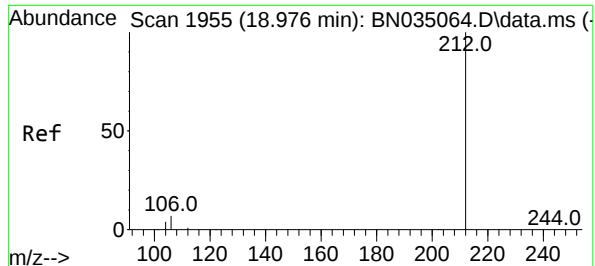
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#26  
Anthracene  
Concen: 3.265 ng  
RT: 17.069 min Scan# 1740  
Delta R.T. 0.005 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

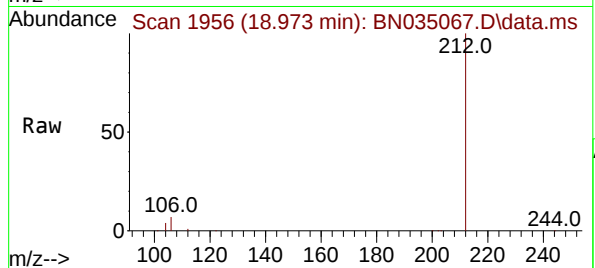
Tgt Ion:178 Resp: 117301  
Ion Ratio Lower Upper  
178 100  
176 18.5 14.6 22.0  
179 15.2 12.2 18.2





#27  
Fluoranthene-d10  
Concen: 3.191 ng  
RT: 18.973 min Scan# 1955  
Delta R.T. -0.002 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

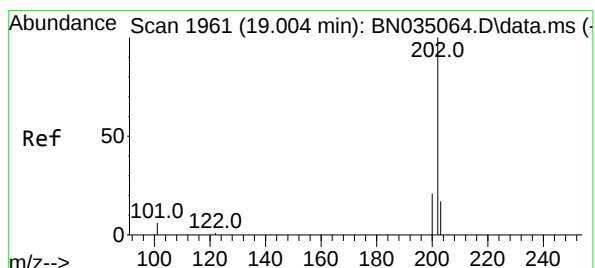
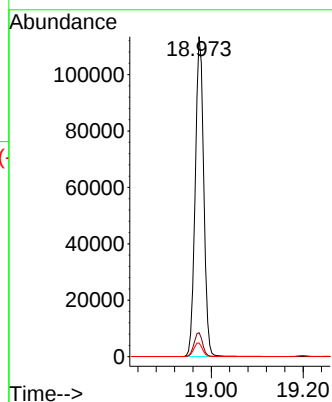
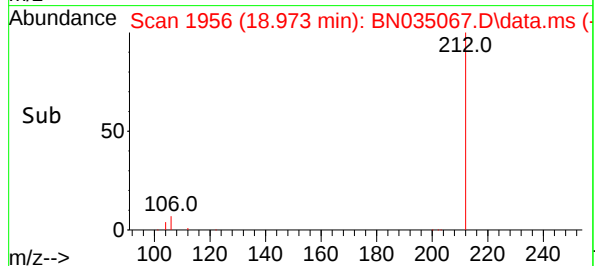
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion:212 Resp: 14532  
Ion Ratio Lower Upper  
212 100  
106 7.5 6.0 9.0  
104 4.3 3.5 5.3

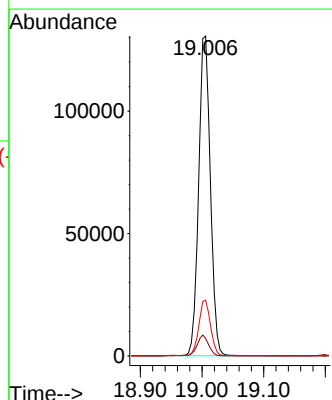
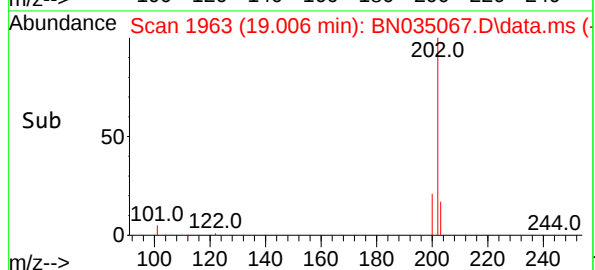
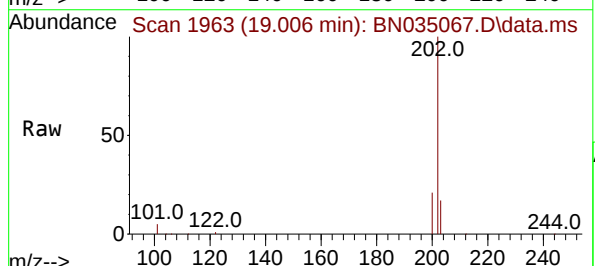
Manual Integrations  
APPROVED

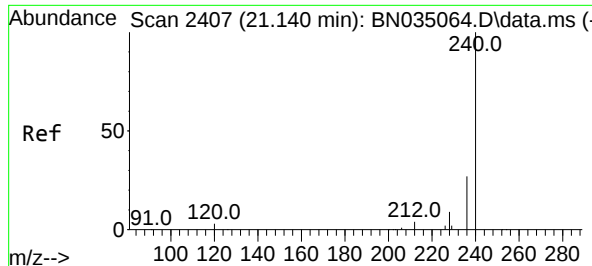
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#28  
Fluoranthene  
Concen: 3.212 ng  
RT: 19.006 min Scan# 1963  
Delta R.T. 0.002 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:202 Resp: 172759  
Ion Ratio Lower Upper  
202 100  
101 6.4 5.2 7.8  
203 17.3 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.133 min Scan# 2408

Delta R.T. -0.007 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

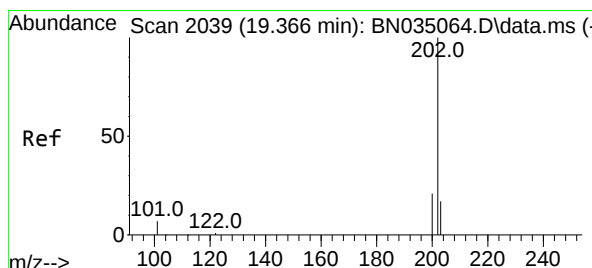
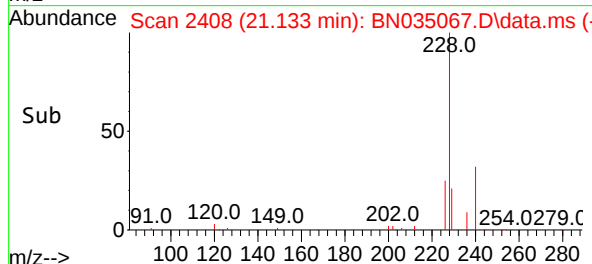
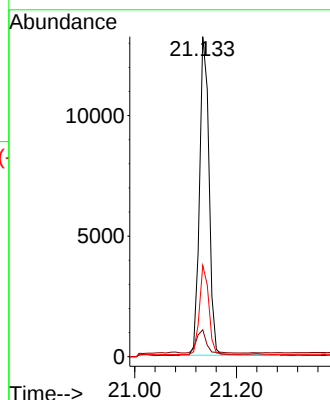
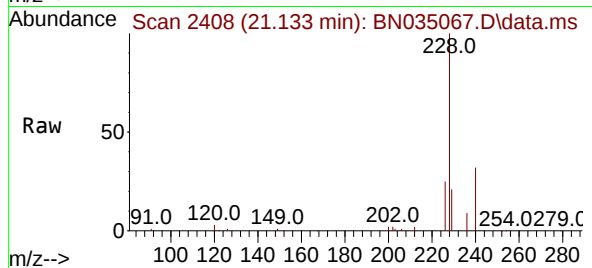
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 8.4   | 3.8   | 5.6   |
| 236     | 28.5  | 22.2  | 33.2  |

Manual Integrations

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Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#30

Pyrene

Concen: 3.125 ng

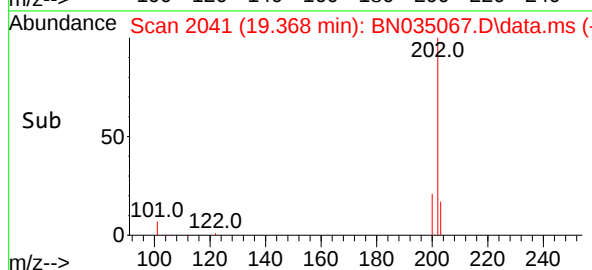
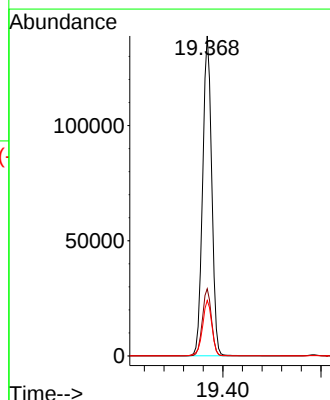
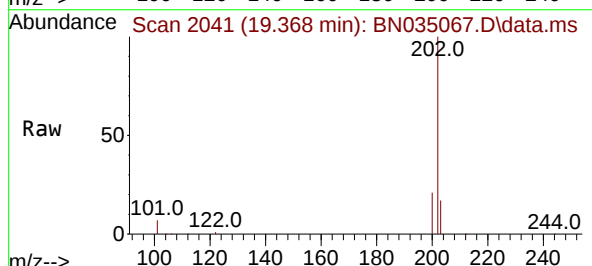
RT: 19.368 min Scan# 2041

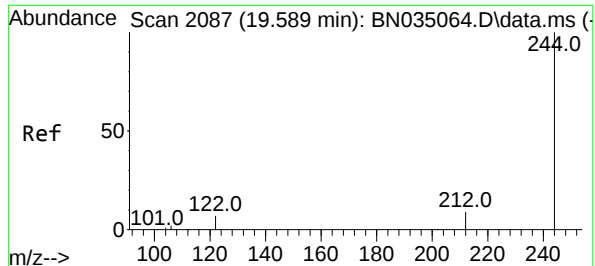
Delta R.T. 0.002 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.0  | 16.7  | 25.1  |
| 203     | 17.8  | 14.2  | 21.4  |





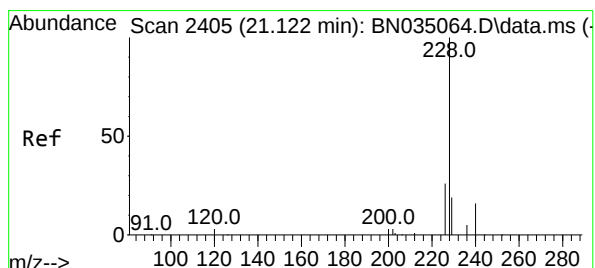
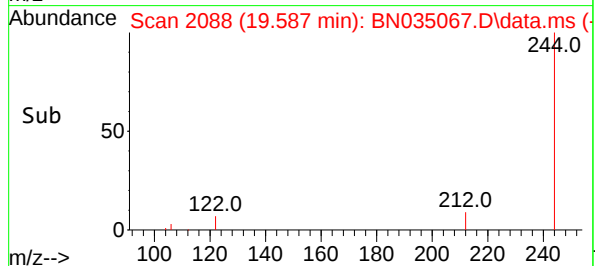
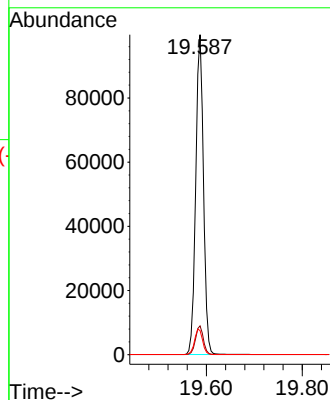
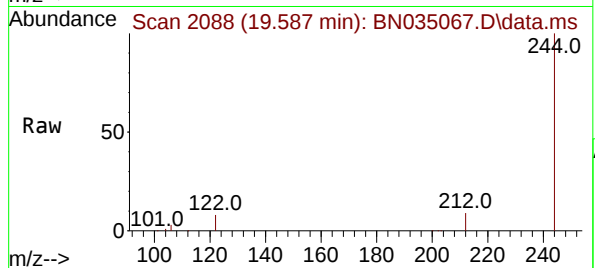
#31  
Terphenyl-d14  
Concen: 3.115 ng  
RT: 19.587 min Scan# 2087  
Delta R.T. -0.002 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion:244 Resp: 111732  
Ion Ratio Lower Upper  
244 100  
212 9.0 7.6 11.4  
122 7.6 6.1 9.1

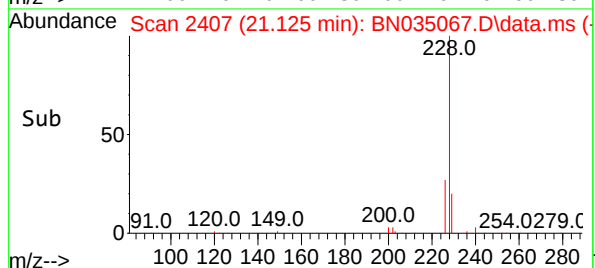
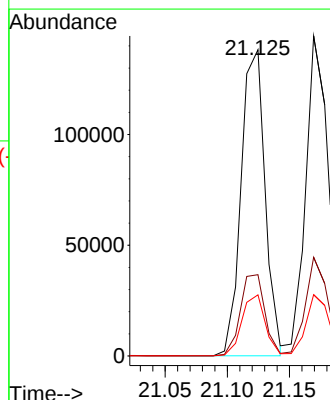
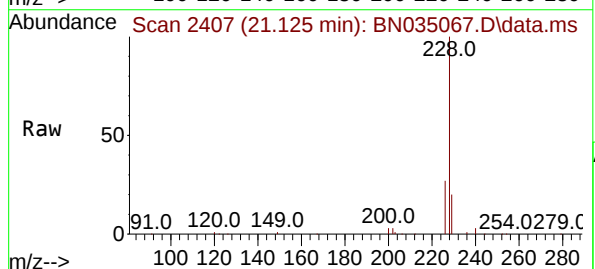
Manual Integrations  
APPROVED

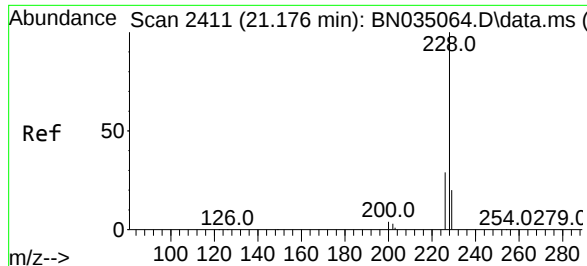
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#32  
Benzo(a)anthracene  
Concen: 3.114 ng  
RT: 21.125 min Scan# 2407  
Delta R.T. 0.002 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:228 Resp: 185345  
Ion Ratio Lower Upper  
228 100  
226 26.5 21.4 32.0  
229 20.0 15.7 23.5





#33

Chrysene

Concen: 3.087 ng

RT: 21.169 min Scan# 2411

Delta R.T. -0.007 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

Tgt Ion:228 Resp: 18205

Ion Ratio Lower Upper

228 100

226 30.9 23.7 35.5

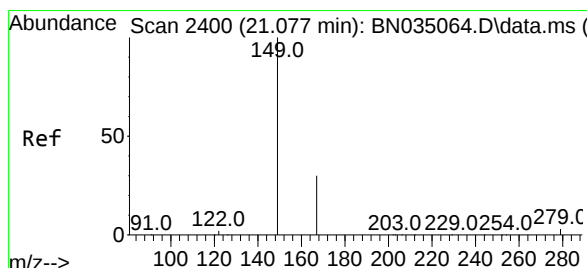
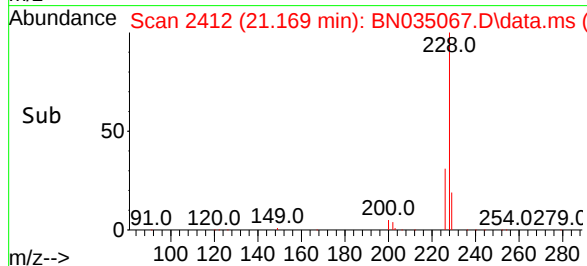
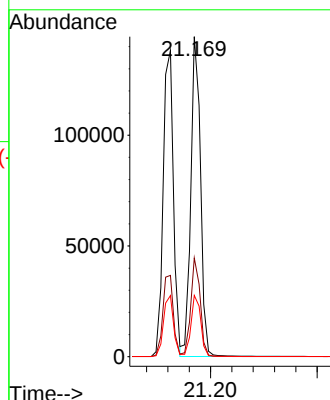
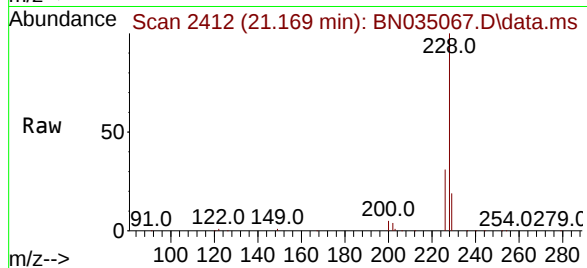
229 19.1 16.2 24.4

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#34

Bis(2-ethylhexyl)phthalate

Concen: 3.061 ng

RT: 21.080 min Scan# 2402

Delta R.T. 0.002 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

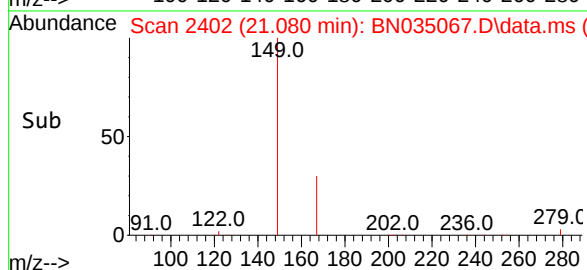
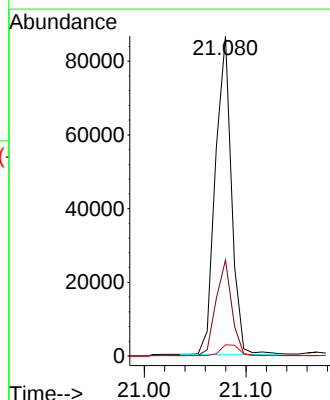
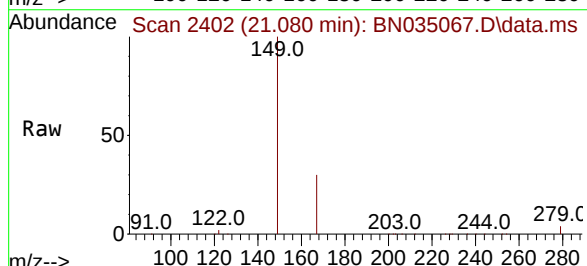
Tgt Ion:149 Resp: 94826

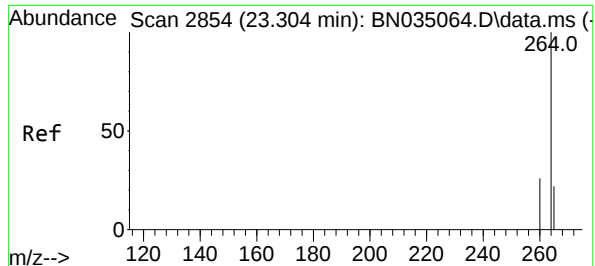
Ion Ratio Lower Upper

149 100

167 29.3 23.2 34.8

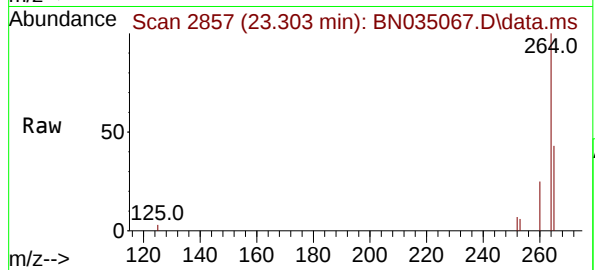
279 3.9 3.2 4.8





#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.303 min Scan# 21  
Delta R.T. -0.001 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

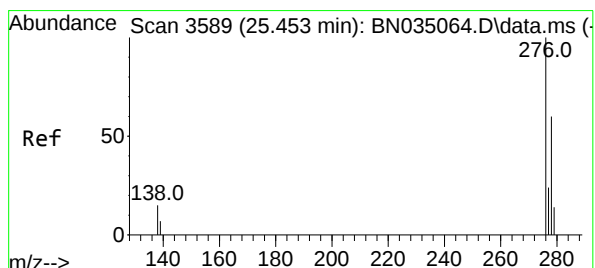
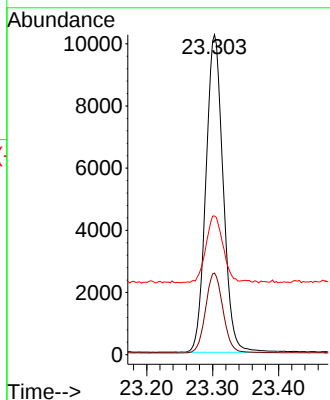
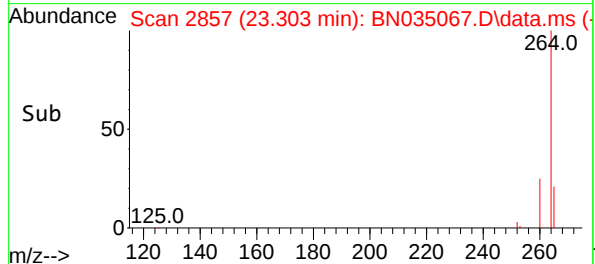
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion:264 Resp: 1858  
Ion Ratio Lower Upper  
264 100  
260 25.5 20.9 31.3  
265 43.4 35.4 53.2

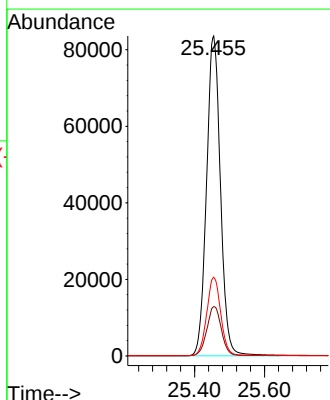
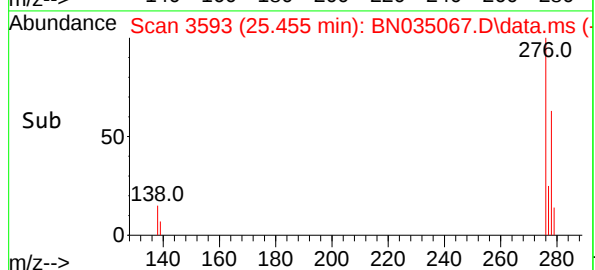
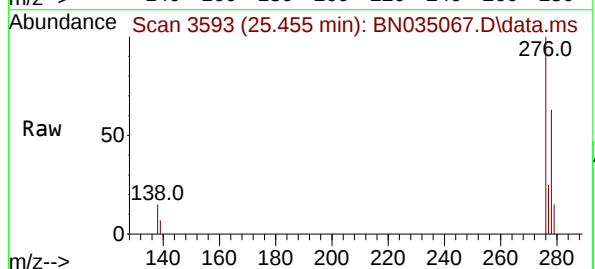
Manual Integrations  
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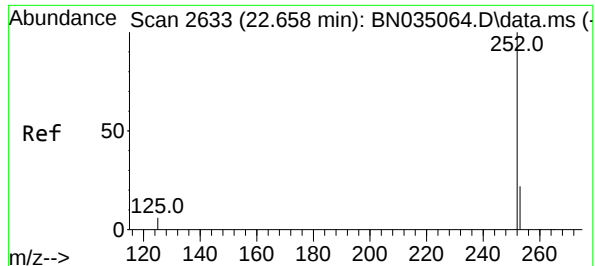
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 3.108 ng  
RT: 25.455 min Scan# 3593  
Delta R.T. 0.002 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

Tgt Ion:276 Resp: 230419  
Ion Ratio Lower Upper  
276 100  
138 16.0 13.0 19.4  
277 24.8 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 3.155 ng m

RT: 22.660 min Scan# 2637

Delta R.T. 0.002 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

Tgt Ion:252 Resp: 197259

Ion Ratio Lower Upper

252 100

253 22.0 19.3 28.9

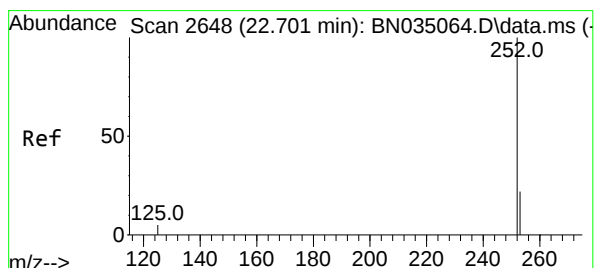
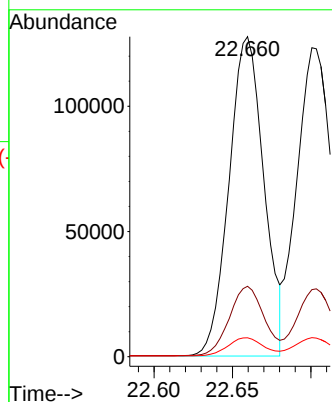
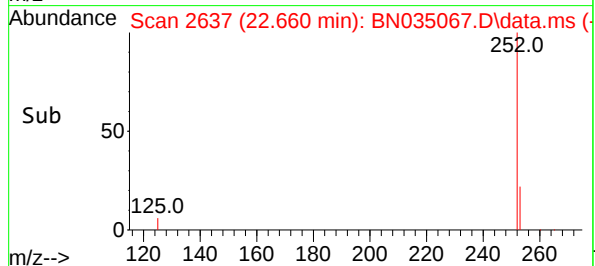
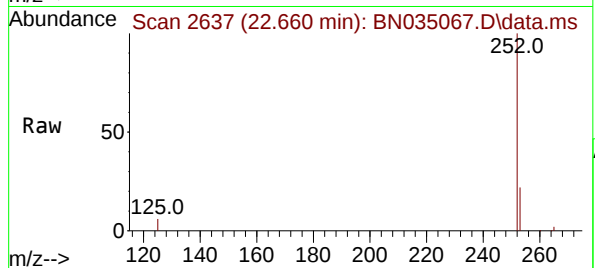
125 5.9 6.2 9.2

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#38

Benzo(k)fluoranthene

Concen: 3.144 ng

RT: 22.701 min Scan# 2651

Delta R.T. -0.001 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

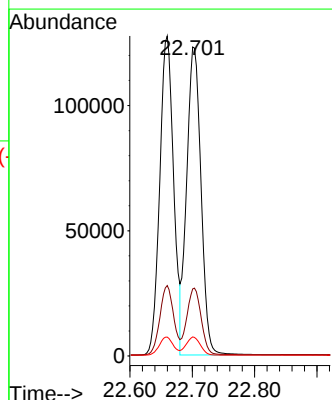
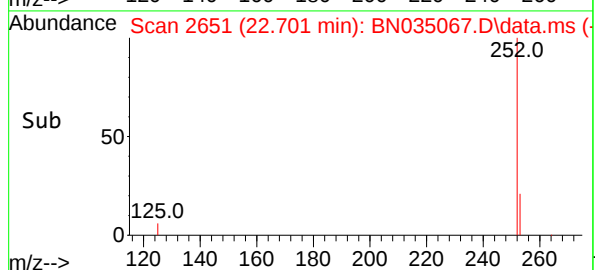
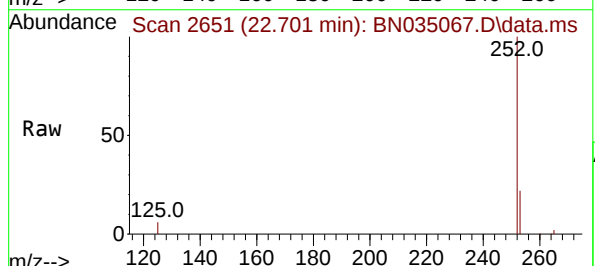
Tgt Ion:252 Resp: 196686

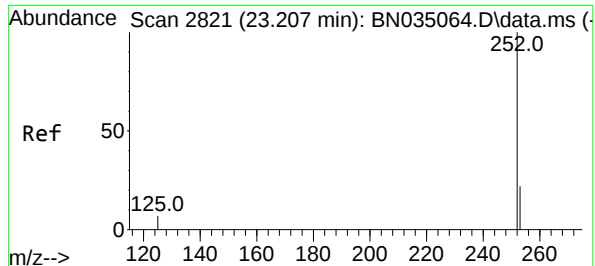
Ion Ratio Lower Upper

252 100

253 21.7 19.5 29.3

125 6.2 6.5 9.7





#39

Benzo(a)pyrene

Concen: 3.155 ng

RT: 23.209 min Scan# 2821

Delta R.T. 0.002 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

Tgt Ion:252 Resp: 17354

Ion Ratio Lower Upper

252 100

253 22.0 20.1 30.1

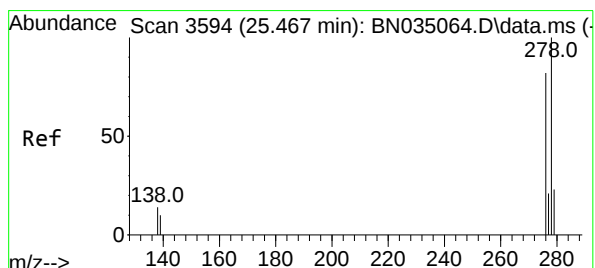
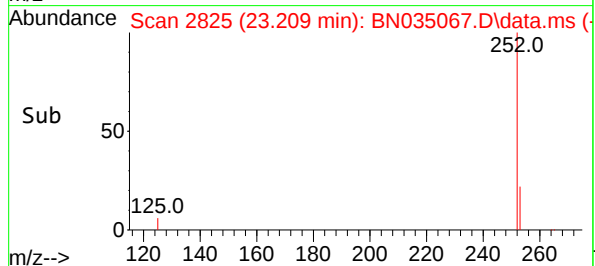
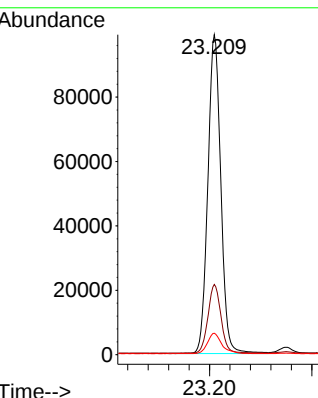
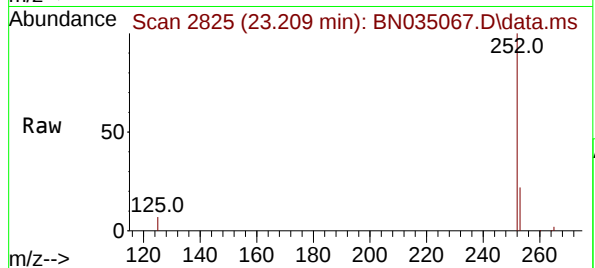
125 6.7 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#40

Dibenzo(a,h)anthracene

Concen: 3.127 ng

RT: 25.466 min Scan# 3597

Delta R.T. -0.001 min

Lab File: BN035067.D

Acq: 13 Nov 2024 15:39

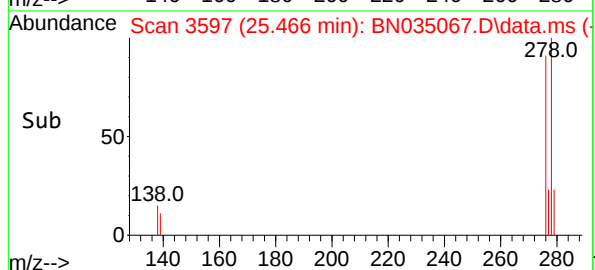
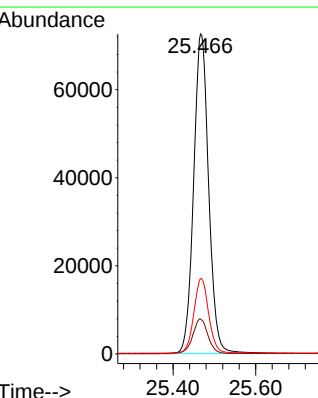
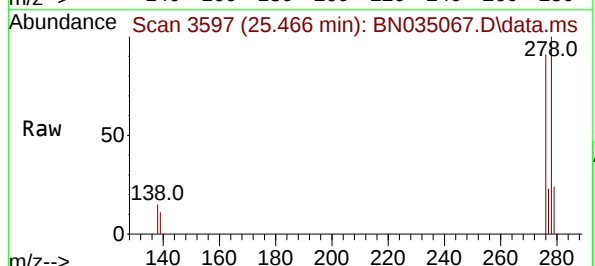
Tgt Ion:278 Resp: 183641

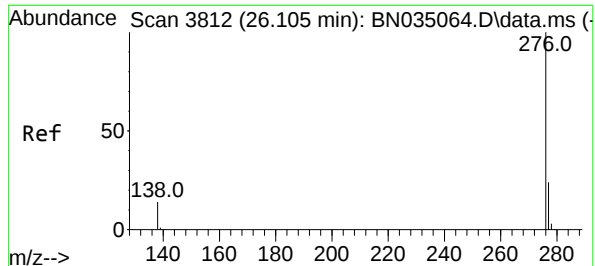
Ion Ratio Lower Upper

278 100

139 10.9 9.3 13.9

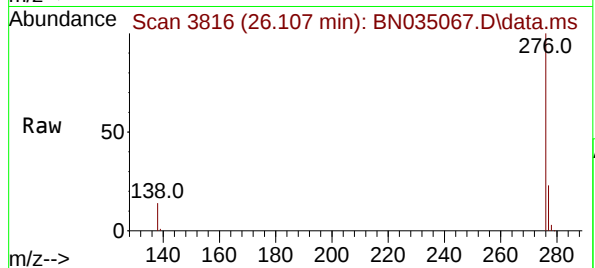
279 23.6 19.7 29.5





#41  
Benzo(g,h,i)perylene  
Concen: 3.079 ng  
RT: 26.107 min Scan# 3812  
Delta R.T. 0.002 min  
Lab File: BN035067.D  
Acq: 13 Nov 2024 15:39

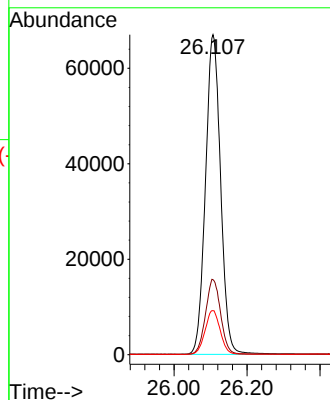
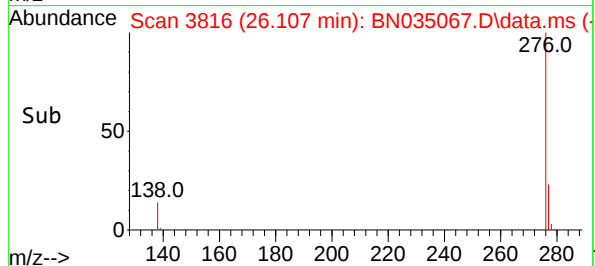
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



Tgt Ion:276 Resp: 19234  
Ion Ratio Lower Upper  
276 100  
277 23.4 19.9 29.9  
138 13.8 11.6 17.4

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035068.D  
 Acq On : 13 Nov 2024 16:15  
 Operator : RC/JU  
 Sample : SSTDICC5.0  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0

Quant Time: Nov 13 16:45:39 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 16:42:01 2024  
 Response via : Initial Calibration

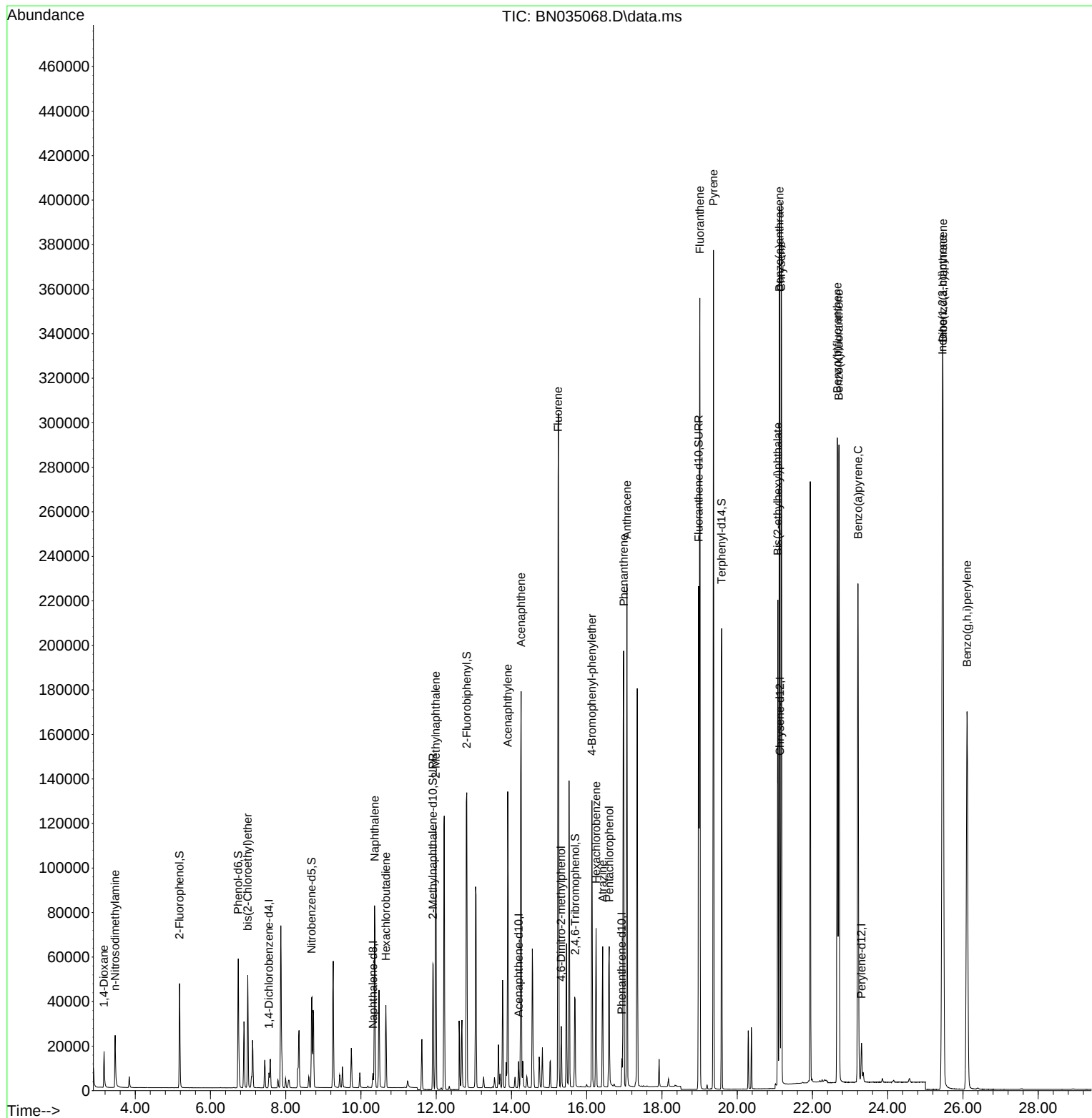
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 3163     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 8134     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 6225     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.932 | 188  | 16809    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.133 | 240  | 19216    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.303 | 264  | 20465    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 37993    | 4.732 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 50689    | 5.035 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.685  | 82   | 35941    | 5.091 | ng    | -0.01    |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 74330    | 5.128 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.691 | 330  | 25763    | 5.740 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.811 | 172  | 125581   | 4.967 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 260540   | 5.059 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.587 | 244  | 199585   | 4.950 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.169  | 88   | 13024    | 4.533 | ng    | 99       |
| 3) n-Nitrosodimethylamine     | 3.465  | 42   | 12737    | 4.774 | ng    | # 94     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 36728    | 4.860 | ng    | 99       |
| 9) Naphthalene                | 10.361 | 128  | 104370   | 4.914 | ng    | 97       |
| 10) Hexachlorobutadiene       | 10.660 | 225  | 29615    | 4.757 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 80182    | 5.118 | ng    | 98       |
| 16) Acenaphthylene            | 13.901 | 152  | 139668   | 5.250 | ng    | 100      |
| 17) Acenaphthene              | 14.254 | 154  | 89181    | 5.115 | ng    | 98       |
| 18) Fluorene                  | 15.238 | 166  | 129071   | 5.033 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.323 | 198  | 22059    | 6.304 | ng    | # 82     |
| 21) 4-Bromophenyl-phenylether | 16.138 | 248  | 52850    | 4.935 | ng    | # 85     |
| 22) Hexachlorobenzene         | 16.250 | 284  | 54126    | 4.870 | ng    | 99       |
| 23) Atrazine                  | 16.423 | 200  | 47349    | 4.928 | ng    | # 93     |
| 24) Pentachlorophenol         | 16.597 | 266  | 32339    | 6.228 | ng    | 98       |
| 25) Phenanthrene              | 16.982 | 178  | 217781   | 4.923 | ng    | 99       |
| 26) Anthracene                | 17.069 | 178  | 210303   | 5.176 | ng    | 100      |
| 28) Fluoranthene              | 19.006 | 202  | 305283   | 5.019 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 316225   | 4.942 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.124 | 228  | 335437   | 5.013 | ng    | 100      |
| 33) Chrysene                  | 21.169 | 228  | 317200   | 4.786 | ng    | 97       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 178320   | 5.121 | ng    | 99       |
| 36) Indeno(1,2,3-cd)pyrene    | 25.455 | 276  | 405401   | 4.966 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.660 | 252  | 347639   | 5.049 | ng    | # 95     |
| 38) Benzo(k)fluoranthene      | 22.703 | 252  | 347310   | 5.041 | ng    | # 95     |
| 39) Benzo(a)pyrene            | 23.209 | 252  | 308664   | 5.094 | ng    | # 93     |
| 40) Dibenzo(a,h)anthracene    | 25.469 | 278  | 323522   | 5.002 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.107 | 276  | 339655   | 4.937 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

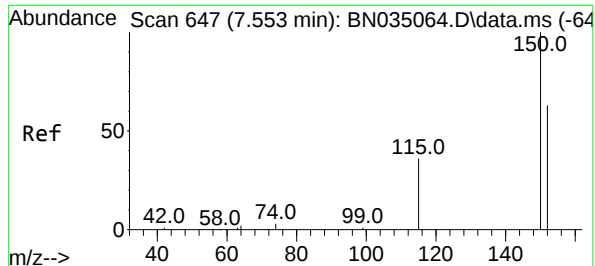
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035068.D  
Acq On : 13 Nov 2024 16:15  
Operator : RC/JU  
Sample : SSTDICC5.0  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

Quant Time: Nov 13 16:45:39 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 16:42:01 2024  
Response via : Initial Calibration

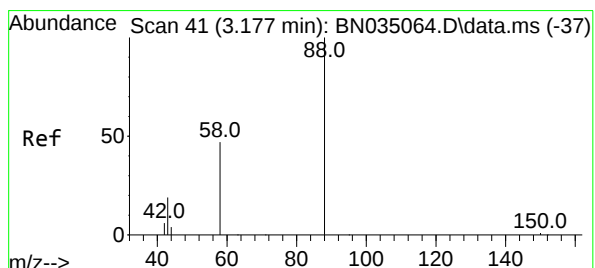
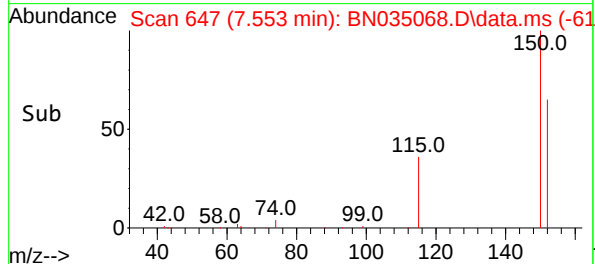
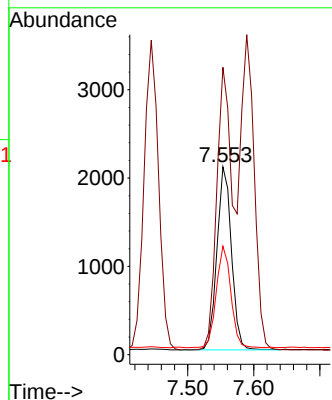
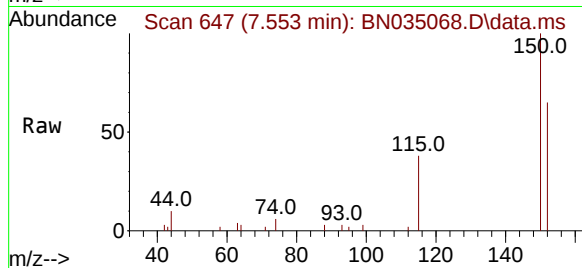




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

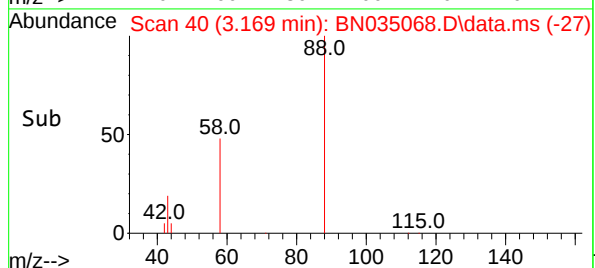
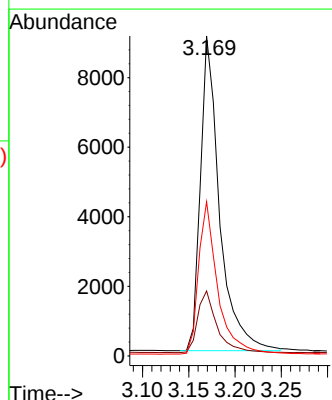
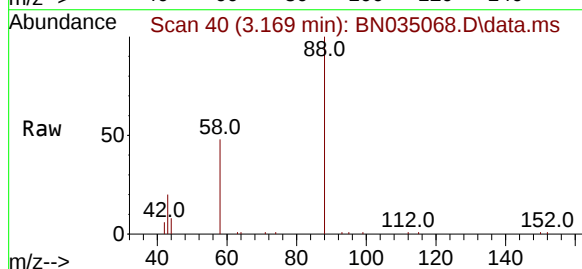
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

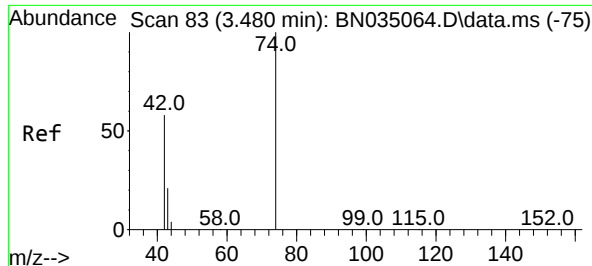
Tgt Ion:152 Resp: 3163  
Ion Ratio Lower Upper  
152 100  
150 152.9 124.5 186.7  
115 57.7 47.8 71.6



#2  
1,4-Dioxane  
Concen: 4.533 ng  
RT: 3.169 min Scan# 40  
Delta R.T. -0.007 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion: 88 Resp: 13024  
Ion Ratio Lower Upper  
88 100  
43 19.6 16.9 25.3  
58 48.2 39.0 58.4

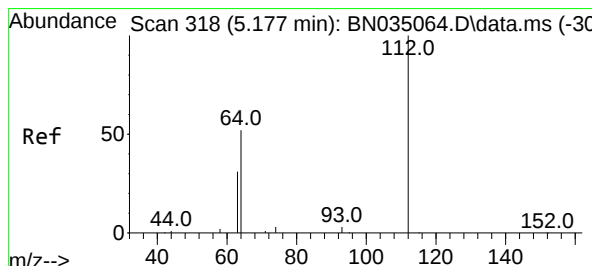
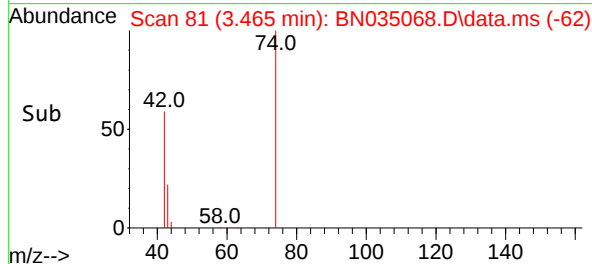
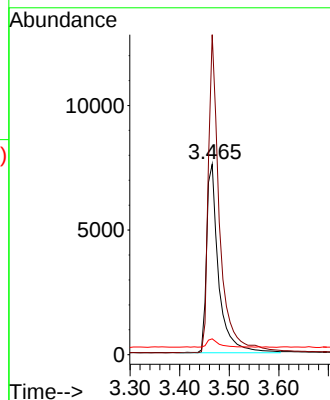
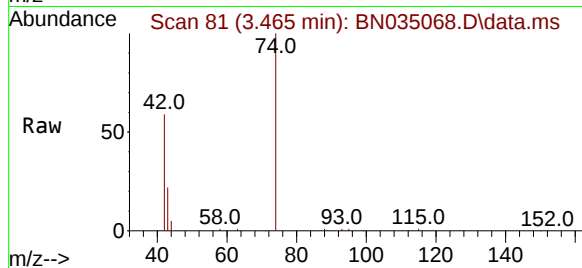




#3  
n-Nitrosodimethylamine  
Concen: 4.774 ng  
RT: 3.465 min Scan# 81  
Delta R.T. -0.015 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

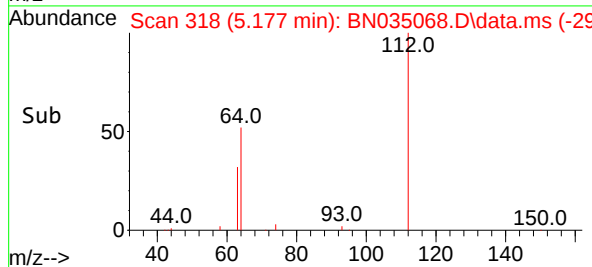
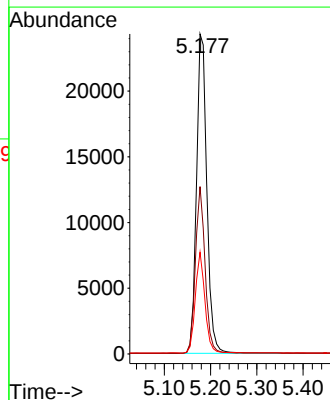
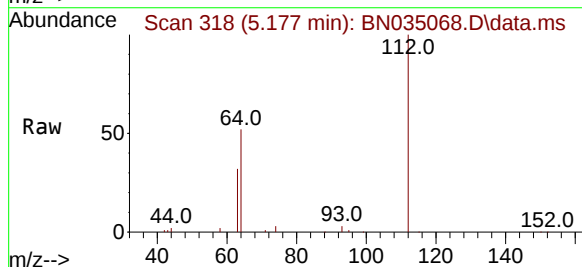
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

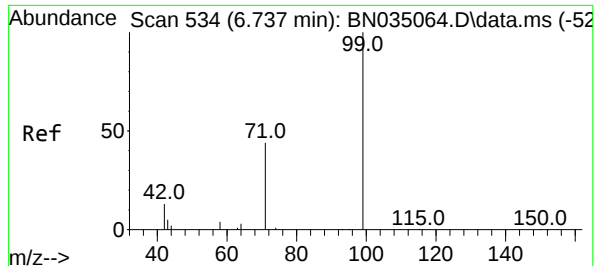
Tgt Ion: 42 Resp: 12737  
Ion Ratio Lower Upper  
42 100  
74 159.1 120.8 181.2  
44 4.4 2.9 4.3#



#4  
2-Fluorophenol  
Concen: 4.732 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion: 112 Resp: 37993  
Ion Ratio Lower Upper  
112 100  
64 49.0 39.7 59.5  
63 29.4 23.0 34.4

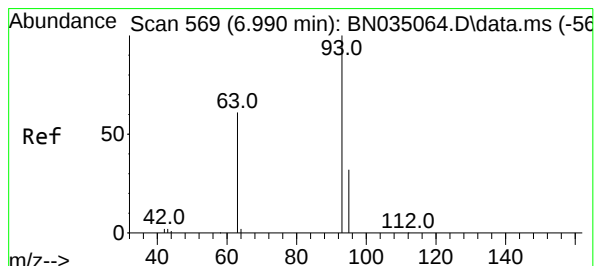
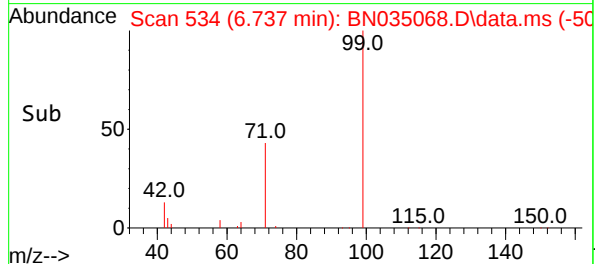
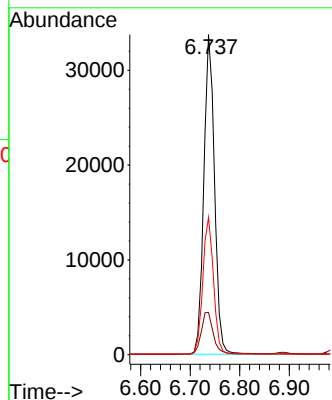
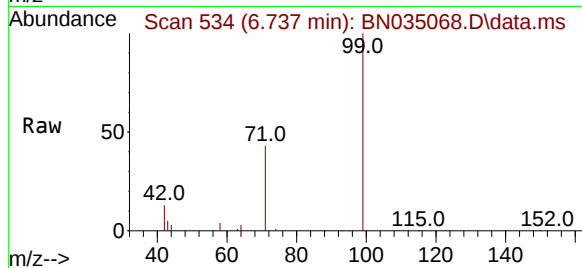




#5  
Phenol-d6  
Concen: 5.035 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

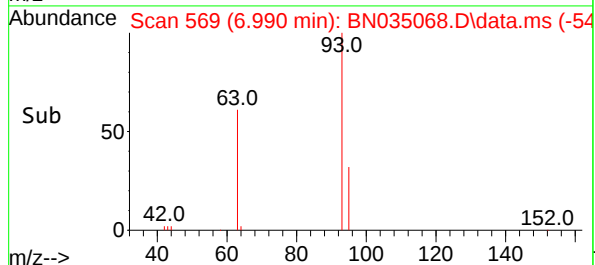
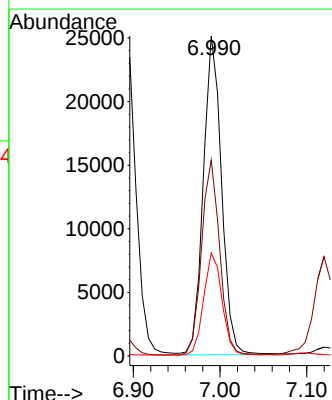
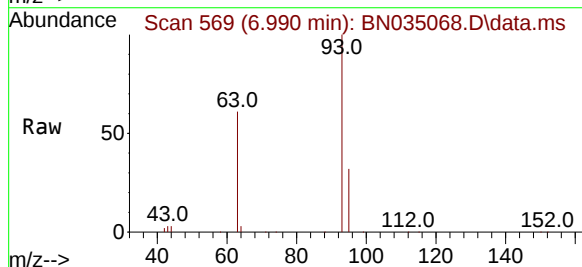
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

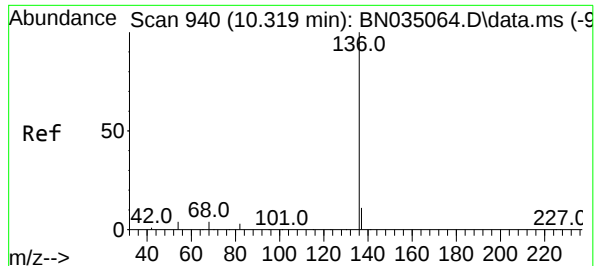
Tgt Ion: 99 Resp: 50689  
Ion Ratio Lower Upper  
99 100  
42 14.6 11.4 17.0  
71 43.2 34.6 51.8



#6  
bis(2-Chloroethyl)ether  
Concen: 4.860 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion: 93 Resp: 36728  
Ion Ratio Lower Upper  
93 100  
63 60.5 47.4 71.2  
95 32.3 26.2 39.4

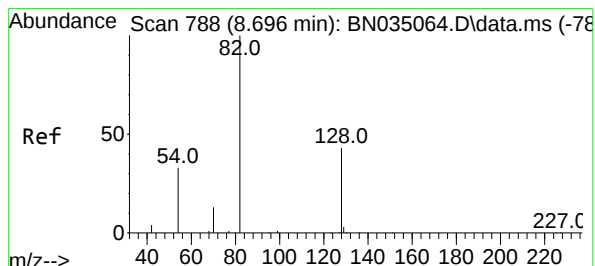
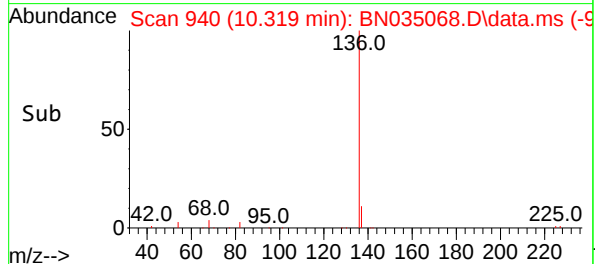
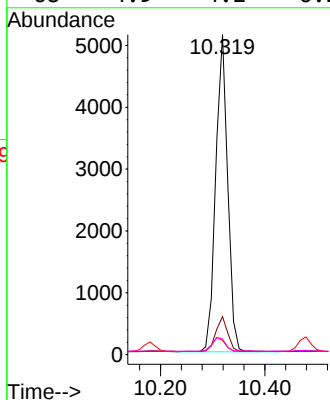
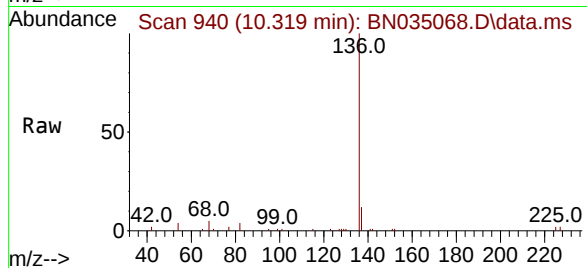




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

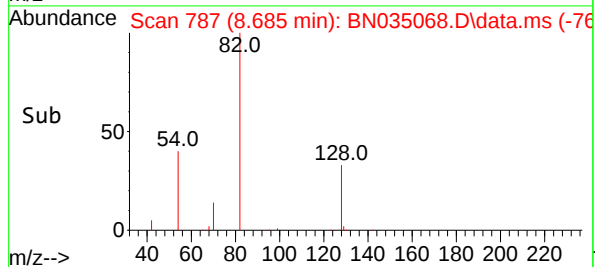
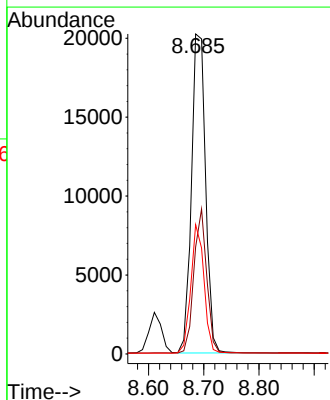
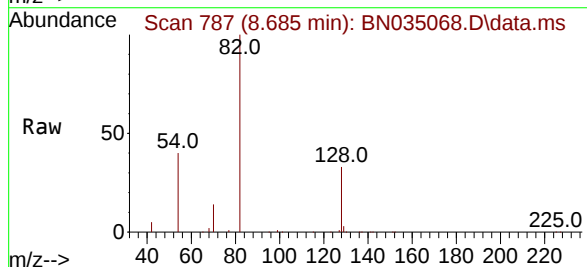
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

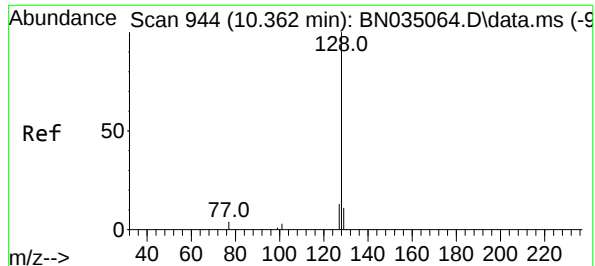
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 8134  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 11.9  | 9.8   | 14.8  |
| 54       | 4.4   | 4.0   | 6.0   |
| 68       | 4.9   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 5.091 ng  
RT: 8.685 min Scan# 787  
Delta R.T. -0.011 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 35941 |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 33.5  | 36.5  | 54.7# |
| 54       | 40.4  | 28.7  | 43.1  |

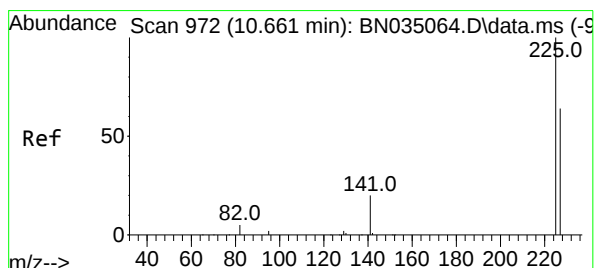
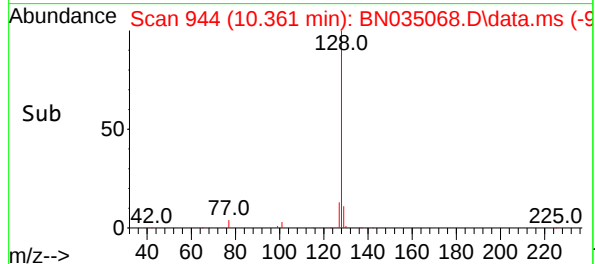
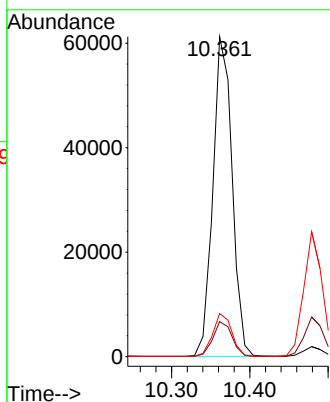
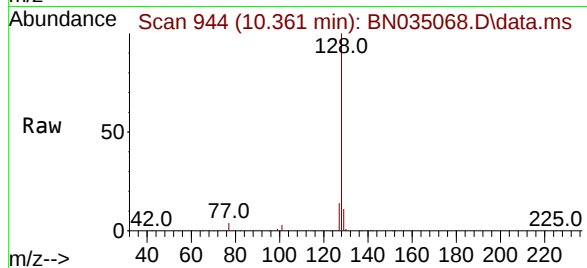




#9  
Naphthalene  
Concen: 4.914 ng  
RT: 10.361 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

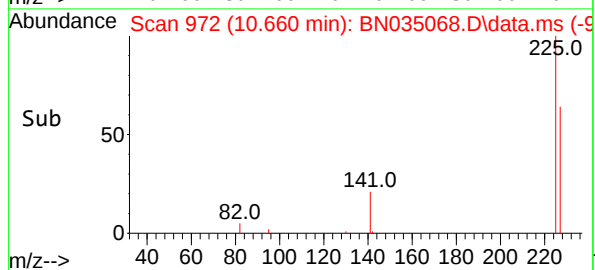
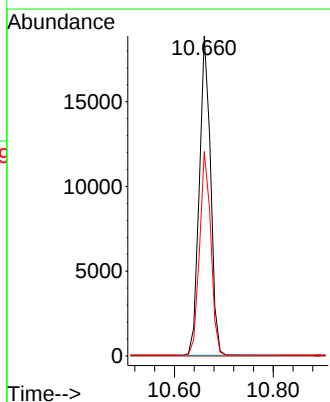
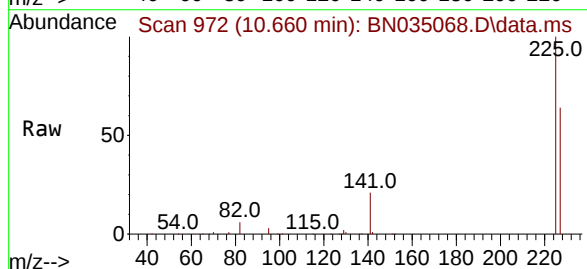
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

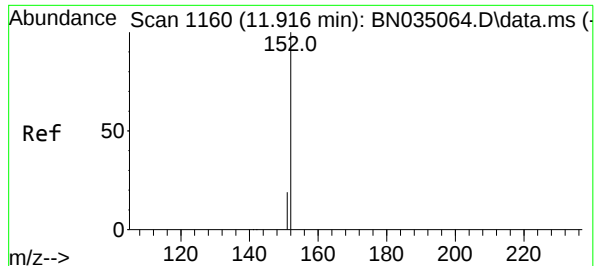
Tgt Ion:128 Resp: 104370  
Ion Ratio Lower Upper  
128 100  
129 10.9 9.6 14.4  
127 13.5 11.6 17.4



#10  
Hexachlorobutadiene  
Concen: 4.757 ng  
RT: 10.660 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:225 Resp: 29615  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 63.9 51.5 77.3

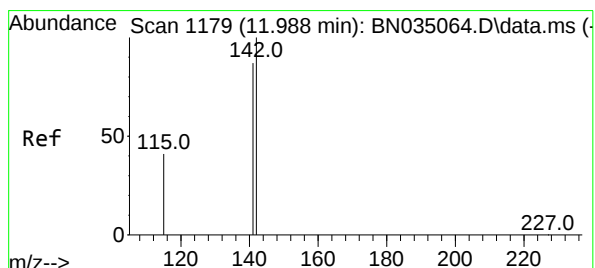
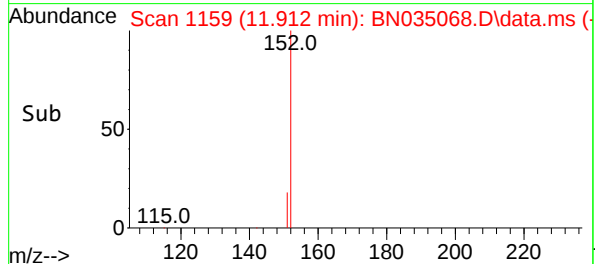
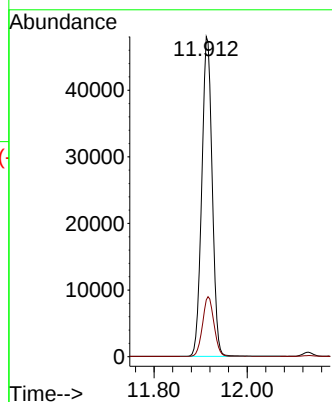
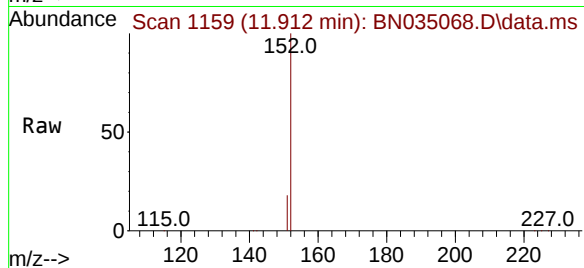




#11  
2-Methylnaphthalene-d10  
Concen: 5.128 ng  
RT: 11.912 min Scan# 1160  
Delta R.T. -0.004 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

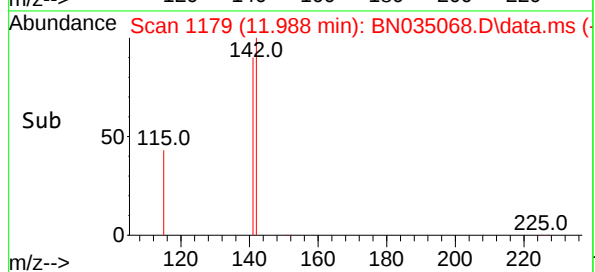
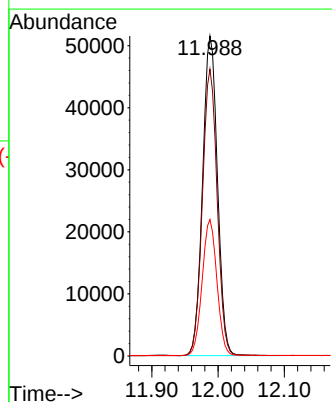
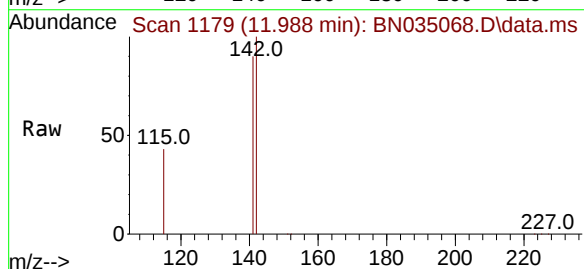
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

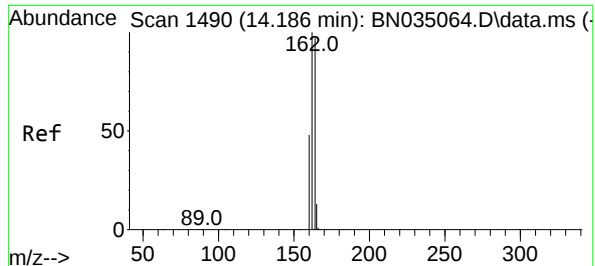
Tgt Ion:152 Resp: 74330  
Ion Ratio Lower Upper  
152 100  
151 20.5 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 5.118 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. -0.000 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:142 Resp: 80182  
Ion Ratio Lower Upper  
142 100  
141 89.7 70.1 105.1  
115 42.7 34.4 51.6

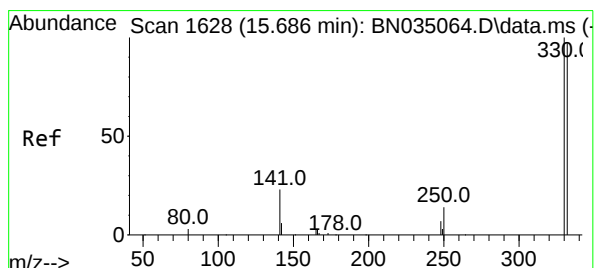
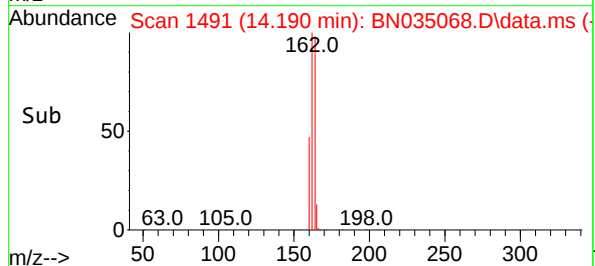
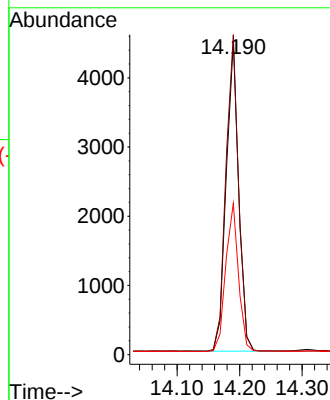
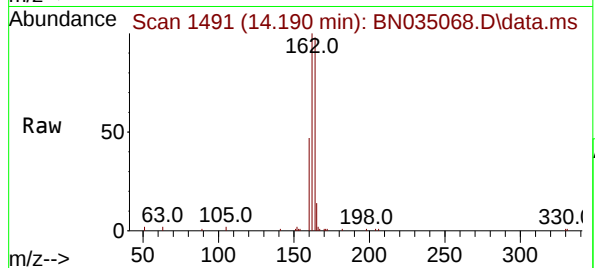




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

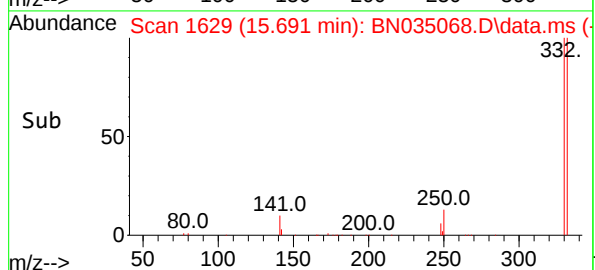
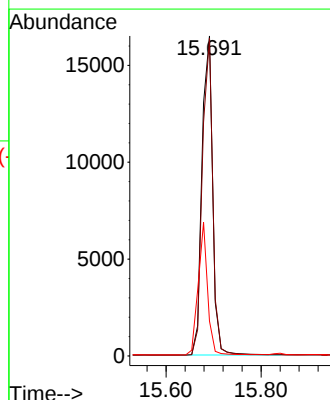
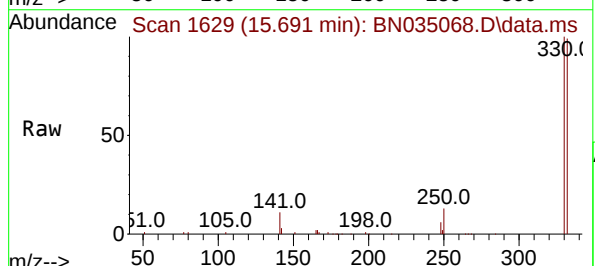
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

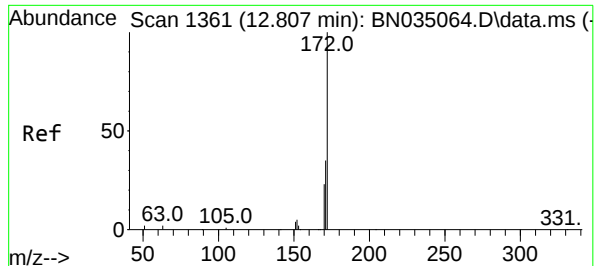
Tgt Ion:164 Resp: 6225  
Ion Ratio Lower Upper  
164 100  
162 102.3 82.2 123.2  
160 48.4 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 5.740 ng  
RT: 15.691 min Scan# 1629  
Delta R.T. 0.005 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:330 Resp: 25763  
Ion Ratio Lower Upper  
330 100  
332 96.7 76.9 115.3  
141 36.4 29.6 44.4

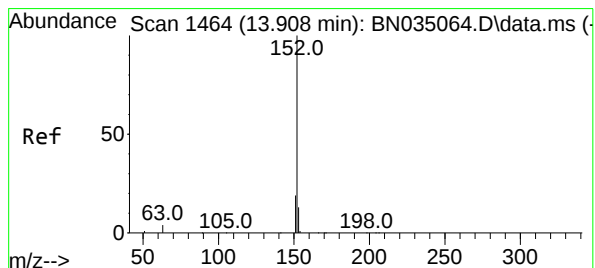
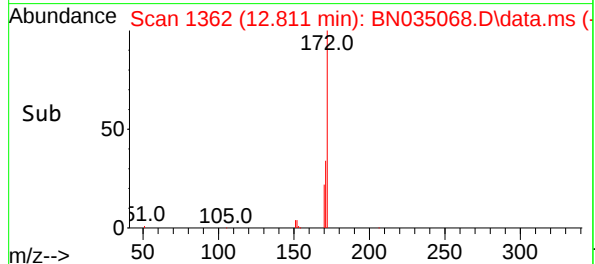
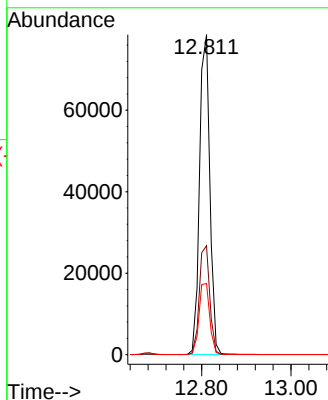
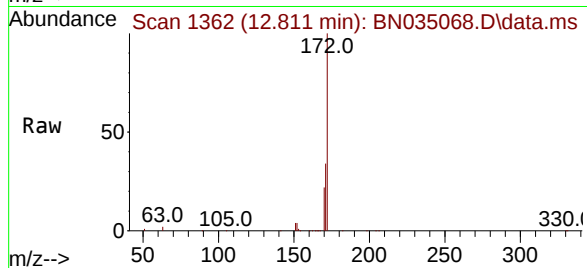




#15  
2-Fluorobiphenyl  
Concen: 4.967 ng  
RT: 12.811 min Scan# 1362  
Delta R.T. 0.004 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

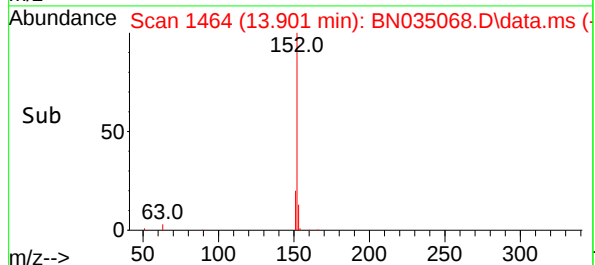
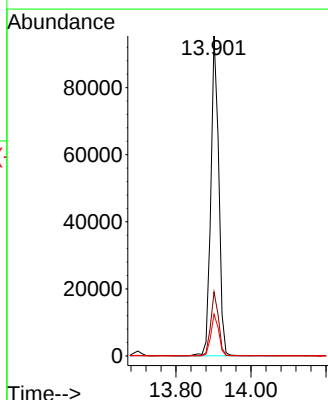
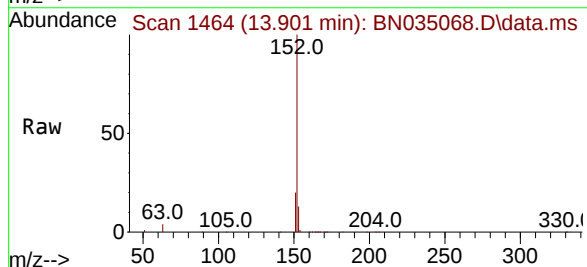
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

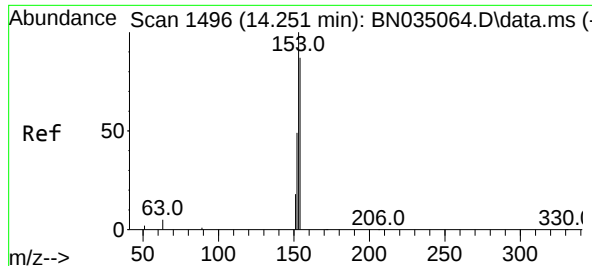
Tgt Ion:172 Resp: 125581  
Ion Ratio Lower Upper  
172 100  
171 34.1 28.2 42.4  
170 22.3 19.0 28.6



#16  
Acenaphthylene  
Concen: 5.250 ng  
RT: 13.901 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:152 Resp: 139668  
Ion Ratio Lower Upper  
152 100  
151 19.7 15.8 23.8  
153 13.0 10.2 15.4

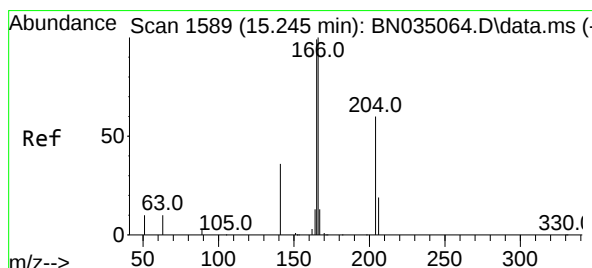
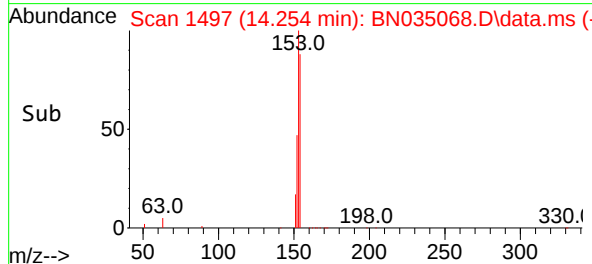
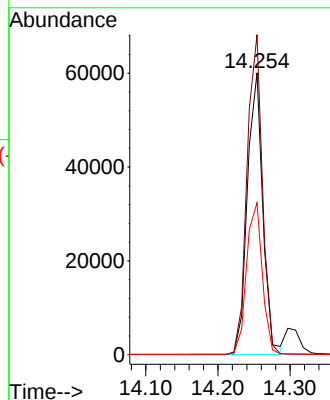
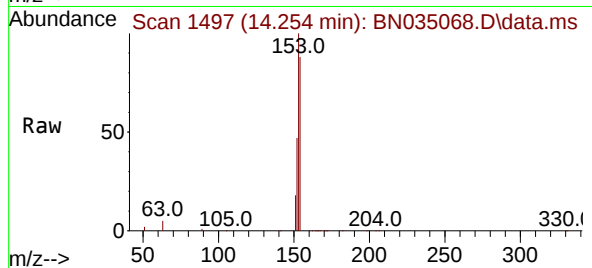




#17  
Acenaphthene  
Concen: 5.115 ng  
RT: 14.254 min Scan# 1497  
Delta R.T. 0.004 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

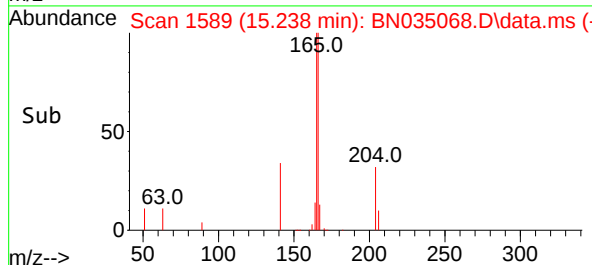
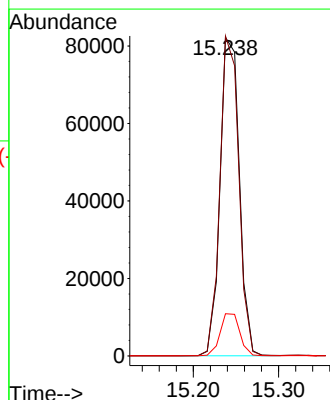
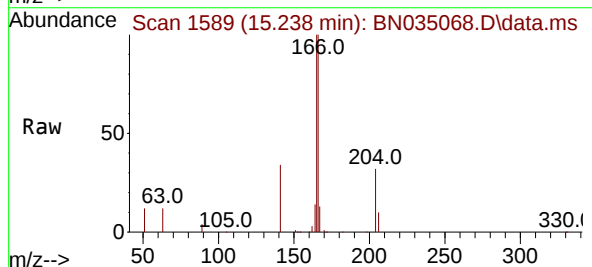
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

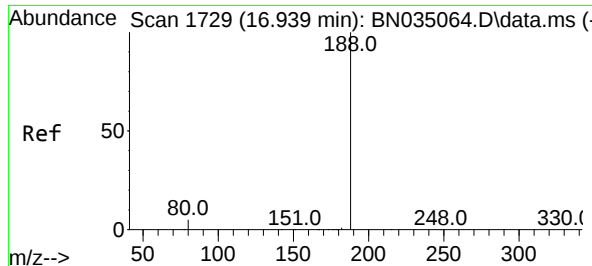
Tgt Ion:154 Resp: 89181  
Ion Ratio Lower Upper  
154 100  
153 113.0 91.6 137.4  
152 55.3 45.8 68.6



#18  
Fluorene  
Concen: 5.033 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:166 Resp: 129071  
Ion Ratio Lower Upper  
166 100  
165 98.2 79.1 118.7  
167 13.5 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.932 min Scan# 1729

Delta R.T. -0.007 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

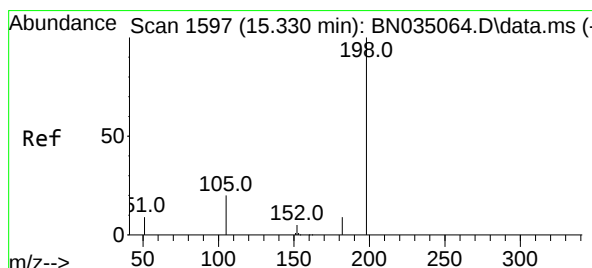
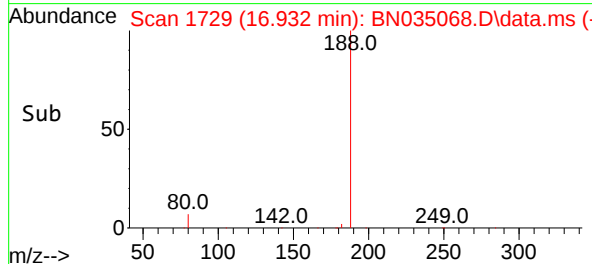
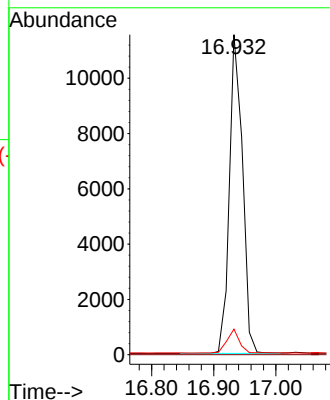
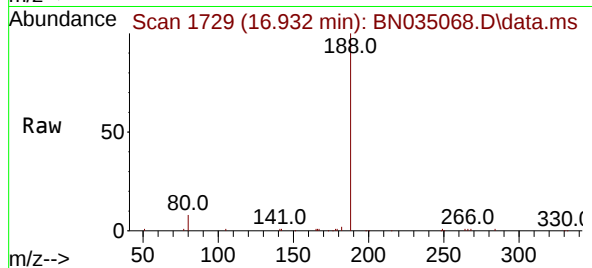
Tgt Ion:188 Resp: 16809

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 8.0 4.3 6.5#



#20

4,6-Dinitro-2-methylphenol

Concen: 6.304 ng

RT: 15.323 min Scan# 1597

Delta R.T. -0.007 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

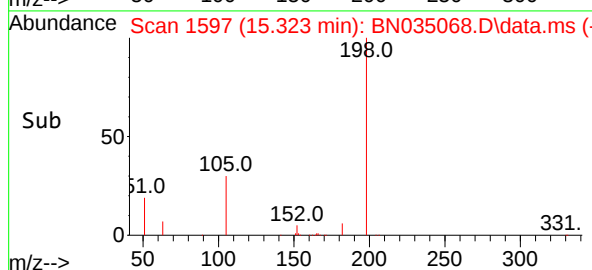
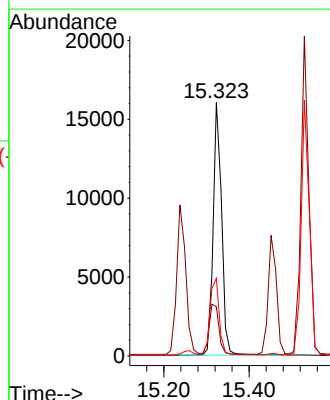
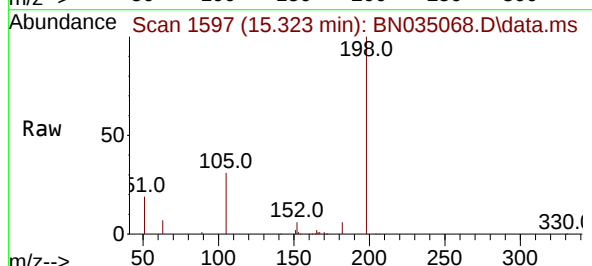
Tgt Ion:198 Resp: 22059

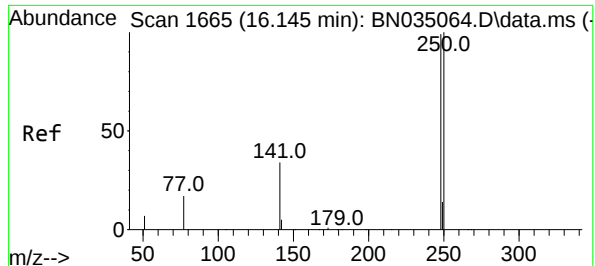
Ion Ratio Lower Upper

198 100

51 19.4 29.9 44.9#

105 30.6 23.7 35.5

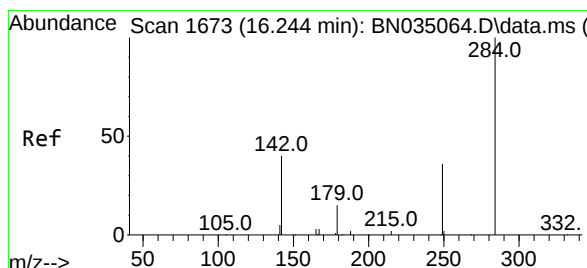
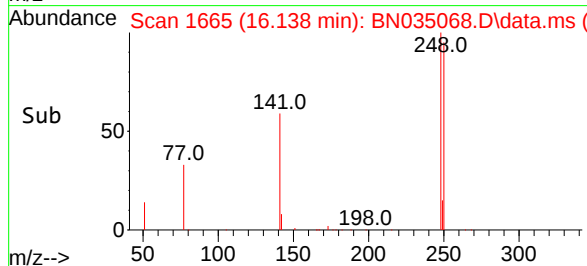
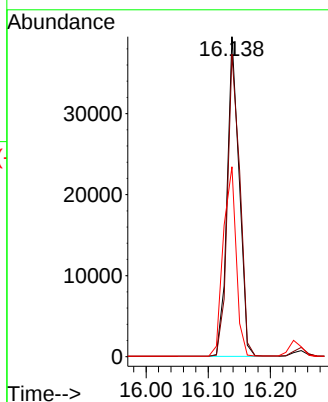
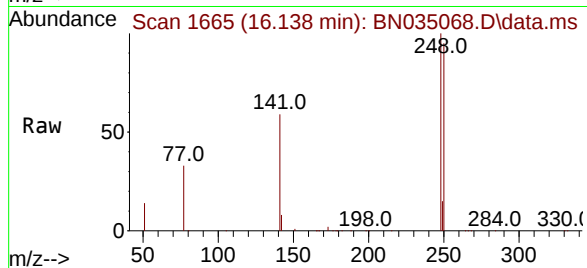




#21  
4-Bromophenyl-phenylether  
Concen: 4.935 ng  
RT: 16.138 min Scan# 1665  
Delta R.T. -0.007 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

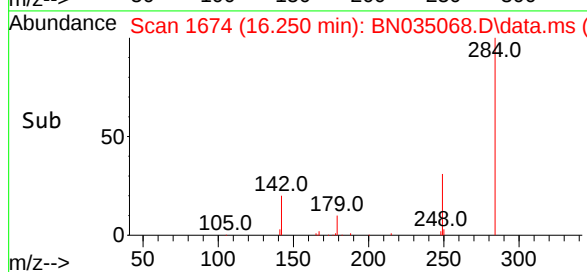
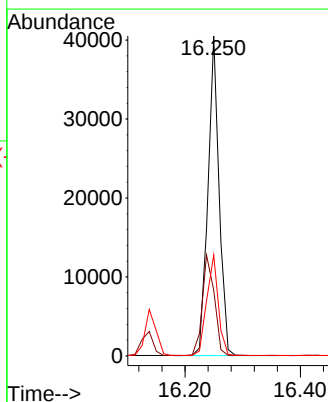
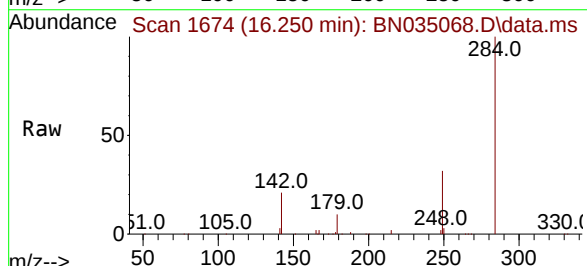
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

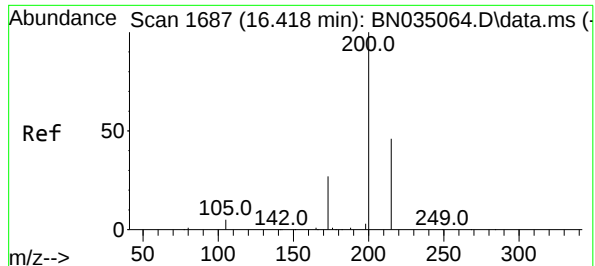
Tgt Ion:248 Resp: 52850  
Ion Ratio Lower Upper  
248 100  
250 94.6 81.2 121.8  
141 59.4 29.1 43.7#



#22  
Hexachlorobenzene  
Concen: 4.870 ng  
RT: 16.250 min Scan# 1674  
Delta R.T. 0.005 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:284 Resp: 54126  
Ion Ratio Lower Upper  
284 100  
142 34.0 28.2 42.4  
249 32.4 26.2 39.2

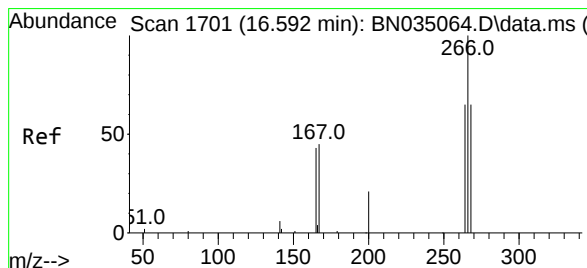
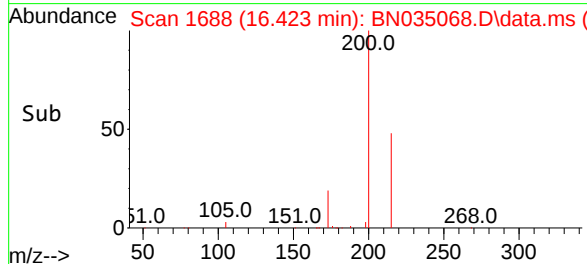
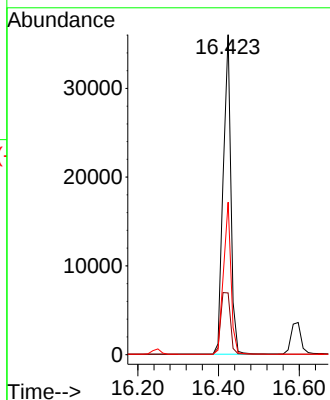
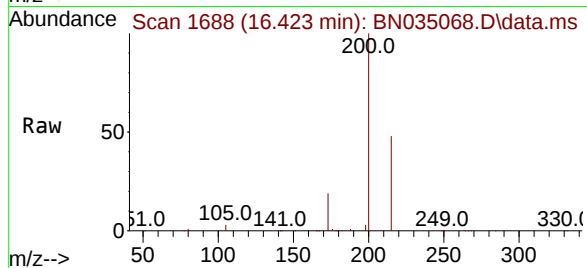




#23  
Atrazine  
Concen: 4.928 ng  
RT: 16.423 min Scan# 1  
Delta R.T. 0.005 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

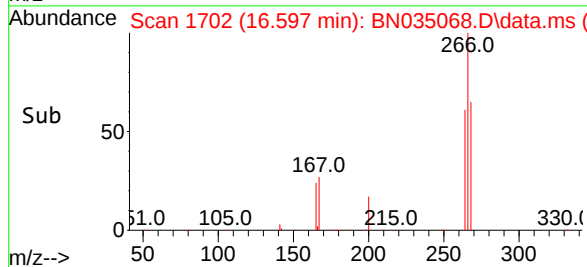
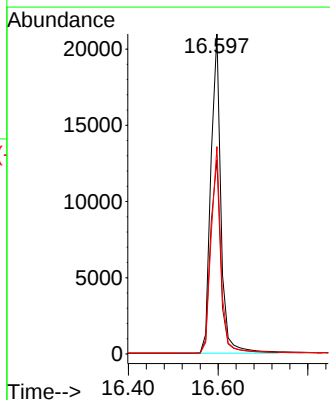
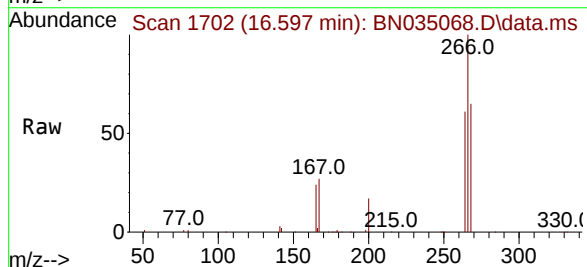
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

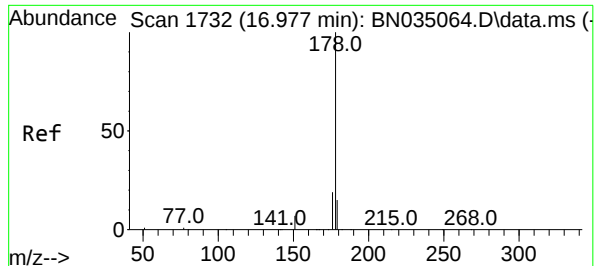
Tgt Ion:200 Resp: 47349  
Ion Ratio Lower Upper  
200 100  
173 19.3 22.6 33.8#  
215 47.7 37.8 56.6



#24  
Pentachlorophenol  
Concen: 6.228 ng  
RT: 16.597 min Scan# 1702  
Delta R.T. 0.005 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:266 Resp: 32339  
Ion Ratio Lower Upper  
266 100  
264 62.3 49.4 74.0  
268 63.7 52.6 79.0

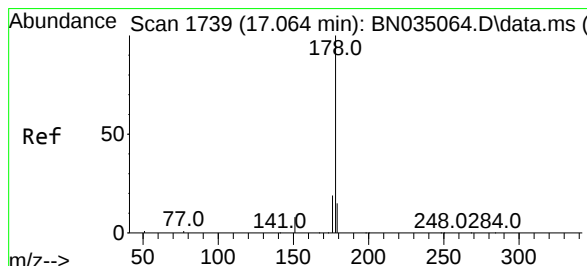
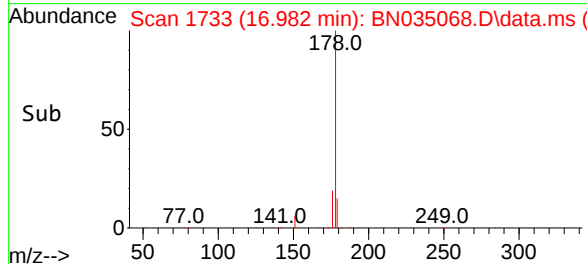
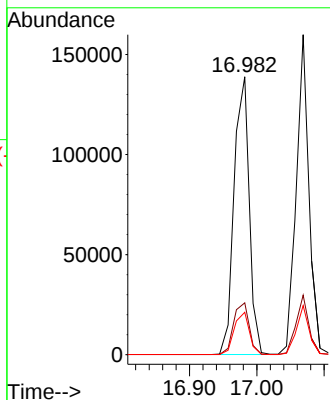
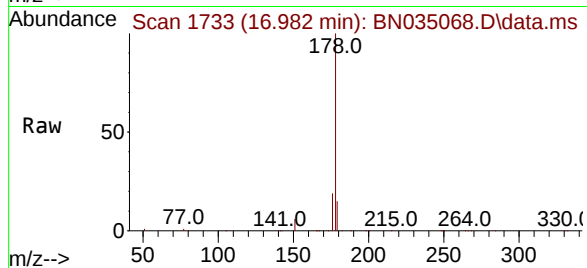




#25  
Phenanthrene  
Concen: 4.923 ng  
RT: 16.982 min Scan# 1732  
Delta R.T. 0.005 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

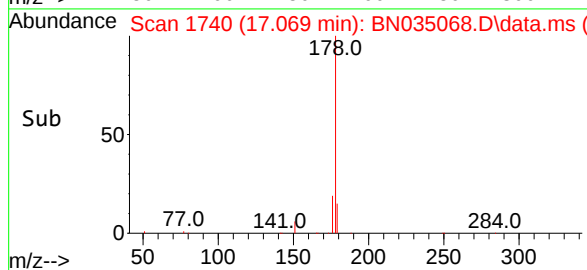
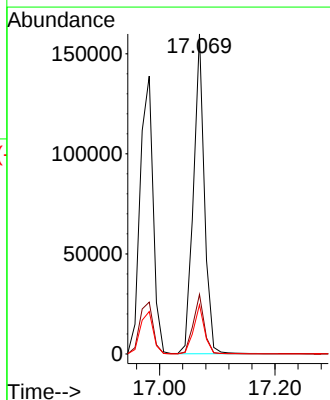
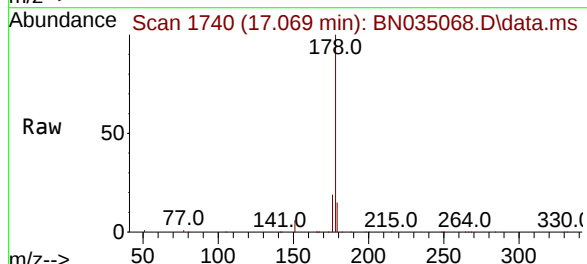
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

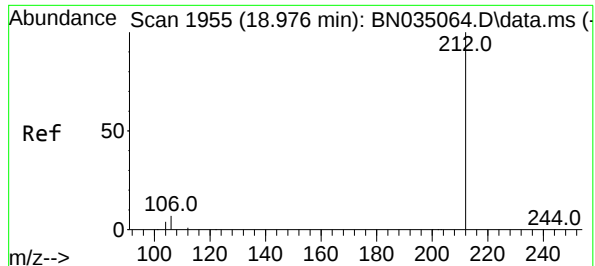
Tgt Ion:178 Resp: 217781  
Ion Ratio Lower Upper  
178 100  
176 19.3 15.2 22.8  
179 15.2 12.6 18.8



#26  
Anthracene  
Concen: 5.176 ng  
RT: 17.069 min Scan# 1740  
Delta R.T. 0.005 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:178 Resp: 210303  
Ion Ratio Lower Upper  
178 100  
176 18.6 14.6 22.0  
179 15.3 12.2 18.2





#27

Fluoranthene-d10

Concen: 5.059 ng

RT: 18.973 min Scan# 1955

Delta R.T. -0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

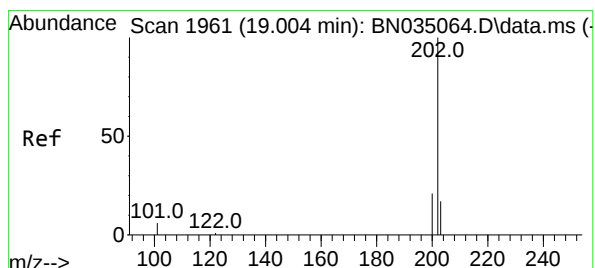
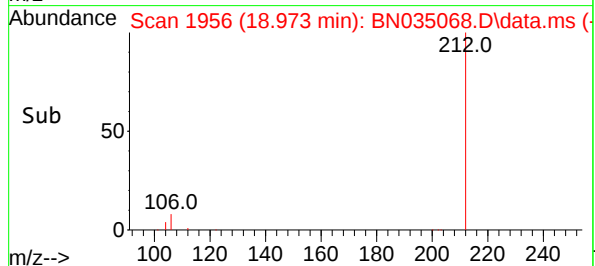
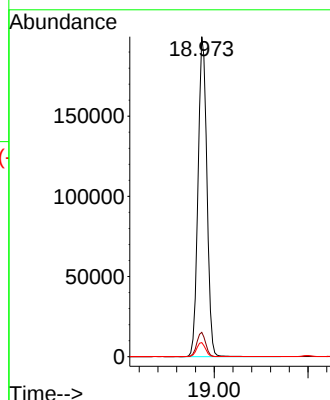
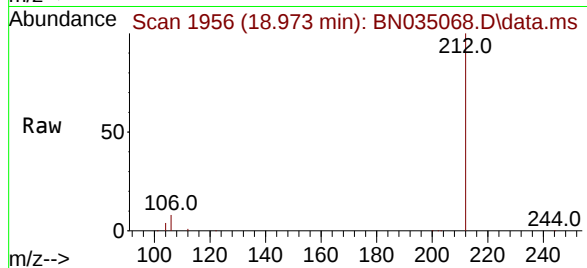
Tgt Ion:212 Resp: 260540

Ion Ratio Lower Upper

212 100

106 7.6 6.0 9.0

104 4.4 3.5 5.3



#28

Fluoranthene

Concen: 5.019 ng

RT: 19.006 min Scan# 1963

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

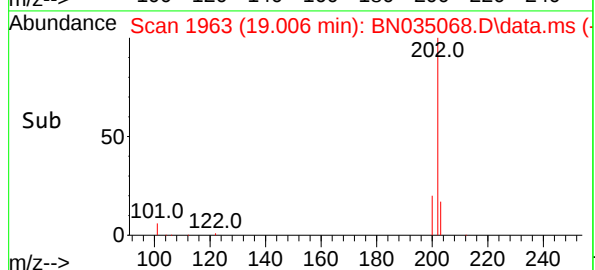
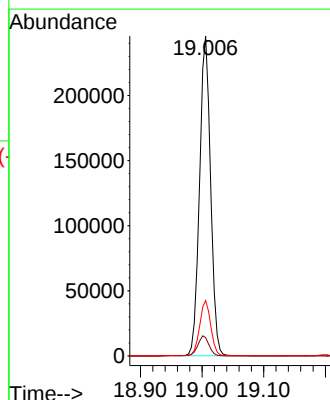
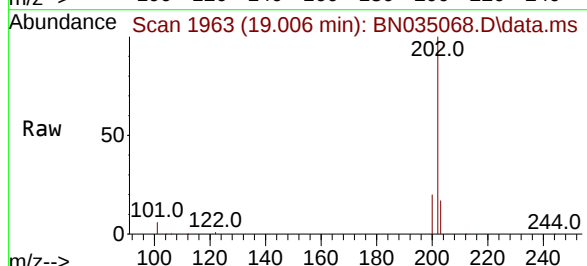
Tgt Ion:202 Resp: 305283

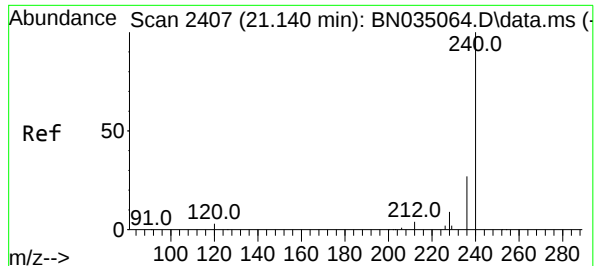
Ion Ratio Lower Upper

202 100

101 6.4 5.2 7.8

203 17.3 13.8 20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.133 min Scan# 2408

Delta R.T. -0.007 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

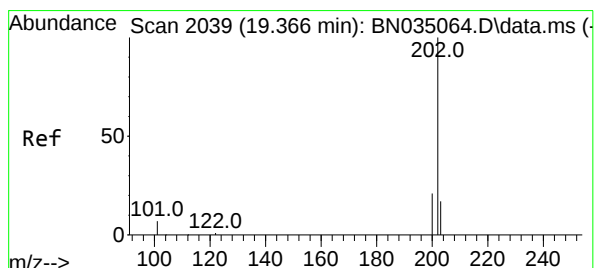
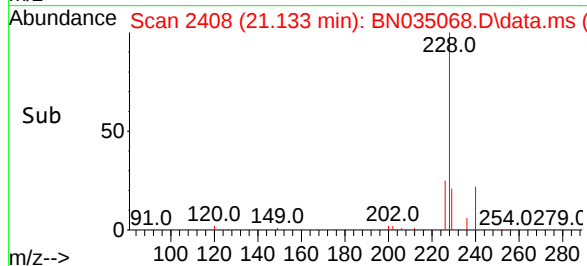
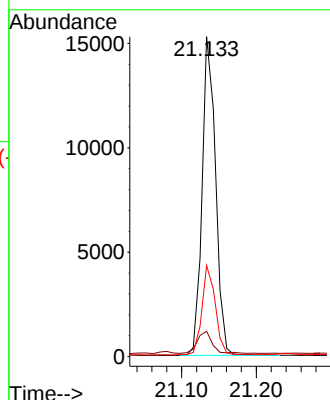
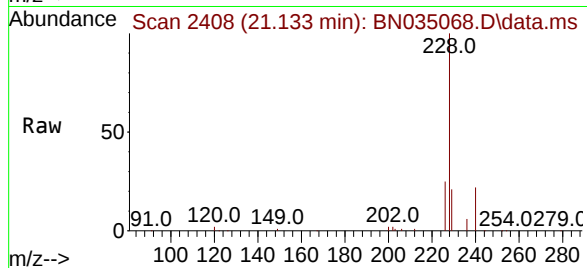
Tgt Ion:240 Resp: 19216

Ion Ratio Lower Upper

240 100

120 8.0 3.8 5.6#

236 28.5 22.2 33.2



#30

Pyrene

Concen: 4.942 ng

RT: 19.368 min Scan# 2041

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

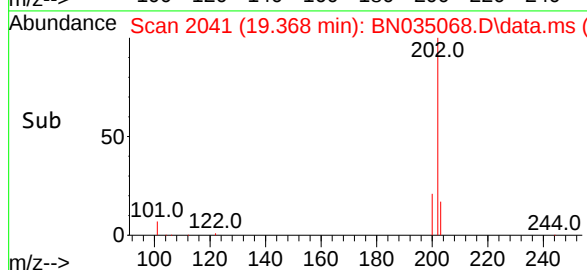
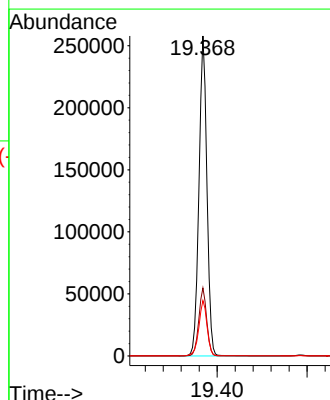
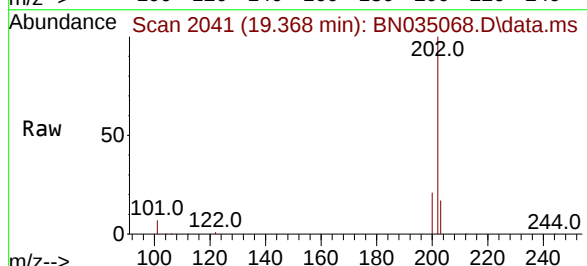
Tgt Ion:202 Resp: 316225

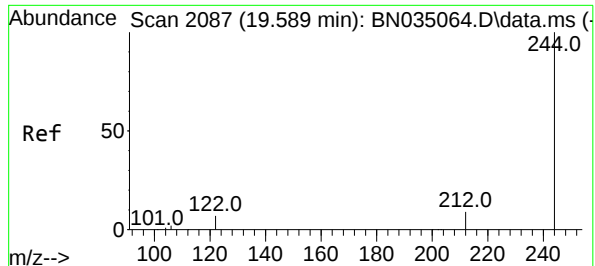
Ion Ratio Lower Upper

202 100

200 21.2 16.7 25.1

203 17.9 14.2 21.4

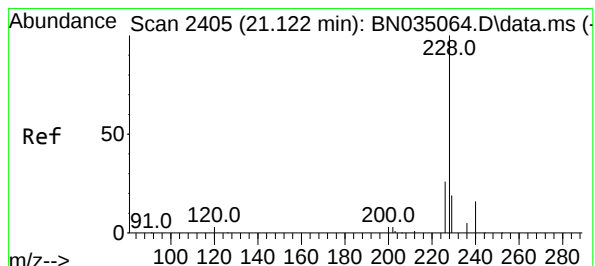
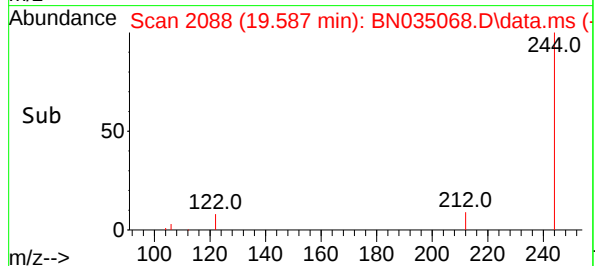
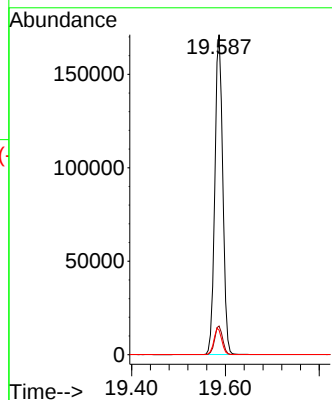
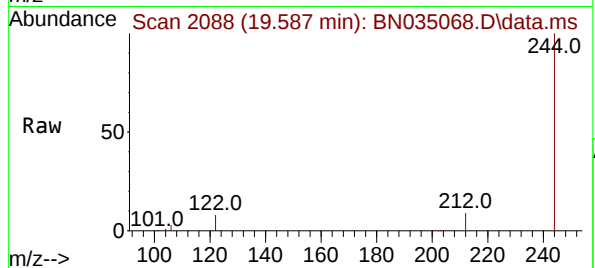




#31  
Terphenyl-d14  
Concen: 4.950 ng  
RT: 19.587 min Scan# 2087  
Delta R.T. -0.002 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

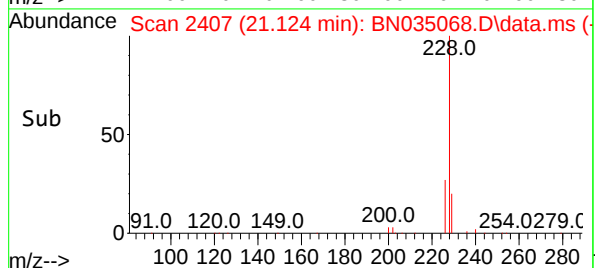
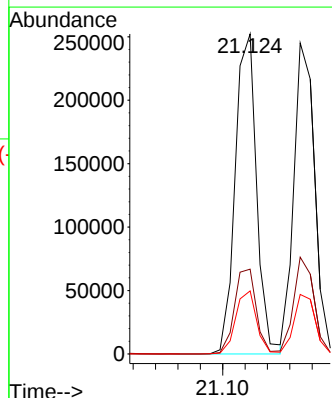
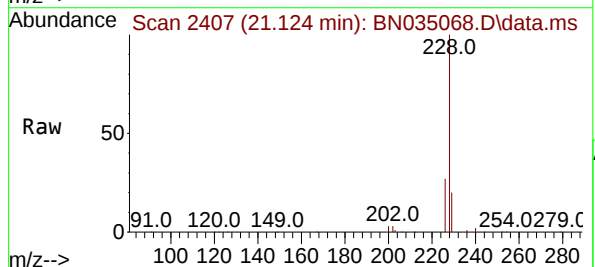
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

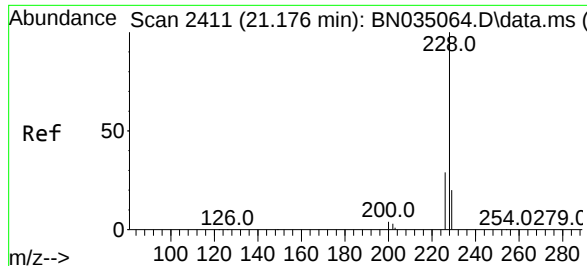
Tgt Ion:244 Resp: 199585  
Ion Ratio Lower Upper  
244 100  
212 9.0 7.6 11.4  
122 7.7 6.1 9.1



#32  
Benzo(a)anthracene  
Concen: 5.013 ng  
RT: 21.124 min Scan# 2407  
Delta R.T. 0.002 min  
Lab File: BN035068.D  
Acq: 13 Nov 2024 16:15

Tgt Ion:228 Resp: 335437  
Ion Ratio Lower Upper  
228 100  
226 26.5 21.4 32.0  
229 19.7 15.7 23.5





#33

Chrysene

Concen: 4.786 ng

RT: 21.169 min Scan# 2411

Delta R.T. -0.007 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

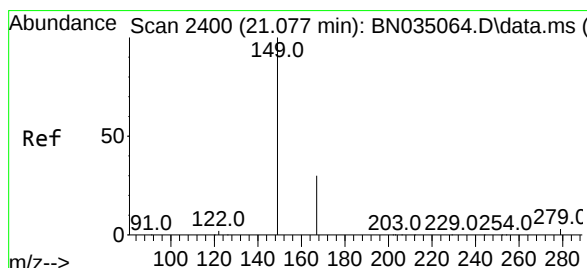
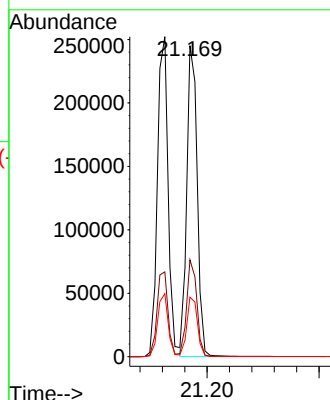
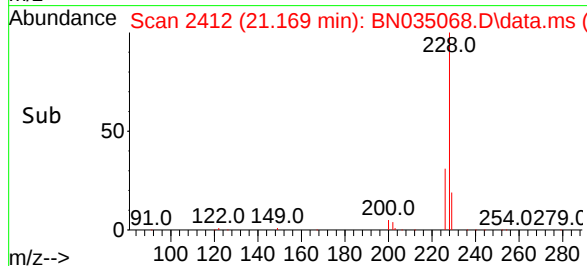
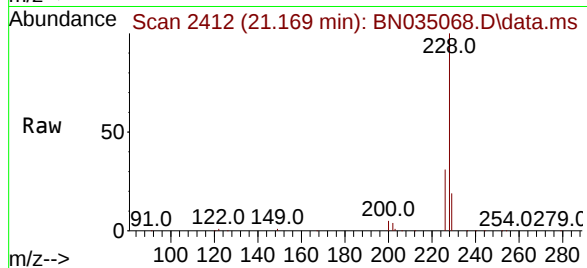
Tgt Ion:228 Resp: 317200

Ion Ratio Lower Upper

228 100

226 31.1 23.7 35.5

229 19.1 16.2 24.4



#34

Bis(2-ethylhexyl)phthalate

Concen: 5.121 ng

RT: 21.080 min Scan# 2402

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

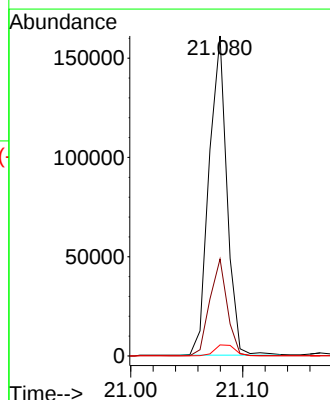
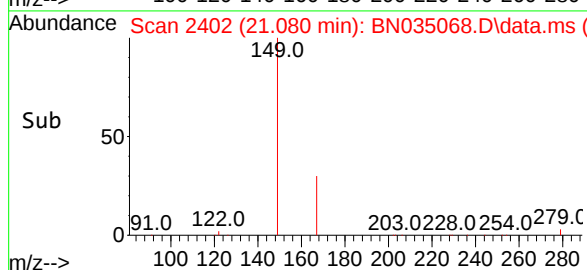
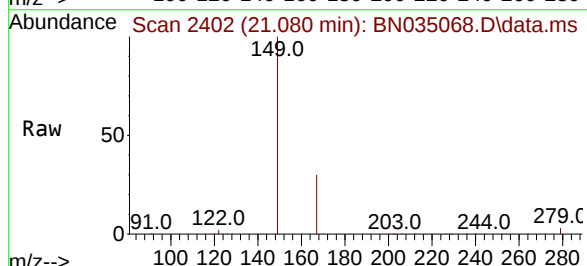
Tgt Ion:149 Resp: 178320

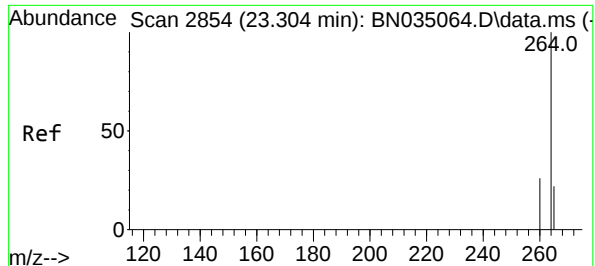
Ion Ratio Lower Upper

149 100

167 29.5 23.2 34.8

279 3.9 3.2 4.8





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.303 min Scan# 21

Delta R.T. -0.001 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

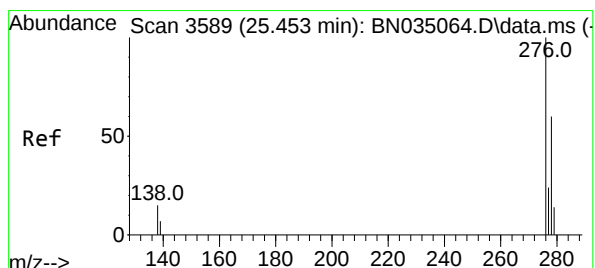
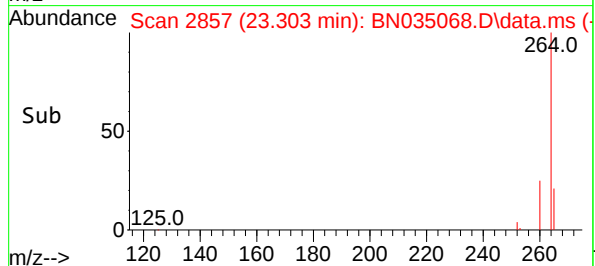
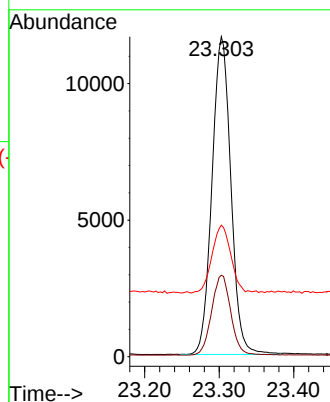
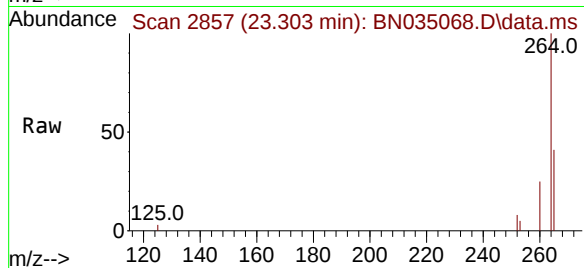
Tgt Ion:264 Resp: 20465

Ion Ratio Lower Upper

264 100

260 25.4 20.9 31.3

265 41.1 35.4 53.2



#36

Indeno(1,2,3-cd)pyrene

Concen: 4.966 ng

RT: 25.455 min Scan# 3593

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

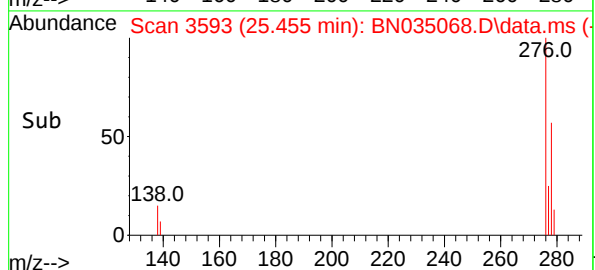
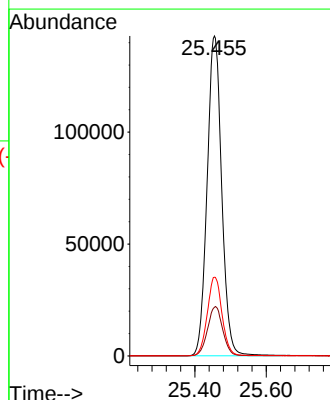
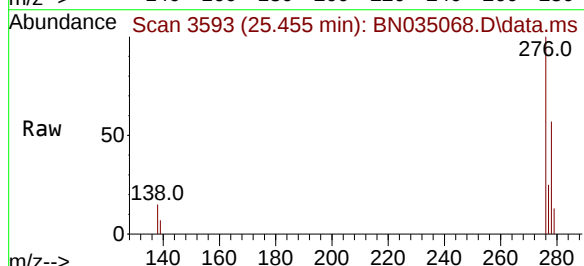
Tgt Ion:276 Resp: 405401

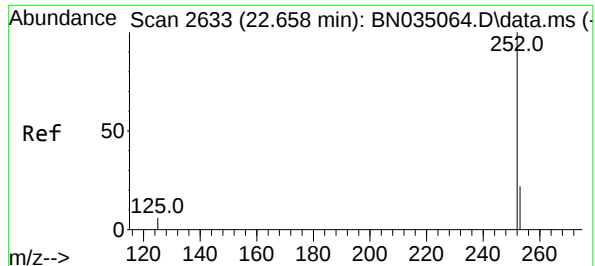
Ion Ratio Lower Upper

276 100

138 16.0 13.0 19.4

277 24.9 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 5.049 ng

RT: 22.660 min Scan# 2637

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

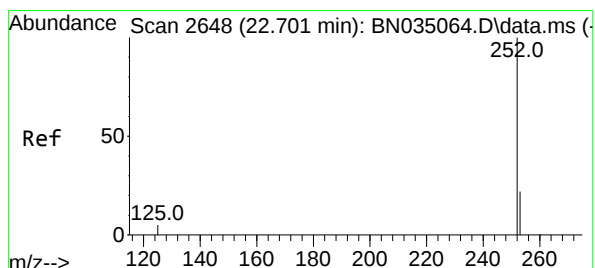
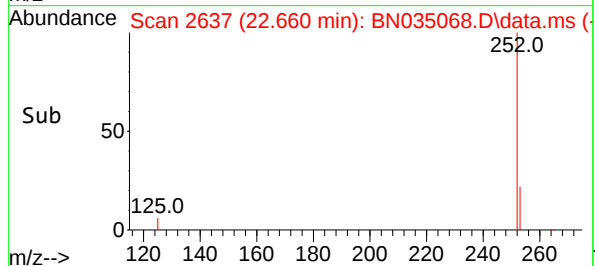
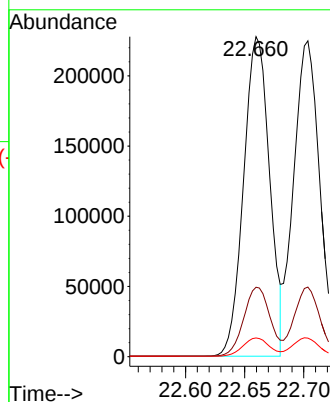
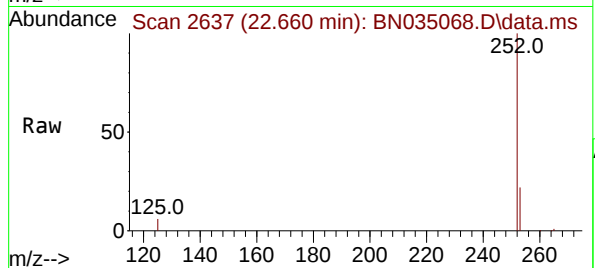
Tgt Ion:252 Resp: 347639

Ion Ratio Lower Upper

252 100

253 21.7 19.3 28.9

125 5.8 6.2 9.2#



#38

Benzo(k)fluoranthene

Concen: 5.041 ng

RT: 22.703 min Scan# 2652

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

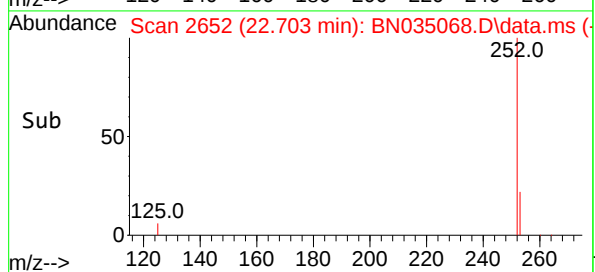
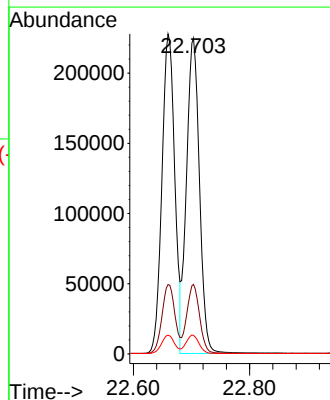
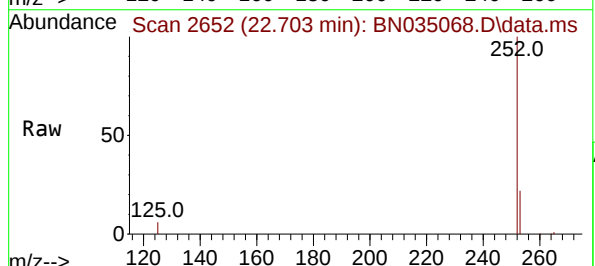
Tgt Ion:252 Resp: 347310

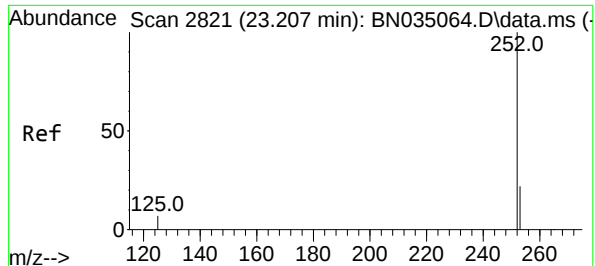
Ion Ratio Lower Upper

252 100

253 22.0 19.5 29.3

125 5.9 6.5 9.7#





#39

Benzo(a)pyrene

Concen: 5.094 ng

RT: 23.209 min Scan# 21

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

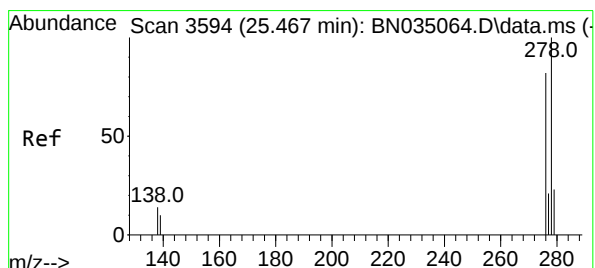
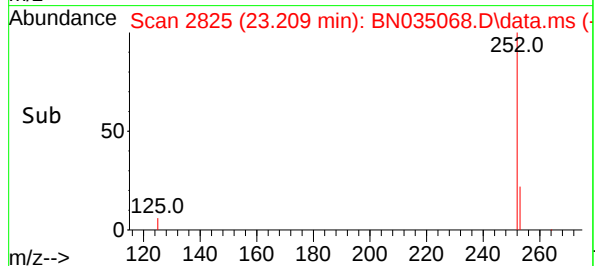
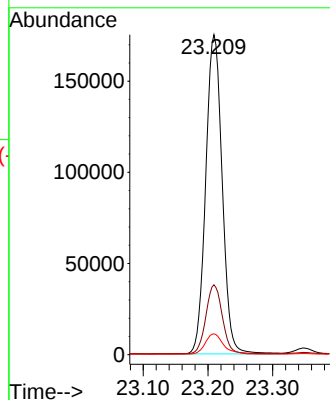
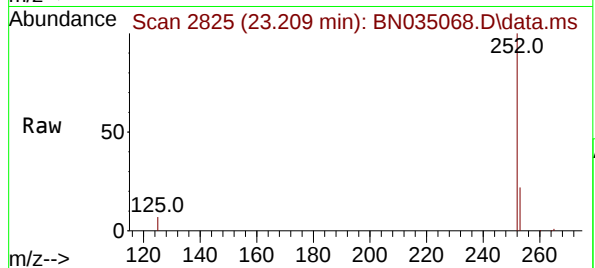
Tgt Ion:252 Resp: 308664

Ion Ratio Lower Upper

252 100

253 21.8 20.1 30.1

125 6.5 7.5 11.3#



#40

Dibenzo(a,h)anthracene

Concen: 5.002 ng

RT: 25.469 min Scan# 3598

Delta R.T. 0.002 min

Lab File: BN035068.D

Acq: 13 Nov 2024 16:15

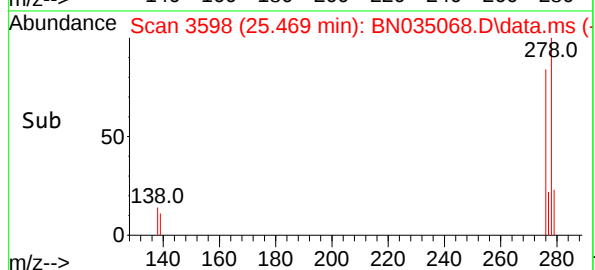
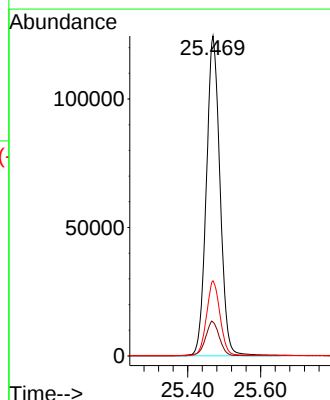
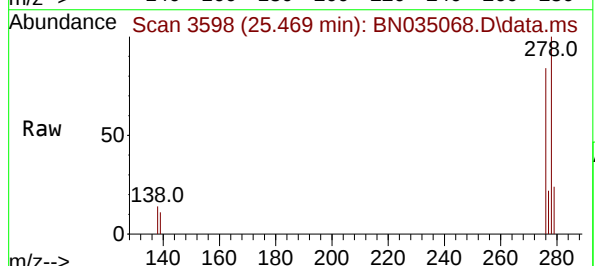
Tgt Ion:278 Resp: 323522

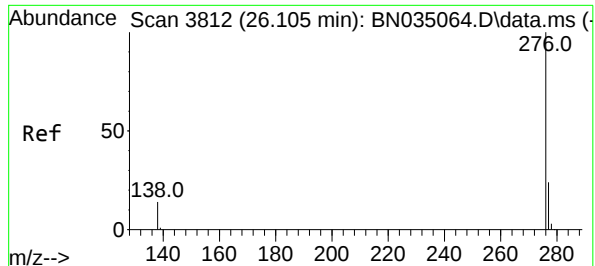
Ion Ratio Lower Upper

278 100

139 10.6 9.3 13.9

279 23.5 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 4.937 ng

RT: 26.107 min Scan# 3812

Delta R.T. 0.002 min

Lab File: BN035068.D

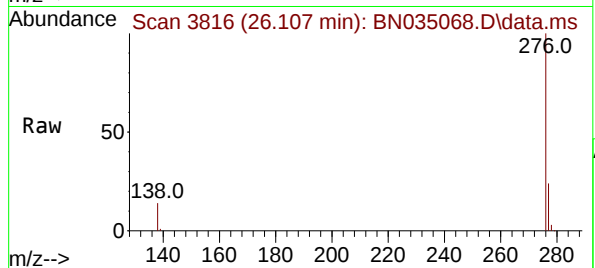
Acq: 13 Nov 2024 16:15

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0



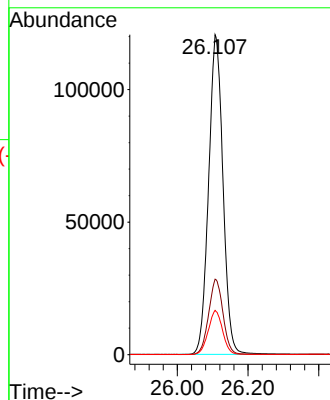
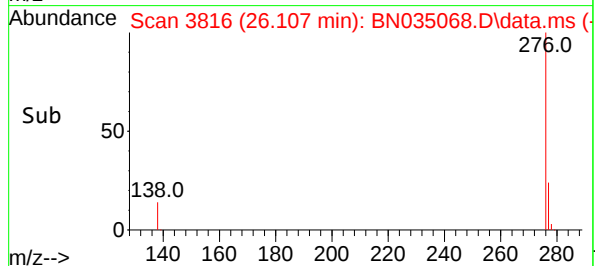
Tgt Ion:276 Resp: 339655

Ion Ratio Lower Upper

276 100

277 23.6 19.9 29.9

138 13.9 11.6 17.4



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035069.D  
 Acq On : 13 Nov 2024 16:51  
 Operator : RC/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

## Instrument :

BNA\_N

## ClientSampleId :

ICVBN111324

## Manual Integrations

## APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024

Quant Time: Nov 13 17:18:36 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 13 17:18:14 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2509     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 6367     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.186 | 164  | 4967     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.939 | 188  | 12682    | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.140 | 240  | 14055    | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.304 | 264  | 15724    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 2342     | 0.368 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 2867     | 0.359 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.696  | 82   | 1983     | 0.358 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 11.916 | 152  | 4166     | 0.367 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.686 | 330  | 1154     | 0.322 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.807 | 172  | 7205     | 0.357 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.976 | 212  | 14530    | 0.374 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.584 | 244  | 11240    | 0.381 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.177  | 88   | 845      | 0.371 | ng    | 99       |
| 3) n-Nitrosodimethylamine     | 3.473  | 42   | 781      | 0.368 | ng    | # 94     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 2218     | 0.370 | ng    | 98       |
| 9) Naphthalene                | 10.362 | 128  | 6092     | 0.366 | ng    | 100      |
| 10) Hexachlorobutadiene       | 10.661 | 225  | 1817     | 0.373 | ng    | # 98     |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 4513     | 0.368 | ng    | 99       |
| 16) Acenaphthylene            | 13.908 | 152  | 7387     | 0.348 | ng    | 100      |
| 17) Acenaphthene              | 14.250 | 154  | 4995     | 0.359 | ng    | 99       |
| 18) Fluorene                  | 15.245 | 166  | 7206     | 0.352 | ng    | 100      |
| 20) 4,6-Dinitro-2-methylph... | 15.330 | 198  | 870m     | 0.330 | ng    |          |
| 21) 4-Bromophenyl-phenylether | 16.145 | 248  | 3001     | 0.371 | ng    | 98       |
| 22) Hexachlorobenzene         | 16.244 | 284  | 3175     | 0.379 | ng    | 99       |
| 23) Atrazine                  | 16.418 | 200  | 2682     | 0.370 | ng    | 98       |
| 24) Pentachlorophenol         | 16.592 | 266  | 1269     | 0.324 | ng    | 98       |
| 25) Phenanthrene              | 16.977 | 178  | 12517    | 0.375 | ng    | 99       |
| 26) Anthracene                | 17.063 | 178  | 11219    | 0.366 | ng    | 100      |
| 28) Fluoranthene              | 19.004 | 202  | 17084    | 0.372 | ng    | 100      |
| 30) Pyrene                    | 19.366 | 202  | 17580    | 0.376 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.122 | 228  | 18406    | 0.376 | ng    | 99       |
| 33) Chrysene                  | 21.176 | 228  | 18693    | 0.386 | ng    | 99       |
| 34) Bis(2-ethylhexyl)phtha... | 21.077 | 149  | 8691     | 0.338 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 25.450 | 276  | 23546    | 0.375 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.660 | 252  | 20039    | 0.379 | ng    | 99       |
| 38) Benzo(k)fluoranthene      | 22.701 | 252  | 20114    | 0.380 | ng    | 98       |
| 39) Benzo(a)pyrene            | 23.210 | 252  | 17596    | 0.378 | ng    | 99       |
| 40) Dibenzo(a,h)anthracene    | 25.467 | 278  | 18547    | 0.373 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.104 | 276  | 19649    | 0.372 | ng    | 99       |
| -----                         |        |      |          |       |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

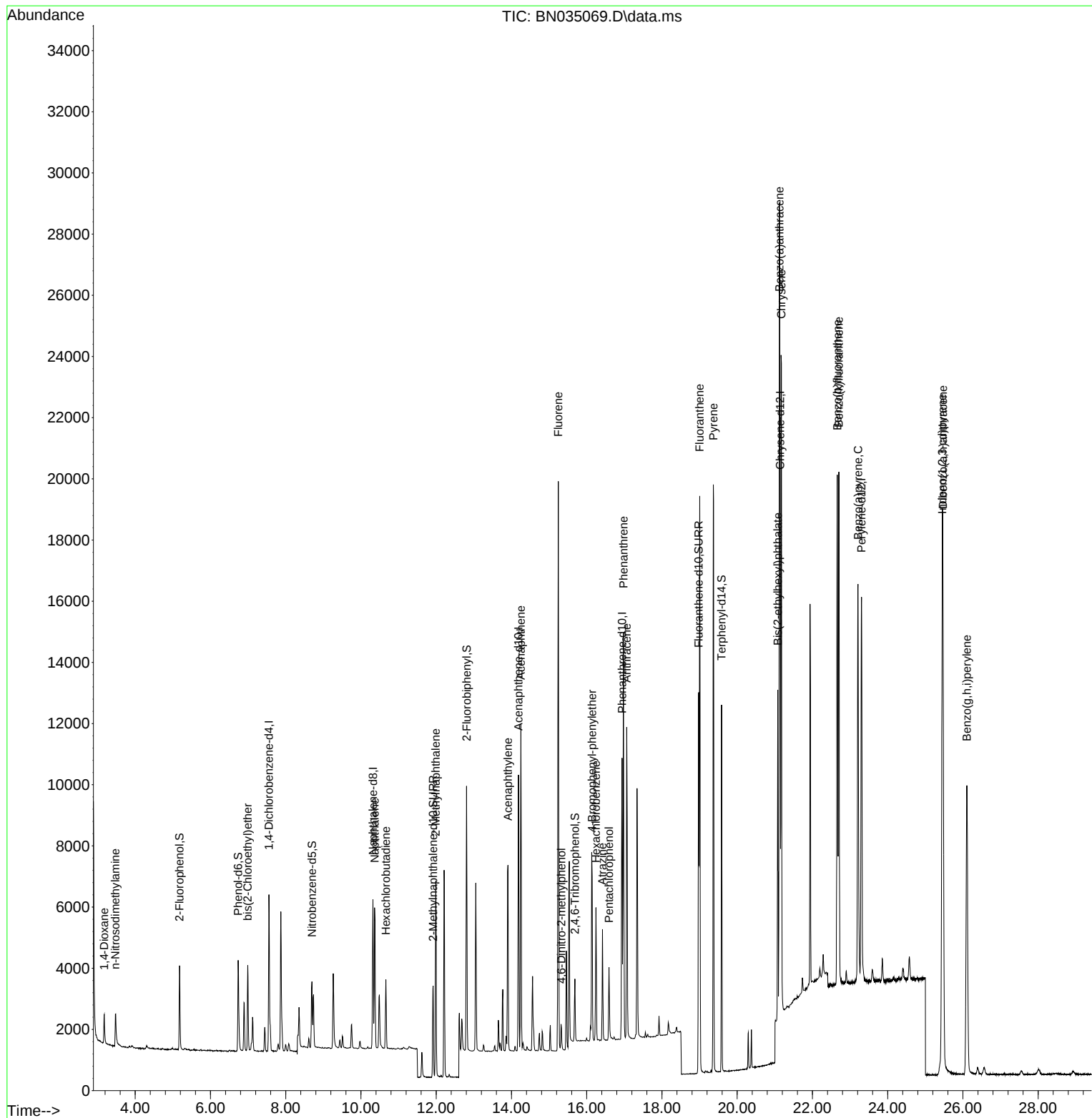
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Data File : BN035069.D  
Acq On : 13 Nov 2024 16:51  
Operator : RC/JU  
Sample : SSTDICV0.4  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

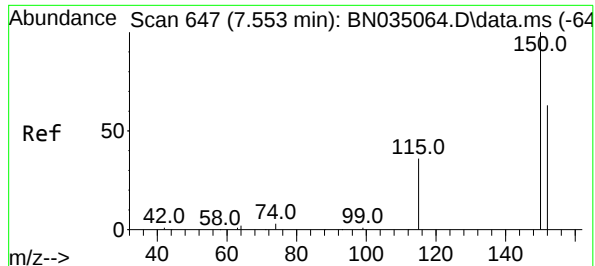
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324

Manual Integrations  
APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024

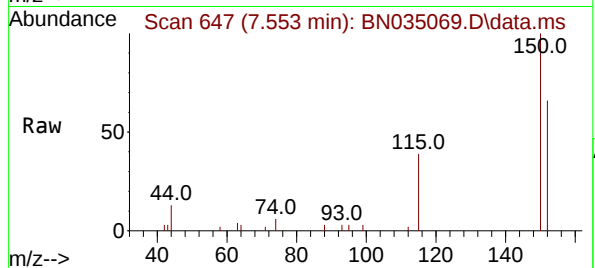
Quant Time: Nov 13 17:18:36 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration





#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 647  
Delta R.T. 0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

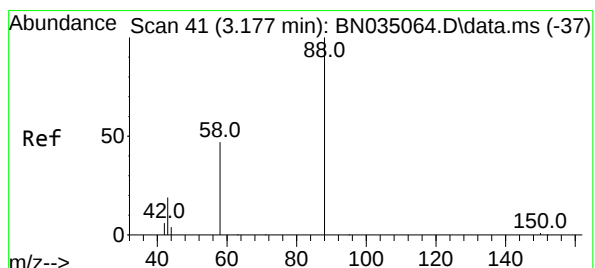
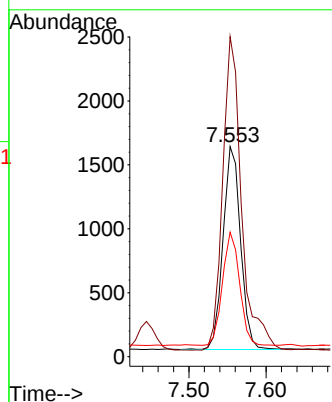
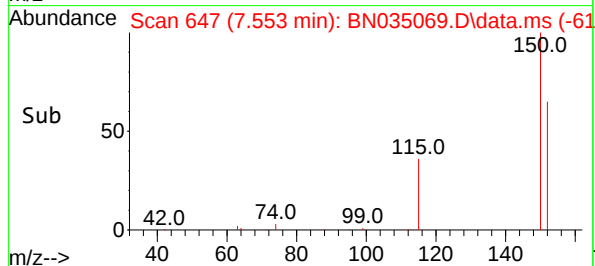
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:152 Resp: 2509  
Ion Ratio Lower Upper  
152 100  
150 152.3 124.5 186.7  
115 59.3 47.8 71.6

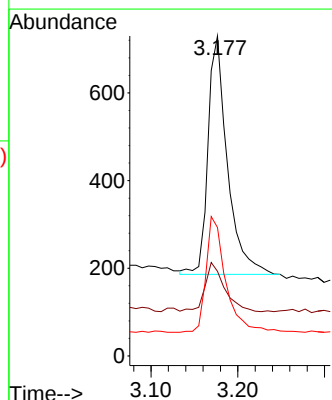
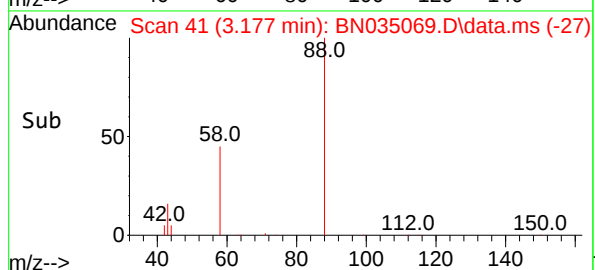
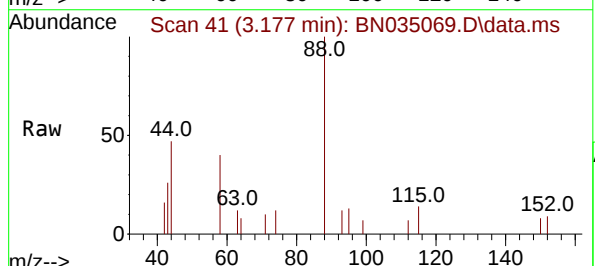
Manual Integrations  
APPROVED

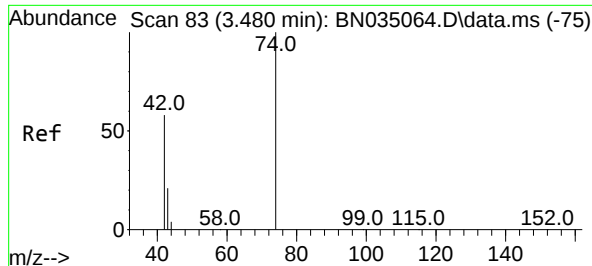
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#2  
1,4-Dioxane  
Concen: 0.371 ng  
RT: 3.177 min Scan# 41  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion: 88 Resp: 845  
Ion Ratio Lower Upper  
88 100  
43 20.8 16.9 25.3  
58 49.1 39.0 58.4





#3

n-Nitrosodimethylamine

Concen: 0.368 ng

RT: 3.473 min Scan# 81

Delta R.T. -0.007 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN111324

Tgt Ion: 42 Resp: 78

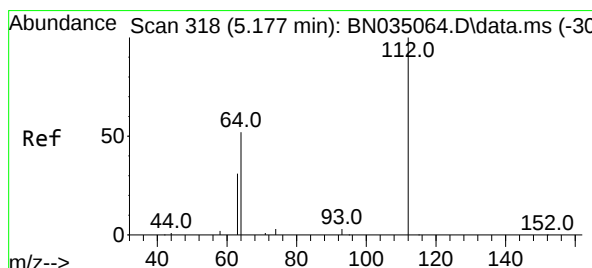
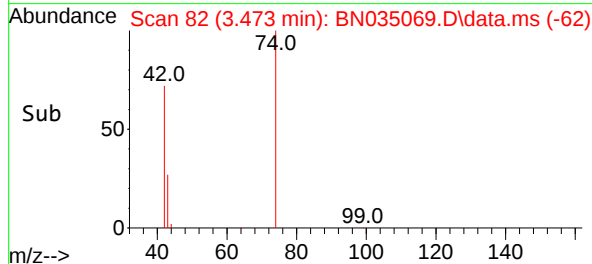
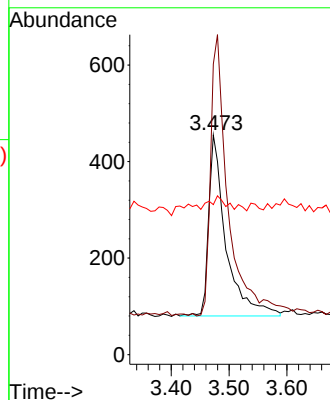
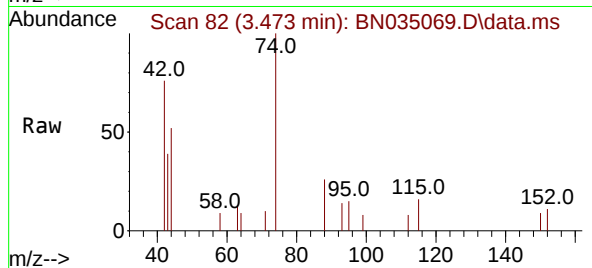
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 42  | 100   |       |       |
| 74  | 158.6 | 120.8 | 181.2 |
| 44  | 8.7   | 2.9   | 4.3   |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#4

2-Fluorophenol

Concen: 0.368 ng

RT: 5.177 min Scan# 318

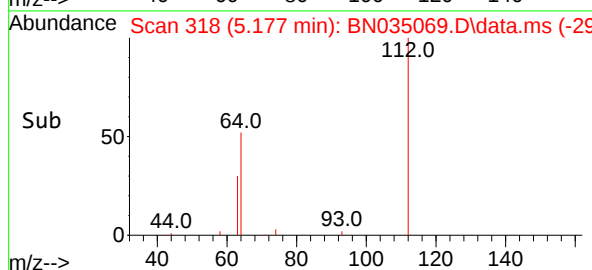
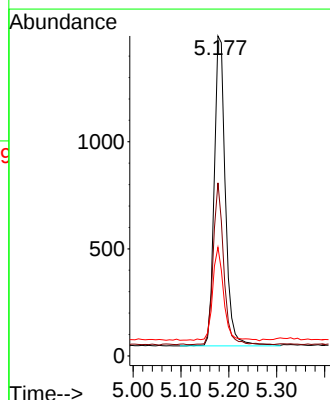
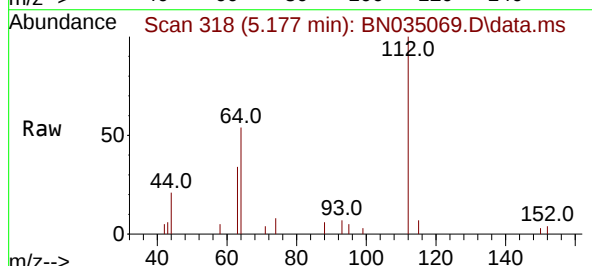
Delta R.T. -0.000 min

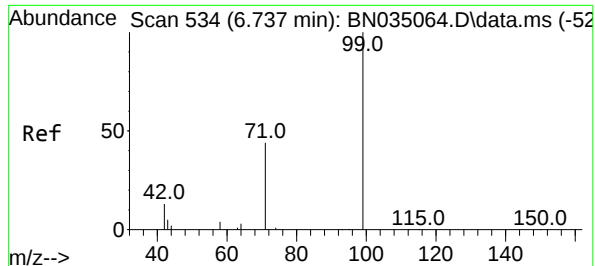
Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Tgt Ion:112 Resp: 2342

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 112 | 100   |       |       |
| 64  | 48.8  | 39.7  | 59.5  |
| 63  | 30.1  | 23.0  | 34.4  |





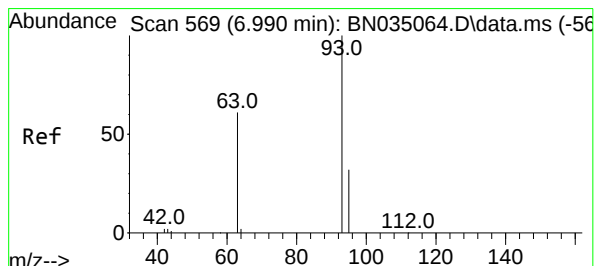
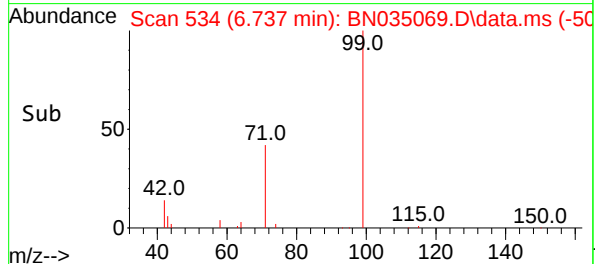
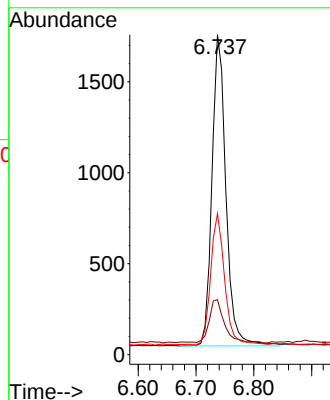
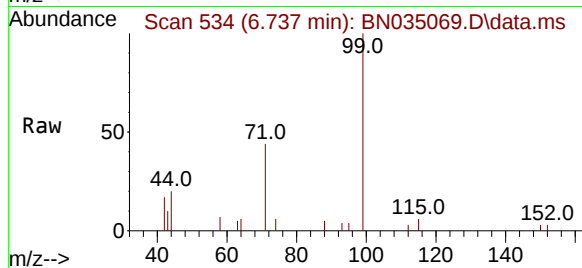
#5  
Phenol-d6  
Concen: 0.359 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324

Tgt Ion: 99 Resp: 286  
Ion Ratio Lower Upper  
99 100  
42 14.4 11.4 17.0  
71 42.1 34.6 51.8

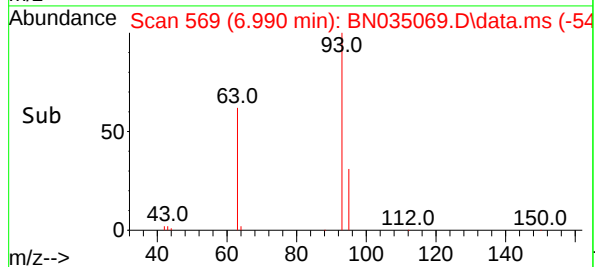
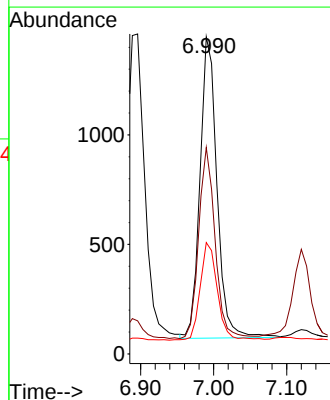
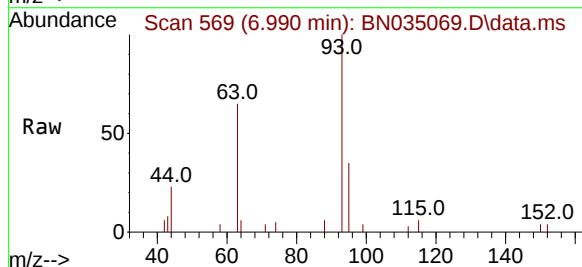
Manual Integrations  
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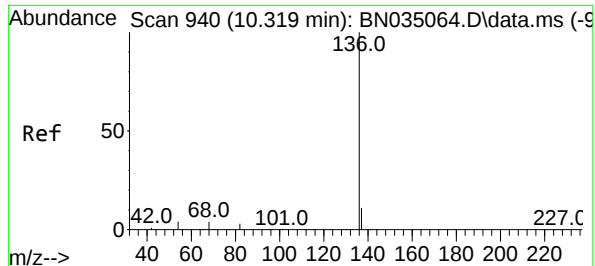
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#6  
bis(2-Chloroethyl)ether  
Concen: 0.370 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion: 93 Resp: 2218  
Ion Ratio Lower Upper  
93 100  
63 61.3 47.4 71.2  
95 33.0 26.2 39.4





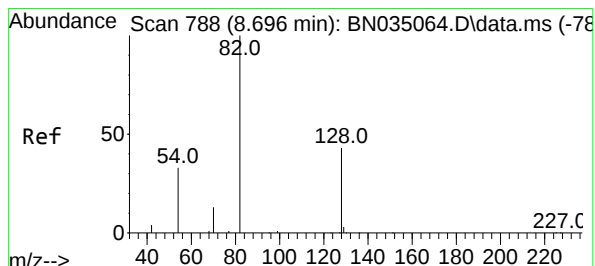
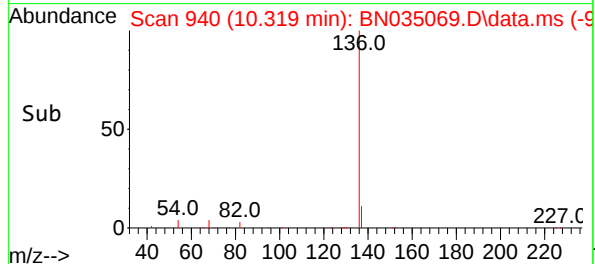
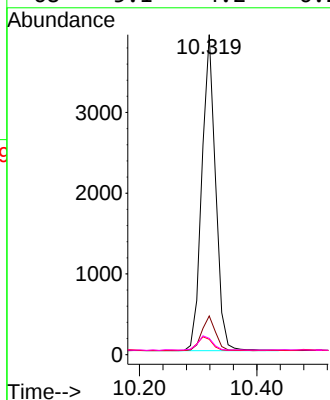
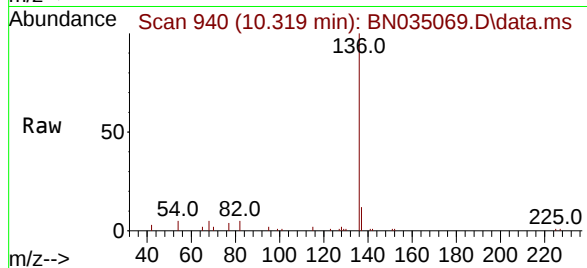
#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324

Tgt Ion: 136 Resp: 636  
Ion Ratio Lower Upper  
136 100  
137 12.1 9.8 14.8  
54 4.8 4.0 6.0  
68 5.1 4.2 6.2

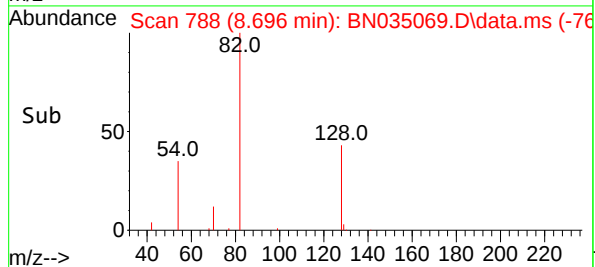
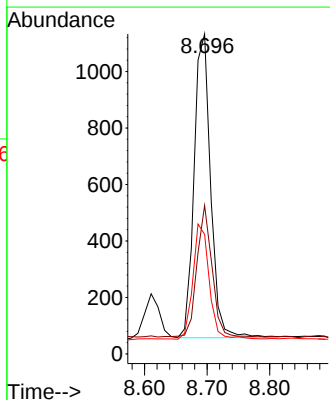
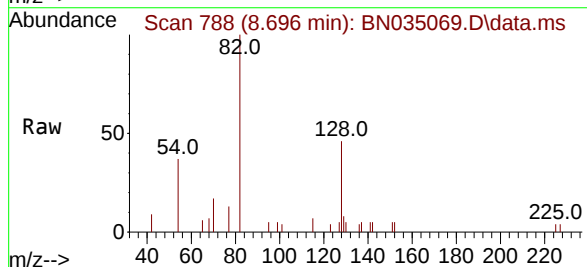
Manual Integrations  
APPROVED

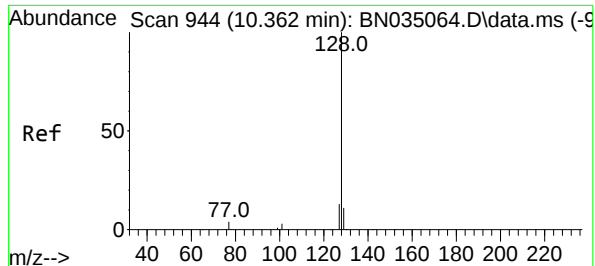
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#8  
Nitrobenzene-d5  
Concen: 0.358 ng  
RT: 8.696 min Scan# 788  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion: 82 Resp: 1983  
Ion Ratio Lower Upper  
82 100  
128 46.4 36.5 54.7  
54 37.4 28.7 43.1





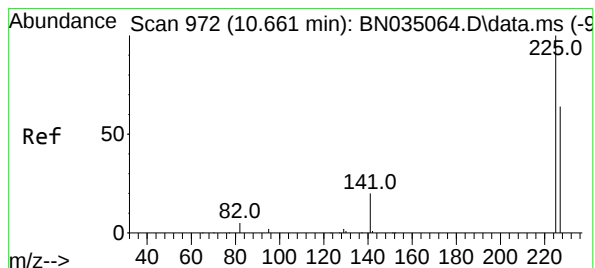
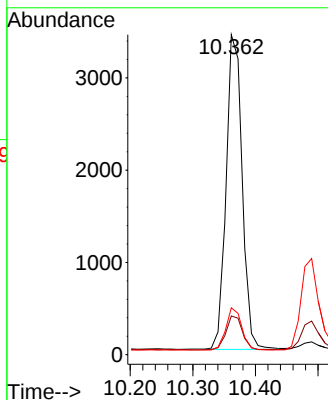
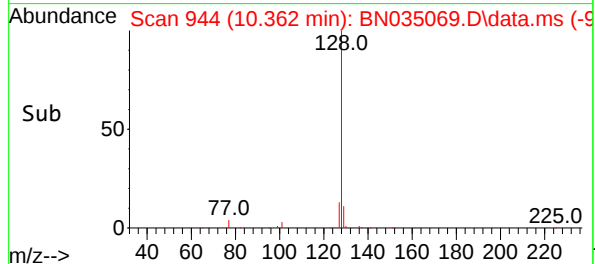
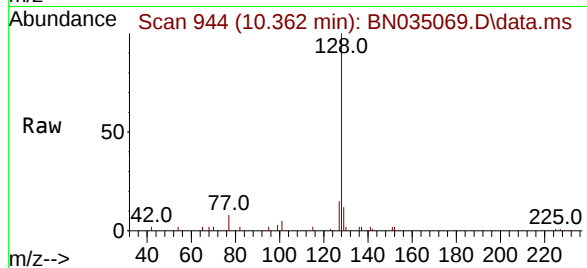
#9  
Naphthalene  
Concen: 0.366 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324

Tgt Ion:128 Resp: 6092  
Ion Ratio Lower Upper  
128 100  
129 12.1 9.6 14.4  
127 14.7 11.6 17.4

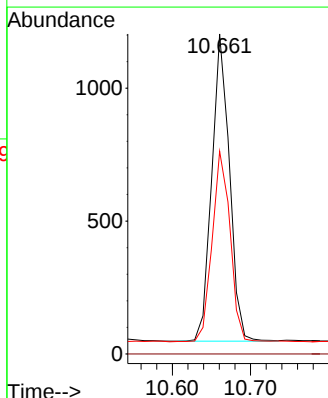
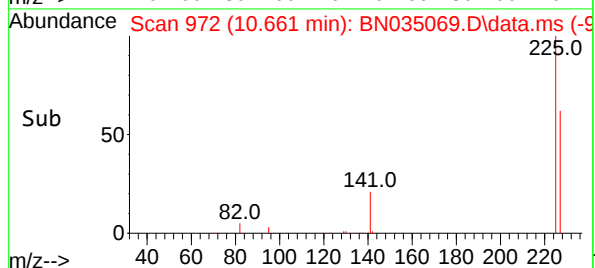
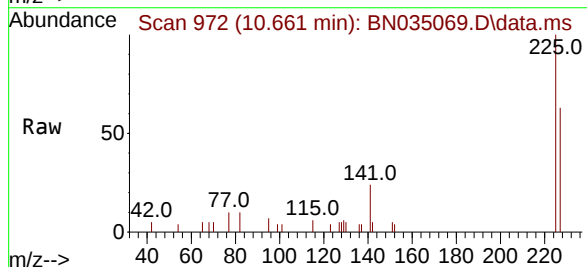
Manual Integrations  
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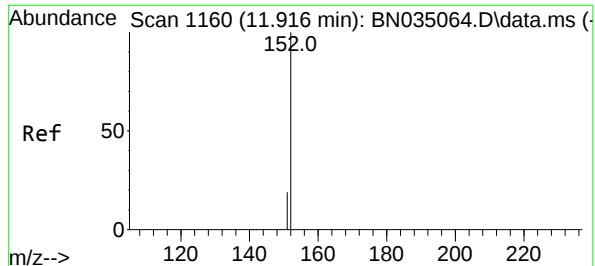
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#10  
Hexachlorobutadiene  
Concen: 0.373 ng  
RT: 10.661 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

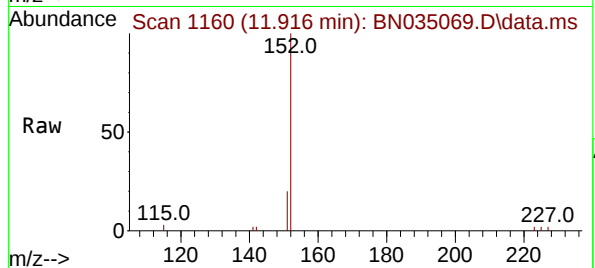
Tgt Ion:225 Resp: 1817  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 63.2 51.5 77.3





#11  
2-Methylnaphthalene-d10  
Concen: 0.367 ng  
RT: 11.916 min Scan# 1160  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

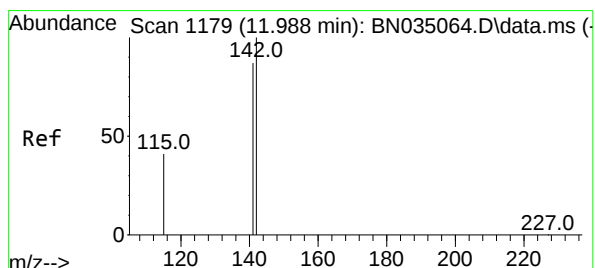
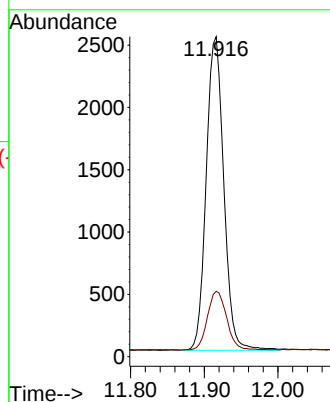
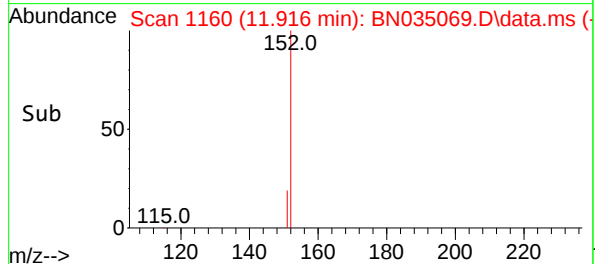
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:152 Resp: 4160  
Ion Ratio Lower Upper  
152 100  
151 20.6 16.2 24.4

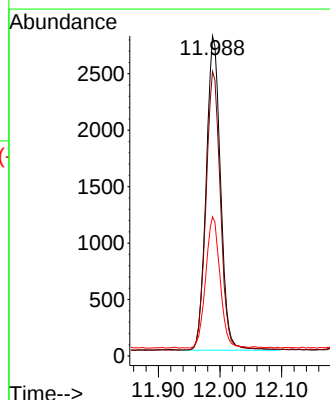
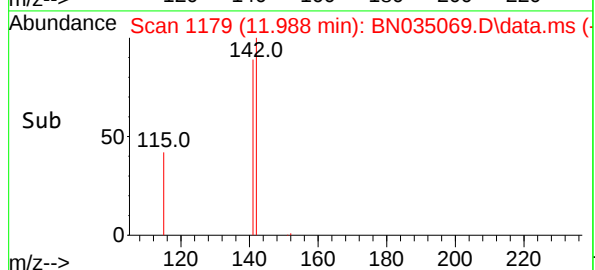
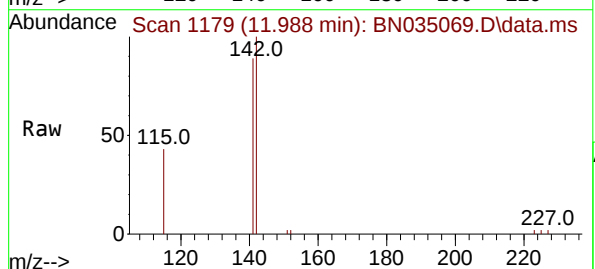
Manual Integrations  
APPROVED

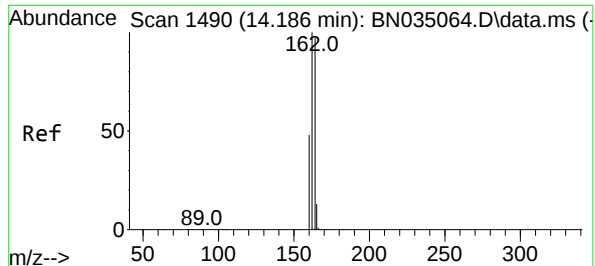
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#12  
2-Methylnaphthalene  
Concen: 0.368 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

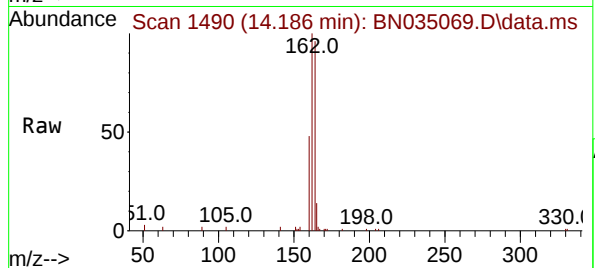
Tgt Ion:142 Resp: 4513  
Ion Ratio Lower Upper  
142 100  
141 88.9 70.1 105.1  
115 43.5 34.4 51.6





#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.186 min Scan# 1490  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

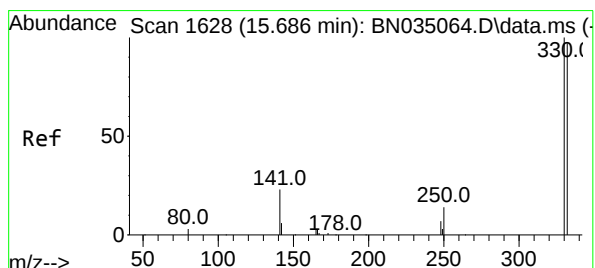
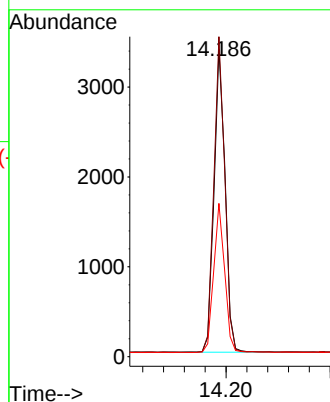
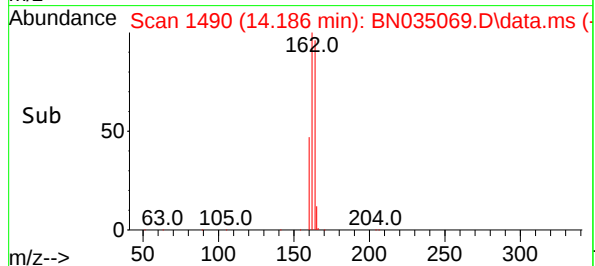
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



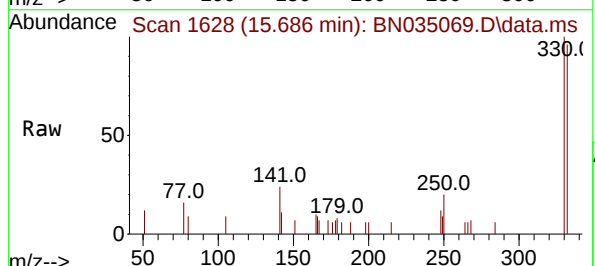
Tgt Ion:164 Resp: 496  
Ion Ratio Lower Upper  
164 100  
162 104.1 82.2 123.2  
160 49.8 40.2 60.4

Manual Integrations  
APPROVED

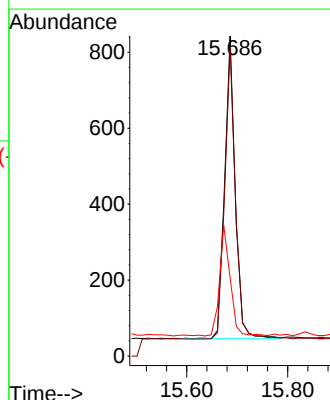
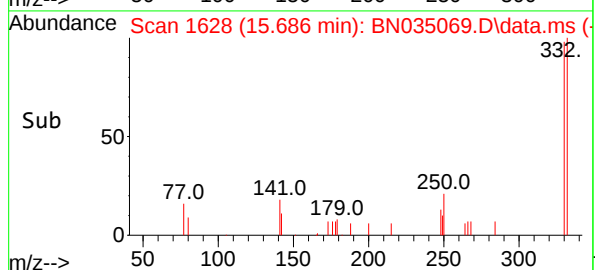
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024

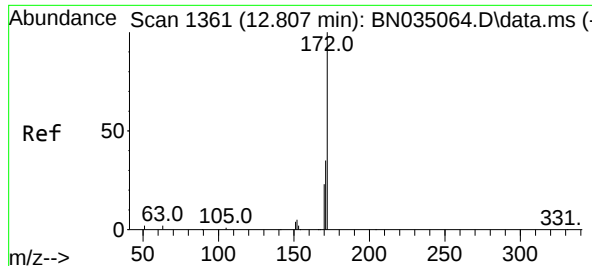


#14  
2,4,6-Tribromophenol  
Concen: 0.322 ng  
RT: 15.686 min Scan# 1628  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51



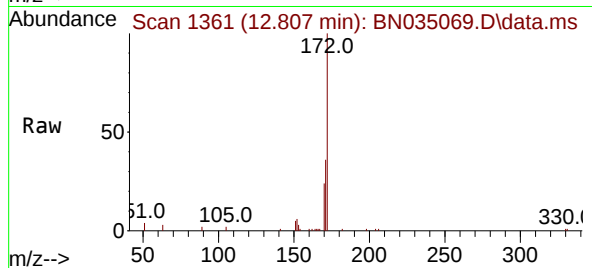
Tgt Ion:330 Resp: 1154  
Ion Ratio Lower Upper  
330 100  
332 97.3 76.9 115.3  
141 36.7 29.6 44.4





#15  
2-Fluorobiphenyl  
Concen: 0.357 ng  
RT: 12.807 min Scan# 1361  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

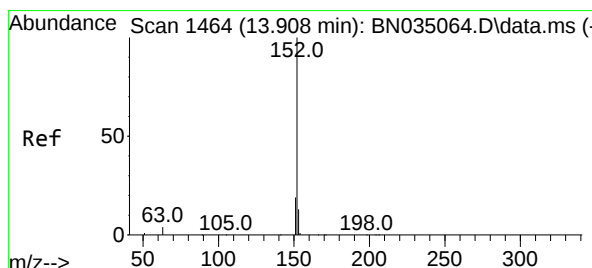
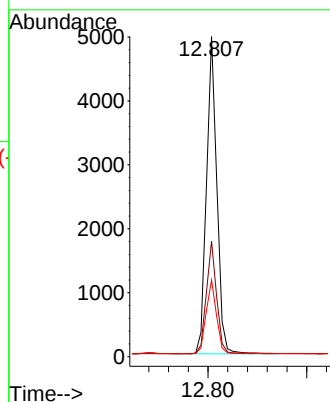
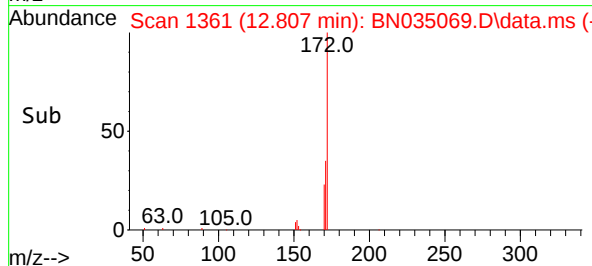
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:172 Resp: 7209  
Ion Ratio Lower Upper  
172 100  
171 36.1 28.2 42.4  
170 23.9 19.0 28.6

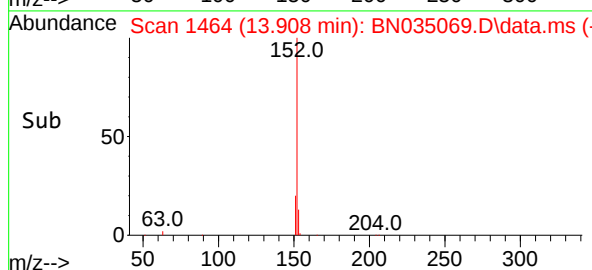
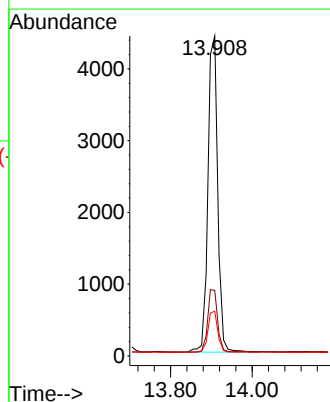
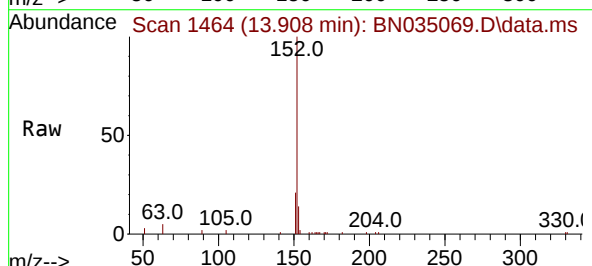
Manual Integrations  
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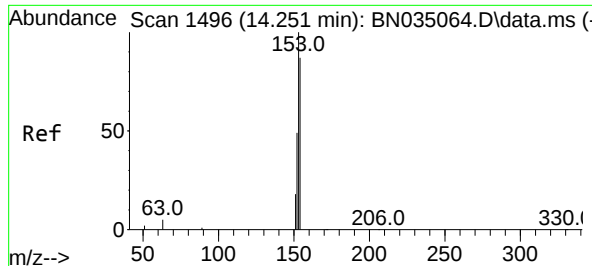
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#16  
Acenaphthylene  
Concen: 0.348 ng  
RT: 13.908 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

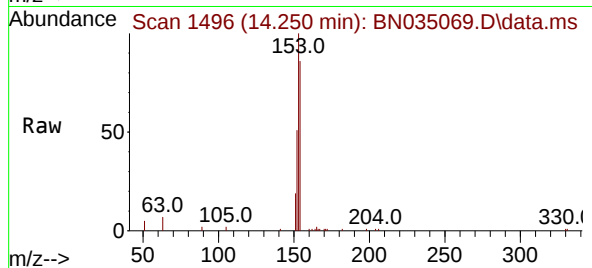
Tgt Ion:152 Resp: 7387  
Ion Ratio Lower Upper  
152 100  
151 20.0 15.8 23.8  
153 13.0 10.2 15.4





#17  
Acenaphthene  
Concen: 0.359 ng  
RT: 14.250 min Scan# 1496  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

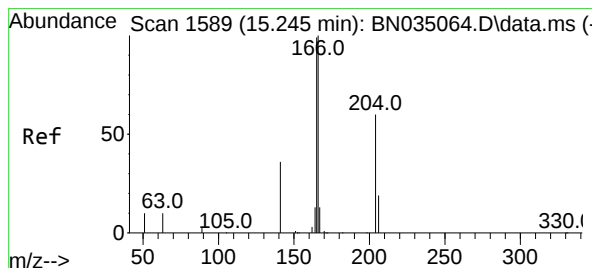
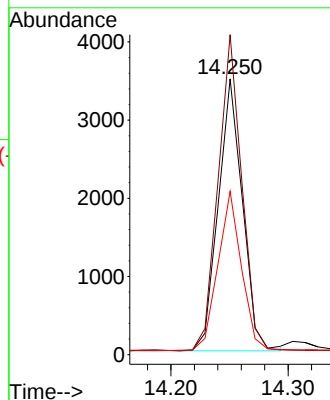
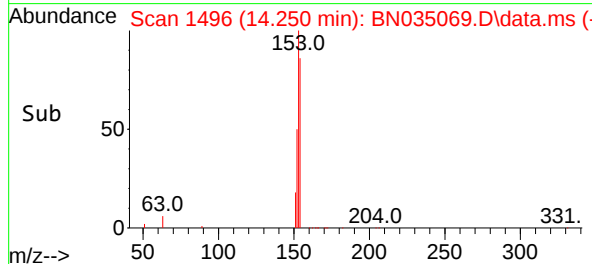
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:154 Resp: 499  
Ion Ratio Lower Upper  
154 100  
153 113.2 91.6 137.4  
152 57.7 45.8 68.6

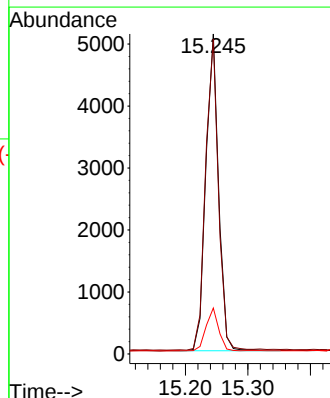
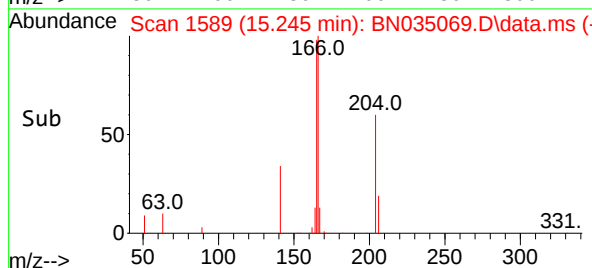
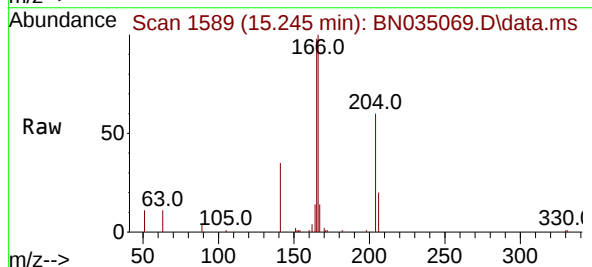
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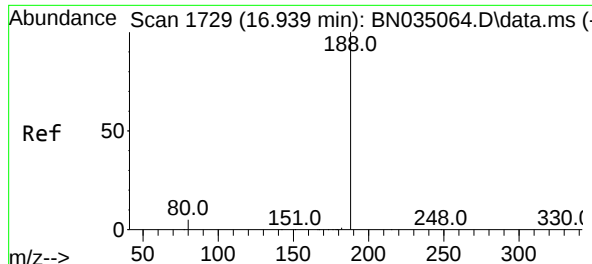
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#18  
Fluorene  
Concen: 0.352 ng  
RT: 15.245 min Scan# 1589  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion:166 Resp: 7206  
Ion Ratio Lower Upper  
166 100  
165 99.0 79.1 118.7  
167 13.7 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.939 min Scan# 1729

Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN111324

Tgt Ion:188 Resp: 1268

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

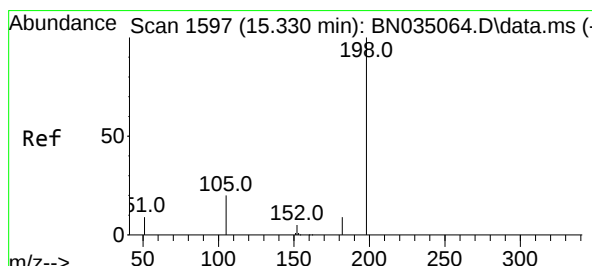
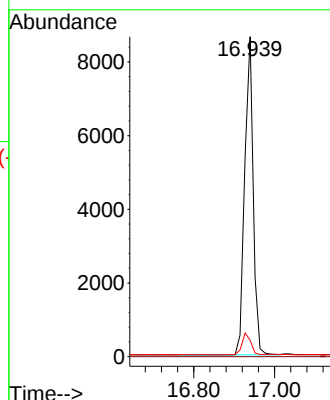
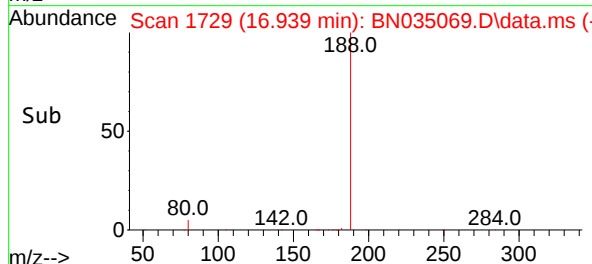
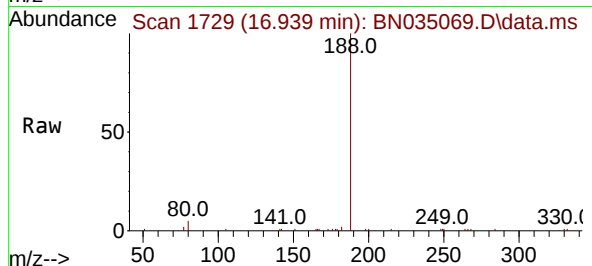
80 5.1 4.3 6.5

Manual Integrations

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Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#20

4,6-Dinitro-2-methylphenol

Concen: 0.330 ng m

RT: 15.330 min Scan# 1597

Delta R.T. 0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

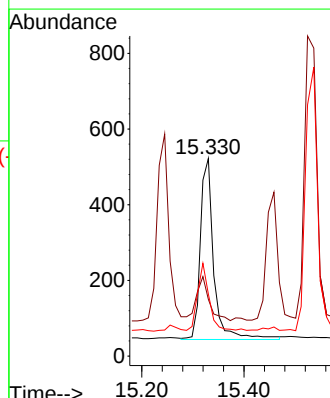
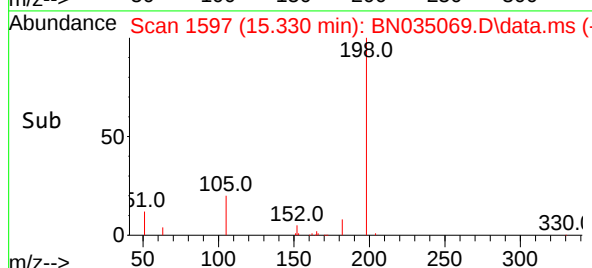
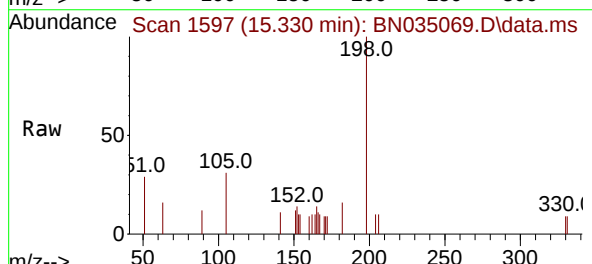
Tgt Ion:198 Resp: 870

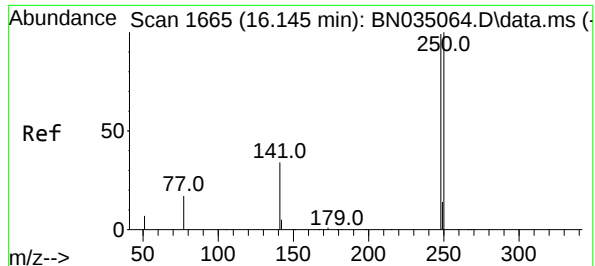
Ion Ratio Lower Upper

198 100

51 28.7 29.9 44.9

105 31.4 23.7 35.5





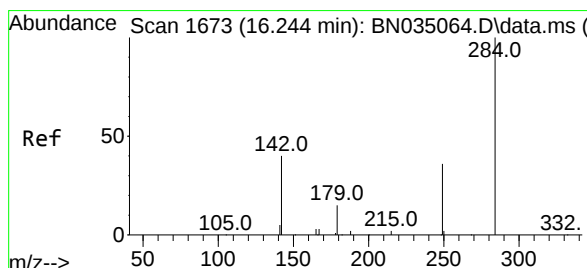
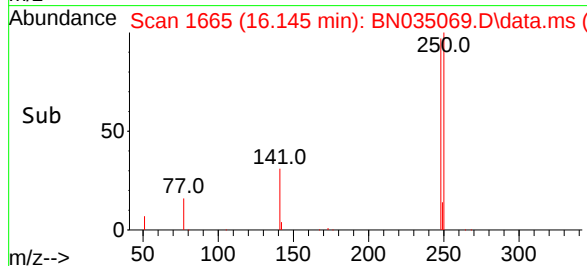
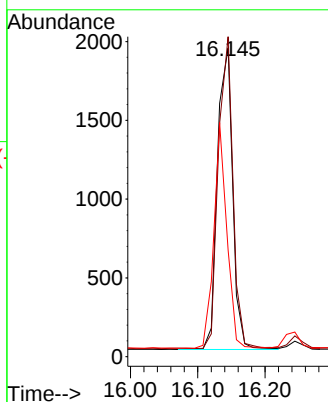
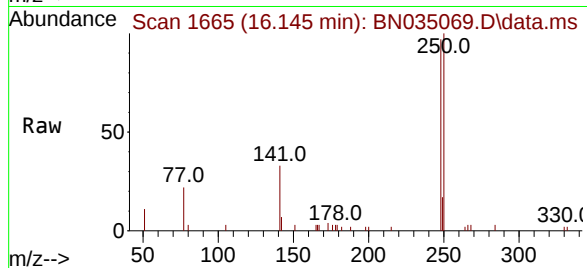
#21  
4-Bromophenyl-phenylether  
Concen: 0.371 ng  
RT: 16.145 min Scan# 1665  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324

Tgt Ion:248 Resp: 300  
Ion Ratio Lower Upper  
248 100  
250 103.6 81.2 121.8  
141 34.5 29.1 43.7

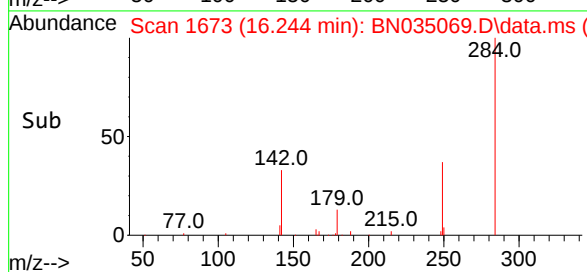
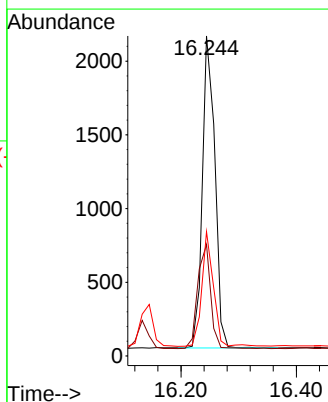
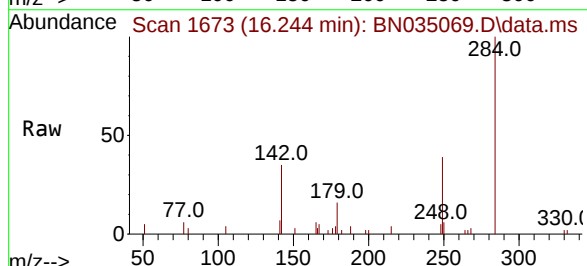
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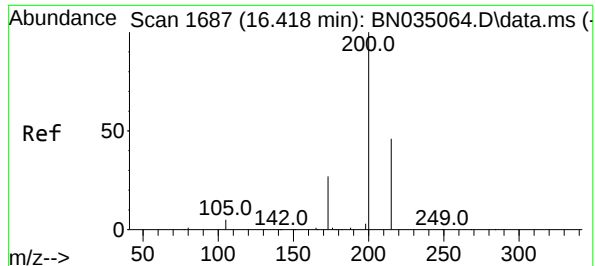
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#22  
Hexachlorobenzene  
Concen: 0.379 ng  
RT: 16.244 min Scan# 1673  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion:284 Resp: 3175  
Ion Ratio Lower Upper  
284 100  
142 34.7 28.2 42.4  
249 33.7 26.2 39.2





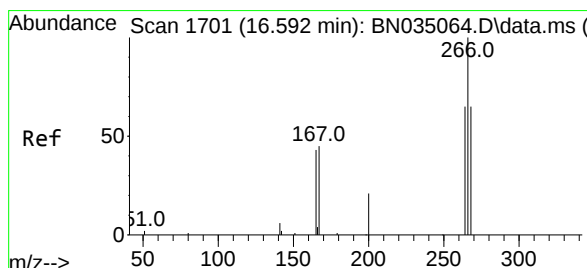
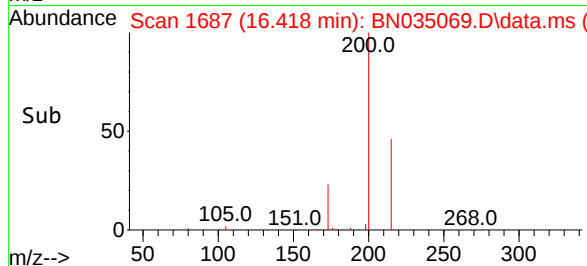
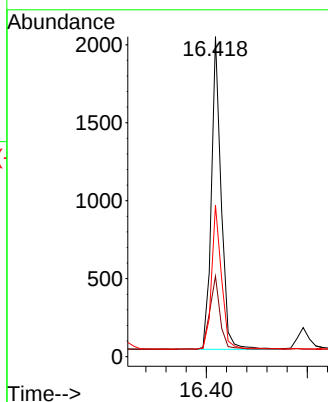
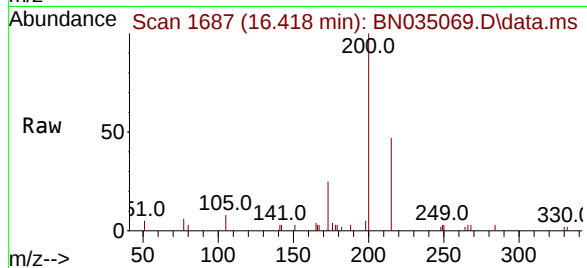
#23  
Atrazine  
Concen: 0.370 ng  
RT: 16.418 min Scan# 11  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324

Tgt Ion:200 Resp: 268  
Ion Ratio Lower Upper  
200 100  
173 25.1 22.6 33.8  
215 47.3 37.8 56.6

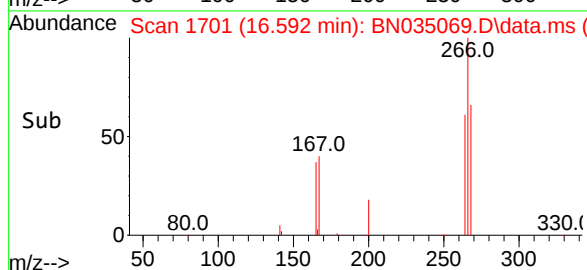
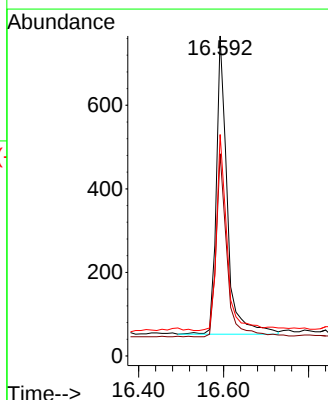
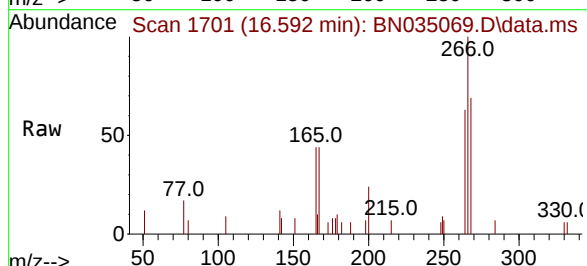
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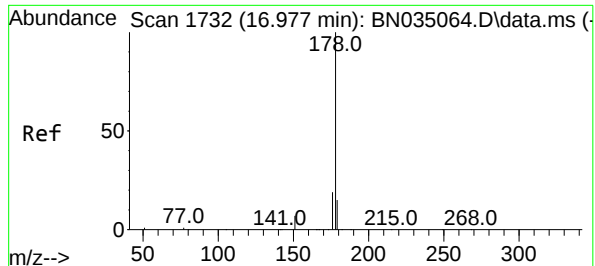
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#24  
Pentachlorophenol  
Concen: 0.324 ng  
RT: 16.592 min Scan# 1701  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

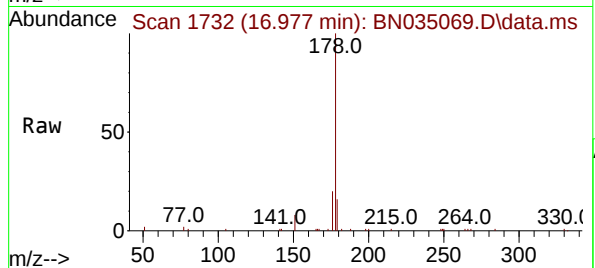
Tgt Ion:266 Resp: 1269  
Ion Ratio Lower Upper  
266 100  
264 60.5 49.4 74.0  
268 63.4 52.6 79.0





#25  
Phenanthrene  
Concen: 0.375 ng  
RT: 16.977 min Scan# 1732  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

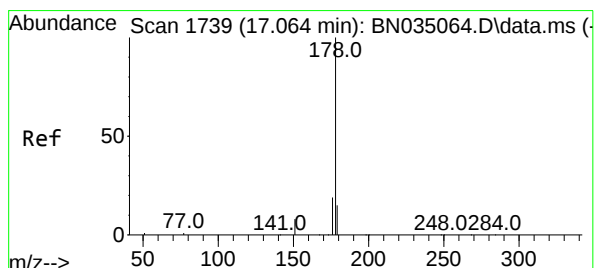
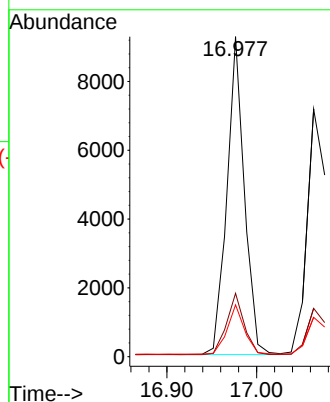
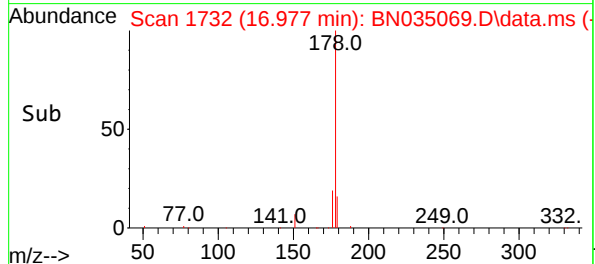
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:178 Resp: 1251  
Ion Ratio Lower Upper  
178 100  
176 19.5 15.2 22.8  
179 15.6 12.6 18.8

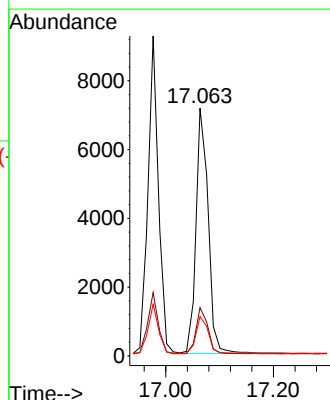
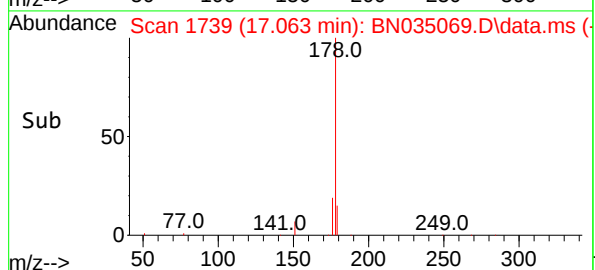
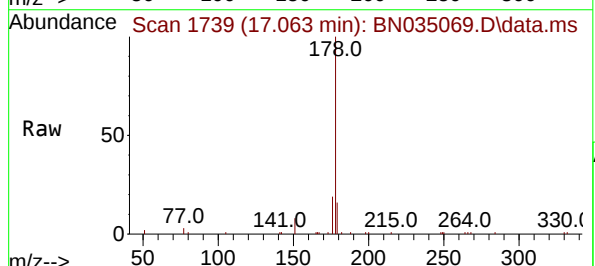
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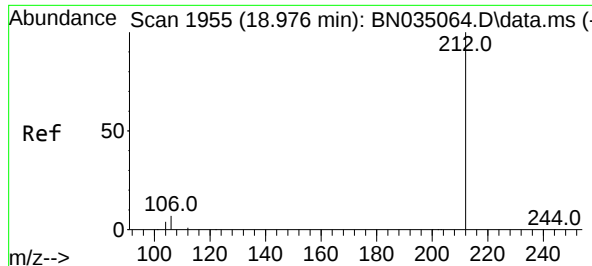
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#26  
Anthracene  
Concen: 0.366 ng  
RT: 17.063 min Scan# 1739  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion:178 Resp: 11219  
Ion Ratio Lower Upper  
178 100  
176 18.6 14.6 22.0  
179 15.2 12.2 18.2





#27

Fluoranthene-d10

Concen: 0.374 ng

RT: 18.976 min Scan# 1955

Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN111324

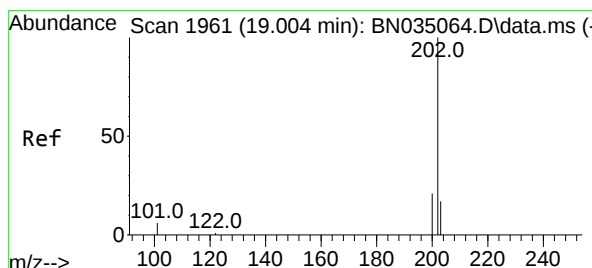
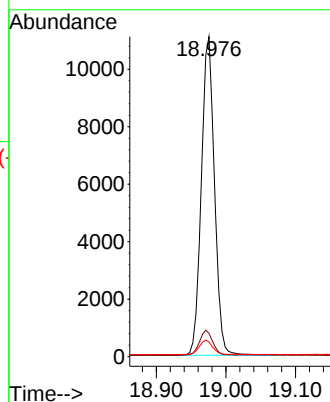
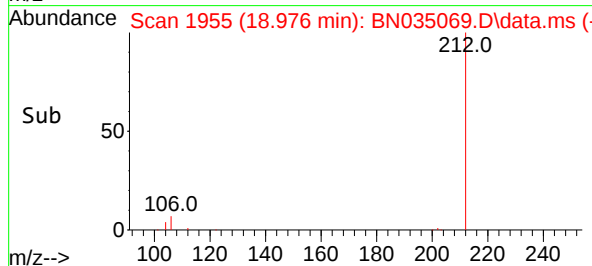
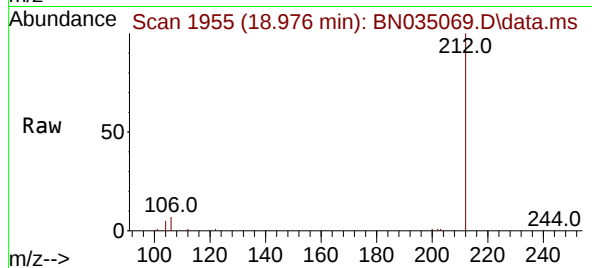
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 212   | Resp: | 14530 |
| Ion Ratio | Lower | Upper |       |
| 212       | 100   |       |       |
| 106       | 7.8   | 6.0   | 9.0   |
| 104       | 4.5   | 3.5   | 5.3   |

## Manual Integrations

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Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#28

Fluoranthene

Concen: 0.372 ng

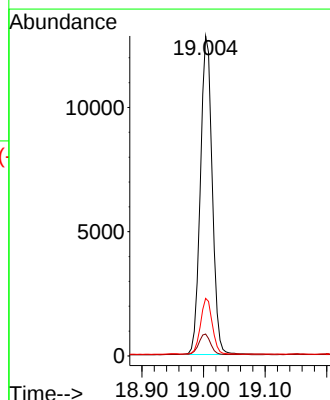
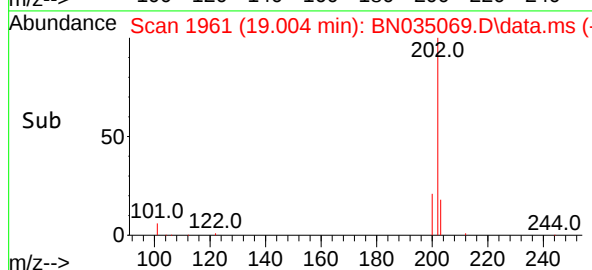
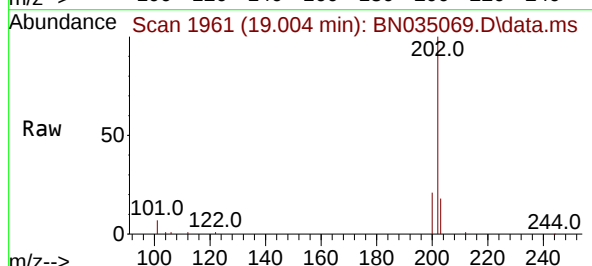
RT: 19.004 min Scan# 1961

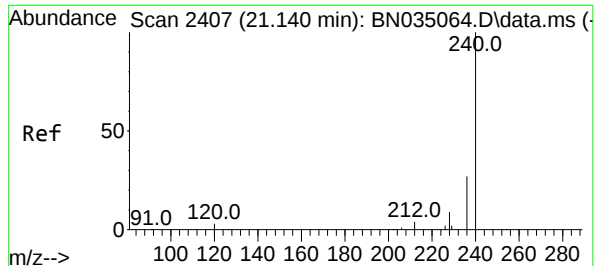
Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 202   | Resp: | 17084 |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 6.6   | 5.2   | 7.8   |
| 203       | 17.3  | 13.8  | 20.8  |





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.140 min Scan# 2407

Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

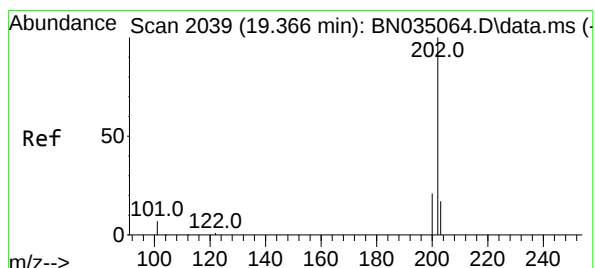
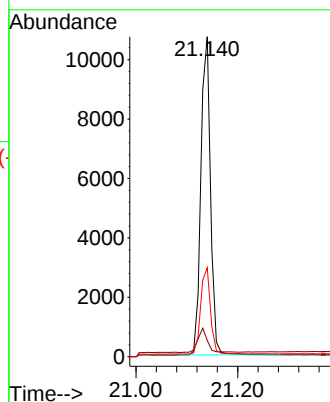
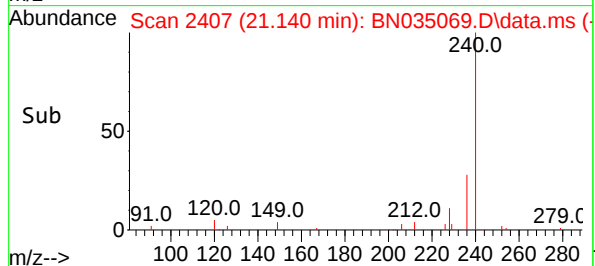
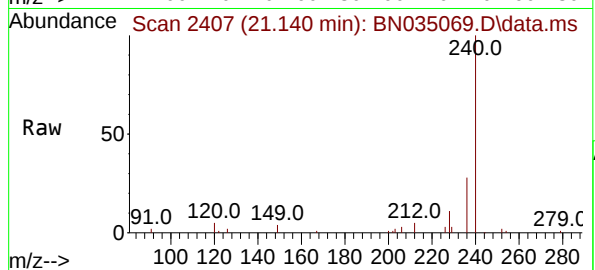
ClientSampleId :

ICVBN111324

Tgt Ion:240 Resp: 14058  
Ion Ratio Lower Upper  
240 100  
120 5.1 3.8 5.6  
236 27.8 22.2 33.2

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Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#30

Pyrene

Concen: 0.376 ng

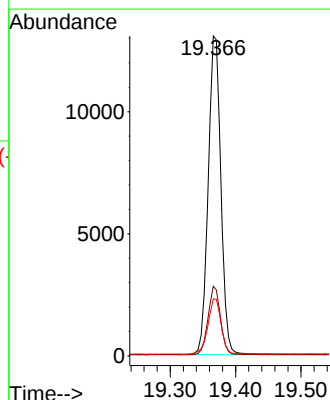
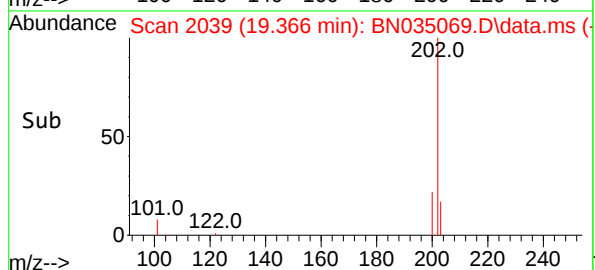
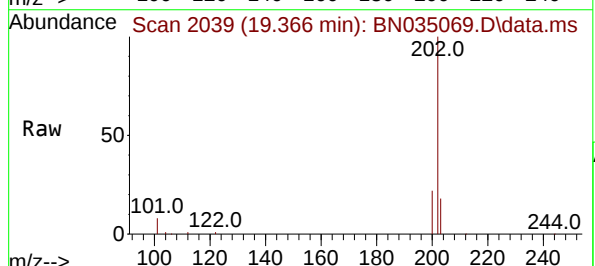
RT: 19.366 min Scan# 2039

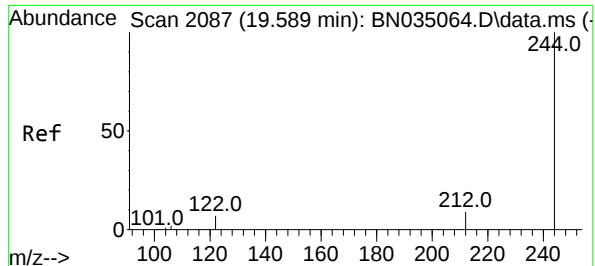
Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

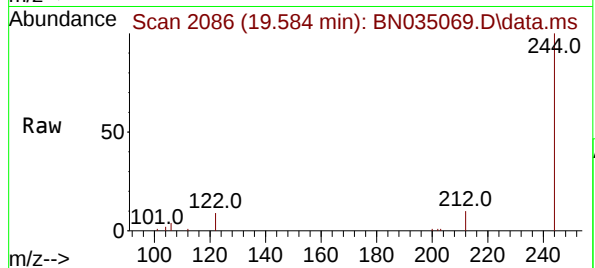
Tgt Ion:202 Resp: 17580  
Ion Ratio Lower Upper  
202 100  
200 20.9 16.7 25.1  
203 18.1 14.2 21.4





#31  
Terphenyl-d14  
Concen: 0.381 ng  
RT: 19.584 min Scan# 2087  
Delta R.T. -0.005 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

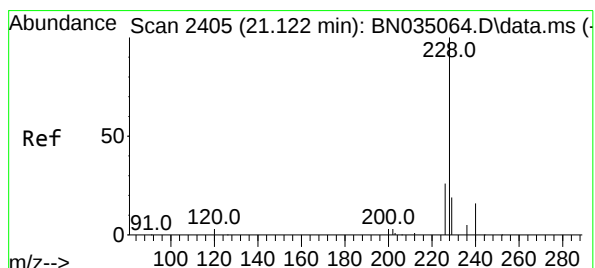
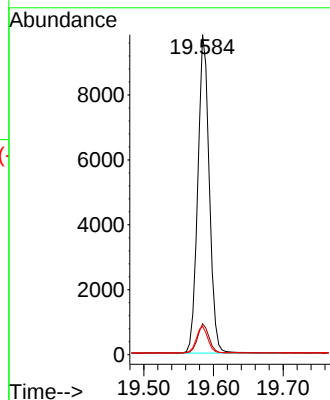
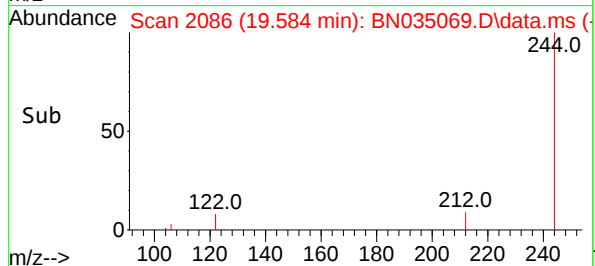
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:244 Resp: 11240  
Ion Ratio Lower Upper  
244 100  
212 9.6 7.6 11.4  
122 8.9 6.1 9.1

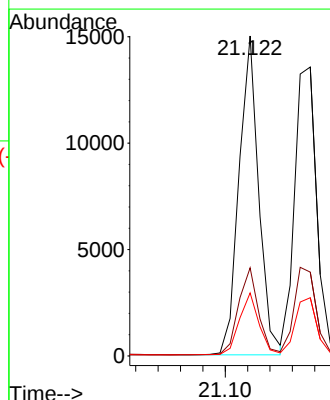
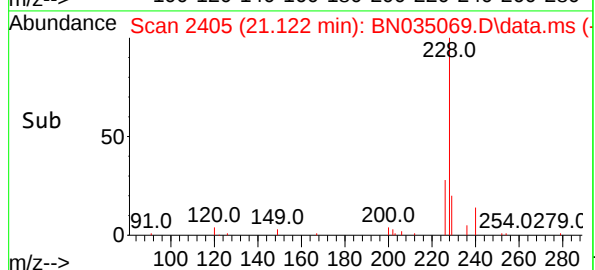
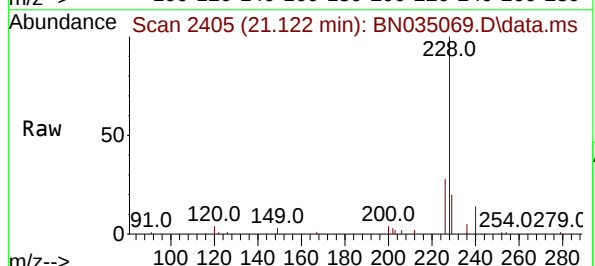
Manual Integrations  
APPROVED

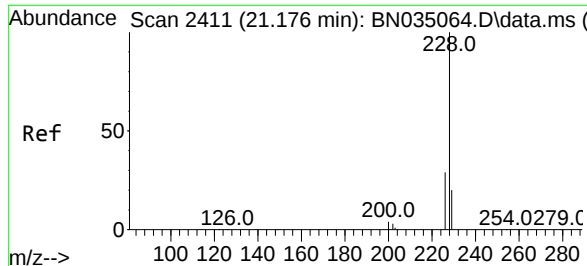
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#32  
Benzo(a)anthracene  
Concen: 0.376 ng  
RT: 21.122 min Scan# 2405  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

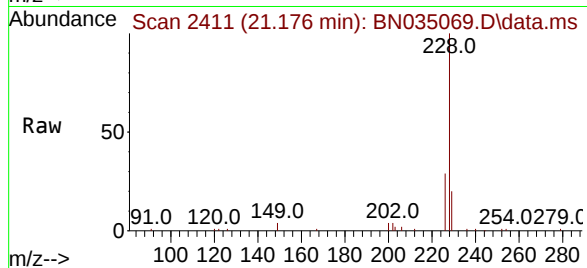
Tgt Ion:228 Resp: 18406  
Ion Ratio Lower Upper  
228 100  
226 27.6 21.4 32.0  
229 19.7 15.7 23.5





#33  
Chrysene  
Concen: 0.386 ng  
RT: 21.176 min Scan# 2411  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

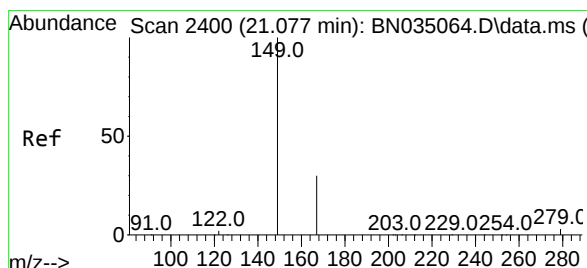
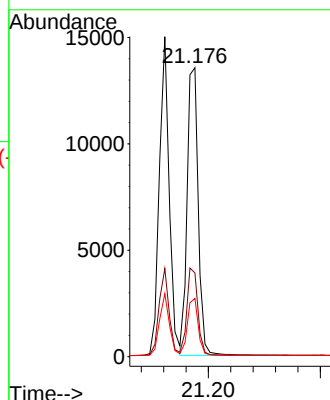
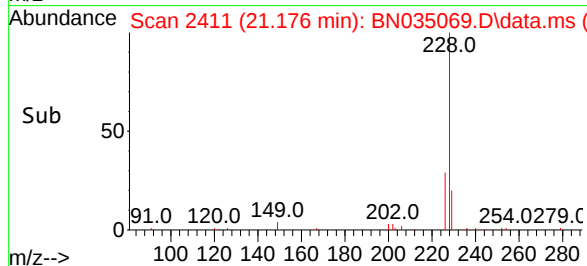
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN111324



Tgt Ion:228 Resp: 1869  
Ion Ratio Lower Upper  
228 100  
226 29.0 23.7 35.5  
229 20.2 16.2 24.4

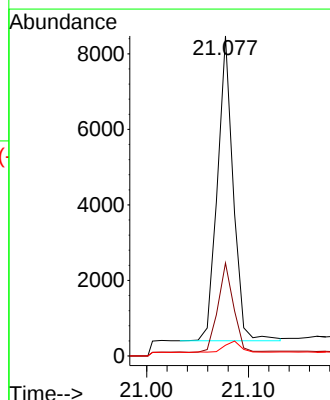
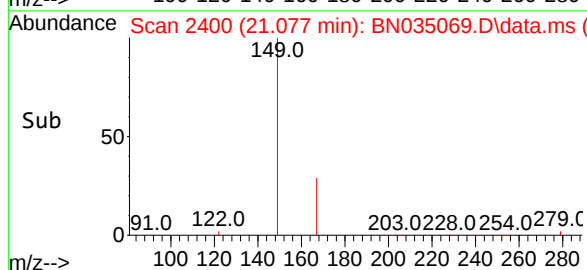
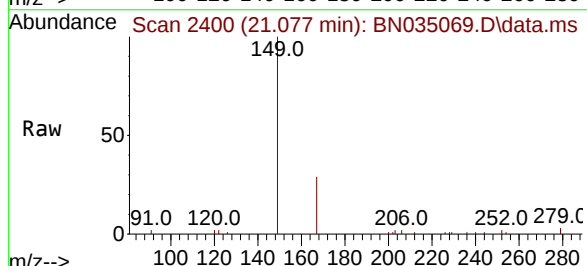
Manual Integrations  
APPROVED

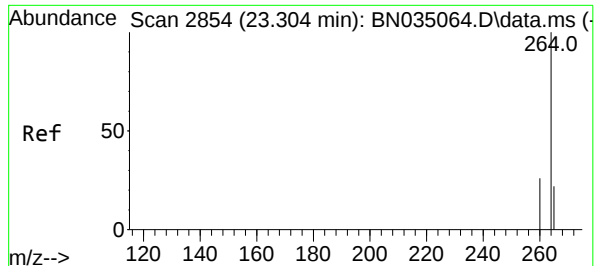
Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.338 ng  
RT: 21.077 min Scan# 2400  
Delta R.T. -0.000 min  
Lab File: BN035069.D  
Acq: 13 Nov 2024 16:51

Tgt Ion:149 Resp: 8691  
Ion Ratio Lower Upper  
149 100  
167 29.0 23.2 34.8  
279 3.9 3.2 4.8





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.304 min Scan# 2854

Delta R.T. -0.000 min

Lab File: BN035069.D

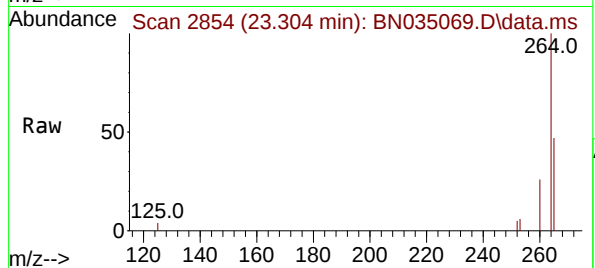
Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN111324



Tgt Ion:264 Resp: 15724

Ion Ratio Lower Upper

264 100

260 25.8 20.9 31.3

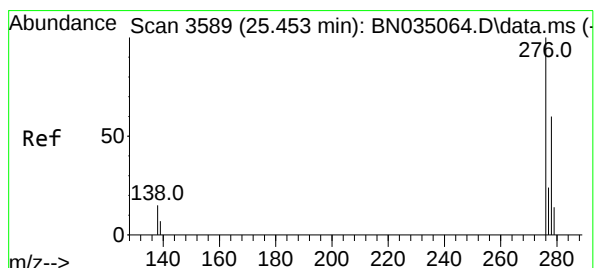
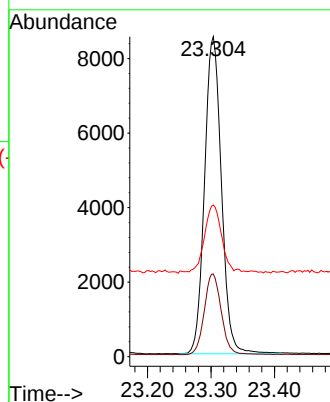
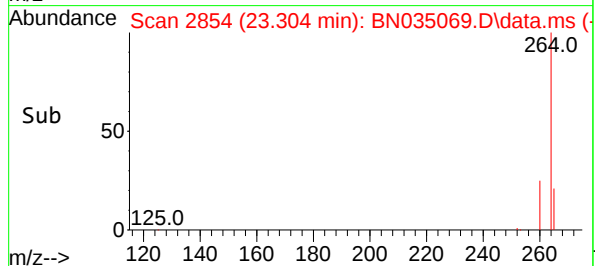
265 47.4 35.4 53.2

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



#36

Indeno(1,2,3-cd)pyrene

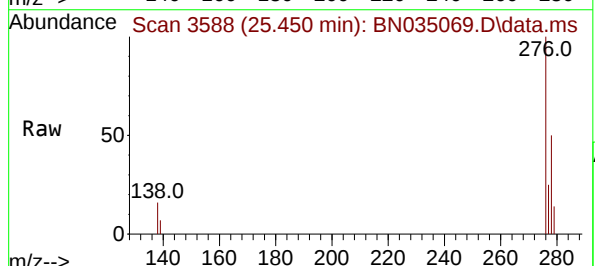
Concen: 0.375 ng

RT: 25.450 min Scan# 3588

Delta R.T. -0.003 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51



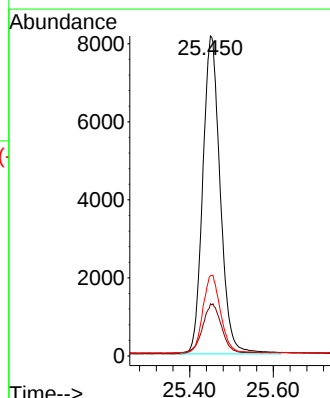
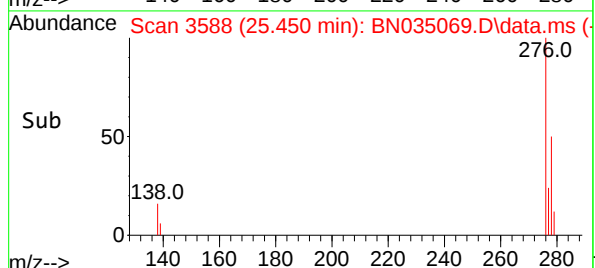
Tgt Ion:276 Resp: 23546

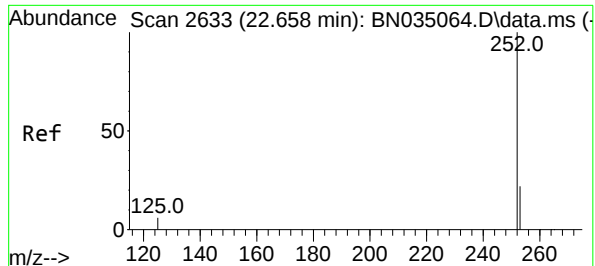
Ion Ratio Lower Upper

276 100

138 16.9 13.0 19.4

277 24.2 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.379 ng

RT: 22.660 min Scan# 2634

Delta R.T. 0.003 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

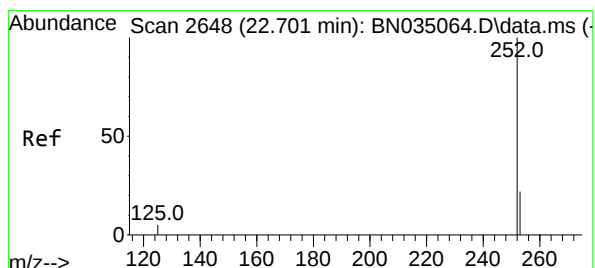
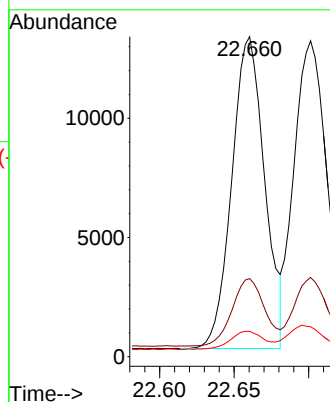
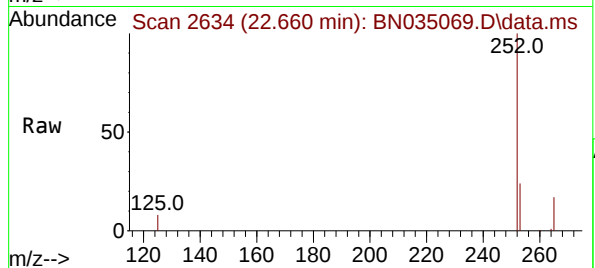
ICVBN111324

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:252 | Resp: | 20039     |
| Ion Ratio   | Lower | Upper     |
| 252         | 100   |           |
| 253         | 24.4  | 19.3 28.9 |
| 125         | 7.9   | 6.2 9.2   |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#38

Benzo(k)fluoranthene

Concen: 0.380 ng

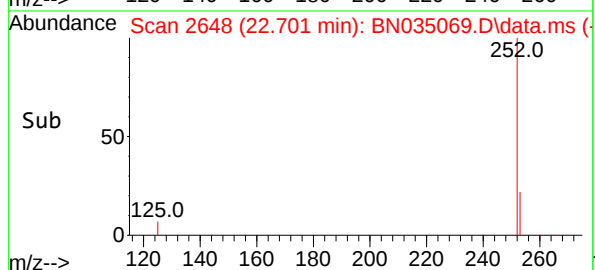
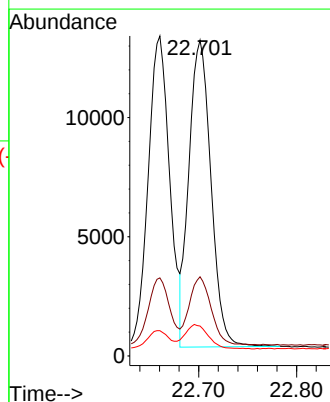
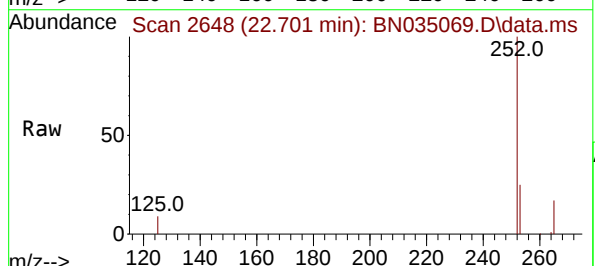
RT: 22.701 min Scan# 2648

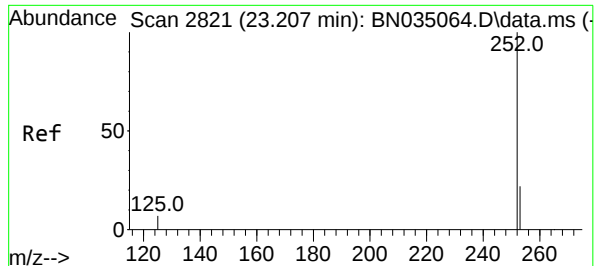
Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:252 | Resp: | 20114     |
| Ion Ratio   | Lower | Upper     |
| 252         | 100   |           |
| 253         | 25.1  | 19.5 29.3 |
| 125         | 9.5   | 6.5 9.7   |





#39

Benzo(a)pyrene

Concen: 0.378 ng

RT: 23.210 min Scan# 2821

Delta R.T. 0.003 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

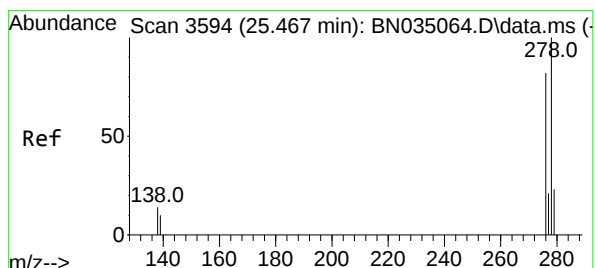
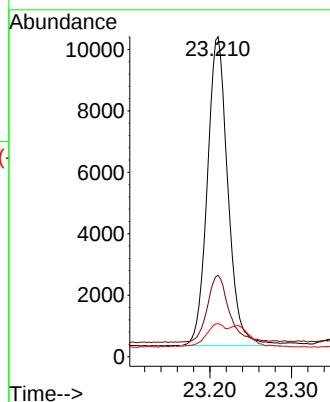
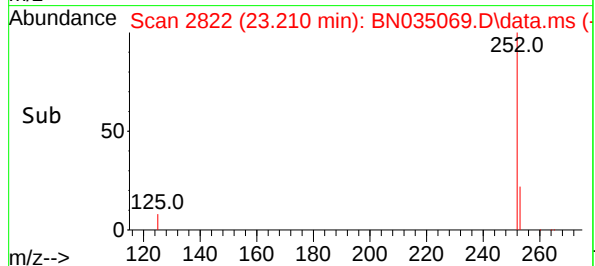
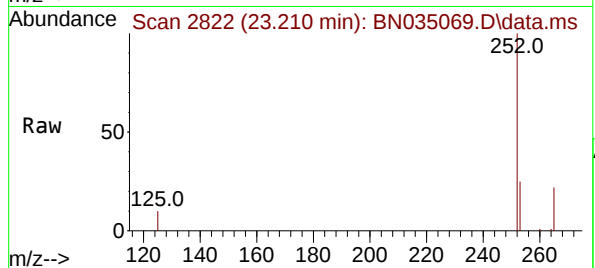
ICVBN111324

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 17590 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 25.4  | 20.1  | 30.1  |
| 125       | 10.3  | 7.5   | 11.3  |

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024  
Supervised By :mohammad ahmed 11/14/2024



#40

Dibenzo(a,h)anthracene

Concen: 0.373 ng

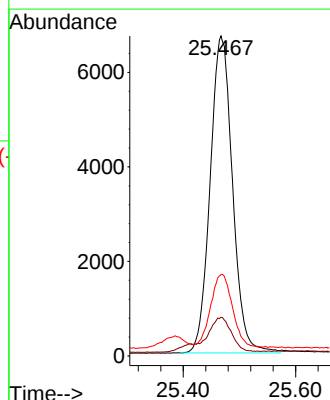
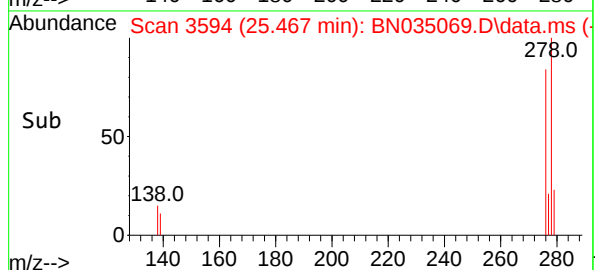
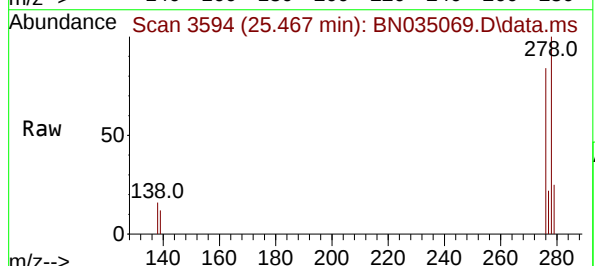
RT: 25.467 min Scan# 3594

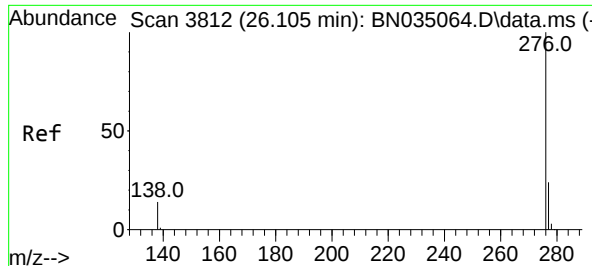
Delta R.T. -0.000 min

Lab File: BN035069.D

Acq: 13 Nov 2024 16:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 278   | Resp: | 18547 |
| Ion Ratio | Lower | Upper |       |
| 278       | 100   |       |       |
| 139       | 12.1  | 9.3   | 13.9  |
| 279       | 25.4  | 19.7  | 29.5  |





#41

Benzo(g,h,i)perylene

Concen: 0.372 ng

RT: 26.104 min Scan# 3812

Delta R.T. -0.000 min

Lab File: BN035069.D

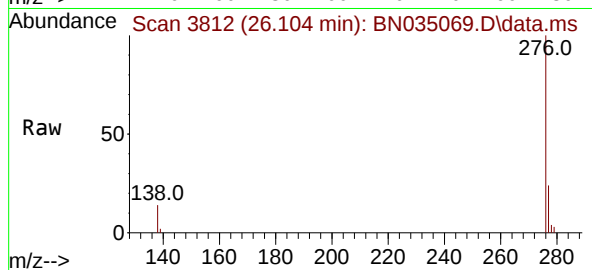
Acq: 13 Nov 2024 16:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN111324



Tgt Ion:276 Resp: 19649

Ion Ratio Lower Upper

276 100

277 24.2 19.9 29.9

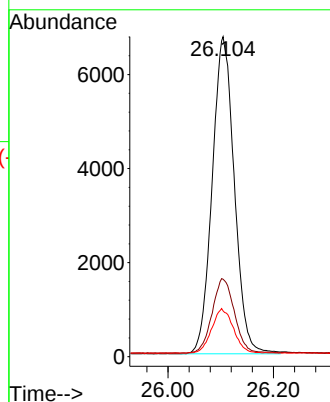
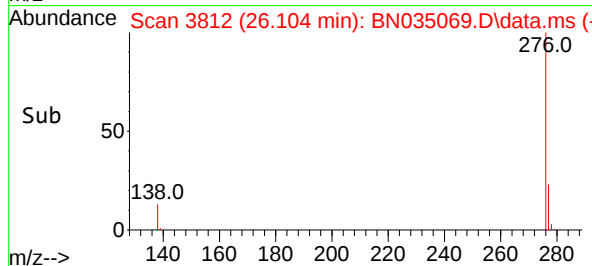
138 14.3 11.6 17.4

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/14/2024

Supervised By :mohammad ahmed 11/14/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035069.D  
 Acq On : 13 Nov 2024 16:51  
 Operator : RC/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN111324

Quant Time: Nov 13 17:18:36 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|---------|----------------------------|-------|-------|------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0  | 89    | 0.00     |
| 2       | 1,4-Dioxane                | 0.363 | 0.337 | 7.2  | 90    | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.339 | 0.311 | 8.3  | 85    | 0.00     |
| 4 S     | 2-Fluorophenol             | 1.015 | 0.933 | 8.1  | 88    | 0.00     |
| 5 S     | Phenol-d6                  | 1.273 | 1.143 | 10.2 | 88    | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.956 | 0.884 | 7.5  | 89    | 0.00     |
| 7 I     | Naphthalene-d8             | 1.000 | 1.000 | 0.0  | 93    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.348 | 0.311 | 10.6 | 90    | 0.00     |
| 9       | Naphthalene                | 1.044 | 0.957 | 8.3  | 91    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.306 | 0.285 | 6.9  | 90    | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.713 | 0.654 | 8.3  | 91    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.770 | 0.709 | 7.9  | 92    | 0.00     |
| 13 I    | Acenaphthene-d10           | 1.000 | 1.000 | 0.0  | 92    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.289 | 0.232 | 19.7 | 89    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 1.624 | 1.451 | 10.7 | 91    | 0.00     |
| 16      | Acenaphthylene             | 1.709 | 1.487 | 13.0 | 92    | 0.00     |
| 17      | Acenaphthene               | 1.120 | 1.006 | 10.2 | 92    | 0.00     |
| 18      | Fluorene                   | 1.648 | 1.451 | 12.0 | 91    | 0.00     |
| 19 I    | Phenanthrene-d10           | 1.000 | 1.000 | 0.0  | 94    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.083 | 0.069 | 16.9 | 89    | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.255 | 0.237 | 7.1  | 90    | 0.00     |
| 22      | Hexachlorobenzene          | 0.264 | 0.250 | 5.3  | 93    | 0.00     |
| 23      | Atrazine                   | 0.229 | 0.211 | 7.9  | 92    | 0.00     |
| 24      | Pentachlorophenol          | 0.124 | 0.100 | 19.4 | 91    | 0.00     |
| 25      | Phenanthrene               | 1.053 | 0.987 | 6.3  | 92    | 0.00     |
| 26      | Anthracene                 | 0.967 | 0.885 | 8.5  | 90    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 1.225 | 1.146 | 6.4  | 92    | 0.00     |
| 28      | Fluoranthene               | 1.448 | 1.347 | 7.0  | 91    | 0.00     |
| 29 I    | Chrysene-d12               | 1.000 | 1.000 | 0.0  | 94    | 0.00     |
| 30      | Pyrene                     | 1.332 | 1.251 | 6.1  | 91    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.839 | 0.800 | 4.6  | 93    | 0.00     |
| 32      | Benzo(a)anthracene         | 1.393 | 1.310 | 6.0  | 93    | 0.00     |
| 33      | Chrysene                   | 1.380 | 1.330 | 3.6  | 94    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.731 | 0.618 | 15.5 | 90    | 0.00     |
| 35 I    | Perylene-d12               | 1.000 | 1.000 | 0.0  | 92    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 1.596 | 1.497 | 6.2  | 91    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 1.346 | 1.274 | 5.3  | 92    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 1.347 | 1.279 | 5.0  | 92    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 1.184 | 1.119 | 5.5  | 92    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 1.264 | 1.180 | 6.6  | 90    | 0.00     |
| 41      | Benzo(g,h,i)perylene       | 1.345 | 1.250 | 7.1  | 89    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
 Data File : BN035069.D  
 Acq On : 13 Nov 2024 16:51  
 Operator : RC/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN111324

Quant Time: Nov 13 17:18:36 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | Amount | Calc. | %Dev | Area% | Dev(min) |
|---------|----------------------------|--------|-------|------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 0.400  | 0.400 | 0.0  | 89    | 0.00     |
| 2       | 1,4-Dioxane                | 0.400  | 0.371 | 7.3  | 90    | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.400  | 0.368 | 8.0  | 85    | 0.00     |
| 4 S     | 2-Fluorophenol             | 0.400  | 0.368 | 8.0  | 88    | 0.00     |
| 5 S     | Phenol-d6                  | 0.400  | 0.359 | 10.3 | 88    | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.400  | 0.370 | 7.5  | 89    | 0.00     |
| 7 I     | Naphthalene-d8             | 0.400  | 0.400 | 0.0  | 93    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.400  | 0.358 | 10.5 | 90    | 0.00     |
| 9       | Naphthalene                | 0.400  | 0.366 | 8.5  | 91    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.400  | 0.373 | 6.8  | 90    | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.400  | 0.367 | 8.3  | 91    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.400  | 0.368 | 8.0  | 92    | 0.00     |
| 13 I    | Acenaphthene-d10           | 0.400  | 0.400 | 0.0  | 92    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.400  | 0.322 | 19.5 | 89    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 0.400  | 0.357 | 10.8 | 91    | 0.00     |
| 16      | Acenaphthylene             | 0.400  | 0.348 | 13.0 | 92    | 0.00     |
| 17      | Acenaphthene               | 0.400  | 0.359 | 10.3 | 92    | 0.00     |
| 18      | Fluorene                   | 0.400  | 0.352 | 12.0 | 91    | 0.00     |
| 19 I    | Phenanthrene-d10           | 0.400  | 0.400 | 0.0  | 94    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.400  | 0.330 | 17.5 | 89    | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.400  | 0.371 | 7.3  | 90    | 0.00     |
| 22      | Hexachlorobenzene          | 0.400  | 0.379 | 5.3  | 93    | 0.00     |
| 23      | Atrazine                   | 0.400  | 0.370 | 7.5  | 92    | 0.00     |
| 24      | Pentachlorophenol          | 0.400  | 0.324 | 19.0 | 91    | 0.00     |
| 25      | Phenanthrene               | 0.400  | 0.375 | 6.3  | 92    | 0.00     |
| 26      | Anthracene                 | 0.400  | 0.366 | 8.5  | 90    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.400  | 0.374 | 6.5  | 92    | 0.00     |
| 28      | Fluoranthene               | 0.400  | 0.372 | 7.0  | 91    | 0.00     |
| 29 I    | Chrysene-d12               | 0.400  | 0.400 | 0.0  | 94    | 0.00     |
| 30      | Pyrene                     | 0.400  | 0.376 | 6.0  | 91    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.400  | 0.381 | 4.8  | 93    | 0.00     |
| 32      | Benzo(a)anthracene         | 0.400  | 0.376 | 6.0  | 93    | 0.00     |
| 33      | Chrysene                   | 0.400  | 0.386 | 3.5  | 94    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.400  | 0.338 | 15.5 | 90    | 0.00     |
| 35 I    | Perylene-d12               | 0.400  | 0.400 | 0.0  | 92    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 0.400  | 0.375 | 6.3  | 91    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 0.400  | 0.379 | 5.3  | 92    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 0.400  | 0.380 | 5.0  | 92    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 0.400  | 0.378 | 5.5  | 92    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 0.400  | 0.373 | 6.8  | 90    | 0.00     |
| 41      | Benzo(g,h,i)perylene       | 0.400  | 0.372 | 7.0  | 89    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



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

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: P4495 SAS No.: P4495 SDG No.: P4495

Instrument ID: BNA\_N Calibration Date/Time: 11/14/2024 10:12

Lab File ID: BN035082.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:40 16:15

GC Column: ZB-GR ID: 0.25 (mm)

| COMPOUND                | RRF   | RRF0.4 | MIN<br>RRF | %D    | MAX%D |
|-------------------------|-------|--------|------------|-------|-------|
| 2-Methylnaphthalene-d10 | 0.713 | 0.656  |            | -8.0  | 20.0  |
| Fluoranthene-d10        | 1.225 | 1.132  |            | -7.6  | 20.0  |
| 2-Fluorophenol          | 1.015 | 0.916  |            | -9.8  | 20.0  |
| Phenol-d6               | 1.273 | 1.184  |            | -7.0  | 20.0  |
| Nitrobenzene-d5         | 0.348 | 0.308  |            | -11.5 | 20.0  |
| Naphthalene             | 1.044 | 0.964  |            | -7.7  | 20.0  |
| 2-Methylnaphthalene     | 0.770 | 0.709  |            | -7.9  | 20.0  |
| 2-Fluorobiphenyl        | 1.624 | 1.452  |            | -10.6 | 20.0  |
| Acenaphthylene          | 1.709 | 1.480  |            | -13.4 | 20.0  |
| Acenaphthene            | 1.120 | 0.995  |            | -11.2 | 20.0  |
| Fluorene                | 1.648 | 1.459  |            | -11.5 | 20.0  |
| 2,4,6-Tribromophenol    | 0.289 | 0.230  |            | -20.4 | 20.0  |
| Phenanthrene            | 1.053 | 1.000  |            | -5.0  | 20.0  |
| Anthracene              | 0.967 | 0.893  |            | -7.7  | 20.0  |
| Fluoranthene            | 1.448 | 1.348  |            | -6.9  | 20.0  |
| Pyrene                  | 1.332 | 1.312  |            | -1.5  | 20.0  |
| Terphenyl-d14           | 0.839 | 0.812  |            | -3.2  | 20.0  |
| Benzo(a)anthracene      | 1.393 | 1.316  |            | -5.5  | 20.0  |
| Chrysene                | 1.380 | 1.342  |            | -2.8  | 20.0  |
| Benzo(b)fluoranthene    | 1.346 | 1.294  |            | -3.9  | 20.0  |
| Benzo(k)fluoranthene    | 1.347 | 1.354  |            | 0.5   | 20.0  |
| Benzo(a)pyrene          | 1.184 | 1.122  |            | -5.2  | 20.0  |
| Indeno(1,2,3-cd)pyrene  | 1.596 | 1.484  |            | -7.0  | 20.0  |
| Dibenzo(a,h)anthracene  | 1.264 | 1.174  |            | -7.1  | 20.0  |
| Benzo(g,h,i)perylene    | 1.345 | 1.208  |            | -10.2 | 20.0  |

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
 Data File : BN035082.D  
 Acq On : 14 Nov 2024 10:12  
 Operator : RC/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

Quant Time: Nov 14 11:23:30 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

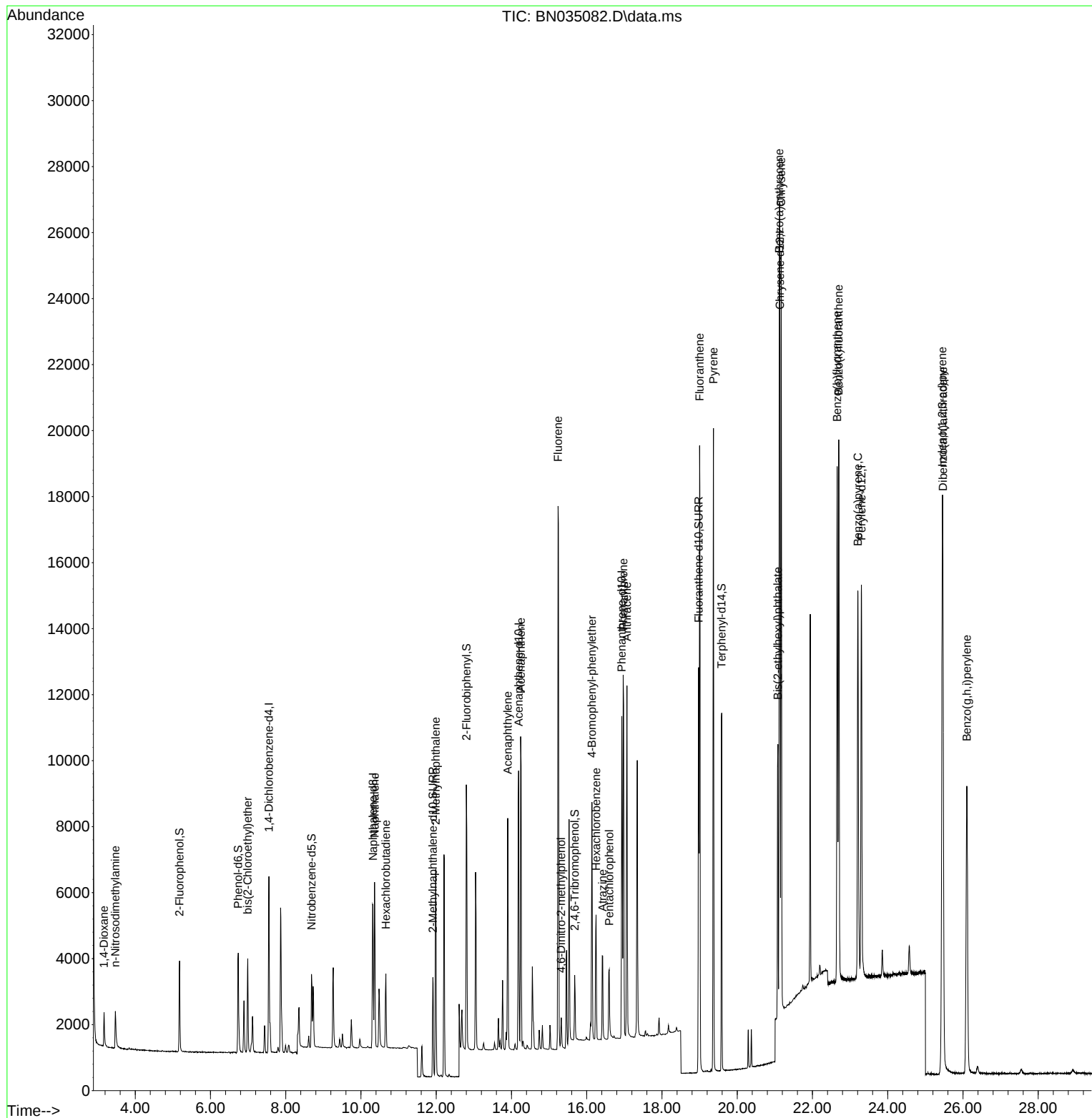
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2551     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 6362     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 5037     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.933 | 188  | 12802    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.134 | 240  | 13485    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.300 | 264  | 14730    | 0.400 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.177  | 112  | 2337     | 0.361 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 3021     | 0.372 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.685  | 82   | 1962     | 0.354 | ng    | -0.01    |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 4174     | 0.368 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.679 | 330  | 1156     | 0.318 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.800 | 172  | 7315     | 0.358 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 14490    | 0.369 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.587 | 244  | 10949    | 0.387 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.169  | 88   | 904      | 0.390 | ng    | 95       |
| 3) n-Nitrosodimethylamine     | 3.473  | 42   | 764      | 0.354 | ng    | # 91     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 2254     | 0.370 | ng    | 100      |
| 9) Naphthalene                | 10.362 | 128  | 6136     | 0.369 | ng    | 100      |
| 10) Hexachlorobutadiene       | 10.661 | 225  | 1828     | 0.375 | ng    | # 98     |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 4509     | 0.368 | ng    | 100      |
| 16) Acenaphthylene            | 13.901 | 152  | 7457     | 0.346 | ng    | 99       |
| 17) Acenaphthene              | 14.244 | 154  | 5010     | 0.355 | ng    | 99       |
| 18) Fluorene                  | 15.238 | 166  | 7349     | 0.354 | ng    | 100      |
| 20) 4,6-Dinitro-2-methylph... | 15.323 | 198  | 901      | 0.338 | ng    | # 87     |
| 21) 4-Bromophenyl-phenylether | 16.138 | 248  | 3068     | 0.376 | ng    | # 87     |
| 22) Hexachlorobenzene         | 16.250 | 284  | 3196     | 0.378 | ng    | 99       |
| 23) Atrazine                  | 16.424 | 200  | 2496     | 0.341 | ng    | # 94     |
| 24) Pentachlorophenol         | 16.597 | 266  | 1334     | 0.337 | ng    | 99       |
| 25) Phenanthrene              | 16.970 | 178  | 12799    | 0.380 | ng    | 100      |
| 26) Anthracene                | 17.069 | 178  | 11435    | 0.370 | ng    | 99       |
| 28) Fluoranthene              | 19.001 | 202  | 17255    | 0.372 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 17691    | 0.394 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.116 | 228  | 17743    | 0.378 | ng    | 99       |
| 33) Chrysene                  | 21.169 | 228  | 18097    | 0.389 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 7841     | 0.318 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 25.452 | 276  | 21866    | 0.372 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.657 | 252  | 19067    | 0.385 | ng    | 100      |
| 38) Benzo(k)fluoranthene      | 22.698 | 252  | 19945    | 0.402 | ng    | 99       |
| 39) Benzo(a)pyrene            | 23.206 | 252  | 16523    | 0.379 | ng    | 100      |
| 40) Dibenzo(a,h)anthracene    | 25.466 | 278  | 17299    | 0.372 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.101 | 276  | 17799    | 0.359 | ng    | 99       |
| -----                         |        |      |          |       |       |          |

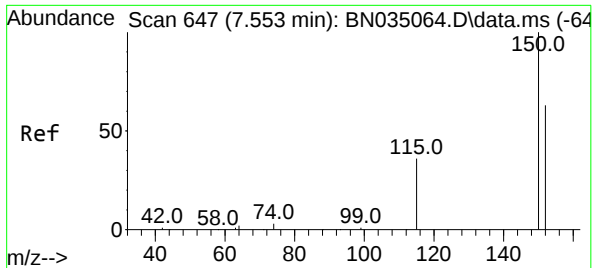
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data File : BN035082.D  
Acq On : 14 Nov 2024 10:12  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

Quant Time: Nov 14 11:23:30 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration

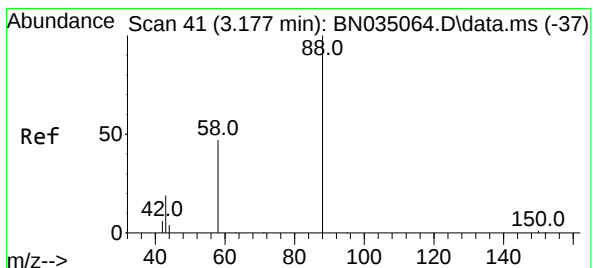
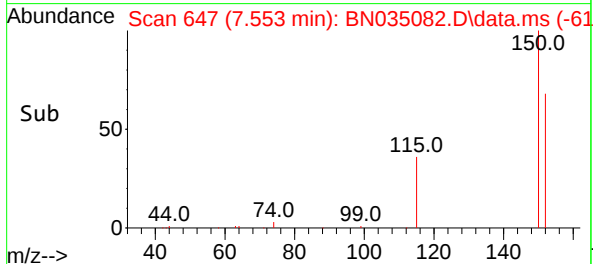
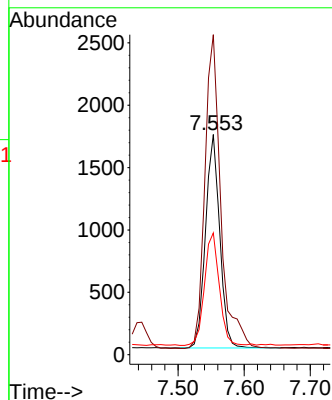
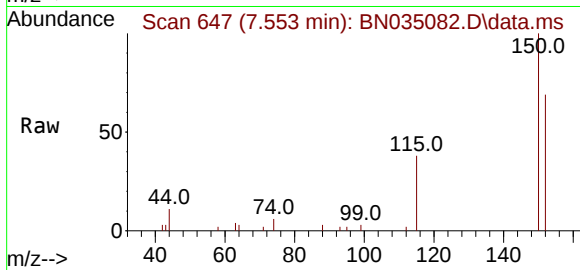




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 64  
Delta R.T. 0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

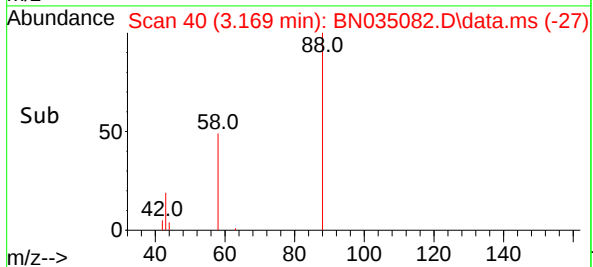
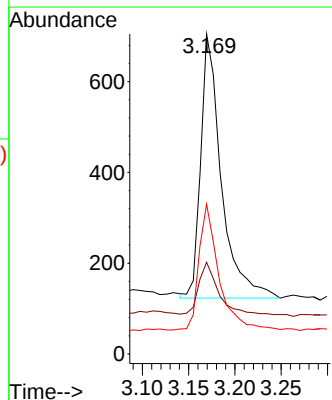
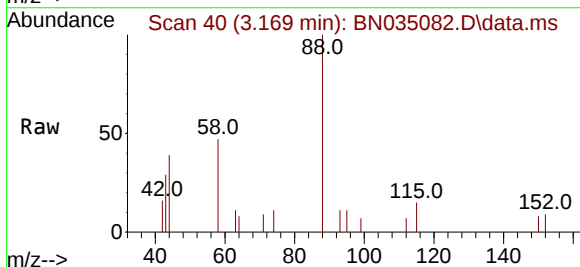
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

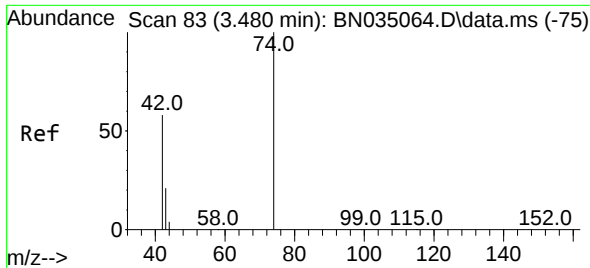
Tgt Ion:152 Resp: 2551  
Ion Ratio Lower Upper  
152 100  
150 145.3 124.5 186.7  
115 55.3 47.8 71.6



#2  
1,4-Dioxane  
Concen: 0.390 ng  
RT: 3.169 min Scan# 40  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion: 88 Resp: 904  
Ion Ratio Lower Upper  
88 100  
43 18.6 16.9 25.3  
58 45.7 39.0 58.4

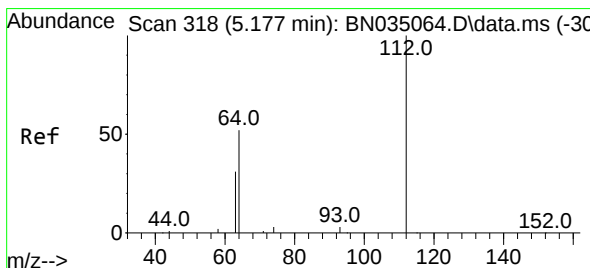
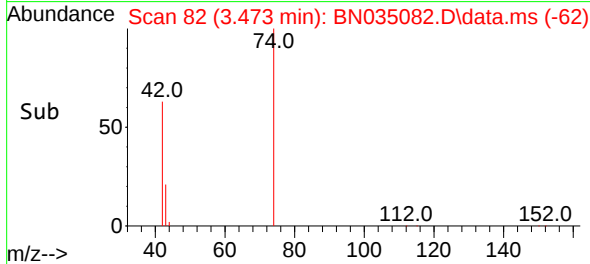
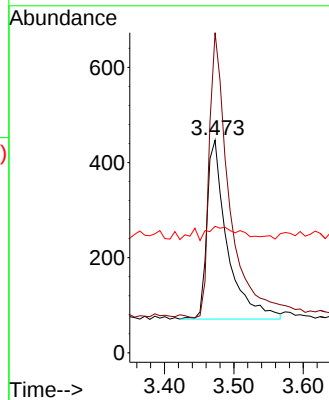
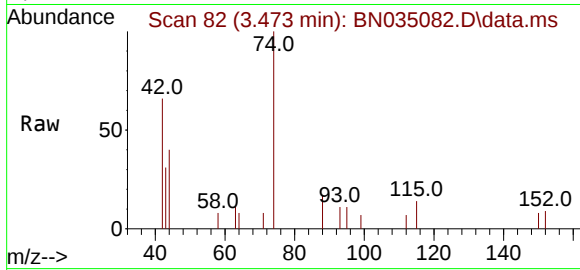




#3  
n-Nitrosodimethylamine  
Concen: 0.354 ng  
RT: 3.473 min Scan# 81  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

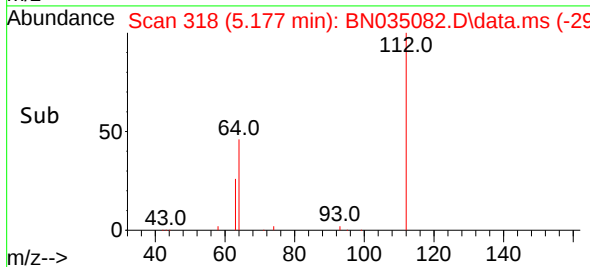
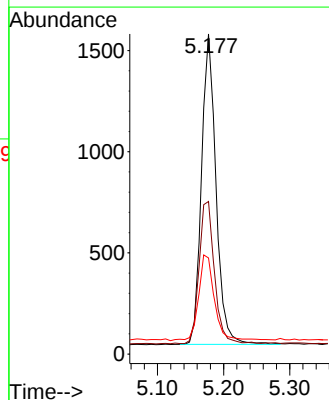
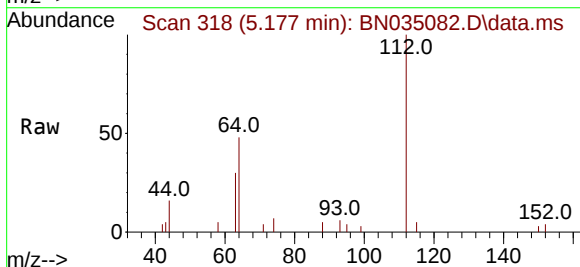
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

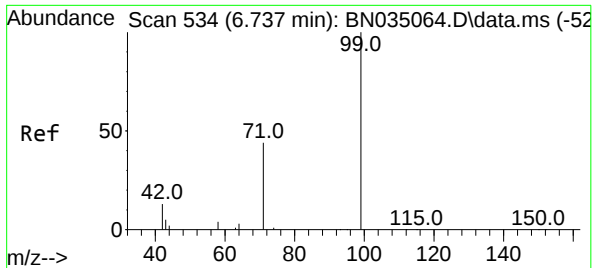
Tgt Ion: 42 Resp: 764  
Ion Ratio Lower Upper  
42 100  
74 162.4 120.8 181.2  
44 12.7 2.9 4.3#



#4  
2-Fluorophenol  
Concen: 0.361 ng  
RT: 5.177 min Scan# 318  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion: 112 Resp: 2337  
Ion Ratio Lower Upper  
112 100  
64 48.7 39.7 59.5  
63 30.6 23.0 34.4

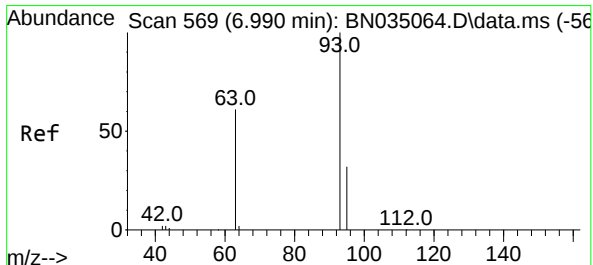
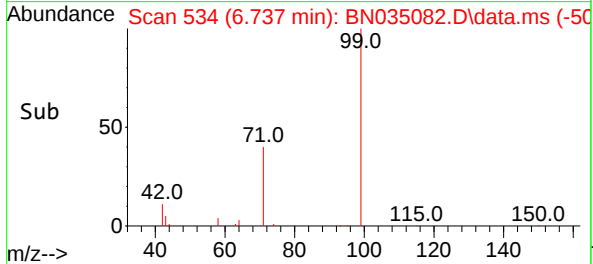
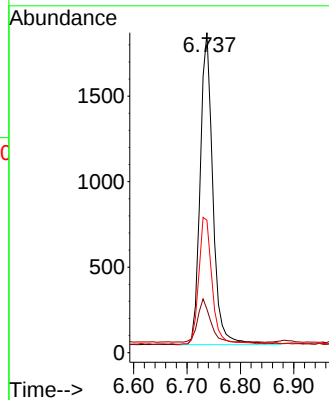
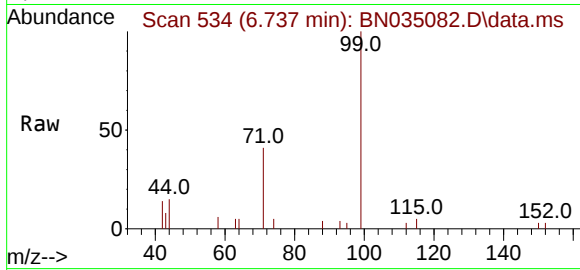




#5  
Phenol-d6  
Concen: 0.372 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

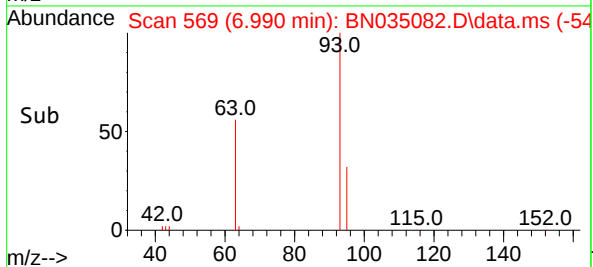
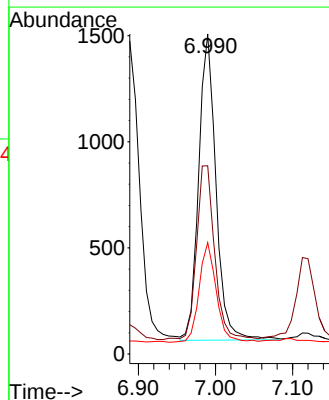
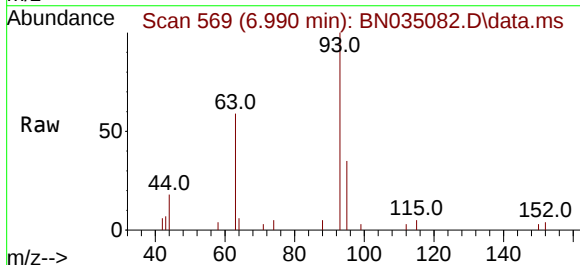
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

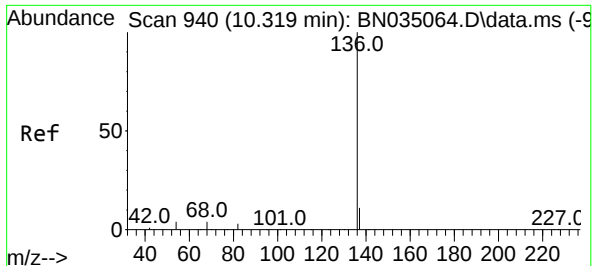
Tgt Ion: 99 Resp: 3021  
Ion Ratio Lower Upper  
99 100  
42 13.5 11.4 17.0  
71 42.6 34.6 51.8



#6  
bis(2-Chloroethyl)ether  
Concen: 0.370 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion: 93 Resp: 2254  
Ion Ratio Lower Upper  
93 100  
63 59.5 47.4 71.2  
95 32.5 26.2 39.4

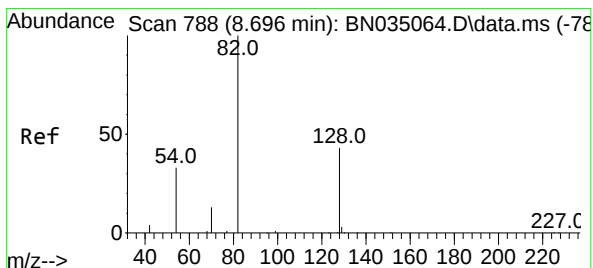
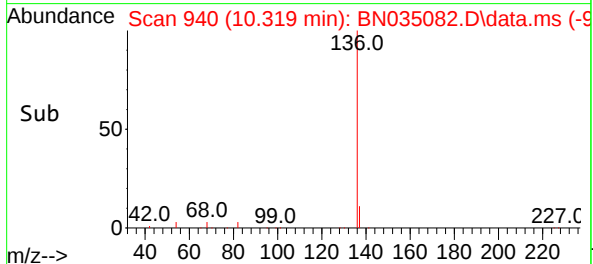
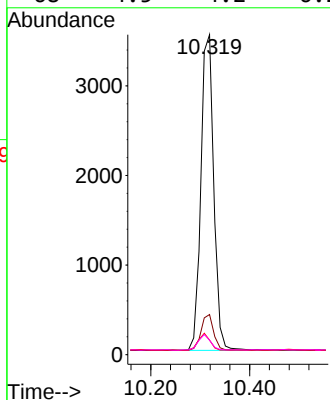
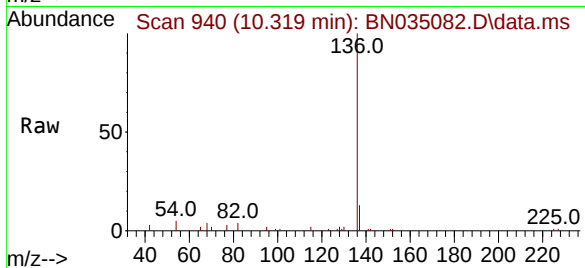




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

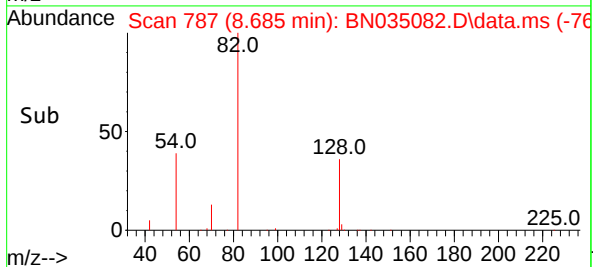
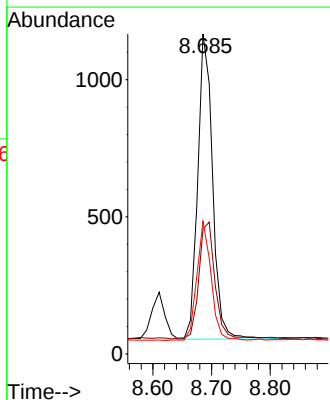
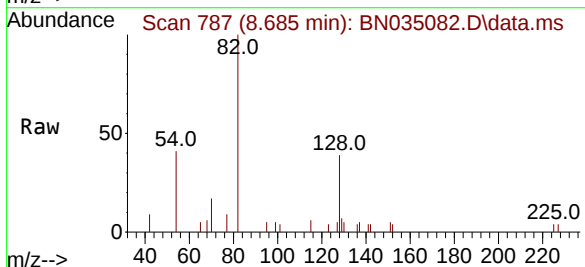
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

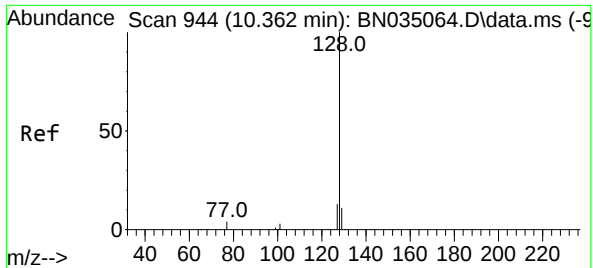
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 6362  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.5  | 9.8   | 14.8  |
| 54       | 4.6   | 4.0   | 6.0   |
| 68       | 4.5   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 0.354 ng  
RT: 8.685 min Scan# 787  
Delta R.T. -0.011 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 1962  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 39.1  | 36.5  | 54.7  |
| 54       | 41.5  | 28.7  | 43.1  |

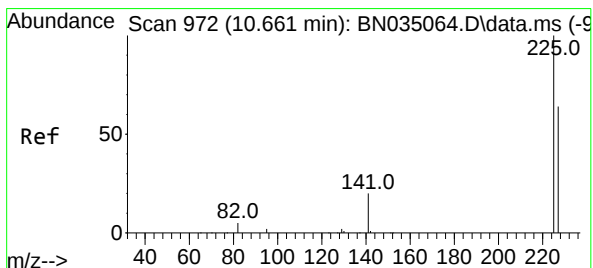
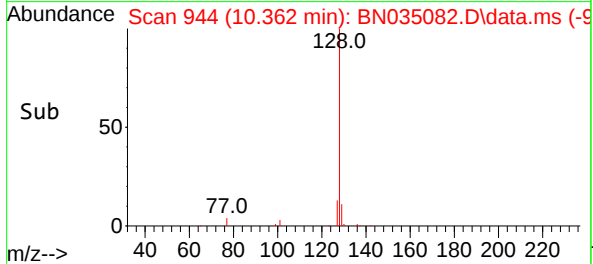
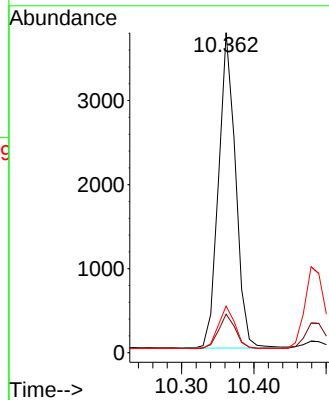
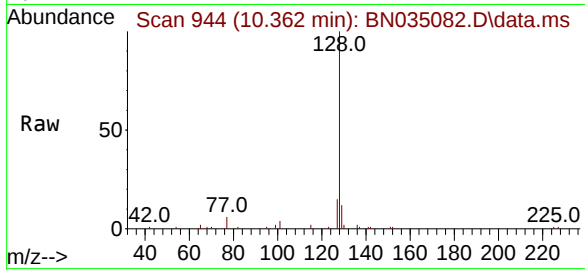




#9  
Naphthalene  
Concen: 0.369 ng  
RT: 10.362 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

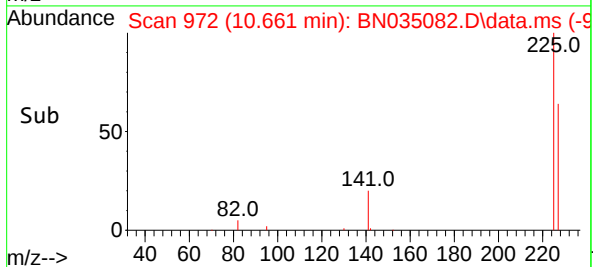
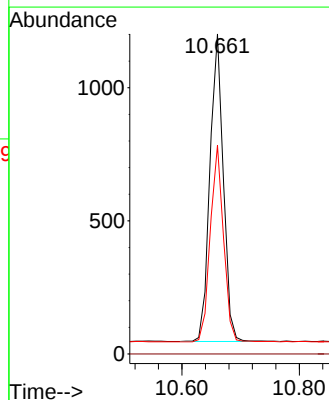
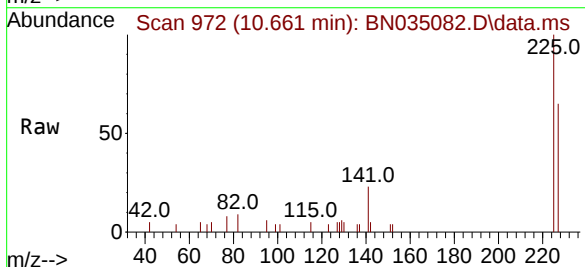
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

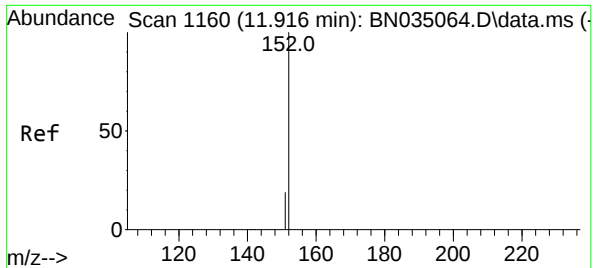
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 6136  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 12.1  | 9.6   | 14.4  |
| 127      | 14.6  | 11.6  | 17.4  |



#10  
Hexachlorobutadiene  
Concen: 0.375 ng  
RT: 10.661 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 225   | Resp: | 1828  |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 0.0   | 0.0   | 0.0   |
| 227      | 63.0  | 51.5  | 77.3  |

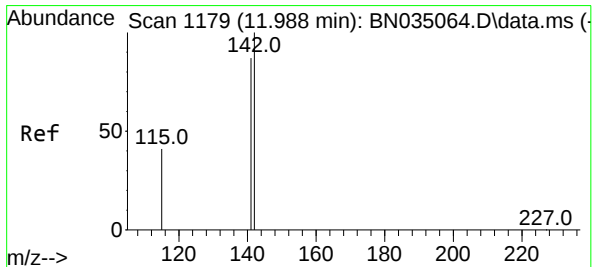
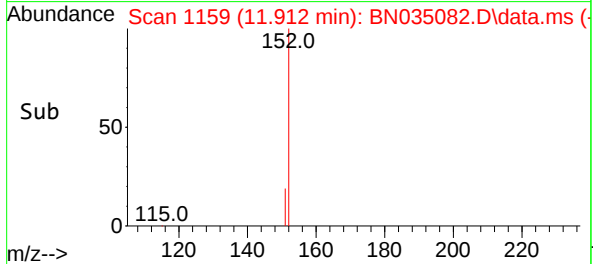
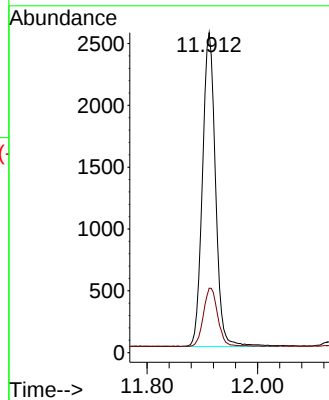
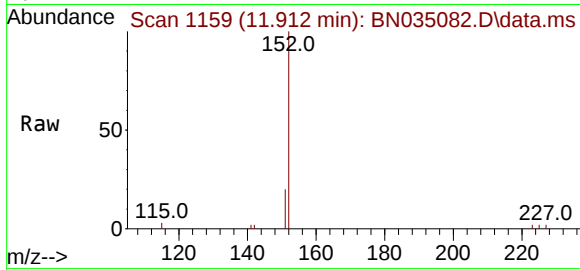




#11  
2-Methylnaphthalene-d10  
Concen: 0.368 ng  
RT: 11.912 min Scan# 1159  
Delta R.T. -0.004 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

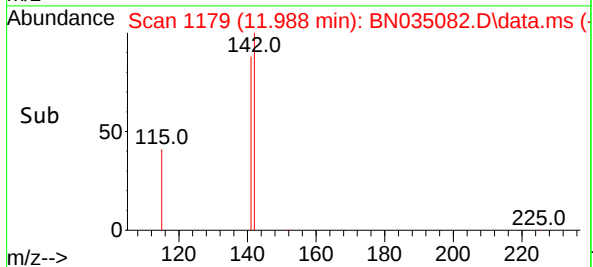
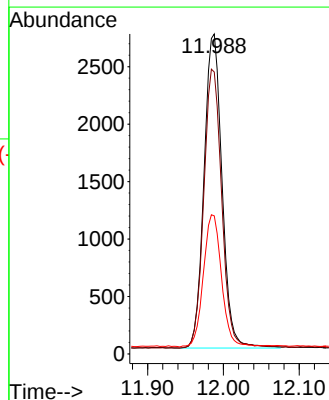
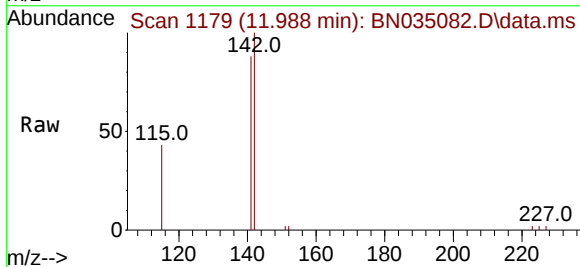
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

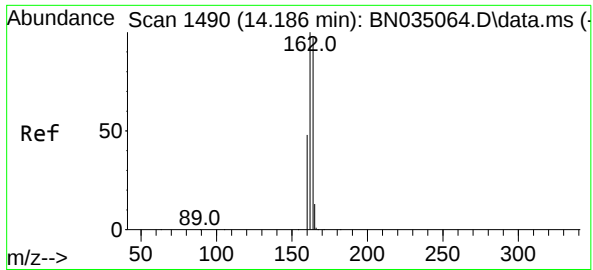
Tgt Ion:152 Resp: 4174  
Ion Ratio Lower Upper  
152 100  
151 20.3 16.2 24.4



#12  
2-Methylnaphthalene  
Concen: 0.368 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. -0.000 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:142 Resp: 4509  
Ion Ratio Lower Upper  
142 100  
141 88.1 70.1 105.1  
115 43.2 34.4 51.6

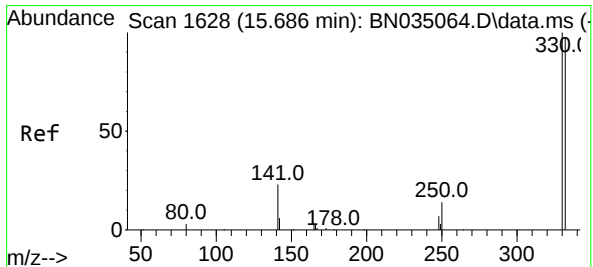
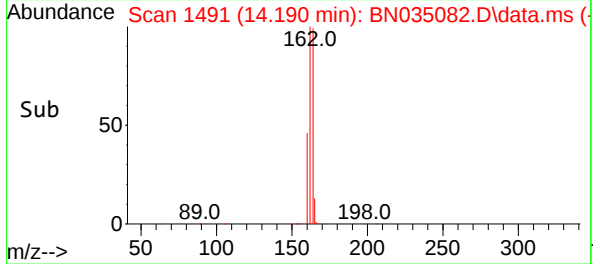
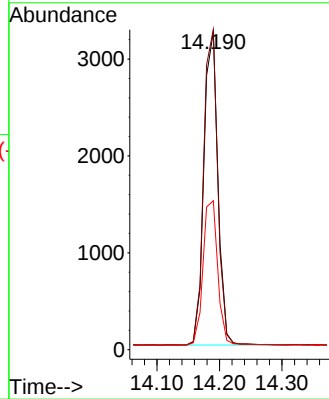
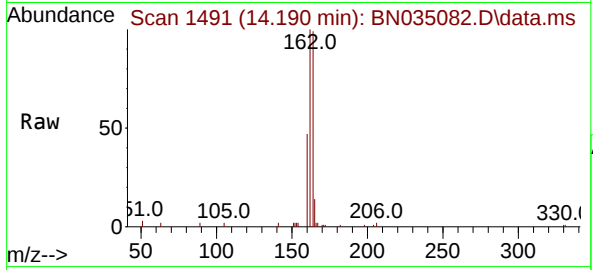




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

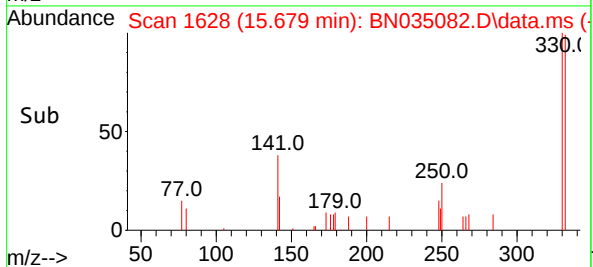
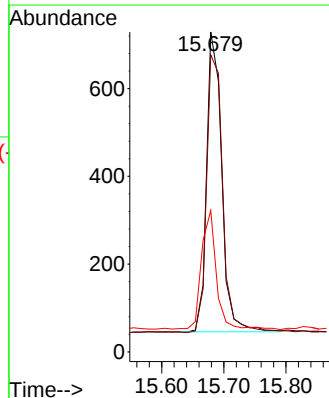
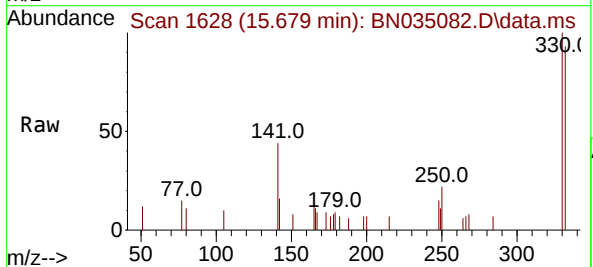
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

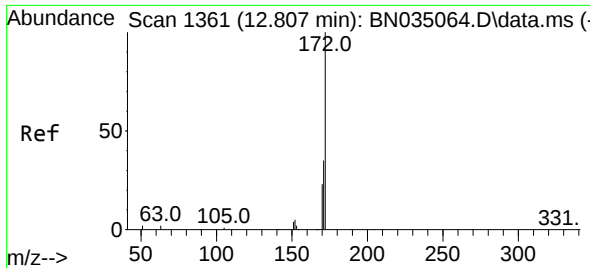
Tgt Ion:164 Resp: 5037  
Ion Ratio Lower Upper  
164 100  
162 100.8 82.2 123.2  
160 46.9 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.318 ng  
RT: 15.679 min Scan# 1628  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:330 Resp: 1156  
Ion Ratio Lower Upper  
330 100  
332 100.0 76.9 115.3  
141 39.4 29.6 44.4

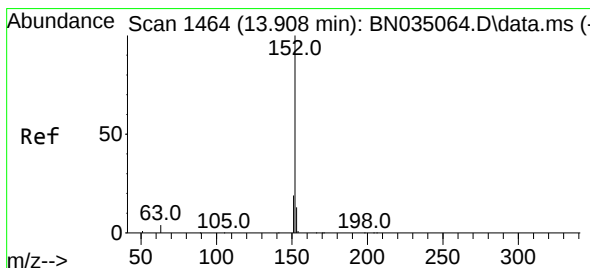
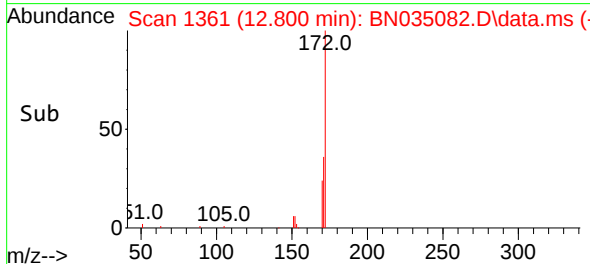
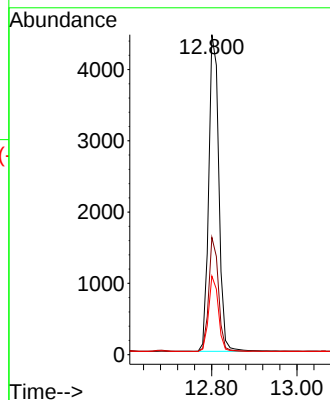
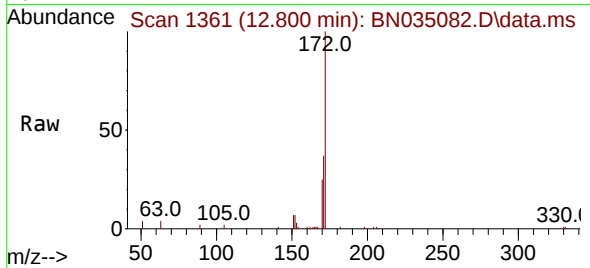




#15  
2-Fluorobiphenyl  
Concen: 0.358 ng  
RT: 12.800 min Scan# 1361  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

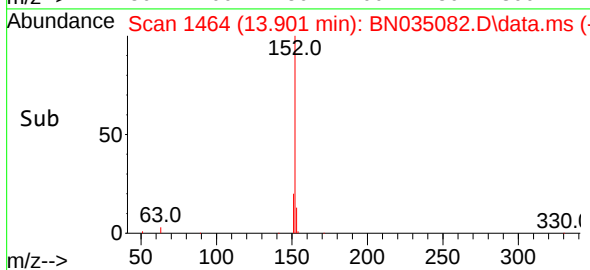
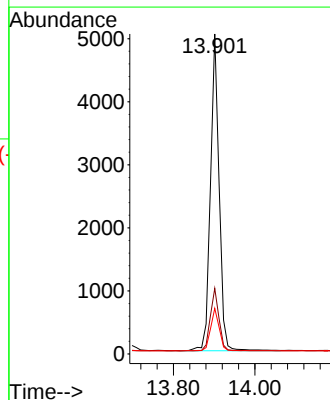
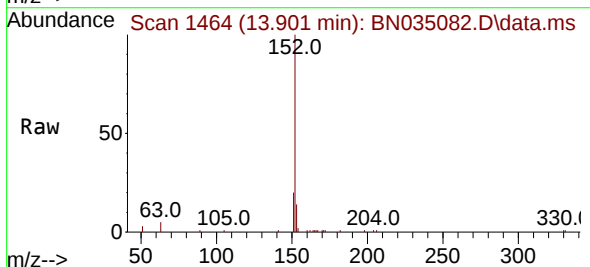
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

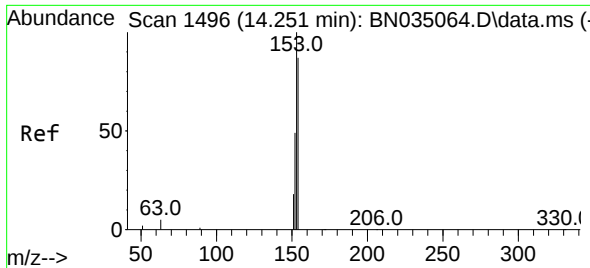
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 36.6  | 28.2  | 42.4  |
| 170     | 24.5  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 0.346 ng  
RT: 13.901 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.7  | 15.8  | 23.8  |
| 153     | 13.6  | 10.2  | 15.4  |

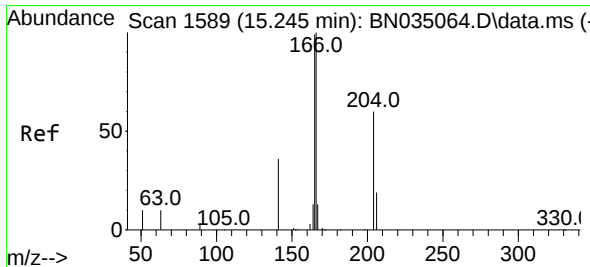
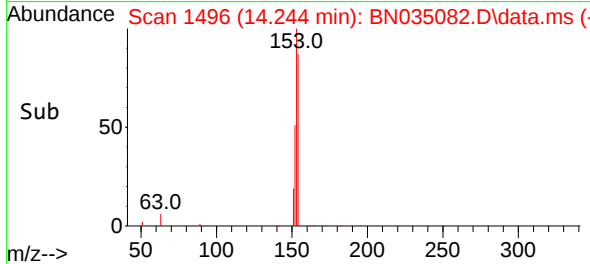
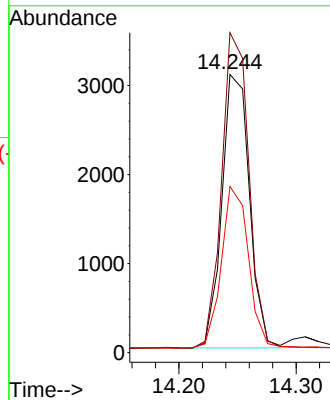
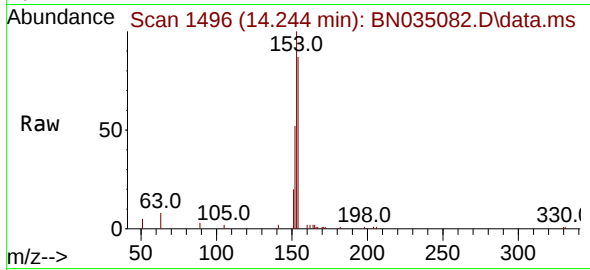




#17  
Acenaphthene  
Concen: 0.355 ng  
RT: 14.244 min Scan# 1496  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

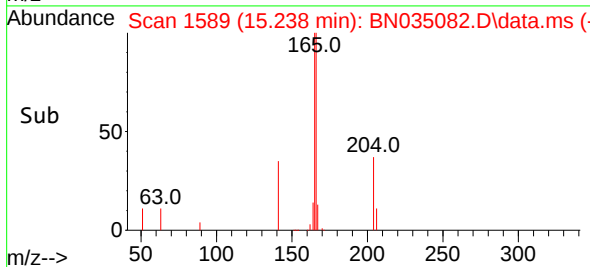
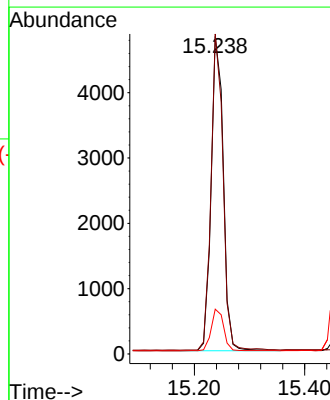
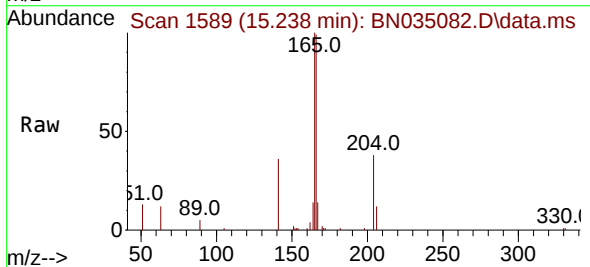
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

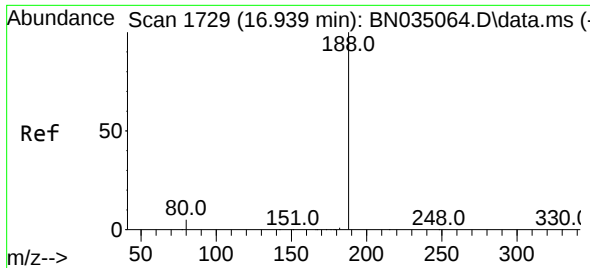
Tgt Ion:154 Resp: 5010  
Ion Ratio Lower Upper  
154 100  
153 114.7 91.6 137.4  
152 58.8 45.8 68.6



#18  
Fluorene  
Concen: 0.354 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:166 Resp: 7349  
Ion Ratio Lower Upper  
166 100  
165 98.7 79.1 118.7  
167 13.6 10.6 16.0

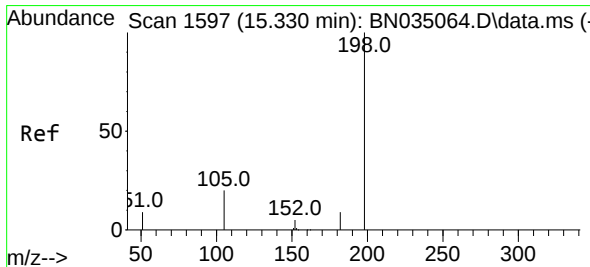
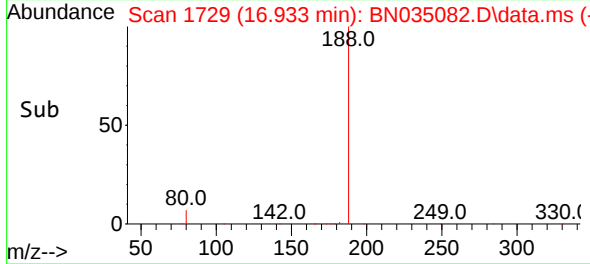
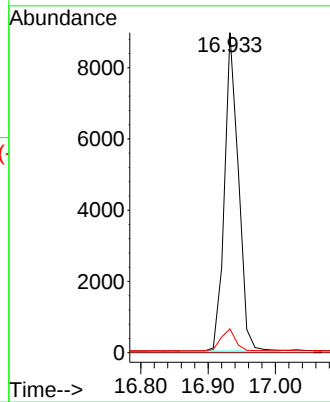
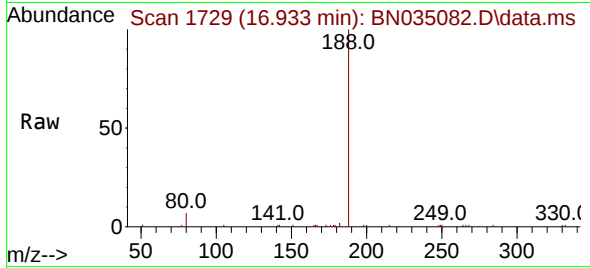




#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 16.933 min Scan# 1729  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

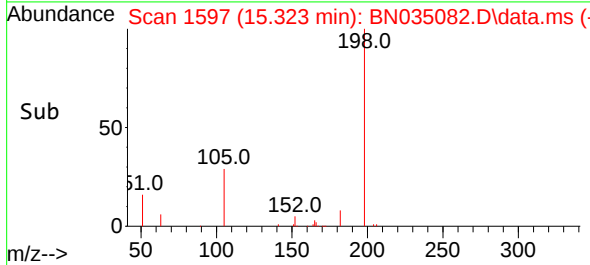
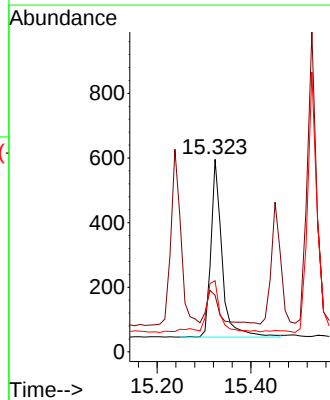
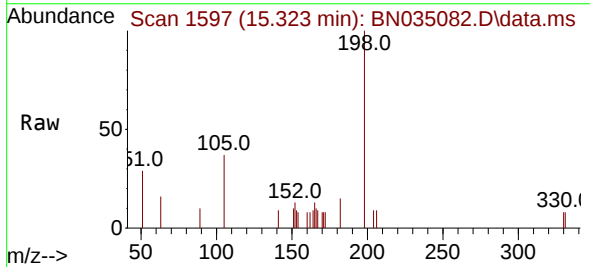
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

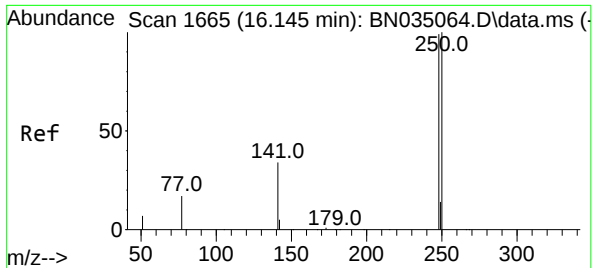
|             |       |       |
|-------------|-------|-------|
| Tgt Ion:188 | Resp: | 12802 |
| Ion Ratio   | Lower | Upper |
| 188         | 100   |       |
| 94          | 0.0   | 0.0   |
| 80          | 7.4   | 4.3   |



#20  
4,6-Dinitro-2-methylphenol  
Concen: 0.338 ng  
RT: 15.323 min Scan# 1597  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

|             |       |       |
|-------------|-------|-------|
| Tgt Ion:198 | Resp: | 901   |
| Ion Ratio   | Lower | Upper |
| 198         | 100   |       |
| 51          | 29.4  | 29.9  |
| 105         | 36.9  | 23.7  |





#21

4-Bromophenyl-phenylether

Concen: 0.376 ng

RT: 16.138 min Scan# 1665

Delta R.T. -0.007 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

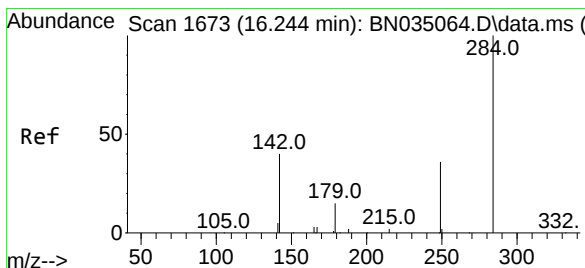
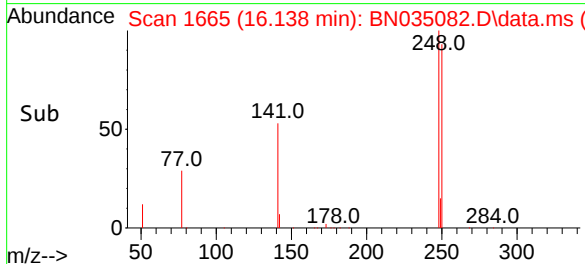
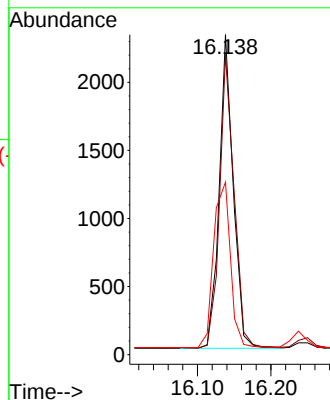
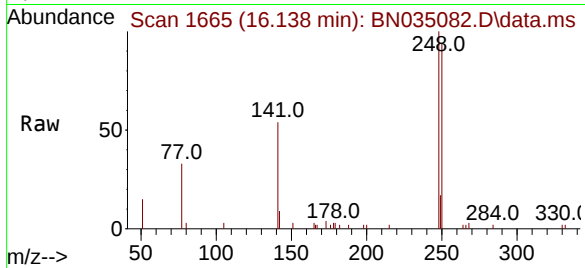
Tgt Ion:248 Resp: 3068

Ion Ratio Lower Upper

248 100

250 93.8 81.2 121.8

141 53.9 29.1 43.7#



#22

Hexachlorobenzene

Concen: 0.378 ng

RT: 16.250 min Scan# 1674

Delta R.T. 0.005 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

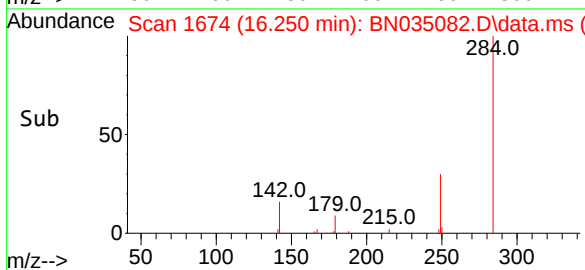
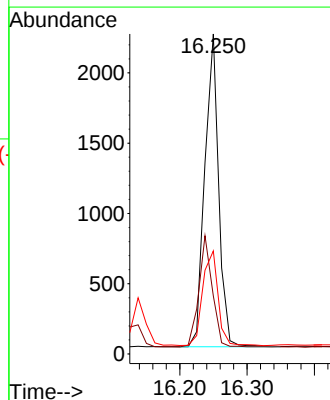
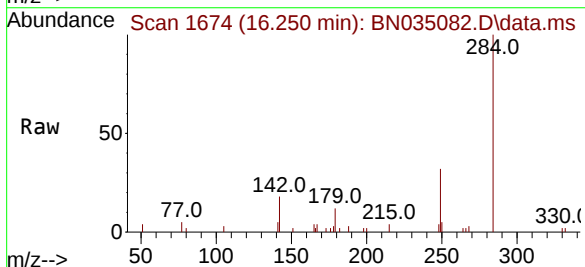
Tgt Ion:284 Resp: 3196

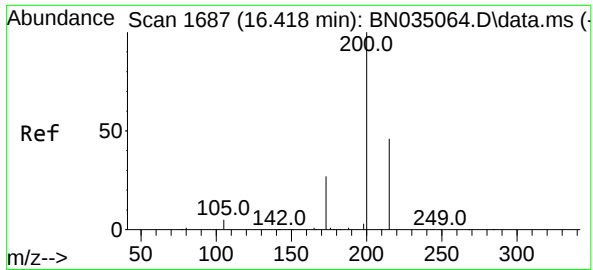
Ion Ratio Lower Upper

284 100

142 34.6 28.2 42.4

249 33.6 26.2 39.2

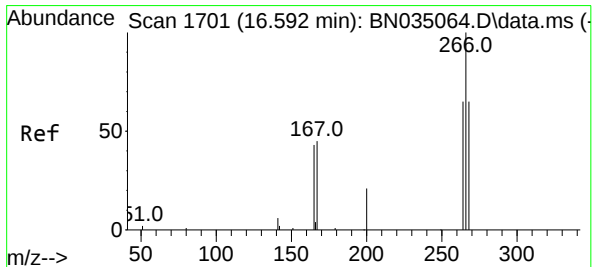
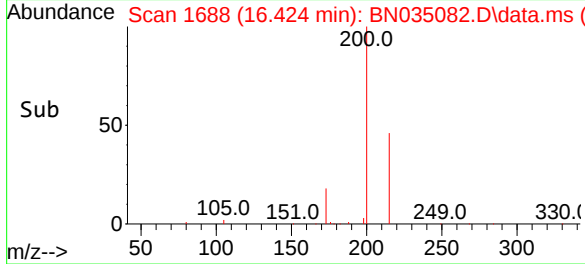
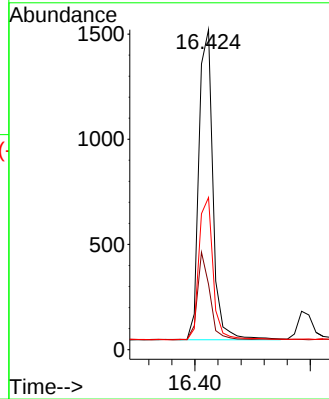
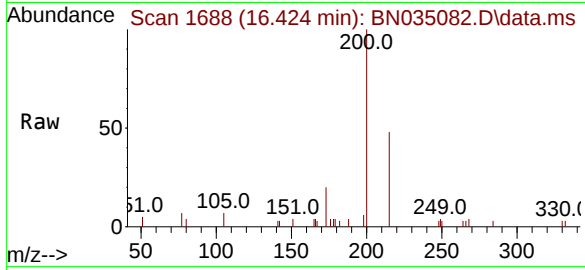




#23  
Atrazine  
Concen: 0.341 ng  
RT: 16.424 min Scan# 1  
Delta R.T. 0.005 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

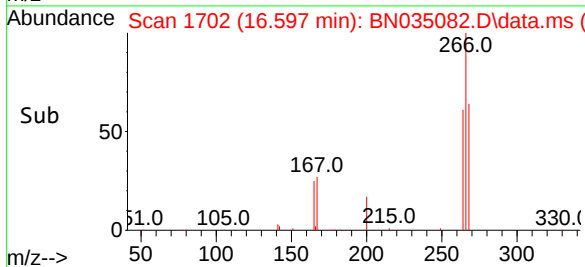
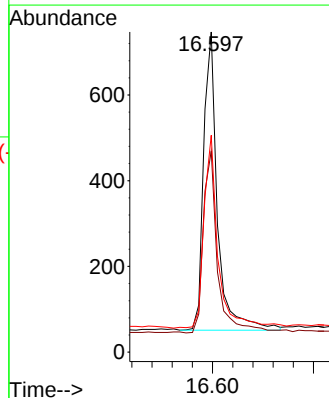
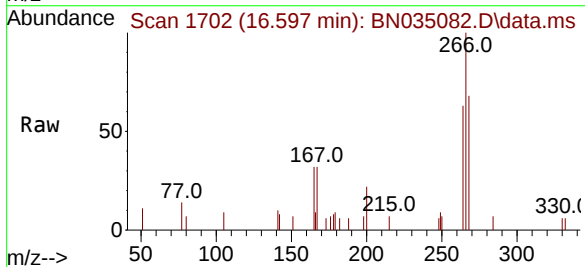
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

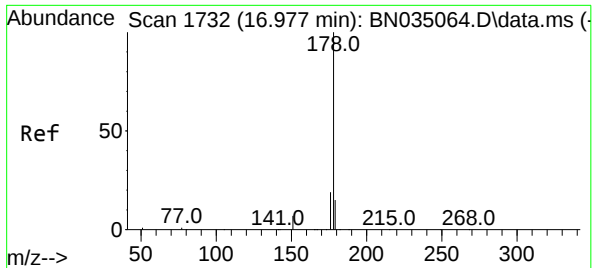
Tgt Ion:200 Resp: 2496  
Ion Ratio Lower Upper  
200 100  
173 20.4 22.6 33.8#  
215 47.5 37.8 56.6



#24  
Pentachlorophenol  
Concen: 0.337 ng  
RT: 16.597 min Scan# 1702  
Delta R.T. 0.005 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:266 Resp: 1334  
Ion Ratio Lower Upper  
266 100  
264 62.4 49.4 74.0  
268 66.0 52.6 79.0

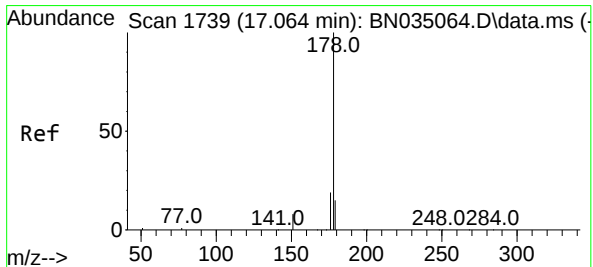
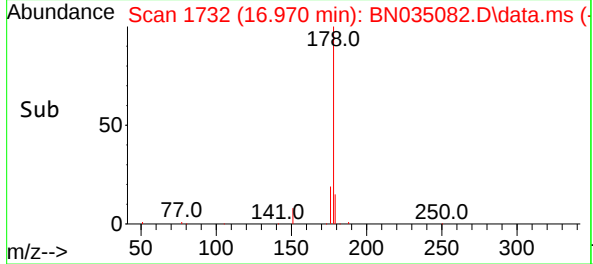
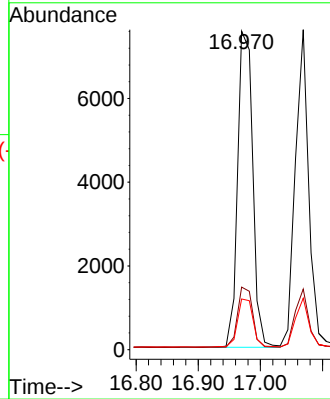
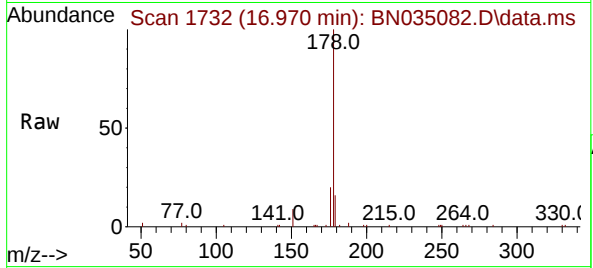




#25  
Phenanthrene  
Concen: 0.380 ng  
RT: 16.970 min Scan# 1732  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

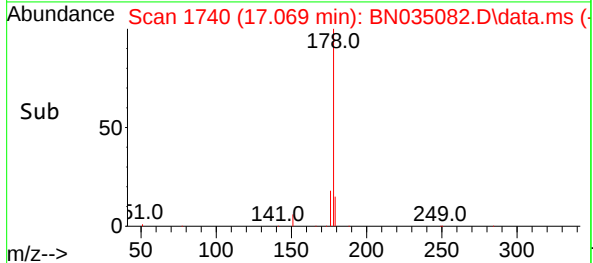
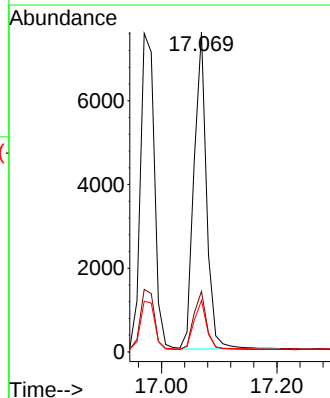
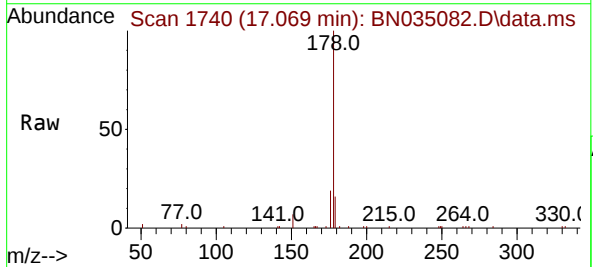
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

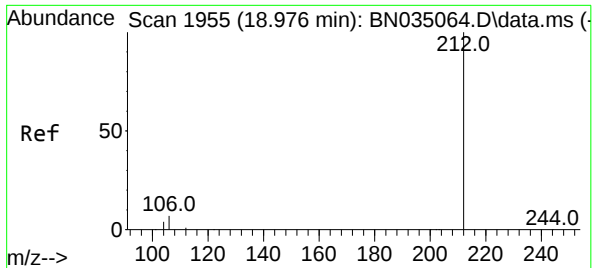
Tgt Ion:178 Resp: 12799  
Ion Ratio Lower Upper  
178 100  
176 19.0 15.2 22.8  
179 15.5 12.6 18.8



#26  
Anthracene  
Concen: 0.370 ng  
RT: 17.069 min Scan# 1740  
Delta R.T. 0.005 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:178 Resp: 11435  
Ion Ratio Lower Upper  
178 100  
176 18.7 14.6 22.0  
179 15.6 12.2 18.2

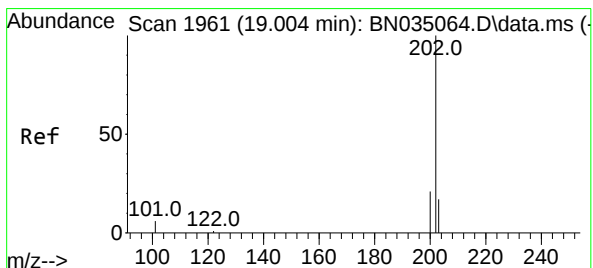
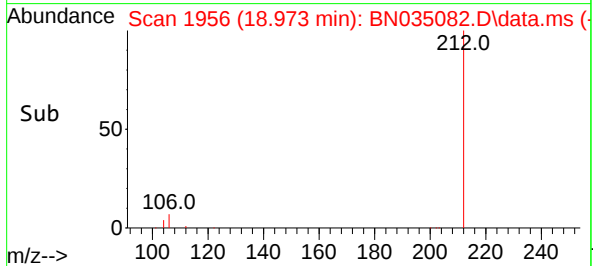
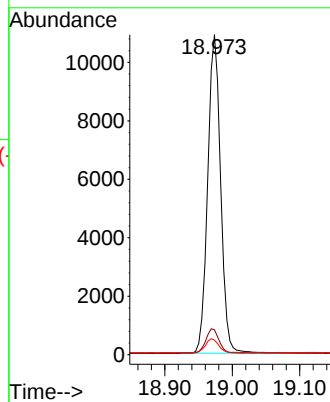
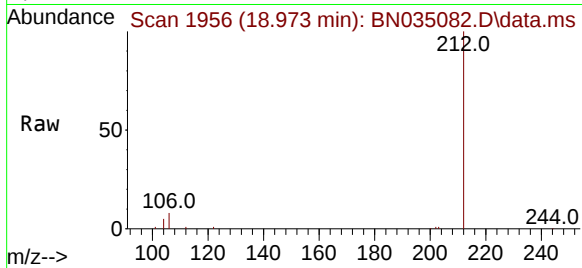




#27  
Fluoranthene-d10  
Concen: 0.369 ng  
RT: 18.973 min Scan# 1955  
Delta R.T. -0.002 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

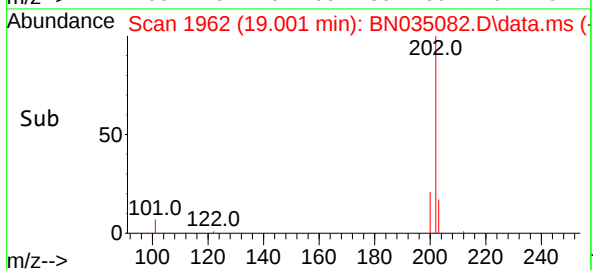
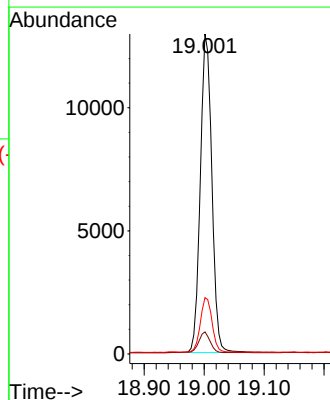
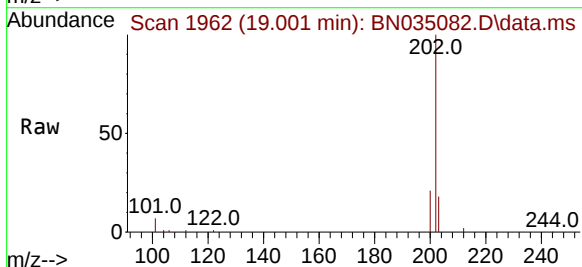
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

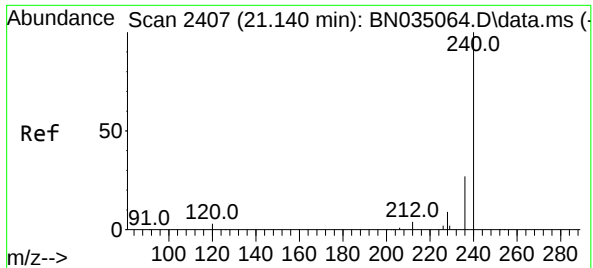
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 212     | 100   |       |       |
| 106     | 7.7   | 6.0   | 9.0   |
| 104     | 4.4   | 3.5   | 5.3   |



#28  
Fluoranthene  
Concen: 0.372 ng  
RT: 19.001 min Scan# 1962  
Delta R.T. -0.002 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 6.5   | 5.2   | 7.8   |
| 203     | 17.2  | 13.8  | 20.8  |

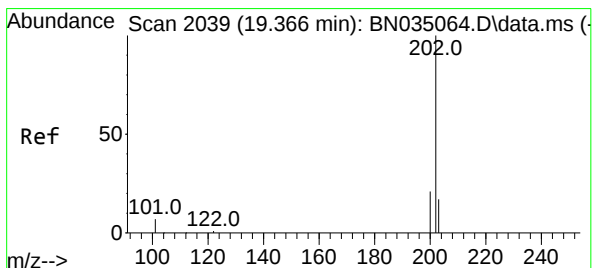
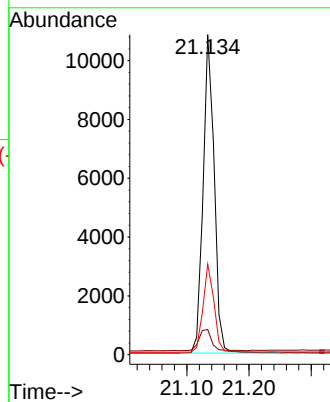
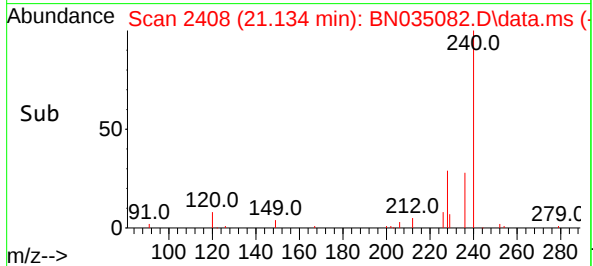
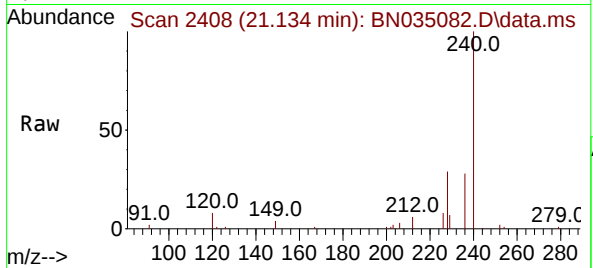




#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.134 min Scan# 2408  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

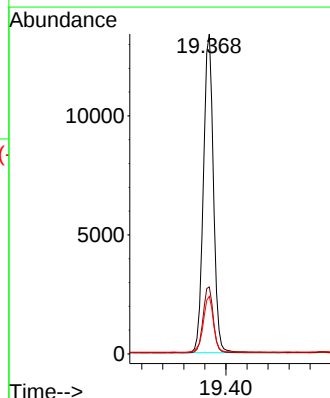
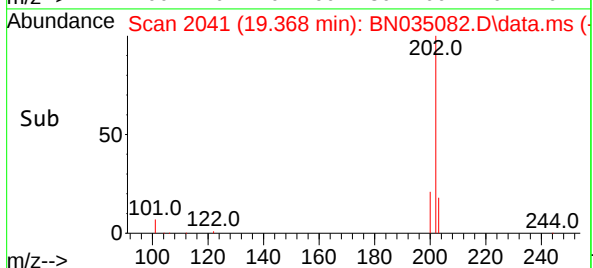
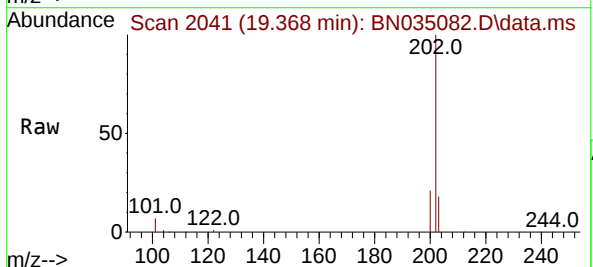
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

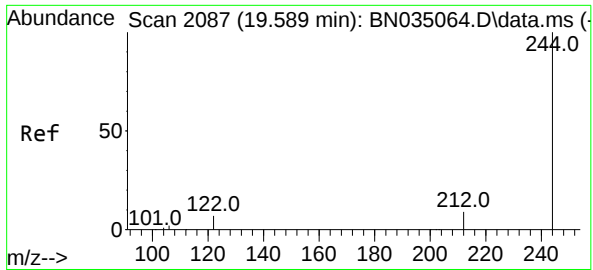
Tgt Ion:240 Resp: 13485  
Ion Ratio Lower Upper  
240 100  
120 7.9 3.8 5.6#  
236 28.3 22.2 33.2



#30  
Pyrene  
Concen: 0.394 ng  
RT: 19.368 min Scan# 2041  
Delta R.T. 0.002 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:202 Resp: 17691  
Ion Ratio Lower Upper  
202 100  
200 21.0 16.7 25.1  
203 17.9 14.2 21.4

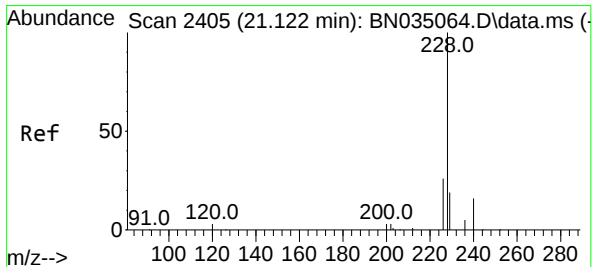
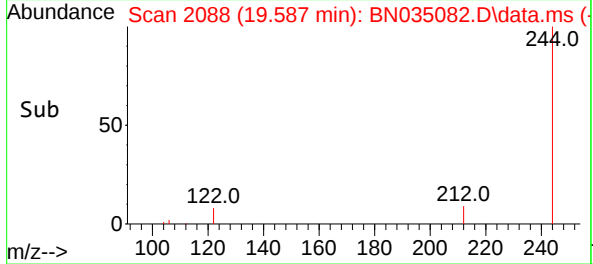
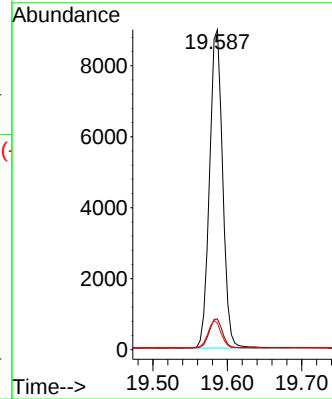
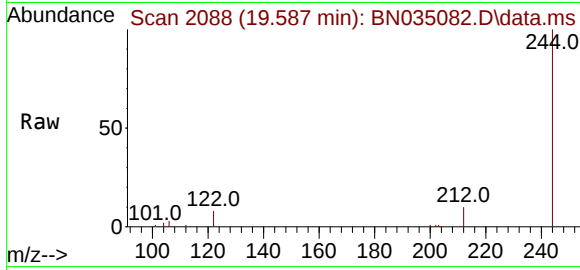




#31  
Terphenyl-d14  
Concen: 0.387 ng  
RT: 19.587 min Scan# 2088  
Delta R.T. -0.002 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

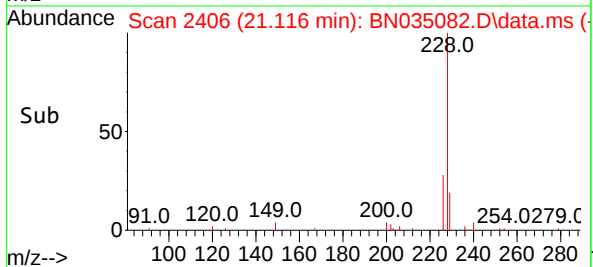
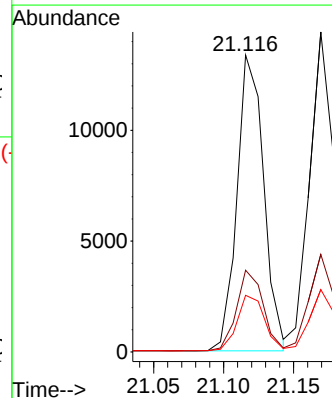
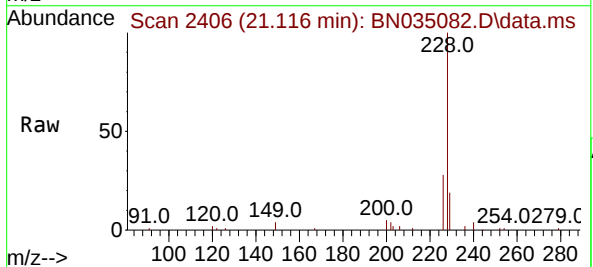
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

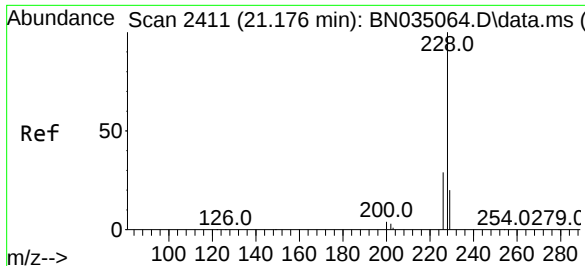
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 9.6   | 7.6   | 11.4  |
| 122     | 8.3   | 6.1   | 9.1   |



#32  
Benzo(a)anthracene  
Concen: 0.378 ng  
RT: 21.116 min Scan# 2406  
Delta R.T. -0.007 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.6  | 21.4  | 32.0  |
| 229     | 19.1  | 15.7  | 23.5  |





#33

Chrysene

Concen: 0.389 ng

RT: 21.169 min Scan# 2411

Delta R.T. -0.007 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

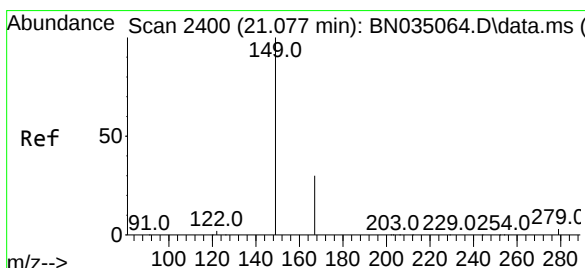
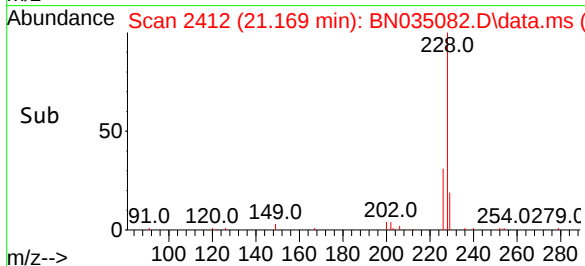
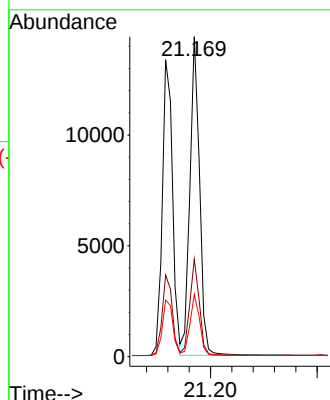
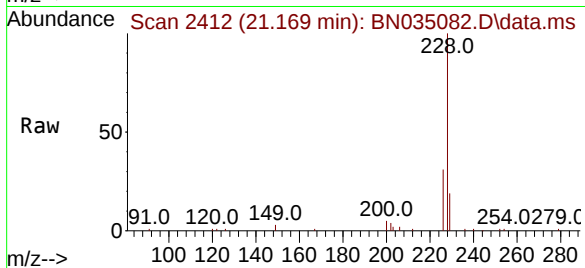
Tgt Ion:228 Resp: 18097

Ion Ratio Lower Upper

228 100

226 30.5 23.7 35.5

229 19.5 16.2 24.4



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.318 ng

RT: 21.080 min Scan# 2402

Delta R.T. 0.002 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

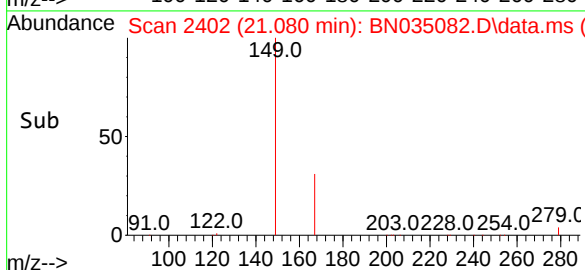
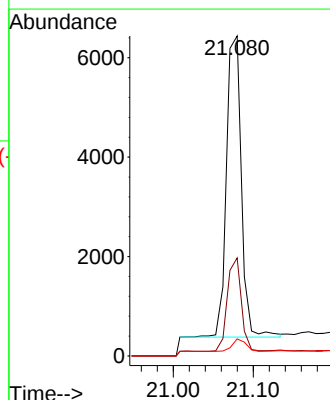
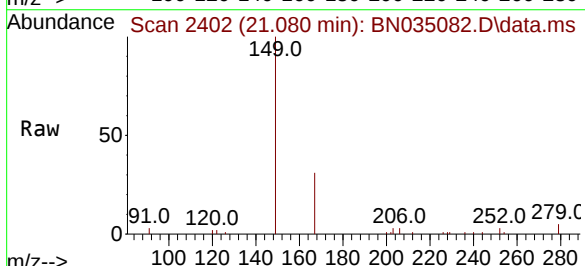
Tgt Ion:149 Resp: 7841

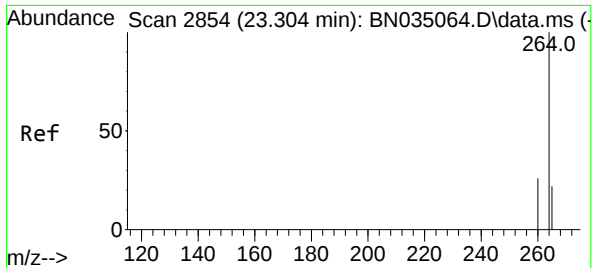
Ion Ratio Lower Upper

149 100

167 29.2 23.2 34.8

279 4.0 3.2 4.8

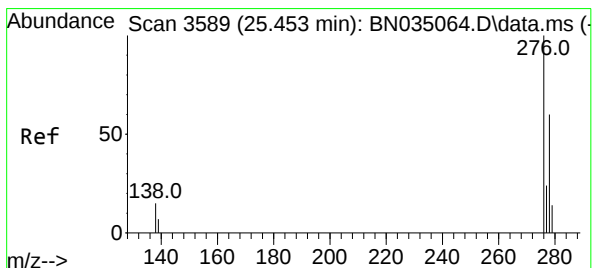
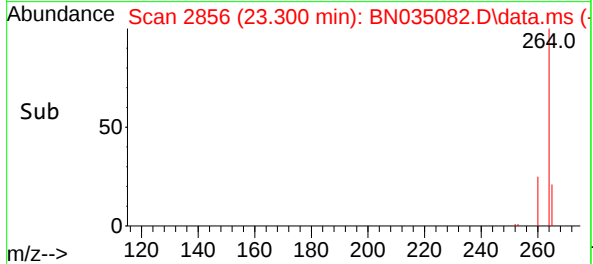
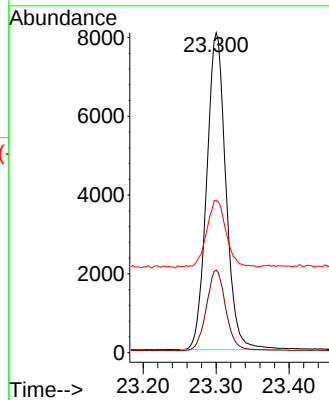
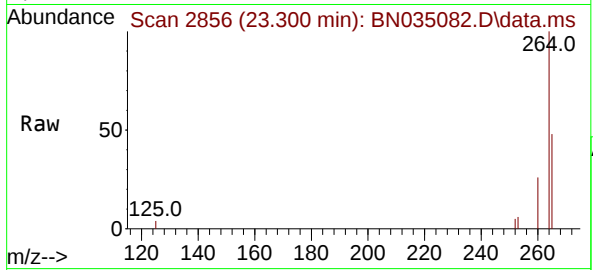




#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.300 min Scan# 21  
Delta R.T. -0.004 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

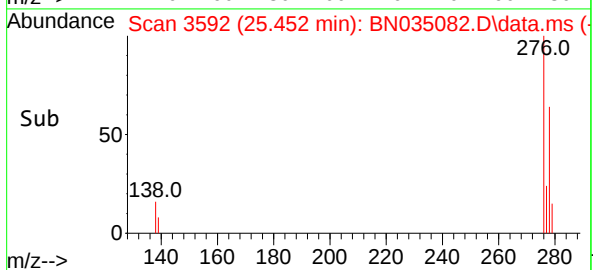
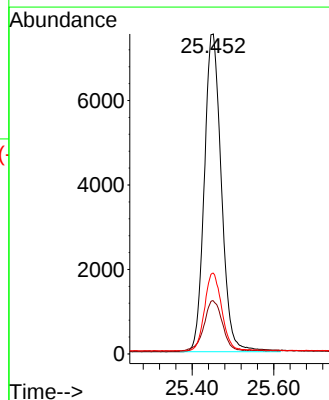
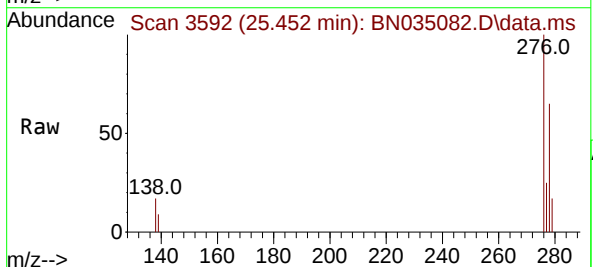
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

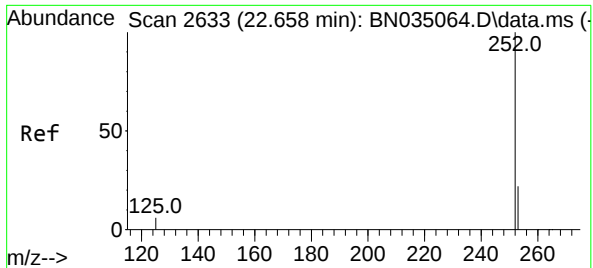
Tgt Ion:264 Resp: 14730  
Ion Ratio Lower Upper  
264 100  
260 25.8 20.9 31.3  
265 47.7 35.4 53.2



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.372 ng  
RT: 25.452 min Scan# 3592  
Delta R.T. -0.001 min  
Lab File: BN035082.D  
Acq: 14 Nov 2024 10:12

Tgt Ion:276 Resp: 21866  
Ion Ratio Lower Upper  
276 100  
138 17.1 13.0 19.4  
277 24.6 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.385 ng

RT: 22.657 min Scan# 2633

Delta R.T. -0.001 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

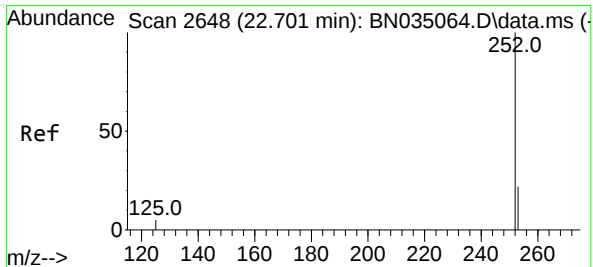
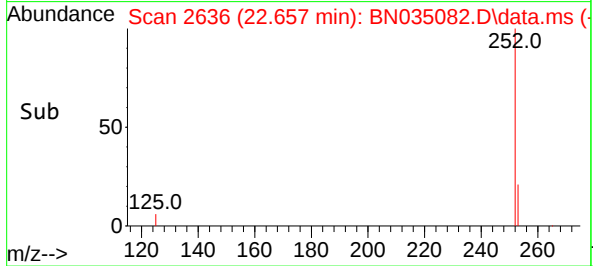
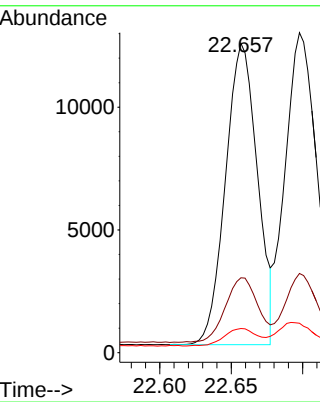
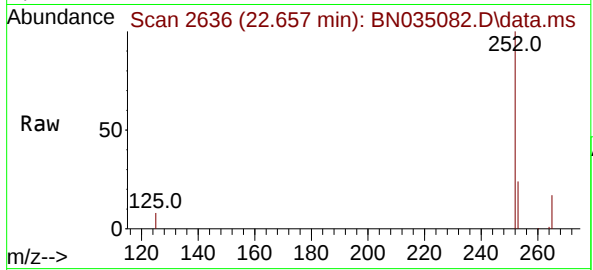
Tgt Ion:252 Resp: 19067

Ion Ratio Lower Upper

252 100

253 24.2 19.3 28.9

125 7.8 6.2 9.2



#38

Benzo(k)fluoranthene

Concen: 0.402 ng

RT: 22.698 min Scan# 2650

Delta R.T. -0.004 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

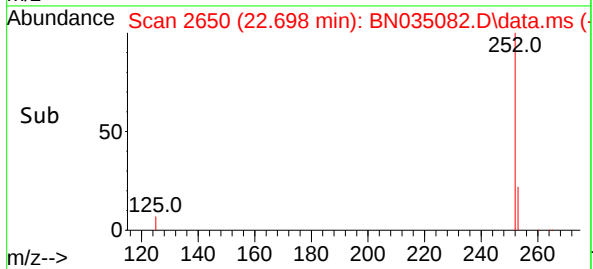
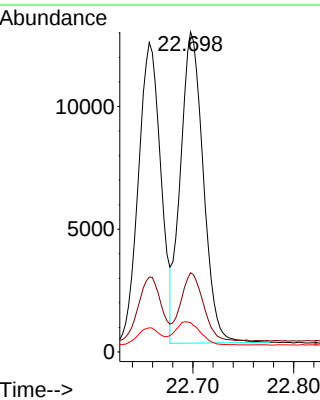
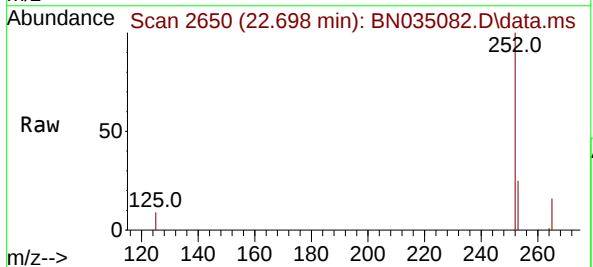
Tgt Ion:252 Resp: 19945

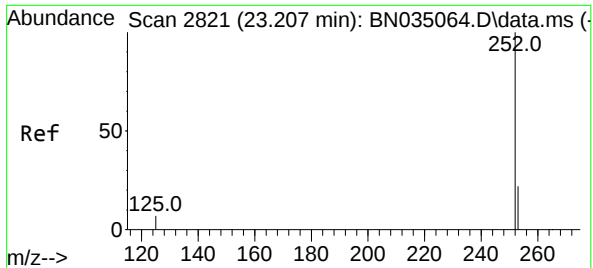
Ion Ratio Lower Upper

252 100

253 24.7 19.5 29.3

125 9.2 6.5 9.7





#39

Benzo(a)pyrene

Concen: 0.379 ng

RT: 23.206 min Scan# 21

Delta R.T. -0.001 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

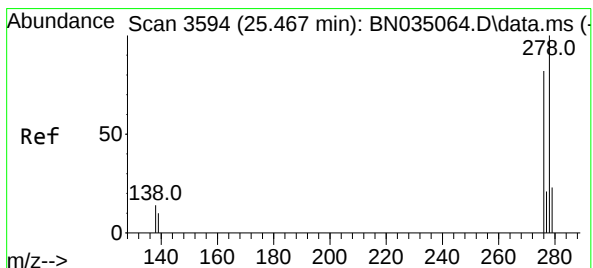
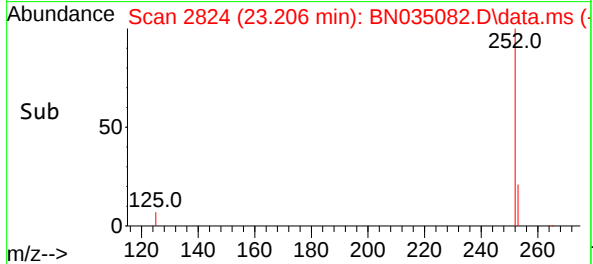
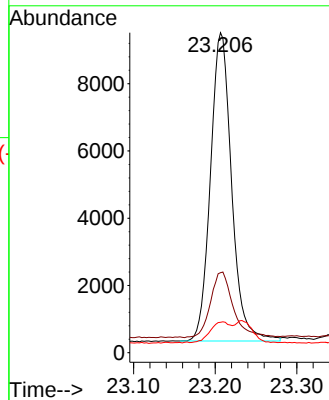
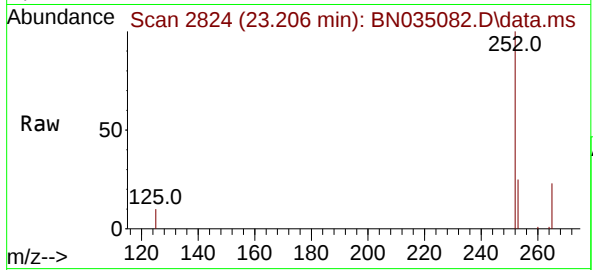
Tgt Ion:252 Resp: 16523

Ion Ratio Lower Upper

252 100

253 25.0 20.1 30.1

125 9.5 7.5 11.3



#40

Dibenzo(a,h)anthracene

Concen: 0.372 ng

RT: 25.466 min Scan# 3597

Delta R.T. -0.001 min

Lab File: BN035082.D

Acq: 14 Nov 2024 10:12

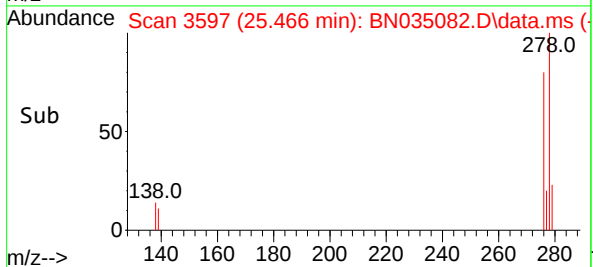
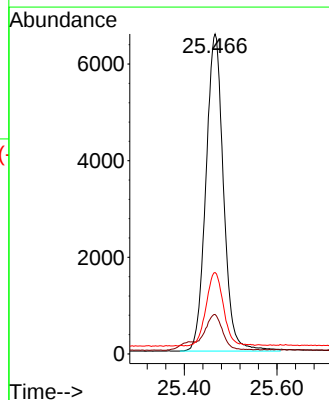
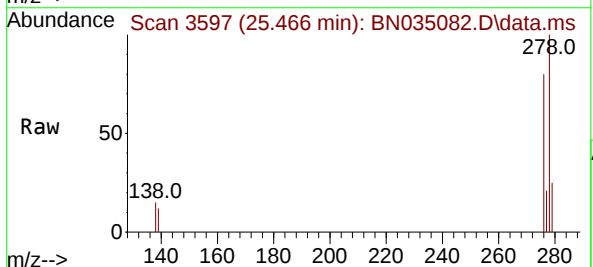
Tgt Ion:278 Resp: 17299

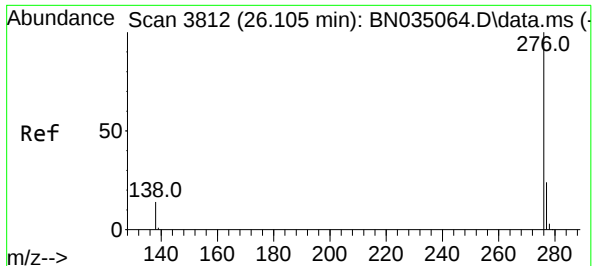
Ion Ratio Lower Upper

278 100

139 12.4 9.3 13.9

279 25.5 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 0.359 ng

RT: 26.101 min Scan# 3814

Delta R.T. -0.004 min

Lab File: BN035082.D

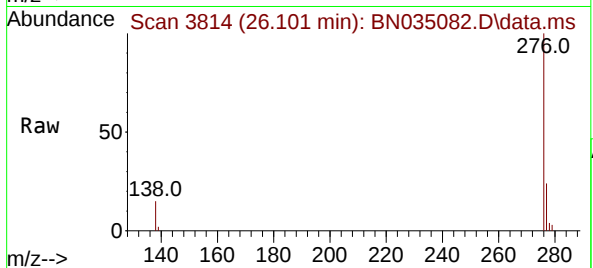
Acq: 14 Nov 2024 10:12

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4



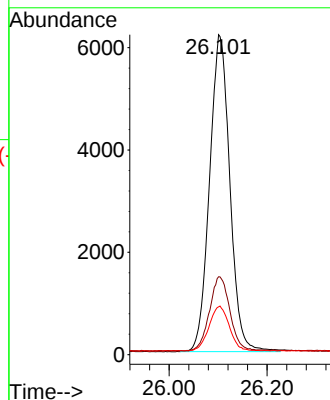
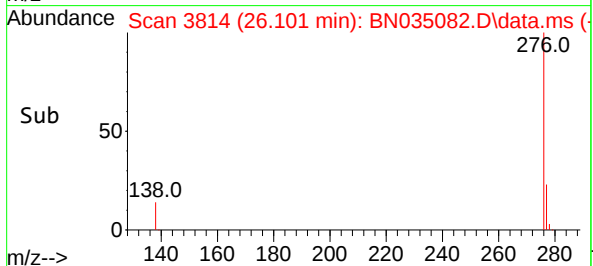
Tgt Ion:276 Resp: 17799

Ion Ratio Lower Upper

276 100

277 24.4 19.9 29.9

138 14.9 11.6 17.4



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
 Data File : BN035082.D  
 Acq On : 14 Nov 2024 10:12  
 Operator : RC/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 LabSampleId :  
 SSTDCCC0.4

Quant Time: Nov 14 11:23:30 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|---------|----------------------------|-------|-------|------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0  | 91    | 0.00     |
| 2       | 1,4-Dioxane                | 0.363 | 0.354 | 2.5  | 96    | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.339 | 0.299 | 11.8 | 84    | 0.00     |
| 4 S     | 2-Fluorophenol             | 1.015 | 0.916 | 9.8  | 88    | 0.00     |
| 5 S     | Phenol-d6                  | 1.273 | 1.184 | 7.0  | 93    | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.956 | 0.884 | 7.5  | 90    | 0.00     |
| 7 I     | Naphthalene-d8             | 1.000 | 1.000 | 0.0  | 93    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.348 | 0.308 | 11.5 | 89    | -0.01    |
| 9       | Naphthalene                | 1.044 | 0.964 | 7.7  | 92    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.306 | 0.287 | 6.2  | 91    | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.713 | 0.656 | 8.0  | 92    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.770 | 0.709 | 7.9  | 92    | 0.00     |
| 13 I    | Acenaphthene-d10           | 1.000 | 1.000 | 0.0  | 93    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.289 | 0.230 | 20.4 | 89    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 1.624 | 1.452 | 10.6 | 93    | 0.00     |
| 16      | Acenaphthylene             | 1.709 | 1.480 | 13.4 | 93    | 0.00     |
| 17      | Acenaphthene               | 1.120 | 0.995 | 11.2 | 93    | 0.00     |
| 18      | Fluorene                   | 1.648 | 1.459 | 11.5 | 93    | 0.00     |
| 19 I    | Phenanthrene-d10           | 1.000 | 1.000 | 0.0  | 95    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.083 | 0.070 | 15.7 | 92    | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.255 | 0.240 | 5.9  | 92    | 0.00     |
| 22      | Hexachlorobenzene          | 0.264 | 0.250 | 5.3  | 94    | 0.00     |
| 23      | Atrazine                   | 0.229 | 0.195 | 14.8 | 85    | 0.00     |
| 24      | Pentachlorophenol          | 0.124 | 0.104 | 16.1 | 95    | 0.00     |
| 25      | Phenanthrene               | 1.053 | 1.000 | 5.0  | 94    | 0.00     |
| 26      | Anthracene                 | 0.967 | 0.893 | 7.7  | 92    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 1.225 | 1.132 | 7.6  | 92    | 0.00     |
| 28      | Fluoranthene               | 1.448 | 1.348 | 6.9  | 92    | 0.00     |
| 29 I    | Chrysene-d12               | 1.000 | 1.000 | 0.0  | 90    | 0.00     |
| 30      | Pyrene                     | 1.332 | 1.312 | 1.5  | 92    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.839 | 0.812 | 3.2  | 90    | 0.00     |
| 32      | Benzo(a)anthracene         | 1.393 | 1.316 | 5.5  | 89    | 0.00     |
| 33      | Chrysene                   | 1.380 | 1.342 | 2.8  | 91    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.731 | 0.581 | 20.5 | 81    | 0.00     |
| 35 I    | Perylene-d12               | 1.000 | 1.000 | 0.0  | 86    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 1.596 | 1.484 | 7.0  | 84    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 1.346 | 1.294 | 3.9  | 87    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 1.347 | 1.354 | -0.5 | 91    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 1.184 | 1.122 | 5.2  | 86    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 1.264 | 1.174 | 7.1  | 84    | 0.00     |
| 41      | Benzo(g,h,i)perylene       | 1.345 | 1.208 | 10.2 | 81    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
 Data File : BN035082.D  
 Acq On : 14 Nov 2024 10:12  
 Operator : RC/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 LabSampleId :  
 SSTDCCC0.4

Quant Time: Nov 14 11:23:30 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | Amount | Calc. | %Dev | Area% | Dev(min) |
|---------|----------------------------|--------|-------|------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 0.400  | 0.400 | 0.0  | 91    | 0.00     |
| 2       | 1,4-Dioxane                | 0.400  | 0.390 | 2.5  | 96    | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.400  | 0.354 | 11.5 | 84    | 0.00     |
| 4 S     | 2-Fluorophenol             | 0.400  | 0.361 | 9.8  | 88    | 0.00     |
| 5 S     | Phenol-d6                  | 0.400  | 0.372 | 7.0  | 93    | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.400  | 0.370 | 7.5  | 90    | 0.00     |
| 7 I     | Naphthalene-d8             | 0.400  | 0.400 | 0.0  | 93    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.400  | 0.354 | 11.5 | 89    | -0.01    |
| 9       | Naphthalene                | 0.400  | 0.369 | 7.8  | 92    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.400  | 0.375 | 6.3  | 91    | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.400  | 0.368 | 8.0  | 92    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.400  | 0.368 | 8.0  | 92    | 0.00     |
| 13 I    | Acenaphthene-d10           | 0.400  | 0.400 | 0.0  | 93    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.400  | 0.318 | 20.5 | 89    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 0.400  | 0.358 | 10.5 | 93    | 0.00     |
| 16      | Acenaphthylene             | 0.400  | 0.346 | 13.5 | 93    | 0.00     |
| 17      | Acenaphthene               | 0.400  | 0.355 | 11.3 | 93    | 0.00     |
| 18      | Fluorene                   | 0.400  | 0.354 | 11.5 | 93    | 0.00     |
| 19 I    | Phenanthrene-d10           | 0.400  | 0.400 | 0.0  | 95    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.400  | 0.338 | 15.5 | 92    | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.400  | 0.376 | 6.0  | 92    | 0.00     |
| 22      | Hexachlorobenzene          | 0.400  | 0.378 | 5.5  | 94    | 0.00     |
| 23      | Atrazine                   | 0.400  | 0.341 | 14.8 | 85    | 0.00     |
| 24      | Pentachlorophenol          | 0.400  | 0.337 | 15.8 | 95    | 0.00     |
| 25      | Phenanthrene               | 0.400  | 0.380 | 5.0  | 94    | 0.00     |
| 26      | Anthracene                 | 0.400  | 0.370 | 7.5  | 92    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.400  | 0.369 | 7.8  | 92    | 0.00     |
| 28      | Fluoranthene               | 0.400  | 0.372 | 7.0  | 92    | 0.00     |
| 29 I    | Chrysene-d12               | 0.400  | 0.400 | 0.0  | 90    | 0.00     |
| 30      | Pyrene                     | 0.400  | 0.394 | 1.5  | 92    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.400  | 0.387 | 3.3  | 90    | 0.00     |
| 32      | Benzo(a)anthracene         | 0.400  | 0.378 | 5.5  | 89    | 0.00     |
| 33      | Chrysene                   | 0.400  | 0.389 | 2.8  | 91    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.400  | 0.318 | 20.5 | 81    | 0.00     |
| 35 I    | Perylene-d12               | 0.400  | 0.400 | 0.0  | 86    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 0.400  | 0.372 | 7.0  | 84    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 0.400  | 0.385 | 3.8  | 87    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 0.400  | 0.402 | -0.5 | 91    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 0.400  | 0.379 | 5.3  | 86    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 0.400  | 0.372 | 7.0  | 84    | 0.00     |
| 41      | Benzo(g,h,i)perylene       | 0.400  | 0.359 | 10.3 | 81    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



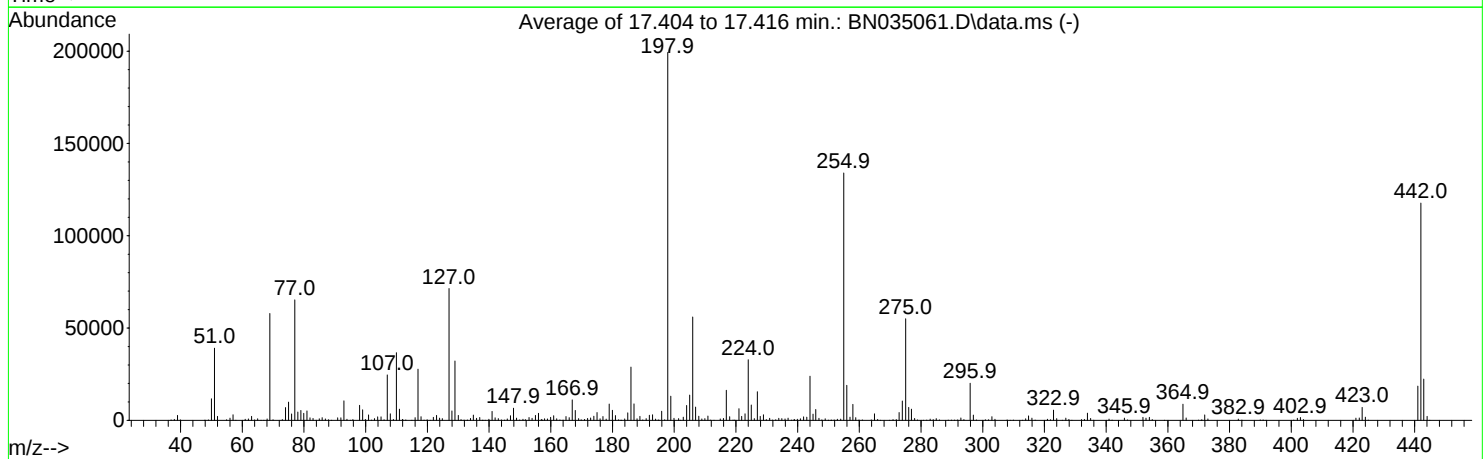
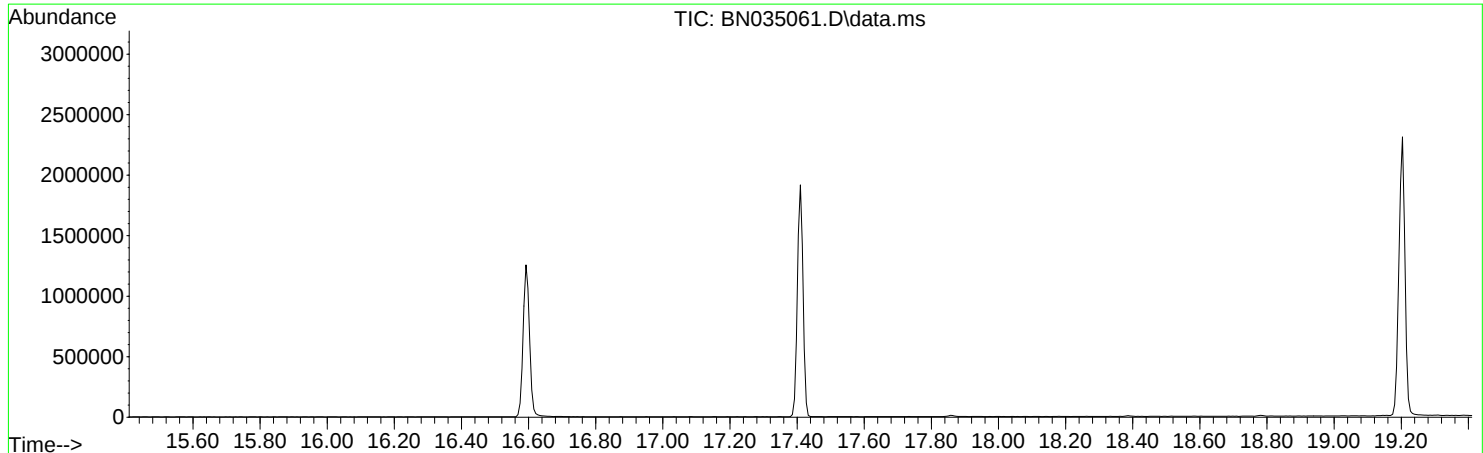
# QC SAMPLE DATA

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035061.D  
Acq On : 13 Nov 2024 12:01  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
Last Update : Wed Nov 13 17:18:14 2024



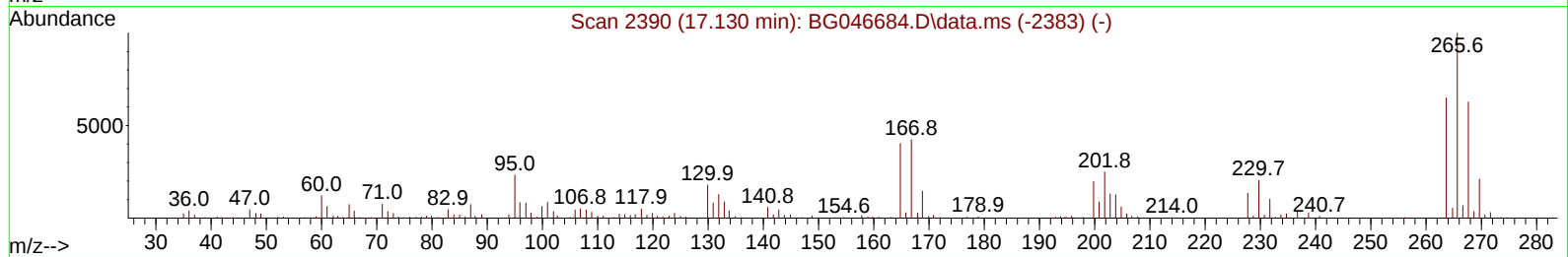
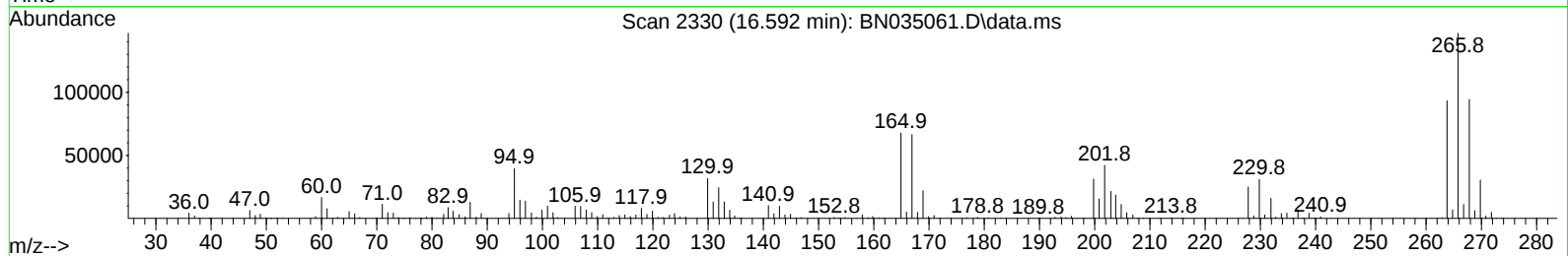
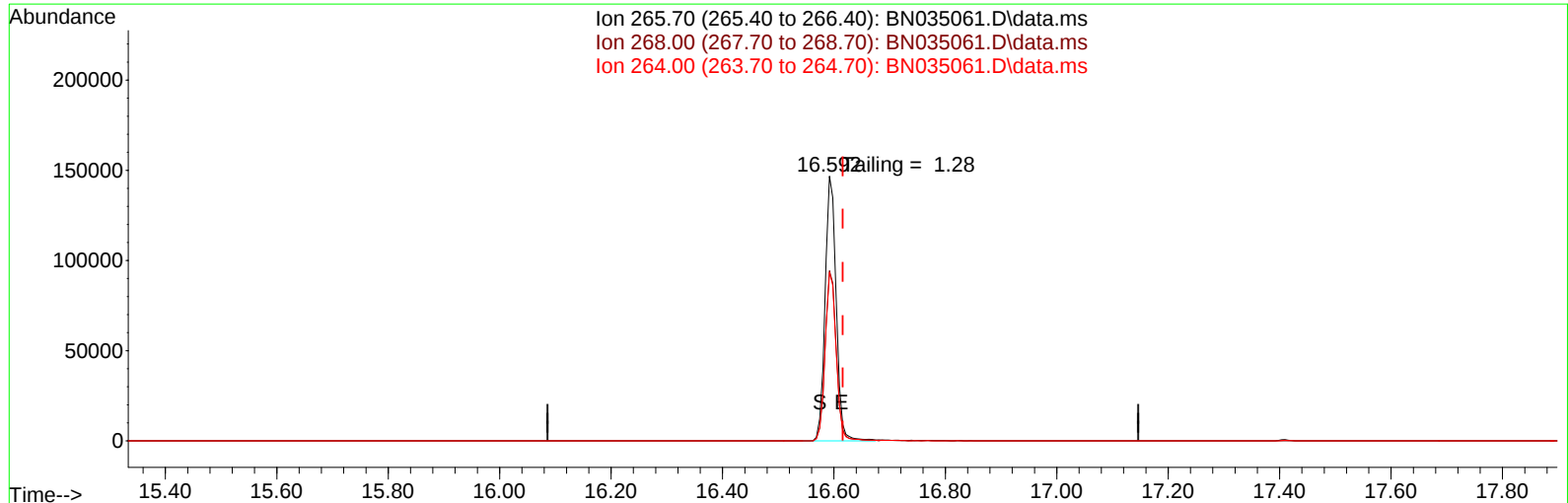
AutoFind: Scans 2468, 2469, 2470; Background Corrected with Scan 2461

| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 51             | 198             | 10              | 80              | 19.6         | 39078      | PASS                |
| 68             | 69              | 0.00            | 2               | 1.4          | 807        | PASS                |
| 69             | 198             | 0.00            | 100             | 29.1         | 57928      | PASS                |
| 70             | 69              | 0.00            | 2               | 0.7          | 382        | PASS                |
| 127            | 198             | 10              | 80              | 35.9         | 71451      | PASS                |
| 197            | 198             | 0.00            | 2               | 0.2          | 365        | PASS                |
| 198            | 198             | 100             | 100             | 100.0        | 199275     | PASS                |
| 199            | 198             | 5               | 9               | 6.6          | 13094      | PASS                |
| 275            | 198             | 10              | 60              | 27.6         | 55048      | PASS                |
| 365            | 198             | 1               | 100             | 4.4          | 8801       | PASS                |
| 441            | 198             | 0.01            | 100             | 9.3          | 18540      | PASS                |
| 442            | 442             | 50              | 100             | 100.0        | 117725     | PASS                |
| 443            | 442             | 15              | 24              | 19.0         | 22395      | PASS                |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035061.D  
Acq On : 13 Nov 2024 12:01  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Nov 14 15:14:42 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sat Nov 09 04:05:27 2024  
Response via : Initial Calibration



TIC: BN035061.D\data.ms

**(70) Pentachlorophenol (C)**

16.592min (-0.024) 20966.65 ng

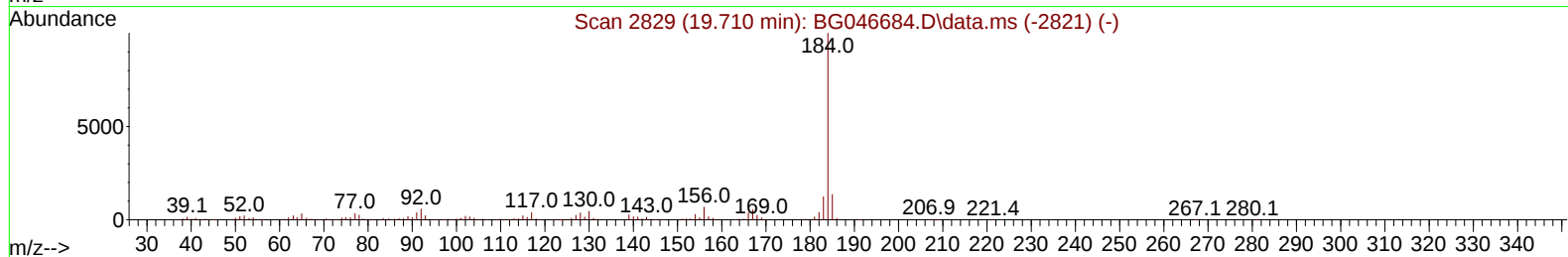
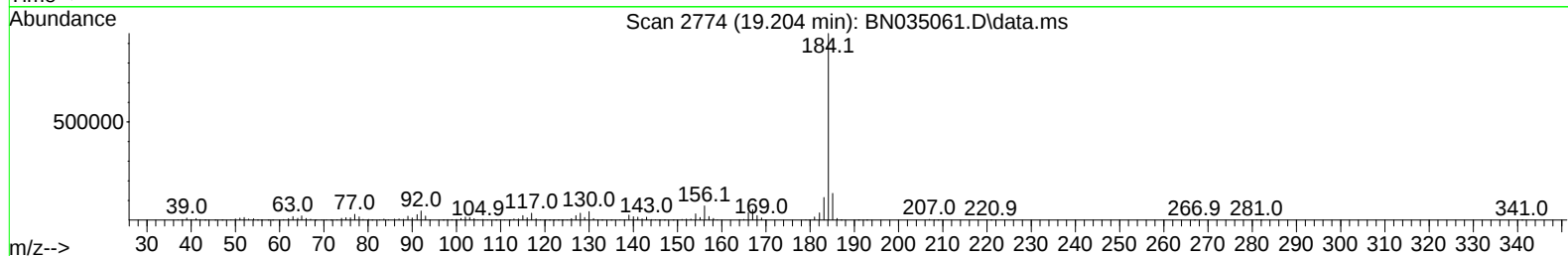
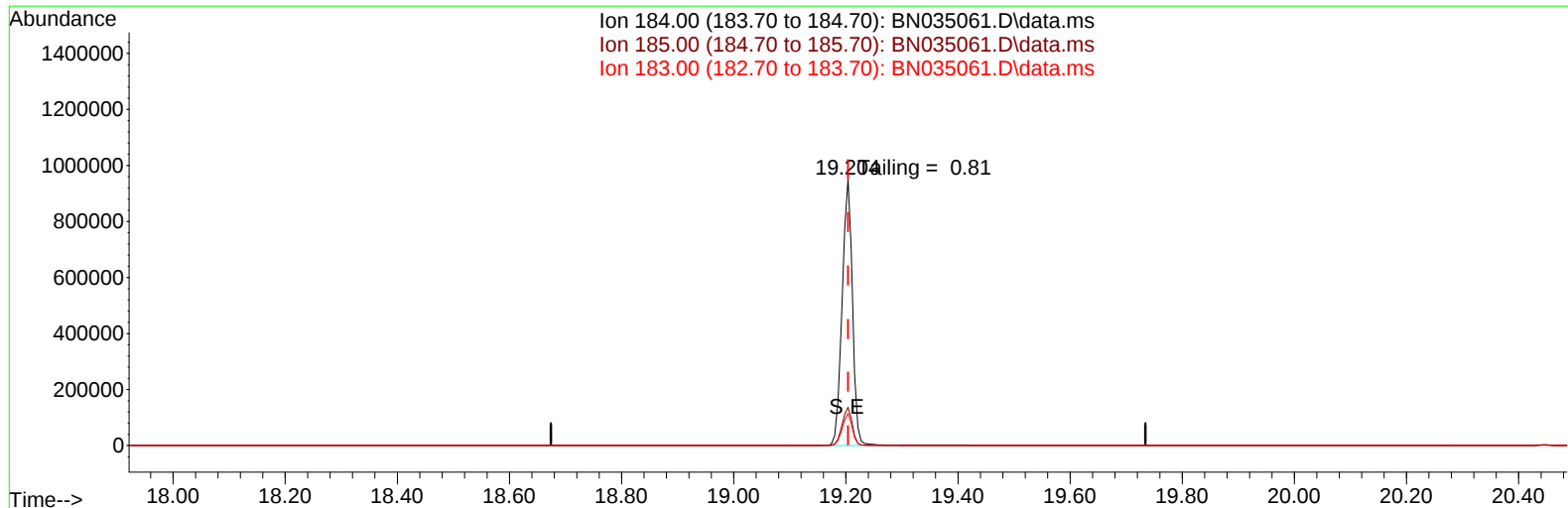
response 202879

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 265.70 | 100.00 | 100.00 |
| 268.00 | 62.20  | 64.29  |
| 264.00 | 61.60  | 63.61  |
| 0.00   | 0.00   | 0.00   |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111324\  
Data File : BN035061.D  
Acq On : 13 Nov 2024 12:01  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Nov 14 15:14:42 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sat Nov 09 04:05:27 2024  
Response via : Initial Calibration



TIC: BN035061.D\data.ms

**(77) Benzidine**

**19.204min (-0.000) 0.00 ng**

**response 1216684**

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 184.00 | 100.00 | 100.00 |
| 185.00 | 15.50  | 14.30  |
| 183.00 | 13.20  | 12.08  |
| 0.00   | 0.00   | 0.00   |

DDT Breakdown

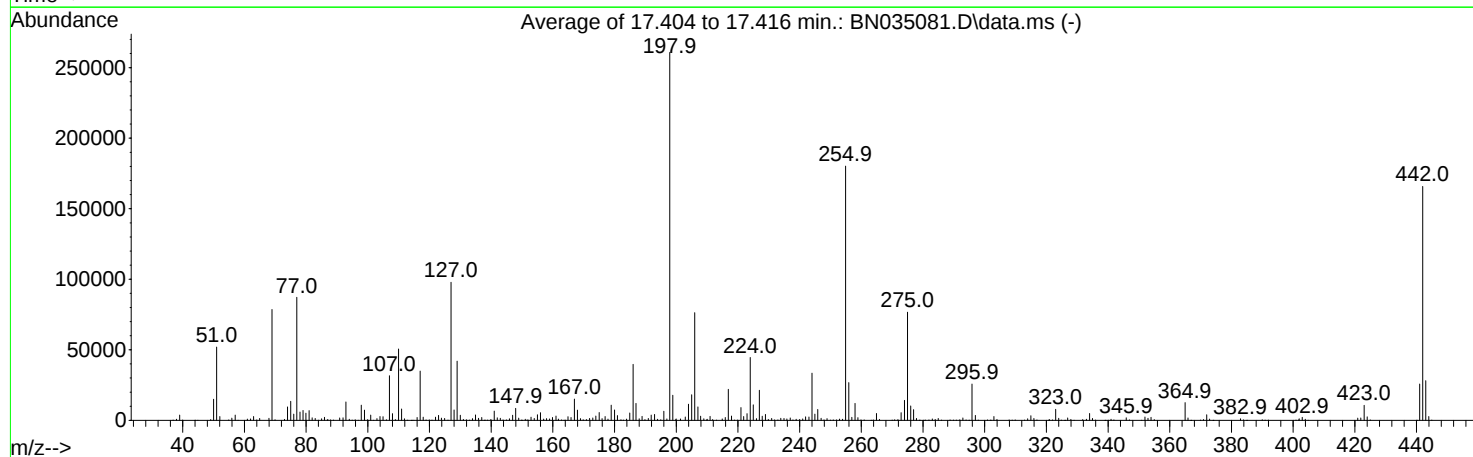
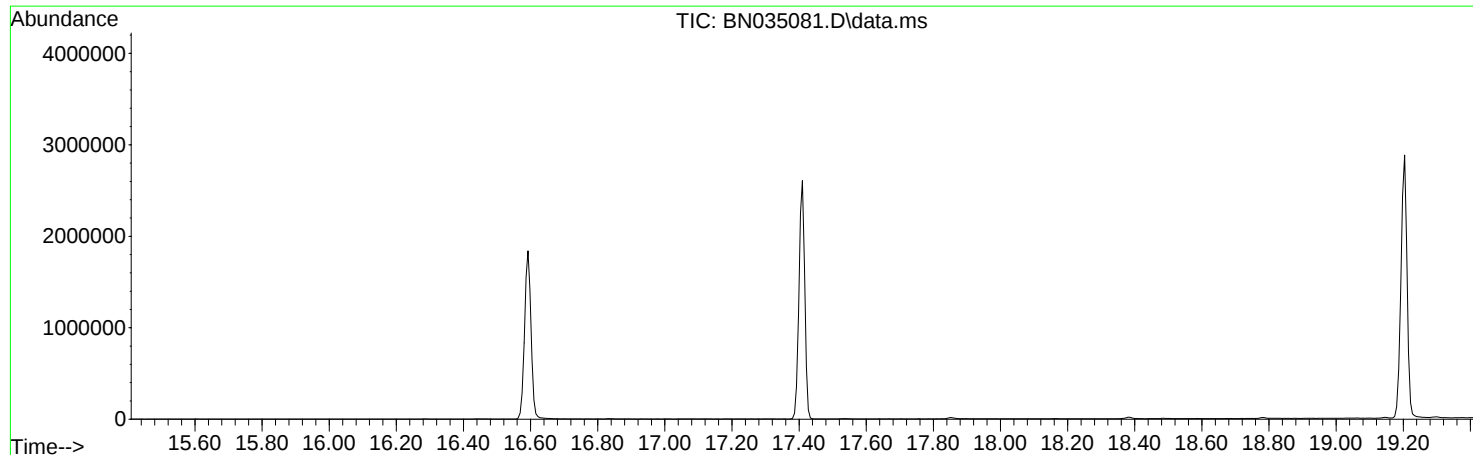
| Date          | Instrument Name  | DFTPP Data File    |
|---------------|------------------|--------------------|
| 11/13/2024    | BNA_N            | <u>BN035561.D</u>  |
|               |                  |                    |
|               |                  |                    |
| Compound Name | Response         | Retention Time     |
|               |                  |                    |
| DDT           | 699321           | 20.445             |
| DDD           | 6440             | 20.057             |
| DDE           | 0                | 19.527             |
|               |                  |                    |
|               |                  |                    |
| SUM(DDD+DDE)  | SUM(DDT+DDD+DDE) | % Breakdown Of DDT |
|               |                  |                    |
| 6440          | 705761           | 0.91               |
|               |                  |                    |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035081.D  
Acq On : 14 Nov 2024 08:53  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
Last Update : Wed Nov 13 17:18:14 2024



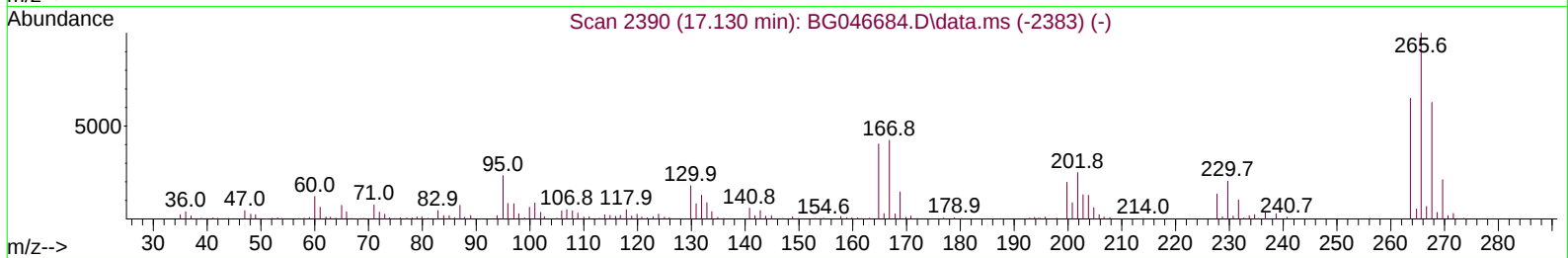
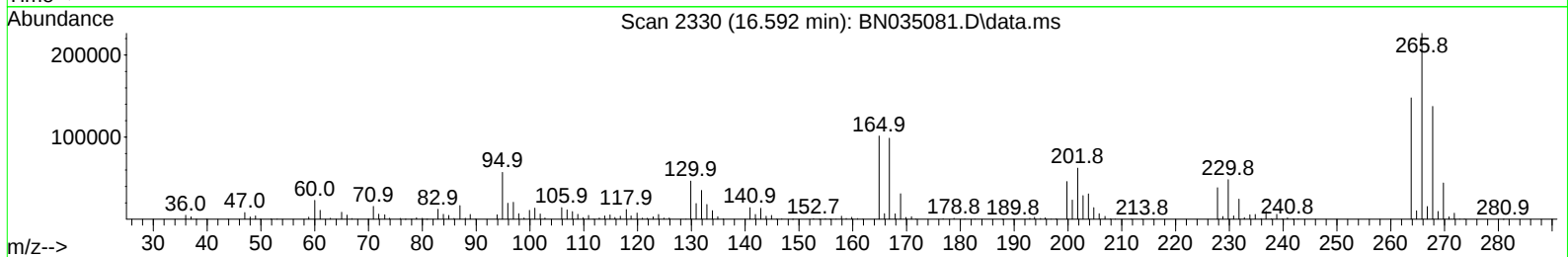
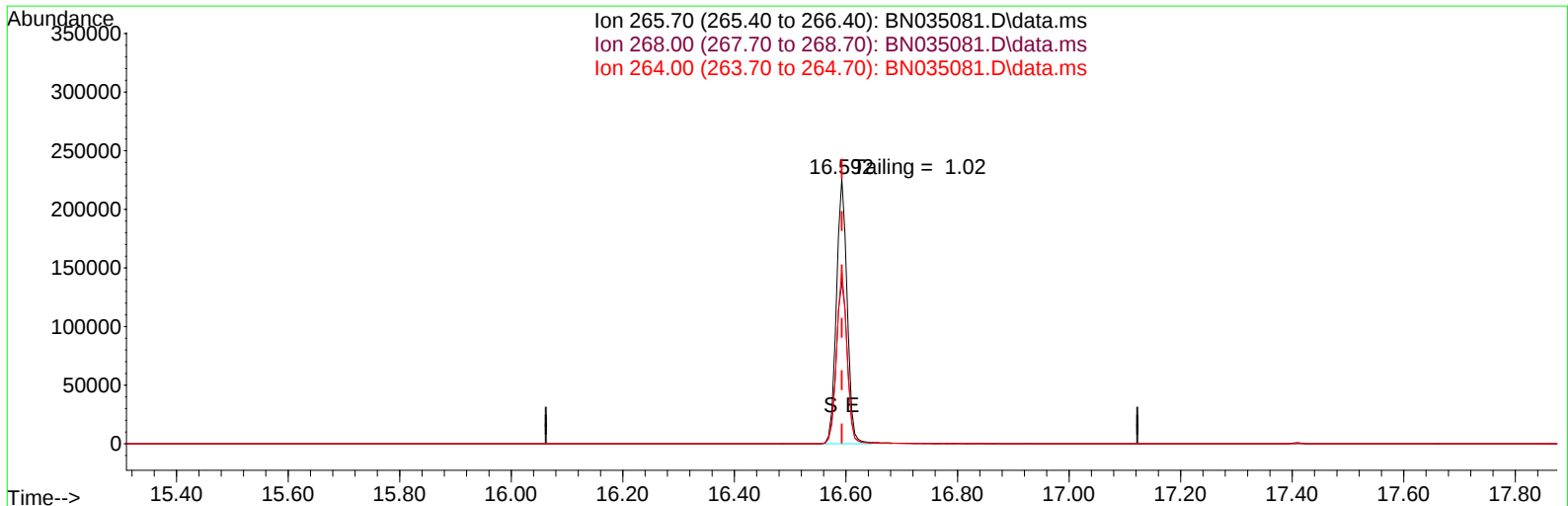
AutoFind: Scans 2468, 2469, 2470; Background Corrected with Scan 2461

| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 51             | 198             | 10              | 80              | 19.9         | 51893      | PASS                |
| 68             | 69              | 0.00            | 2               | 1.9          | 1465       | PASS                |
| 69             | 198             | 0.00            | 100             | 30.1         | 78547      | PASS                |
| 70             | 69              | 0.00            | 2               | 0.6          | 499        | PASS                |
| 127            | 198             | 10              | 80              | 37.5         | 97883      | PASS                |
| 197            | 198             | 0.00            | 2               | 0.4          | 1067       | PASS                |
| 198            | 198             | 100             | 100             | 100.0        | 260736     | PASS                |
| 199            | 198             | 5               | 9               | 6.8          | 17819      | PASS                |
| 275            | 198             | 10              | 60              | 29.4         | 76672      | PASS                |
| 365            | 198             | 1               | 100             | 4.8          | 12586      | PASS                |
| 441            | 198             | 0.01            | 100             | 9.9          | 25771      | PASS                |
| 442            | 442             | 50              | 100             | 100.0        | 165845     | PASS                |
| 443            | 442             | 15              | 24              | 16.9         | 28101      | PASS                |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035081.D  
Acq On : 14 Nov 2024 08:53  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Nov 15 01:14:50 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Fri Nov 15 01:14:43 2024  
Response via : Initial Calibration



TIC: BN035081.D\data.ms

**(70) Pentachlorophenol (C)**

16.592min ( 0.000) 22635.68 ng

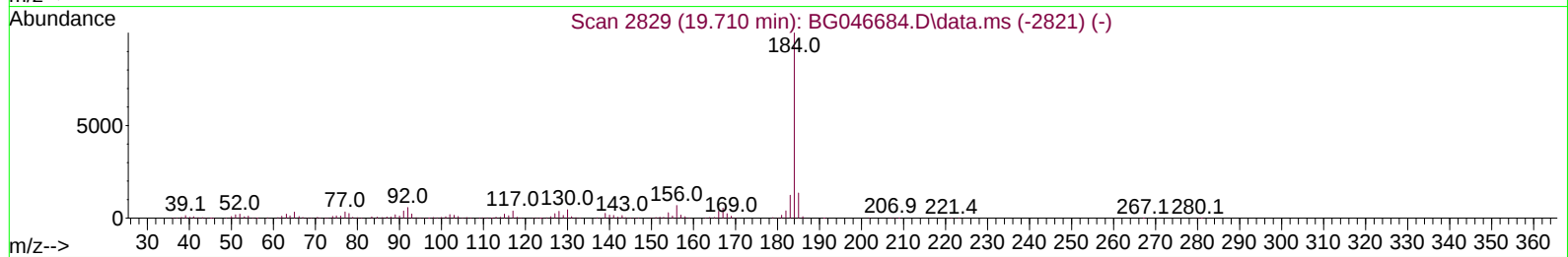
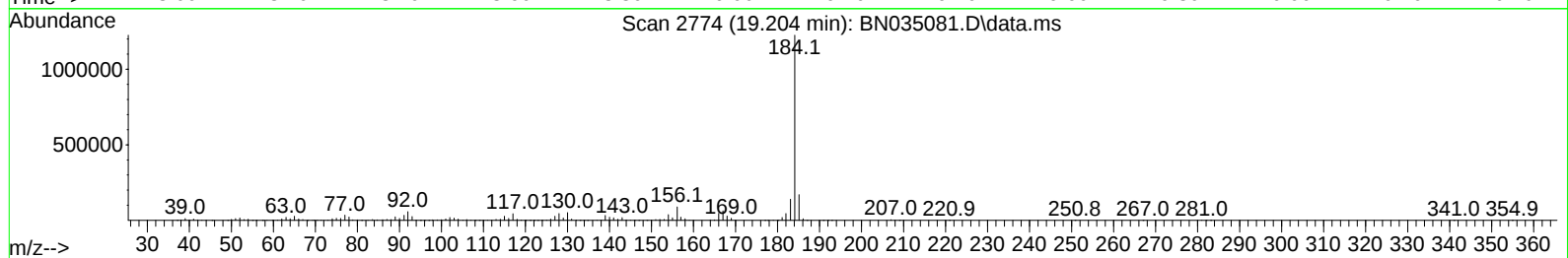
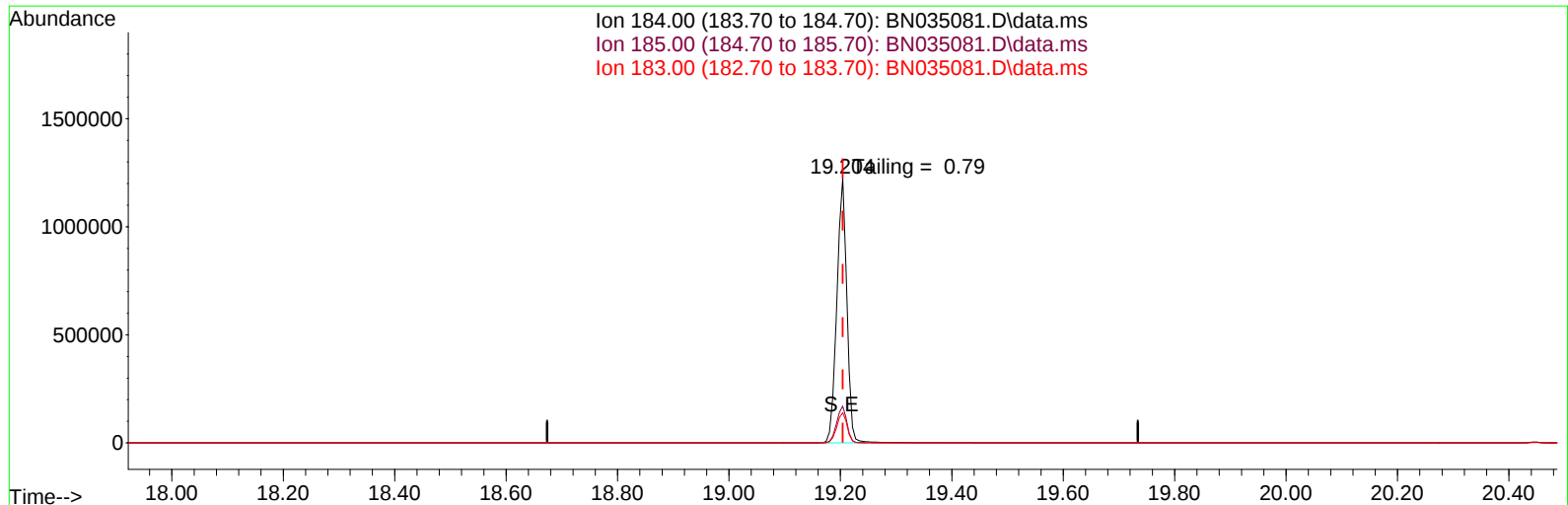
response 303230

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 265.70 | 100.00 | 100.00 |
| 268.00 | 62.20  | 60.69  |
| 264.00 | 61.60  | 65.30  |
| 0.00   | 0.00   | 0.00   |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035081.D  
Acq On : 14 Nov 2024 08:53  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Nov 15 01:14:50 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Fri Nov 15 01:14:43 2024  
Response via : Initial Calibration



TIC: BN035081.D\data.ms

**(77) Benzidine**

19.204min ( 0.000) 0.00 ng

response 1534532

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 184.00 | 100.00 | 100.00 |
| 185.00 | 15.50  | 13.91  |
| 183.00 | 13.20  | 11.39  |
| 0.00   | 0.00   | 0.00   |

**Instrument :**  
BNA\_N  
**ClientSampleId :**  
DFTPP

**DDT Breakdown**

| Date          | Instrument Name  | DFTPP Data File    |
|---------------|------------------|--------------------|
| 11/14/2024    | BNA_N            | <u>BN035081.D</u>  |
|               |                  |                    |
|               |                  |                    |
| Compound Name | Response         | Retention Time     |
|               |                  |                    |
| DDT           | 954250           | 20.445             |
| DDD           | 16295            | 20.004             |
| DDE           | 363              | 19.458             |
|               |                  |                    |
|               |                  |                    |
| SUM(DDD+DDE)  | SUM(DDT+DDD+DDE) | % Breakdown Of DDT |
|               |                  |                    |
| 16658         | 970908           | 1.72               |
|               |                  |                    |

## Report of Analysis

|                    |                           |                 |                              |
|--------------------|---------------------------|-----------------|------------------------------|
| Client:            | Chemtech Consulting Group | Date Collected: |                              |
| Project:           | NJ Soil PT                | Date Received:  |                              |
| Client Sample ID:  | PB164402BL                | SDG No.:        | P4495                        |
| Lab Sample ID:     | PB164402BL                | Matrix:         | SOIL                         |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100                          |
| Sample Wt/Vol:     | 30.02      Units:    g    | Final Vol:      | 1000                      uL |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3                |
| Extraction Type :  | Decanted :      N         | Level :         | LOW                          |
| Injection Volume : | GPC Factor :    1.0       | GPC Cleanup :   | N                      PH :  |
| Prep Method :      | sw3541                    |                 |                              |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035083.D        | 1         | 10/25/24 09:50 | 11/14/24 10:48 | PB164402      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|---------------------------|-------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>            |                         |       |           |          |            |                   |
| 91-20-3                   | Naphthalene             | 0.69  | U         | 0.69     | 3.30       | ug/Kg             |
| 91-57-6                   | 2-Methylnaphthalene     | 0.80  | U         | 0.80     | 3.30       | ug/Kg             |
| 208-96-8                  | Acenaphthylene          | 0.63  | U         | 0.63     | 3.30       | ug/Kg             |
| 83-32-9                   | Acenaphthene            | 0.55  | U         | 0.55     | 3.30       | ug/Kg             |
| 86-73-7                   | Fluorene                | 0.60  | U         | 0.60     | 3.30       | ug/Kg             |
| 85-01-8                   | Phenanthrene            | 0.63  | U         | 0.63     | 3.30       | ug/Kg             |
| 120-12-7                  | Anthracene              | 0.79  | U         | 0.79     | 3.30       | ug/Kg             |
| 206-44-0                  | Fluoranthene            | 0.67  | U         | 0.67     | 3.30       | ug/Kg             |
| 129-00-0                  | Pyrene                  | 0.95  | U         | 0.95     | 3.30       | ug/Kg             |
| 56-55-3                   | Benzo(a)anthracene      | 0.76  | U         | 0.76     | 3.30       | ug/Kg             |
| 218-01-9                  | Chrysene                | 0.86  | U         | 0.86     | 3.30       | ug/Kg             |
| 205-99-2                  | Benzo(b)fluoranthene    | 1.20  | U         | 1.20     | 3.30       | ug/Kg             |
| 207-08-9                  | Benzo(k)fluoranthene    | 0.98  | U         | 0.98     | 3.30       | ug/Kg             |
| 50-32-8                   | Benzo(a)pyrene          | 1.70  | U         | 1.70     | 3.30       | ug/Kg             |
| 193-39-5                  | Indeno(1,2,3-cd)pyrene  | 1.30  | U         | 1.30     | 3.30       | ug/Kg             |
| 53-70-3                   | Dibenzo(a,h)anthracene  | 1.20  | U         | 1.20     | 3.30       | ug/Kg             |
| 191-24-2                  | Benzo(g,h,i)perylene    | 1.10  | U         | 1.10     | 3.30       | ug/Kg             |
| <b>SURROGATES</b>         |                         |       |           |          |            |                   |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.35  |           | 17 - 161 | 88%        | SPK: 0.4          |
| 93951-69-0                | Fluoranthene-d10        | 0.37  |           | 23 - 138 | 93%        | SPK: 0.4          |
| 4165-60-0                 | Nitrobenzene-d5         | 0.37  |           | 33 - 121 | 93%        | SPK: 0.4          |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.36  |           | 32 - 121 | 90%        | SPK: 0.4          |
| 1718-51-0                 | Terphenyl-d14           | 0.42  |           | 21 - 130 | 104%       | SPK: 0.4          |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |            |                   |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 2710  |           | 7.553    |            |                   |
| 1146-65-2                 | Naphthalene-d8          | 6300  |           | 10.319   |            |                   |
| 15067-26-2                | Acenaphthene-d10        | 4580  |           | 14.19    |            |                   |
| 1517-22-2                 | Phenanthrene-d10        | 12200 |           | 16.932   |            |                   |
| 1719-03-5                 | Chrysene-d12            | 12500 |           | 21.133   |            |                   |

## Report of Analysis

|                    |                           |                 |                              |
|--------------------|---------------------------|-----------------|------------------------------|
| Client:            | Chemtech Consulting Group | Date Collected: |                              |
| Project:           | NJ Soil PT                | Date Received:  |                              |
| Client Sample ID:  | PB164402BL                | SDG No.:        | P4495                        |
| Lab Sample ID:     | PB164402BL                | Matrix:         | SOIL                         |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100                          |
| Sample Wt/Vol:     | 30.02      Units:    g    | Final Vol:      | 1000                      uL |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3                |
| Extraction Type :  | Decanted :    N           | Level :         | LOW                          |
| Injection Volume : | GPC Factor :    1.0       | GPC Cleanup :   | N                      PH :  |
| Prep Method :      | sw3541                    |                 |                              |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035083.D        | 1         | 10/25/24 09:50 | 11/14/24 10:48 | PB164402      |

| CAS Number | Parameter    | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|------------|--------------|-------|-----------|-----|------------|-------|
| 1520-96-3  | Perylene-d12 | 14000 | 23.3      |     |            |       |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035083.D  
Acq On : 14 Nov 2024 10:48  
Operator : RC/JU  
Sample : PB164402BL  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

Quant Time: Nov 14 11:23:57 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards          |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 7.553  | 152  | 2707     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8           | 10.319 | 136  | 6301     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10        | 14.190 | 164  | 4578     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10        | 16.932 | 188  | 12175    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12            | 21.133 | 240  | 12501    | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12            | 23.300 | 264  | 13990    | 0.400 | ng    | 0.00     |
| System Monitoring Compounds |        |      |          |       |       |          |
| 4) 2-Fluorophenol           | 5.184  | 112  | 2415     | 0.351 | ng    | 0.00     |
| 5) Phenol-d6                | 6.737  | 99   | 2950     | 0.342 | ng    | 0.00     |
| 8) Nitrobenzene-d5          | 8.696  | 82   | 2047     | 0.373 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10 | 11.912 | 152  | 3938     | 0.351 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol    | 15.691 | 330  | 718      | 0.217 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl        | 12.811 | 172  | 6730     | 0.362 | ng    | 0.00     |
| 27) Fluoranthene-d10        | 18.973 | 212  | 13930    | 0.373 | ng    | 0.00     |
| 31) Terphenyl-d14           | 19.586 | 244  | 10975    | 0.418 | ng    | 0.00     |

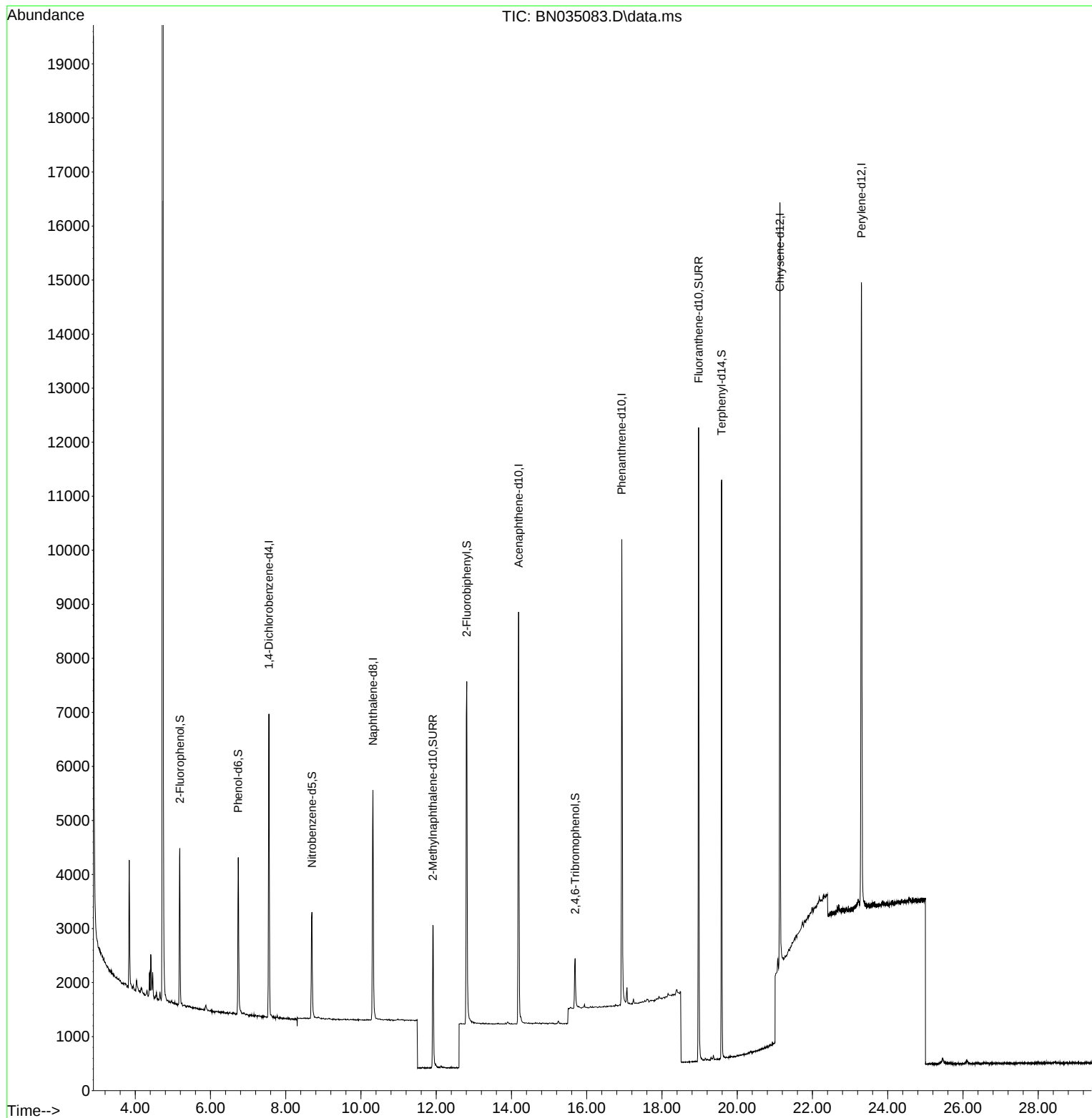
| Target Compounds | Qvalue |
|------------------|--------|
|------------------|--------|

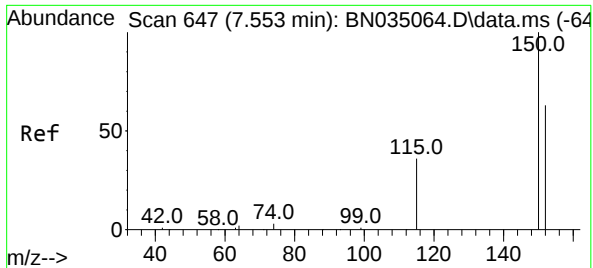
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035083.D  
Acq On : 14 Nov 2024 10:48  
Operator : RC/JU  
Sample : PB164402BL  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

Quant Time: Nov 14 11:23:57 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration

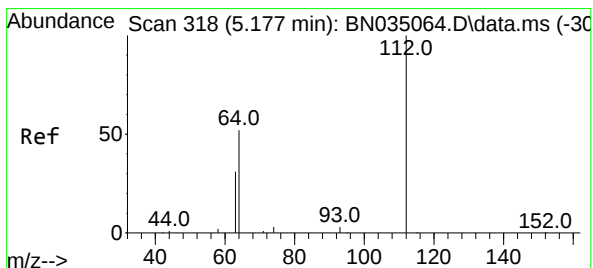
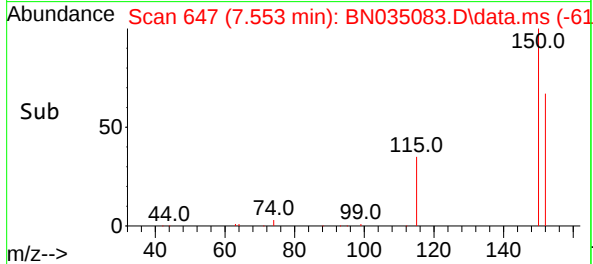
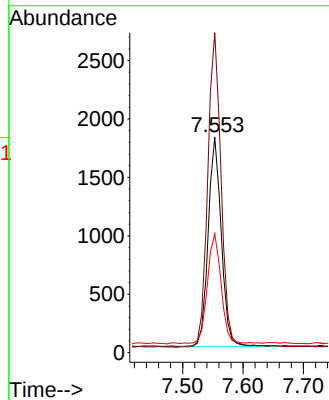
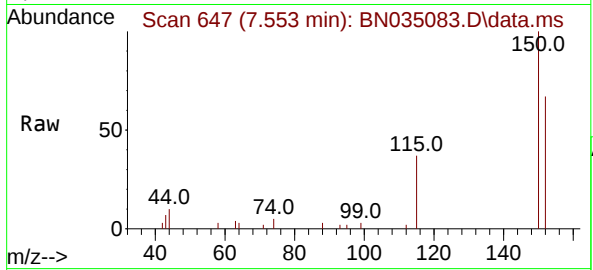




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.553 min Scan# 647  
Delta R.T. 0.000 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

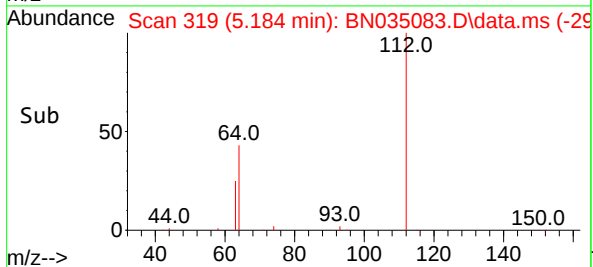
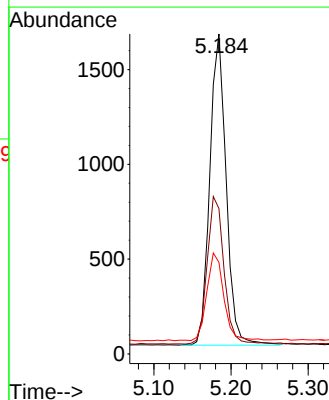
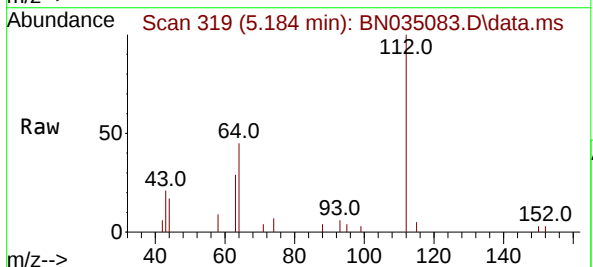
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

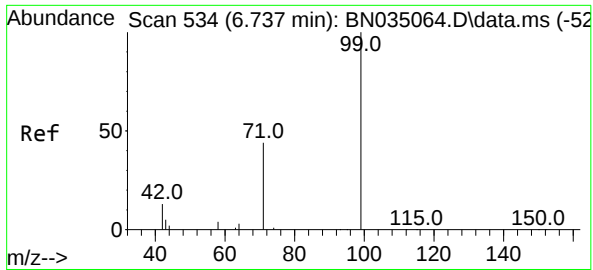
Tgt Ion:152 Resp: 2707  
Ion Ratio Lower Upper  
152 100  
150 148.5 124.5 186.7  
115 55.3 47.8 71.6



#4  
2-Fluorophenol  
Concen: 0.351 ng  
RT: 5.184 min Scan# 319  
Delta R.T. 0.007 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

Tgt Ion:112 Resp: 2415  
Ion Ratio Lower Upper  
112 100  
64 48.8 39.7 59.5  
63 28.7 23.0 34.4

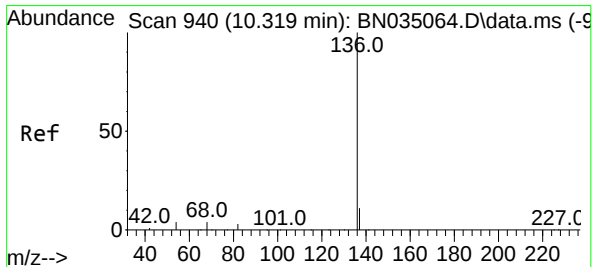
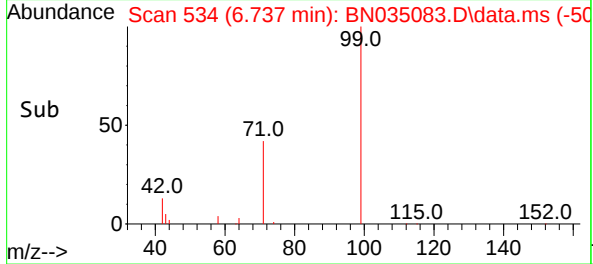
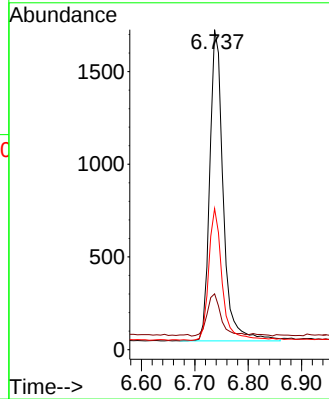
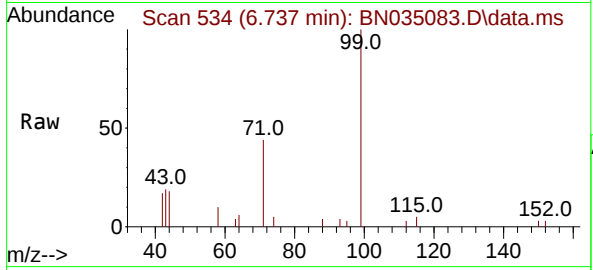




#5  
Phenol-d6  
Concen: 0.342 ng  
RT: 6.737 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

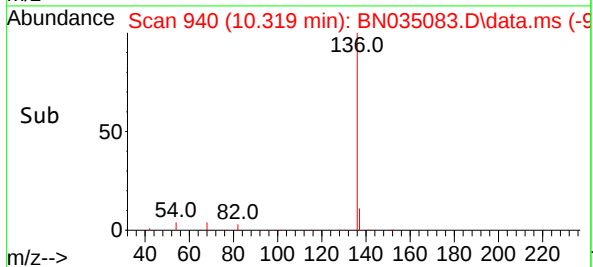
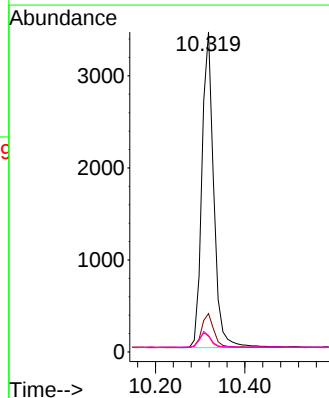
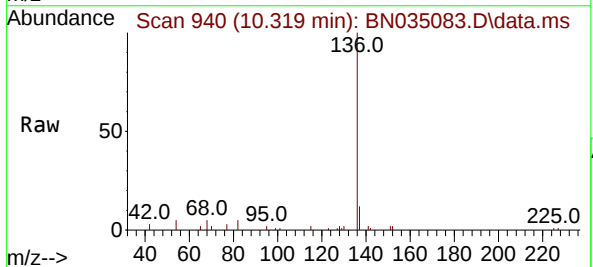
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

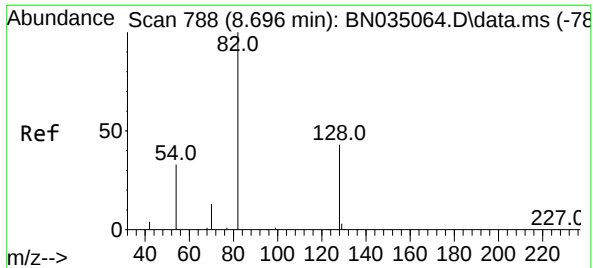
Tgt Ion: 99 Resp: 2950  
Ion Ratio Lower Upper  
99 100  
42 14.2 11.4 17.0  
71 42.2 34.6 51.8



#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

Tgt Ion: 136 Resp: 6301  
Ion Ratio Lower Upper  
136 100  
137 12.0 9.8 14.8  
54 5.0 4.0 6.0  
68 5.2 4.2 6.2

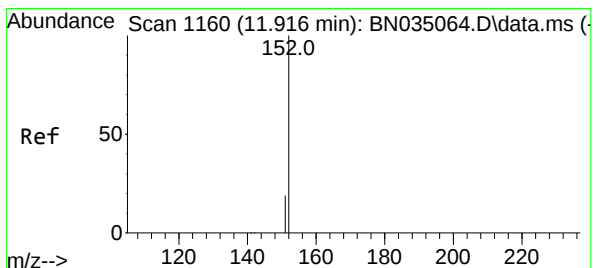
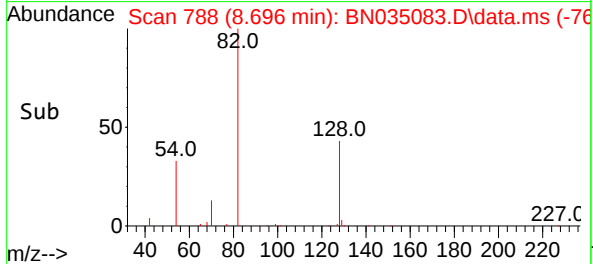
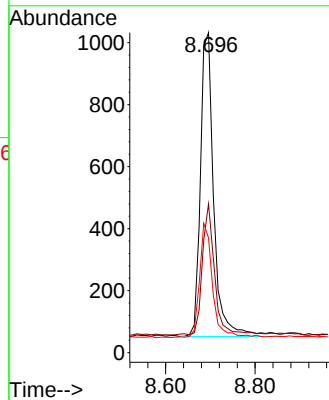
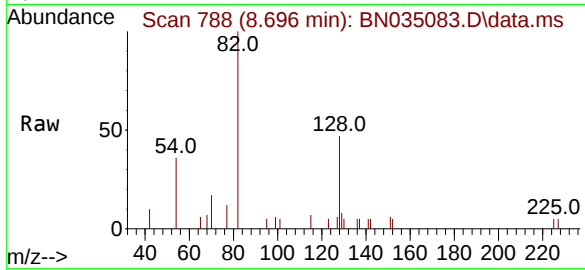




#8  
Nitrobenzene-d5  
Concen: 0.373 ng  
RT: 8.696 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

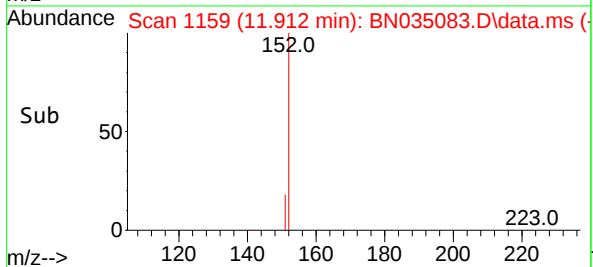
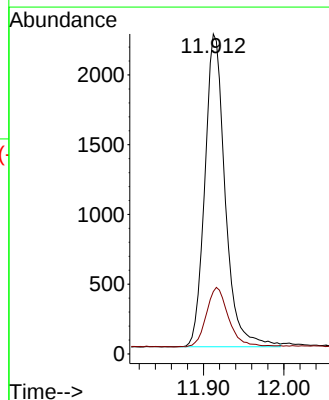
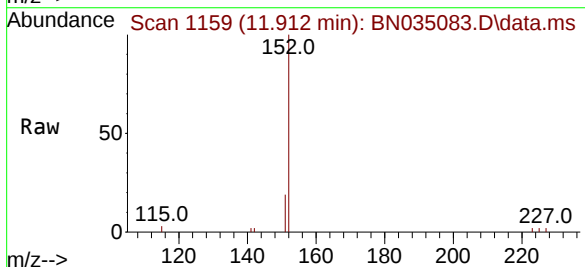
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

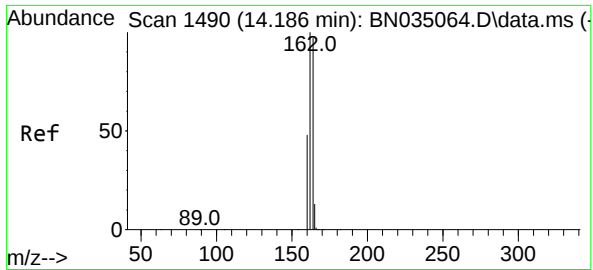
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 82    | Resp: | 2047 |
| Ion Ratio | Lower | Upper |      |
| 82        | 100   |       |      |
| 128       | 46.5  | 36.5  | 54.7 |
| 54        | 35.9  | 28.7  | 43.1 |



#11  
2-Methylnaphthalene-d10  
Concen: 0.351 ng  
RT: 11.912 min Scan# 1159  
Delta R.T. -0.004 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 152   | Resp: | 3938 |
| Ion Ratio | Lower | Upper |      |
| 152       | 100   |       |      |
| 151       | 21.2  | 16.2  | 24.4 |

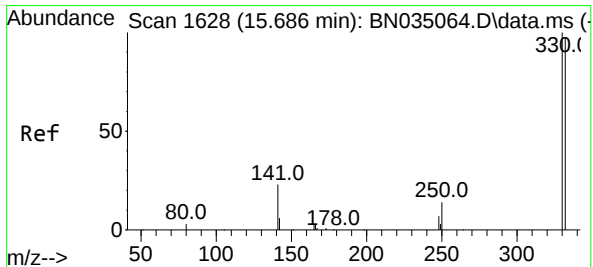
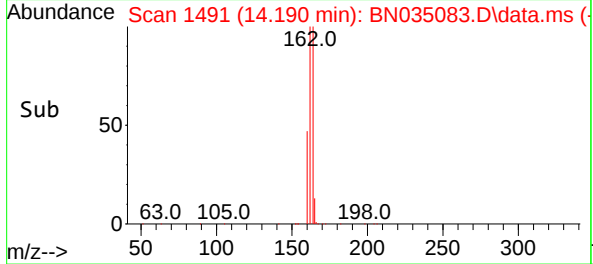
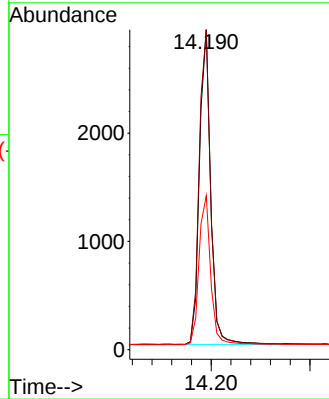
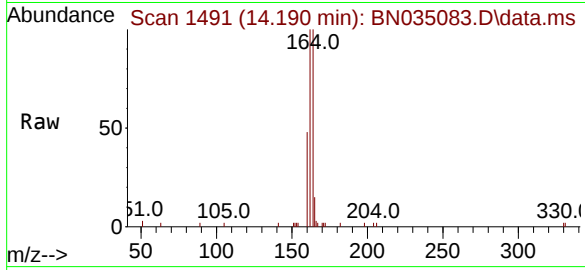




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

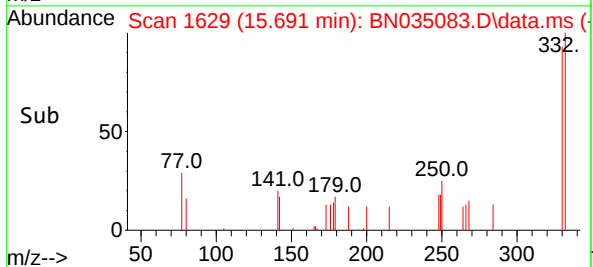
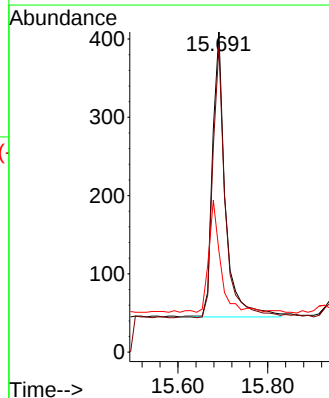
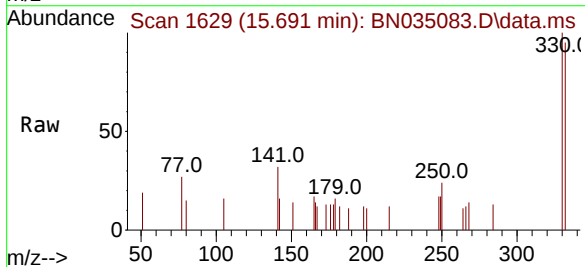
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

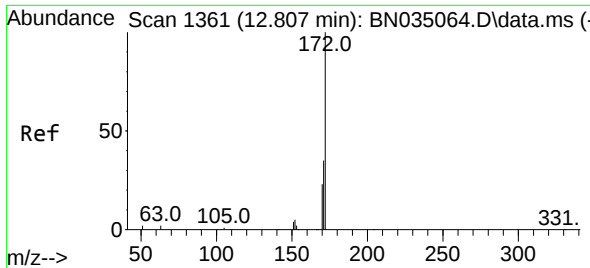
Tgt Ion:164 Resp: 4578  
Ion Ratio Lower Upper  
164 100  
162 99.9 82.2 123.2  
160 48.1 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.217 ng  
RT: 15.691 min Scan# 1629  
Delta R.T. 0.005 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

Tgt Ion:330 Resp: 718  
Ion Ratio Lower Upper  
330 100  
332 93.9 76.9 115.3  
141 36.8 29.6 44.4

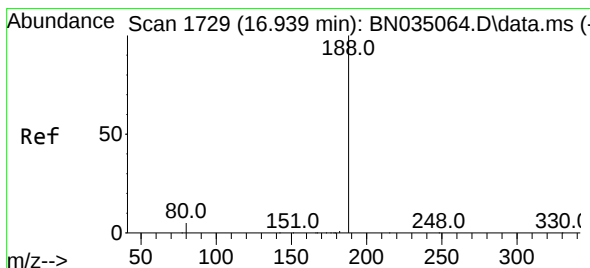
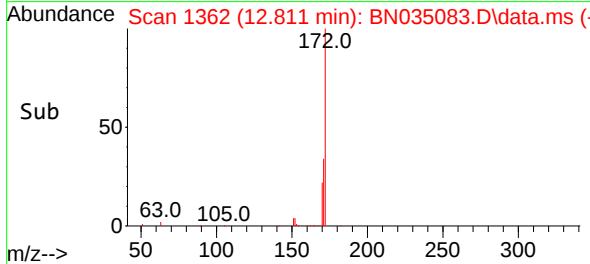
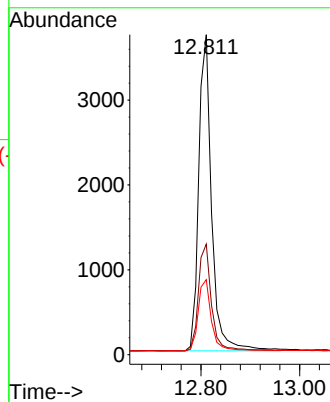
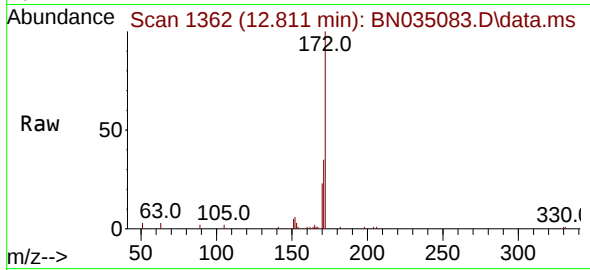




#15  
2-Fluorobiphenyl  
Concen: 0.362 ng  
RT: 12.811 min Scan# 1362  
Delta R.T. 0.004 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

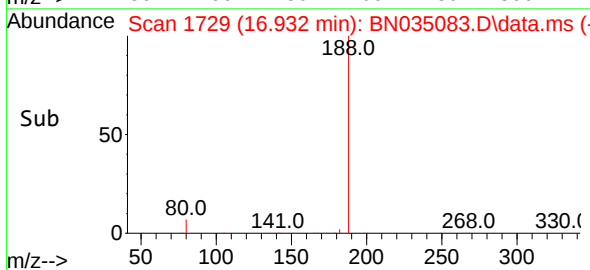
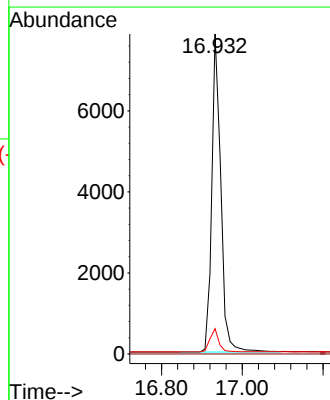
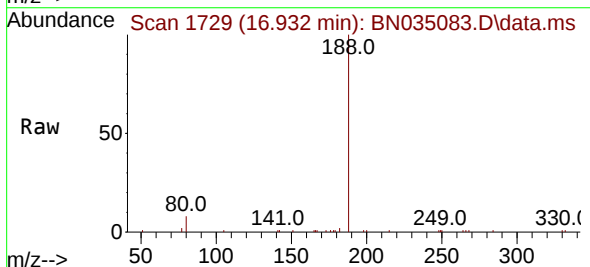
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

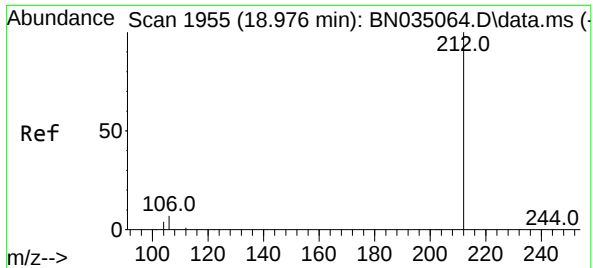
Tgt Ion:172 Resp: 6730  
Ion Ratio Lower Upper  
172 100  
171 34.6 28.2 42.4  
170 23.4 19.0 28.6



#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 16.932 min Scan# 1729  
Delta R.T. -0.007 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

Tgt Ion:188 Resp: 12175  
Ion Ratio Lower Upper  
188 100  
94 0.0 0.0 0.0  
80 7.9 4.3 6.5

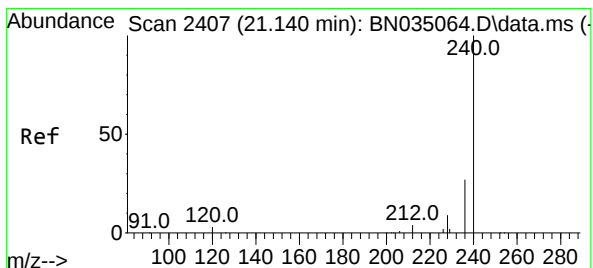
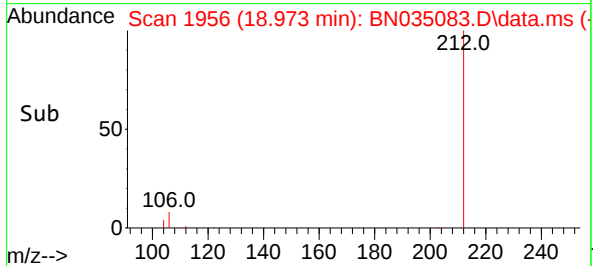
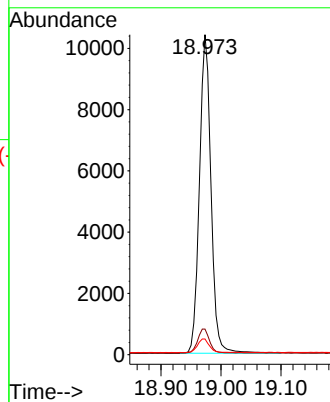
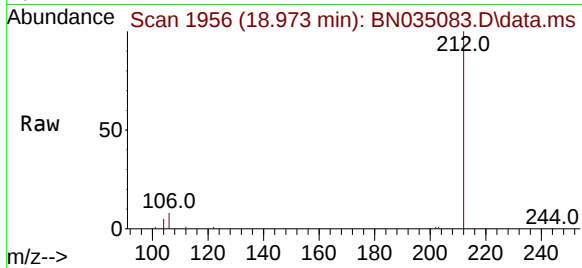




#27  
Fluoranthene-d10  
Concen: 0.373 ng  
RT: 18.973 min Scan# 1956  
Delta R.T. -0.002 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

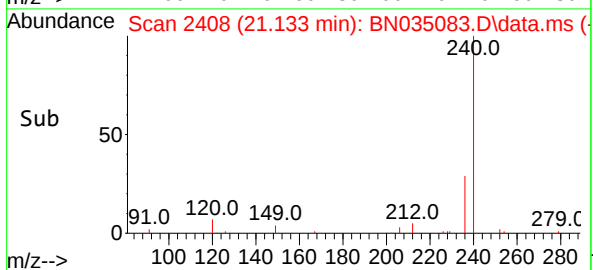
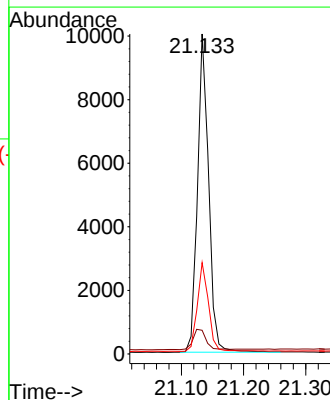
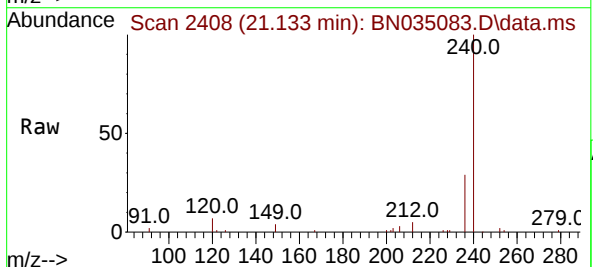
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

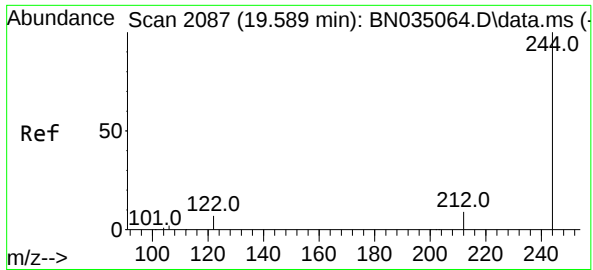
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 212     | 100   |       |       |
| 106     | 7.7   | 6.0   | 9.0   |
| 104     | 4.4   | 3.5   | 5.3   |



#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.133 min Scan# 2408  
Delta R.T. -0.007 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 7.4   | 3.8   | 5.6   |
| 236     | 28.5  | 22.2  | 33.2  |

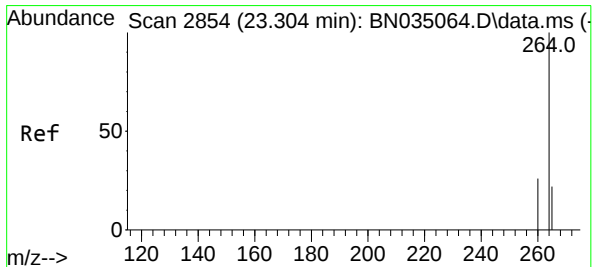
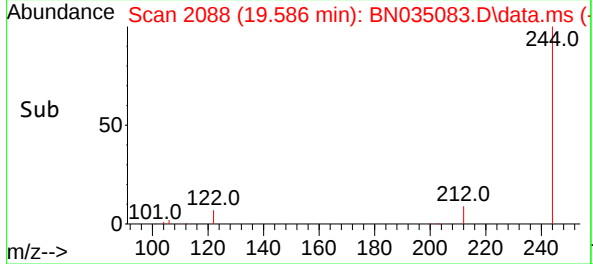
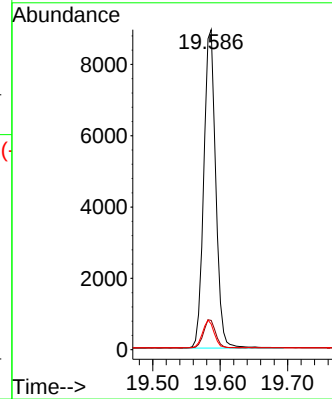
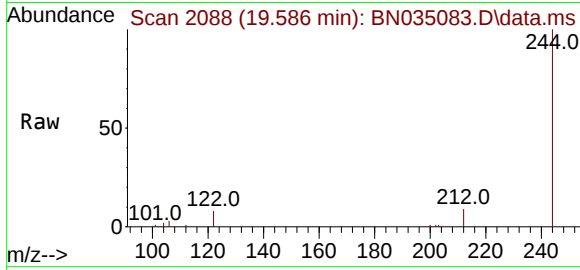




#31  
Terphenyl-d14  
Concen: 0.418 ng  
RT: 19.586 min Scan# 2088  
Delta R.T. -0.002 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

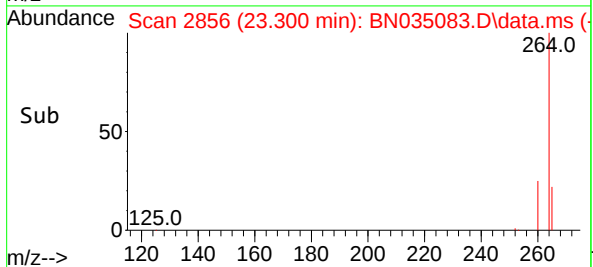
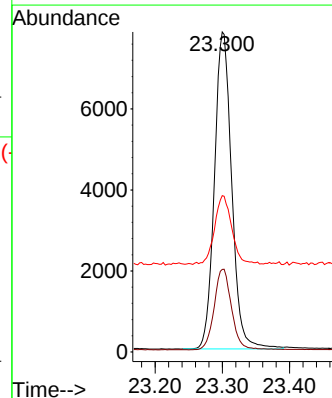
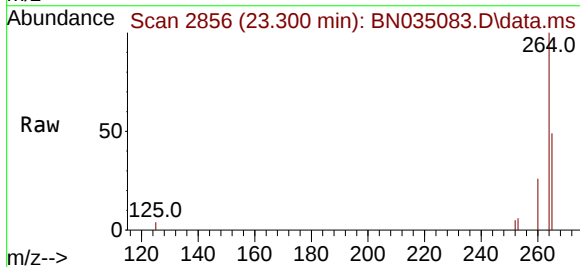
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BL

Tgt Ion:244 Resp: 10975  
Ion Ratio Lower Upper  
244 100  
212 9.1 7.6 11.4  
122 8.0 6.1 9.1



#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.300 min Scan# 2856  
Delta R.T. -0.004 min  
Lab File: BN035083.D  
Acq: 14 Nov 2024 10:48

Tgt Ion:264 Resp: 13990  
Ion Ratio Lower Upper  
264 100  
260 25.8 20.9 31.3  
265 48.9 35.4 53.2



## Report of Analysis

|                    |                           |                 |                              |
|--------------------|---------------------------|-----------------|------------------------------|
| Client:            | Chemtech Consulting Group | Date Collected: |                              |
| Project:           | NJ Soil PT                | Date Received:  |                              |
| Client Sample ID:  | PB164402BS                | SDG No.:        | P4495                        |
| Lab Sample ID:     | PB164402BS                | Matrix:         | SOIL                         |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100                          |
| Sample Wt/Vol:     | 30.03      Units:    g    | Final Vol:      | 1000                      uL |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3                |
| Extraction Type :  | Decanted :      N         | Level :         | LOW                          |
| Injection Volume : | GPC Factor :    1.0       | GPC Cleanup :   | N                      PH :  |
| Prep Method :      | sw3541                    |                 |                              |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035094.D        | 1         | 10/25/24 09:50 | 11/14/24 18:59 | PB164402      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOQ / CRQL | Units(Dry Weight) |
|---------------------------|-------------------------|-------|-----------|----------|------------|-------------------|
| <b>TARGETS</b>            |                         |       |           |          |            |                   |
| 91-20-3                   | Naphthalene             | 12.0  |           | 0.69     | 3.30       | ug/Kg             |
| 91-57-6                   | 2-Methylnaphthalene     | 12.0  |           | 0.80     | 3.30       | ug/Kg             |
| 208-96-8                  | Acenaphthylene          | 12.1  |           | 0.63     | 3.30       | ug/Kg             |
| 83-32-9                   | Acenaphthene            | 11.6  |           | 0.55     | 3.30       | ug/Kg             |
| 86-73-7                   | Fluorene                | 11.2  |           | 0.60     | 3.30       | ug/Kg             |
| 85-01-8                   | Phenanthrene            | 12.3  |           | 0.63     | 3.30       | ug/Kg             |
| 120-12-7                  | Anthracene              | 12.5  |           | 0.79     | 3.30       | ug/Kg             |
| 206-44-0                  | Fluoranthene            | 10.7  |           | 0.67     | 3.30       | ug/Kg             |
| 129-00-0                  | Pyrene                  | 13.6  |           | 0.95     | 3.30       | ug/Kg             |
| 56-55-3                   | Benzo(a)anthracene      | 12.0  |           | 0.76     | 3.30       | ug/Kg             |
| 218-01-9                  | Chrysene                | 12.6  |           | 0.86     | 3.30       | ug/Kg             |
| 205-99-2                  | Benzo(b)fluoranthene    | 13.0  |           | 1.20     | 3.30       | ug/Kg             |
| 207-08-9                  | Benzo(k)fluoranthene    | 12.8  |           | 0.98     | 3.30       | ug/Kg             |
| 50-32-8                   | Benzo(a)pyrene          | 13.0  |           | 1.70     | 3.30       | ug/Kg             |
| 193-39-5                  | Indeno(1,2,3-cd)pyrene  | 11.2  |           | 1.30     | 3.30       | ug/Kg             |
| 53-70-3                   | Dibenzo(a,h)anthracene  | 11.2  |           | 1.20     | 3.30       | ug/Kg             |
| 191-24-2                  | Benzo(g,h,i)perylene    | 10.0  |           | 1.10     | 3.30       | ug/Kg             |
| <b>SURROGATES</b>         |                         |       |           |          |            |                   |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.46  |           | 17 - 161 | 114%       | SPK: 0.4          |
| 93951-69-0                | Fluoranthene-d10        | 0.32  |           | 23 - 138 | 81%        | SPK: 0.4          |
| 4165-60-0                 | Nitrobenzene-d5         | 0.35  |           | 33 - 121 | 86%        | SPK: 0.4          |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.36  |           | 32 - 121 | 89%        | SPK: 0.4          |
| 1718-51-0                 | Terphenyl-d14           | 0.42  |           | 21 - 130 | 105%       | SPK: 0.4          |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |            |                   |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 2570  |           | 7.553    |            |                   |
| 1146-65-2                 | Naphthalene-d8          | 6460  |           | 10.319   |            |                   |
| 15067-26-2                | Acenaphthene-d10        | 4850  |           | 14.19    |            |                   |
| 1517-22-2                 | Phenanthrene-d10        | 11500 |           | 16.932   |            |                   |
| 1719-03-5                 | Chrysene-d12            | 9990  |           | 21.133   |            |                   |

## Report of Analysis

|                    |                           |                 |                              |
|--------------------|---------------------------|-----------------|------------------------------|
| Client:            | Chemtech Consulting Group | Date Collected: |                              |
| Project:           | NJ Soil PT                | Date Received:  |                              |
| Client Sample ID:  | PB164402BS                | SDG No.:        | P4495                        |
| Lab Sample ID:     | PB164402BS                | Matrix:         | SOIL                         |
| Analytical Method: | SW8270SIM                 | % Solid:        | 100                          |
| Sample Wt/Vol:     | 30.03      Units:    g    | Final Vol:      | 1000                      uL |
| Soil Aliquot Vol:  | uL                        | Test:           | SVOCMS Group3                |
| Extraction Type :  | Decanted :      N         | Level :         | LOW                          |
| Injection Volume : | GPC Factor :    1.0       | GPC Cleanup :   | N                      PH :  |
| Prep Method :      | sw3541                    |                 |                              |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035094.D        | 1         | 10/25/24 09:50 | 11/14/24 18:59 | PB164402      |

| CAS Number | Parameter    | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|------------|--------------|-------|-----------|-----|------------|-------|
| 1520-96-3  | Perylene-d12 | 9580  | 23.303    |     |            |       |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
 Data File : BN035094.D  
 Acq On : 14 Nov 2024 18:59  
 Operator : RC/JU  
 Sample : PB164402BS  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB164402BS

Quant Time: Nov 15 01:07:51 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 17:18:14 2024  
 Response via : Initial Calibration

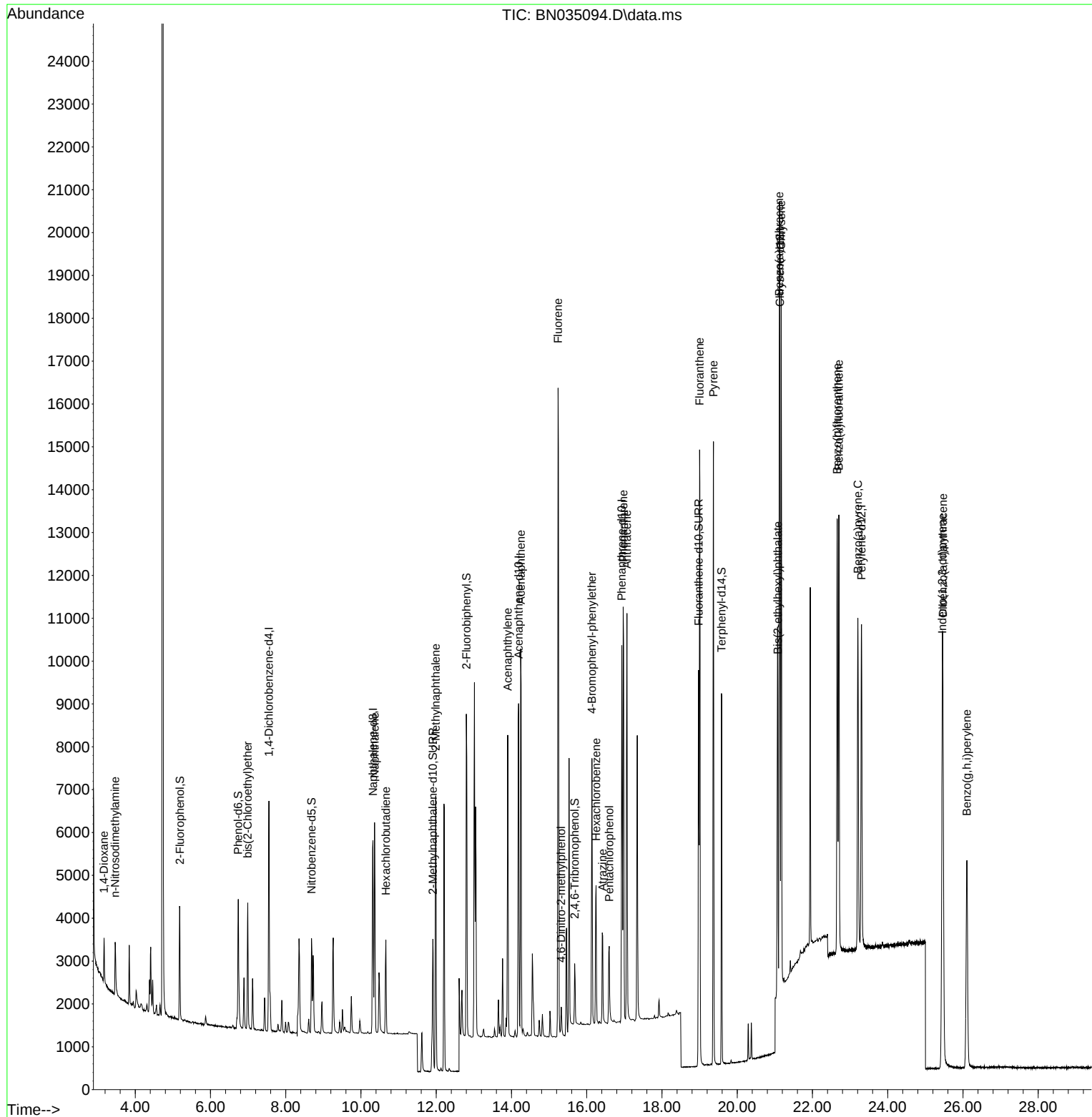
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| -----                         |        |      |          |       |       |          |
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.553  | 152  | 2568     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.319 | 136  | 6459     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.190 | 164  | 4848     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 16.932 | 188  | 11535    | 0.400 | ng    | # 0.00   |
| 29) Chrysene-d12              | 21.133 | 240  | 9992     | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.303 | 264  | 9578     | 0.400 | ng    | # 0.00   |
|                               |        |      |          |       |       |          |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.184  | 112  | 2217     | 0.340 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.737  | 99   | 2828     | 0.346 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.685  | 82   | 1938     | 0.345 | ng    | -0.01    |
| 11) 2-Methylnaphthalene-d10   | 11.912 | 152  | 5263     | 0.457 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.679 | 330  | 847      | 0.242 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 12.800 | 172  | 6986     | 0.355 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 18.973 | 212  | 11385    | 0.322 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.586 | 244  | 8824     | 0.421 | ng    | 0.00     |
|                               |        |      |          |       |       |          |
| Target Compounds              |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.169  | 88   | 699      | 0.300 | ng    | # 80     |
| 3) n-Nitrosodimethylamine     | 3.465  | 42   | 797      | 0.367 | ng    | # 96     |
| 6) bis(2-Chloroethyl)ether    | 6.990  | 93   | 2242     | 0.365 | ng    | 98       |
| 9) Naphthalene                | 10.361 | 128  | 6050     | 0.359 | ng    | 99       |
| 10) Hexachlorobutadiene       | 10.660 | 225  | 1756     | 0.355 | ng    | # 100    |
| 12) 2-Methylnaphthalene       | 11.988 | 142  | 4477     | 0.360 | ng    | 99       |
| 16) Acenaphthylene            | 13.901 | 152  | 7516     | 0.363 | ng    | 99       |
| 17) Acenaphthene              | 14.243 | 154  | 4745     | 0.349 | ng    | 100      |
| 18) Fluorene                  | 15.238 | 166  | 6723     | 0.337 | ng    | 98       |
| 20) 4,6-Dinitro-2-methylph... | 15.323 | 198  | 659      | 0.274 | ng    | # 87     |
| 21) 4-Bromophenyl-phenylether | 16.138 | 248  | 2703     | 0.368 | ng    | # 86     |
| 22) Hexachlorobenzene         | 16.250 | 284  | 2802     | 0.367 | ng    | 99       |
| 23) Atrazine                  | 16.423 | 200  | 2076     | 0.315 | ng    | # 91     |
| 24) Pentachlorophenol         | 16.597 | 266  | 1142     | 0.320 | ng    | 98       |
| 25) Phenanthrene              | 16.970 | 178  | 11178    | 0.368 | ng    | 99       |
| 26) Anthracene                | 17.069 | 178  | 10479    | 0.376 | ng    | 100      |
| 28) Fluoranthene              | 19.001 | 202  | 13343    | 0.320 | ng    | 100      |
| 30) Pyrene                    | 19.368 | 202  | 13626    | 0.409 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.115 | 228  | 12572    | 0.361 | ng    | 98       |
| 33) Chrysene                  | 21.169 | 228  | 12991    | 0.377 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.080 | 149  | 5566     | 0.305 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 25.449 | 276  | 12815    | 0.335 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.657 | 252  | 12608    | 0.391 | ng    | 96       |
| 38) Benzo(k)fluoranthene      | 22.700 | 252  | 12410    | 0.385 | ng    | 98       |
| 39) Benzo(a)pyrene            | 23.206 | 252  | 11017    | 0.389 | ng    | 96       |
| 40) Dibenzo(a,h)anthracene    | 25.466 | 278  | 10170    | 0.336 | ng    | 96       |
| 41) Benzo(g,h,i)perylene      | 26.104 | 276  | 9675     | 0.300 | ng    | 98       |
| -----                         |        |      |          |       |       |          |

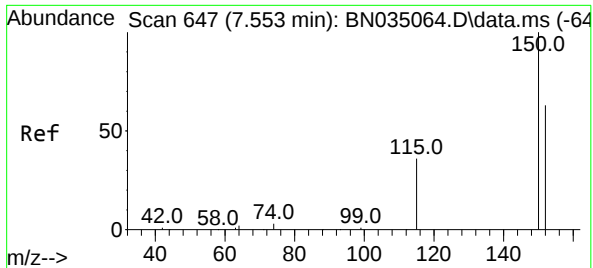
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN111424\  
Data File : BN035094.D  
Acq On : 14 Nov 2024 18:59  
Operator : RC/JU  
Sample : PB164402BS  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

Quant Time: Nov 15 01:07:51 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 17:18:14 2024  
Response via : Initial Calibration

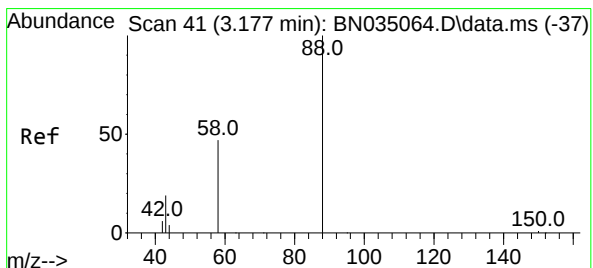
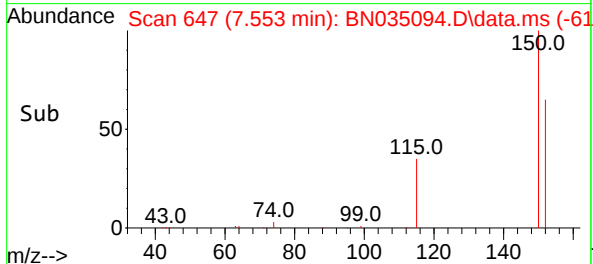
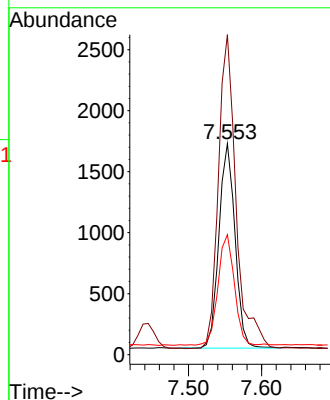
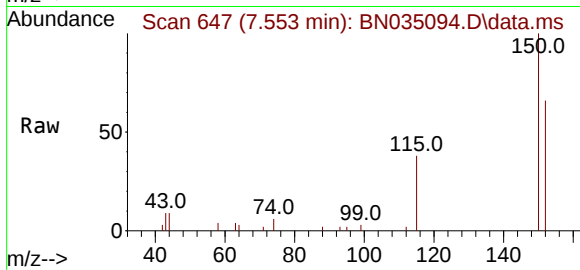




#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.553 min Scan# 64  
 Delta R.T. 0.000 min  
 Lab File: BN035094.D  
 Acq: 14 Nov 2024 18:59

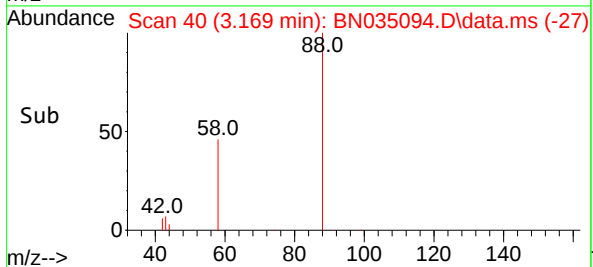
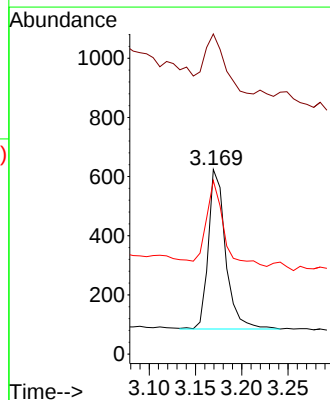
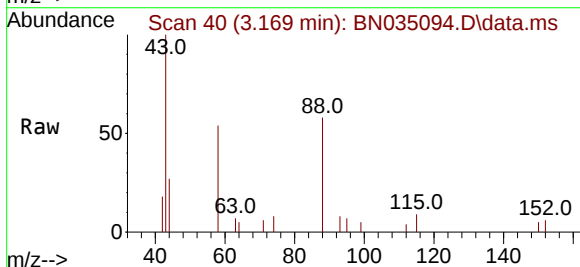
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB164402BS

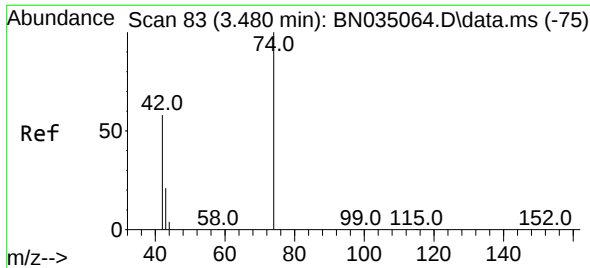
Tgt Ion: 152 Resp: 2568  
 Ion Ratio Lower Upper  
 152 100  
 150 151.6 124.5 186.7  
 115 56.9 47.8 71.6



#2  
 1,4-Dioxane  
 Concen: 0.300 ng  
 RT: 3.169 min Scan# 40  
 Delta R.T. -0.007 min  
 Lab File: BN035094.D  
 Acq: 14 Nov 2024 18:59

Tgt Ion: 88 Resp: 699  
 Ion Ratio Lower Upper  
 88 100  
 43 44.6 16.9 25.3#  
 58 53.6 39.0 58.4

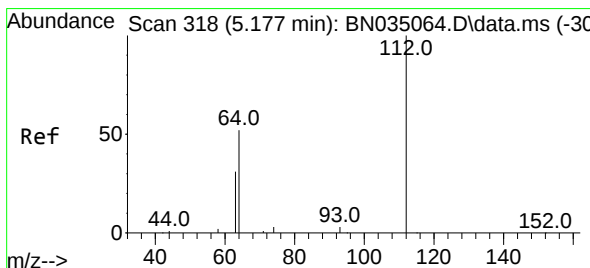
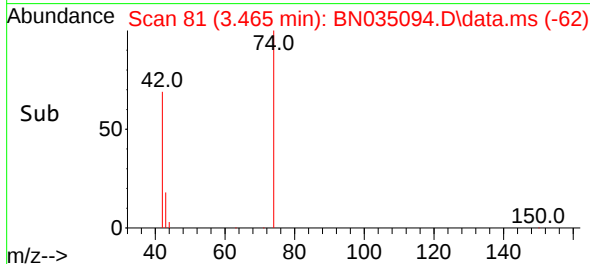
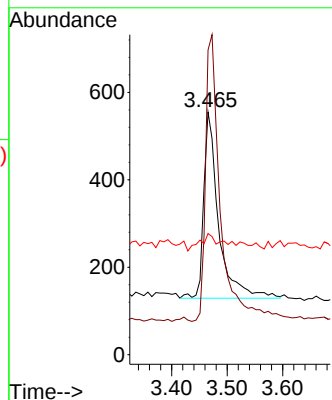
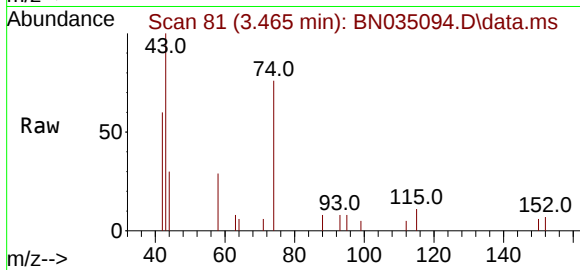




#3  
n-Nitrosodimethylamine  
Concen: 0.367 ng  
RT: 3.465 min Scan# 81  
Delta R.T. -0.015 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

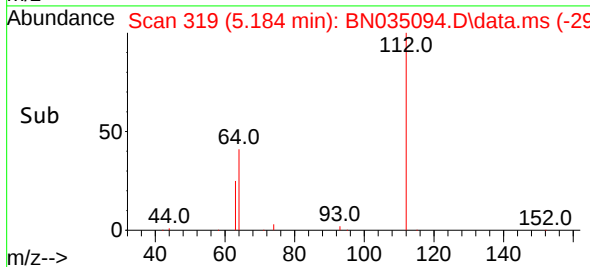
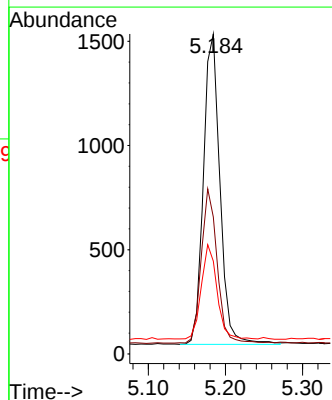
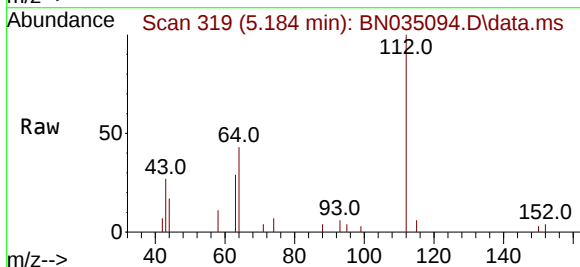
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

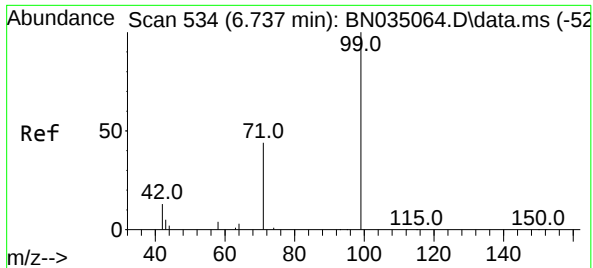
Tgt Ion: 42 Resp: 797  
Ion Ratio Lower Upper  
42 100  
74 156.1 120.8 181.2  
44 9.8 2.9 4.3#



#4  
2-Fluorophenol  
Concen: 0.340 ng  
RT: 5.184 min Scan# 319  
Delta R.T. 0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion: 112 Resp: 2217  
Ion Ratio Lower Upper  
112 100  
64 47.5 39.7 59.5  
63 28.6 23.0 34.4

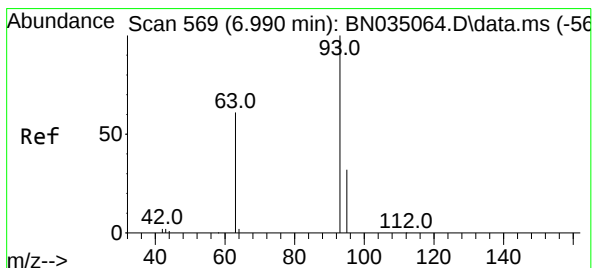
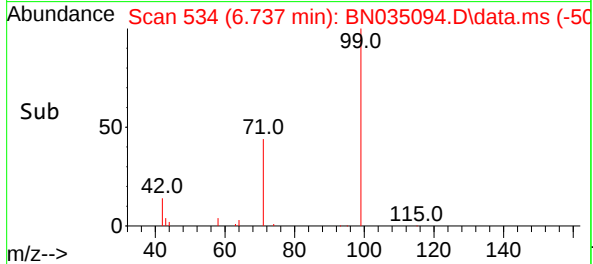
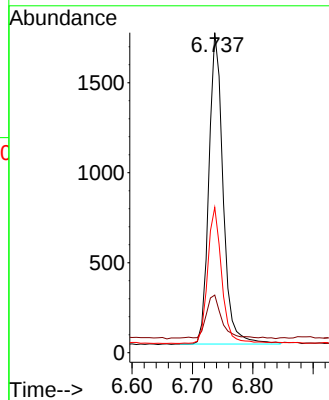
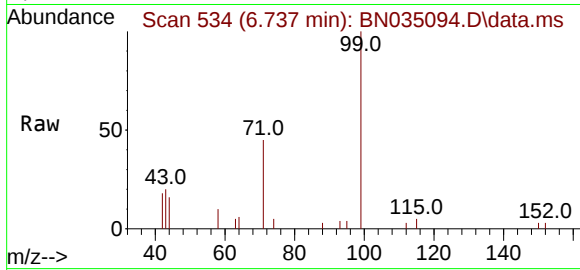




#5  
Phenol-d6  
Concen: 0.346 ng  
RT: 6.737 min Scan# 511  
Delta R.T. -0.000 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

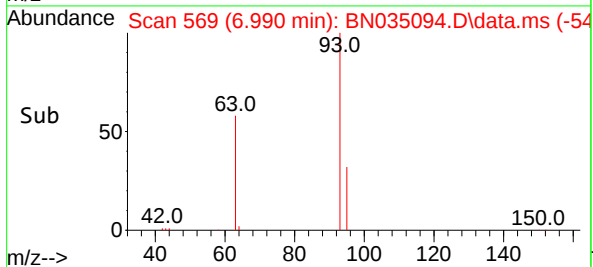
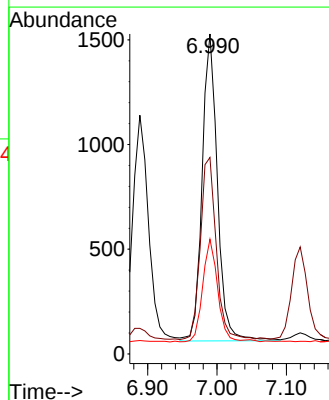
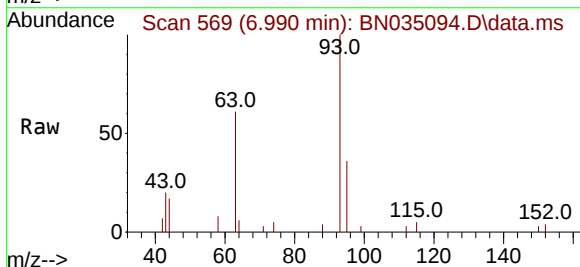
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

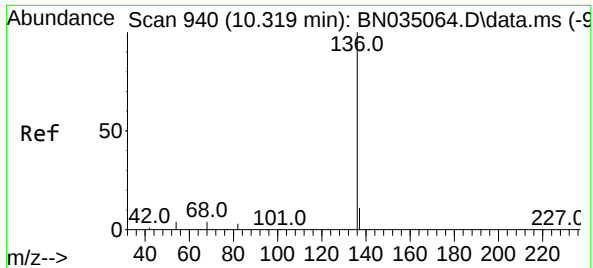
Tgt Ion: 99 Resp: 2828  
Ion Ratio Lower Upper  
99 100  
42 16.3 11.4 17.0  
71 43.7 34.6 51.8



#6  
bis(2-Chloroethyl)ether  
Concen: 0.365 ng  
RT: 6.990 min Scan# 569  
Delta R.T. -0.000 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion: 93 Resp: 2242  
Ion Ratio Lower Upper  
93 100  
63 61.4 47.4 71.2  
95 33.3 26.2 39.4

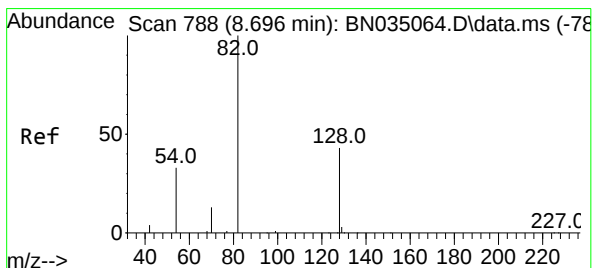
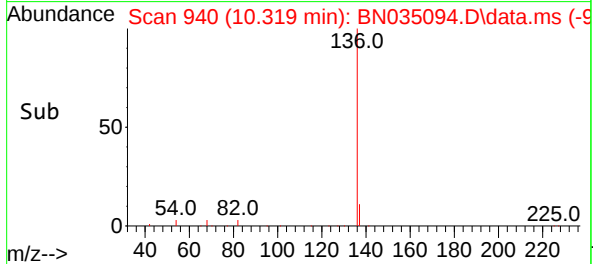
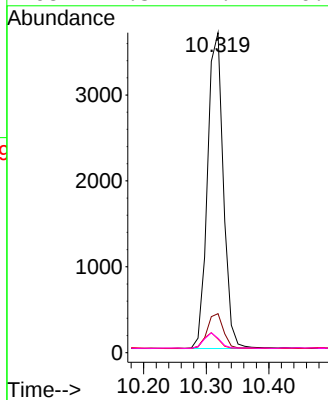
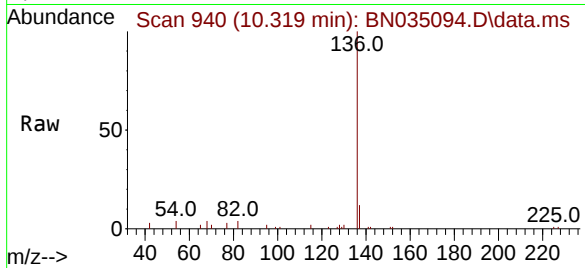




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.319 min Scan# 94  
Delta R.T. -0.000 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

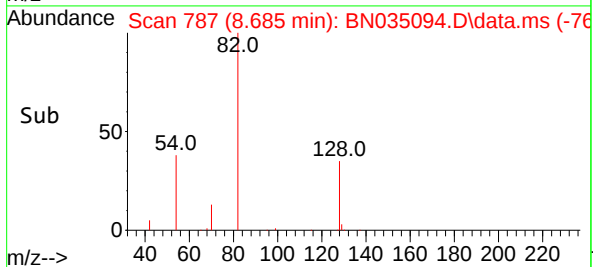
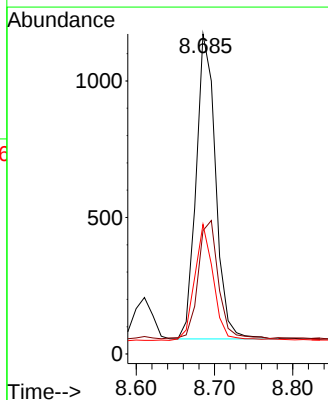
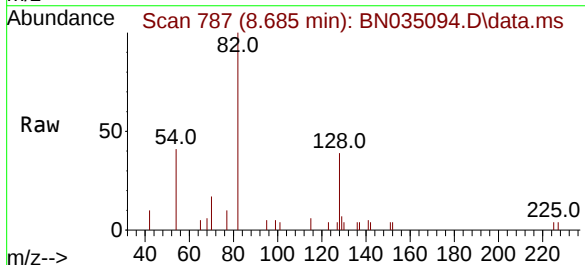
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

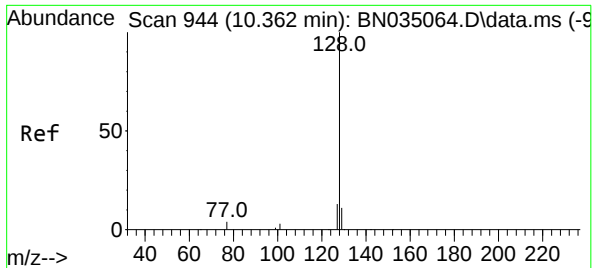
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 6459  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.2  | 9.8   | 14.8  |
| 54       | 4.3   | 4.0   | 6.0   |
| 68       | 4.5   | 4.2   | 6.2   |



#8  
Nitrobenzene-d5  
Concen: 0.345 ng  
RT: 8.685 min Scan# 787  
Delta R.T. -0.011 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 1938  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 38.6  | 36.5  | 54.7  |
| 54       | 40.5  | 28.7  | 43.1  |

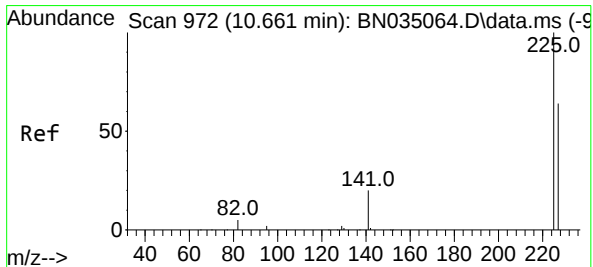
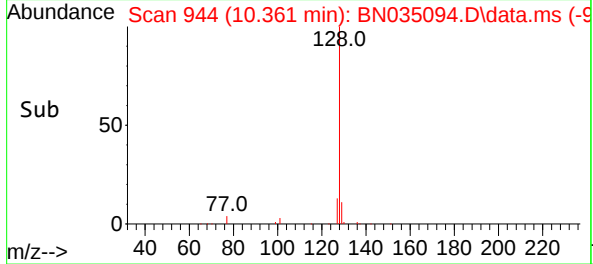
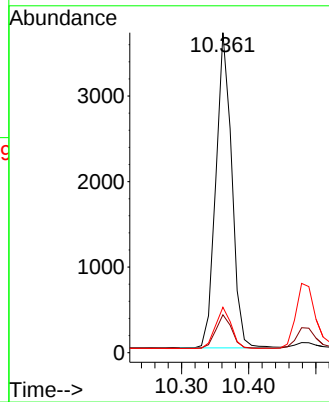
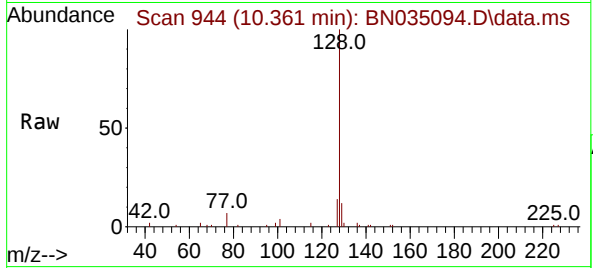




#9  
Naphthalene  
Concen: 0.359 ng  
RT: 10.361 min Scan# 944  
Delta R.T. -0.000 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

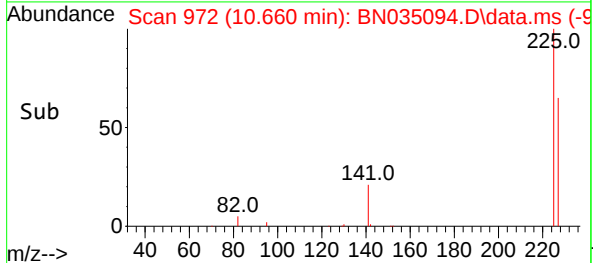
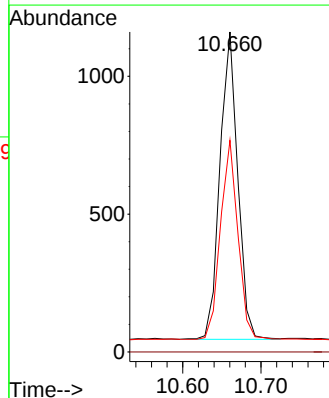
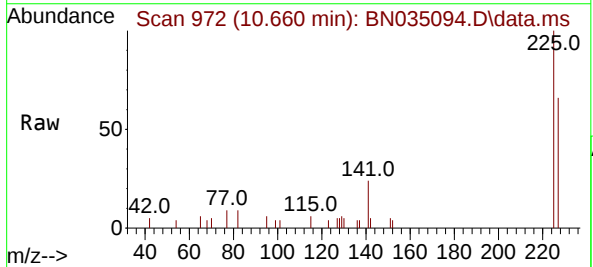
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

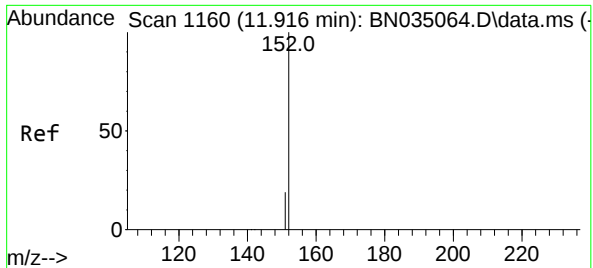
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 6050  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 11.9  | 9.6   | 14.4  |
| 127      | 14.2  | 11.6  | 17.4  |



#10  
Hexachlorobutadiene  
Concen: 0.355 ng  
RT: 10.660 min Scan# 972  
Delta R.T. -0.000 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 225   | Resp: | 1756  |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 0.0   | 0.0   | 0.0   |
| 227      | 64.3  | 51.5  | 77.3  |

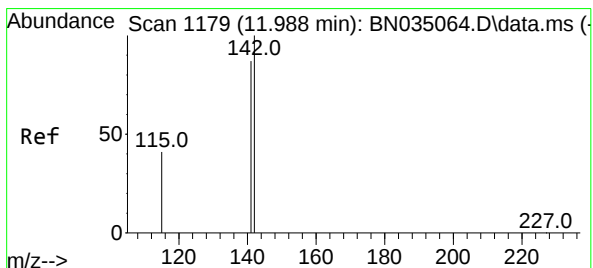
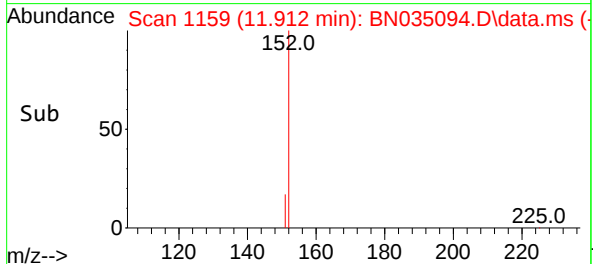
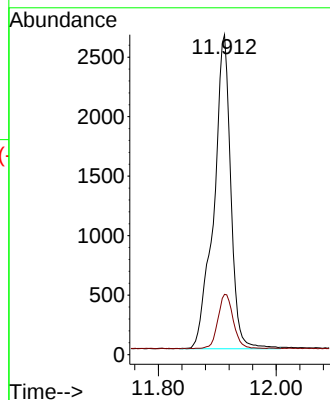
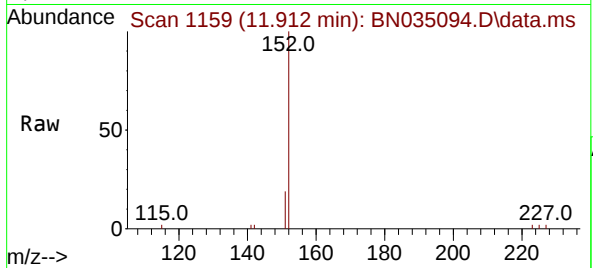




#11  
2-Methylnaphthalene-d10  
Concen: 0.457 ng  
RT: 11.912 min Scan# 1160  
Delta R.T. -0.004 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

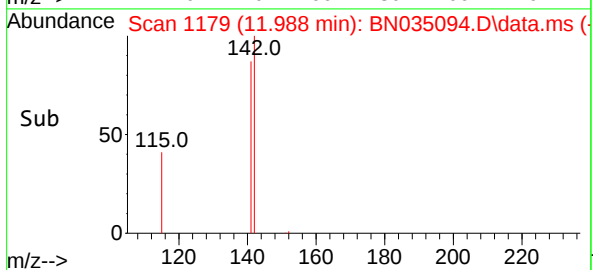
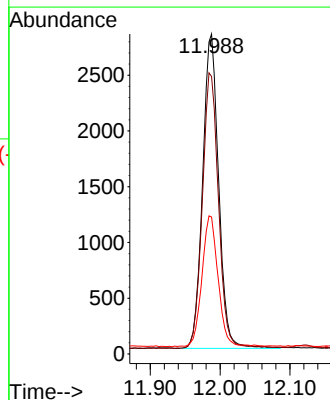
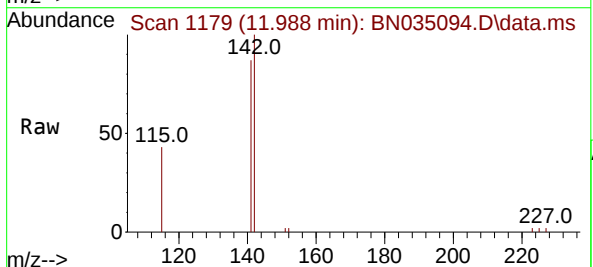
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

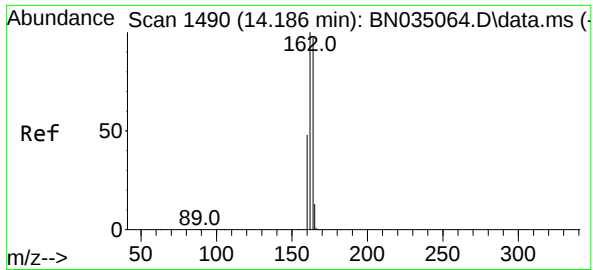
Tgt Ion:152 Resp: 5263  
Ion Ratio Lower Upper  
152 100  
151 16.0 16.2 24.4#



#12  
2-Methylnaphthalene  
Concen: 0.360 ng  
RT: 11.988 min Scan# 1179  
Delta R.T. -0.000 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:142 Resp: 4477  
Ion Ratio Lower Upper  
142 100  
141 86.7 70.1 105.1  
115 42.8 34.4 51.6

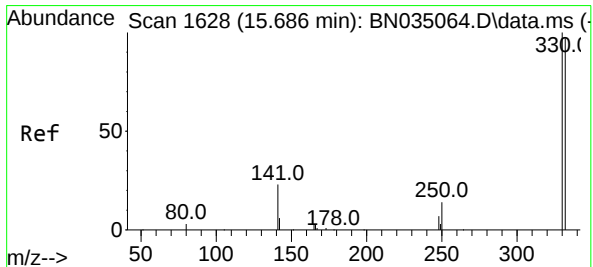
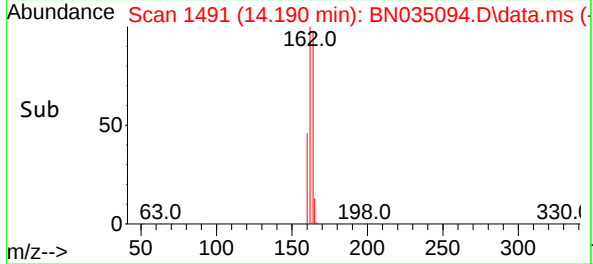
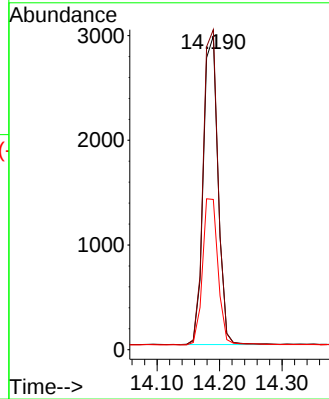
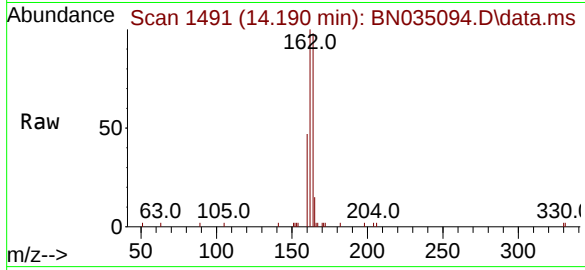




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.190 min Scan# 1491  
Delta R.T. 0.004 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

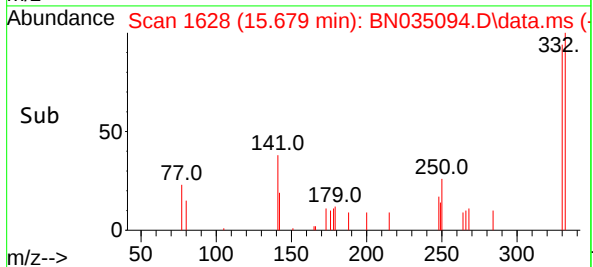
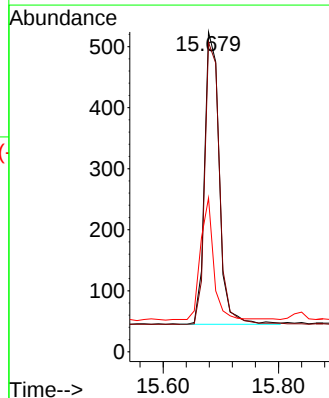
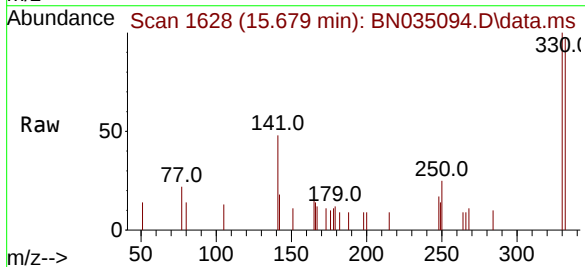
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

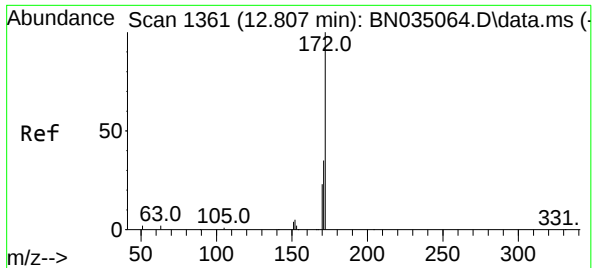
Tgt Ion:164 Resp: 4848  
Ion Ratio Lower Upper  
164 100  
162 102.1 82.2 123.2  
160 47.9 40.2 60.4



#14  
2,4,6-Tribromophenol  
Concen: 0.242 ng  
RT: 15.679 min Scan# 1628  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:330 Resp: 847  
Ion Ratio Lower Upper  
330 100  
332 97.0 76.9 115.3  
141 37.8 29.6 44.4

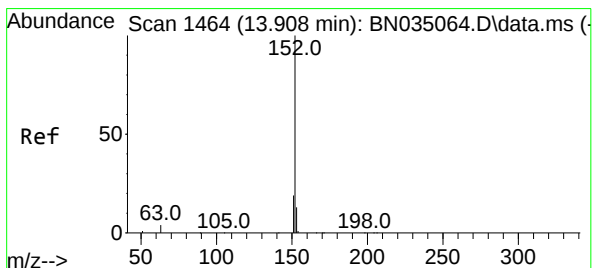
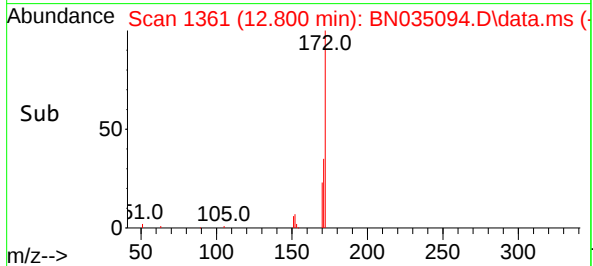
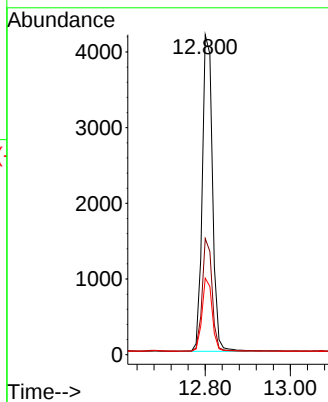
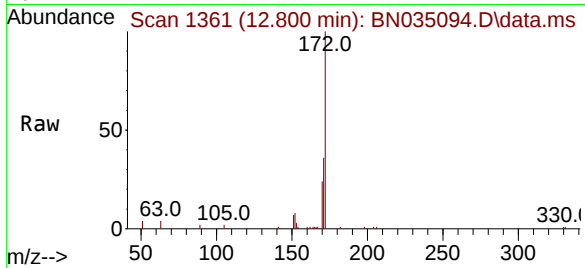




#15  
2-Fluorobiphenyl  
Concen: 0.355 ng  
RT: 12.800 min Scan# 1361  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

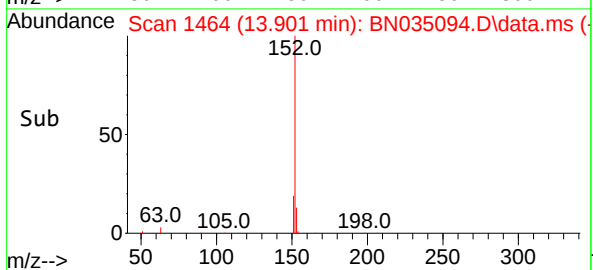
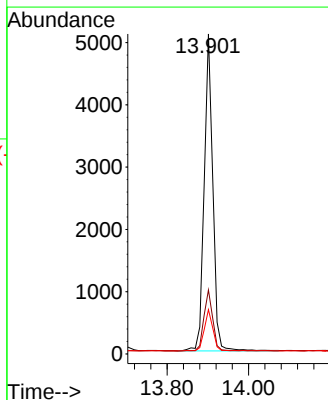
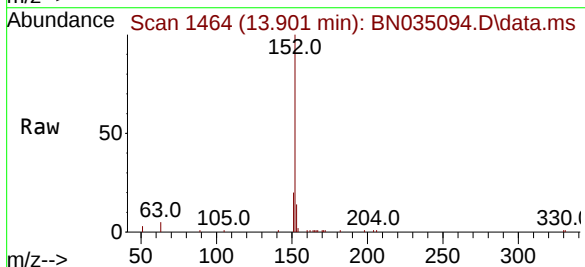
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

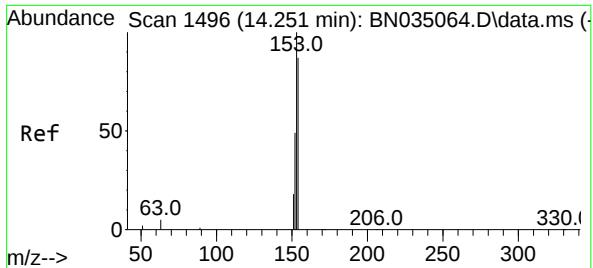
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 36.3  | 28.2  | 42.4  |
| 170     | 23.9  | 19.0  | 28.6  |



#16  
Acenaphthylene  
Concen: 0.363 ng  
RT: 13.901 min Scan# 1464  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.5  | 15.8  | 23.8  |
| 153     | 13.1  | 10.2  | 15.4  |

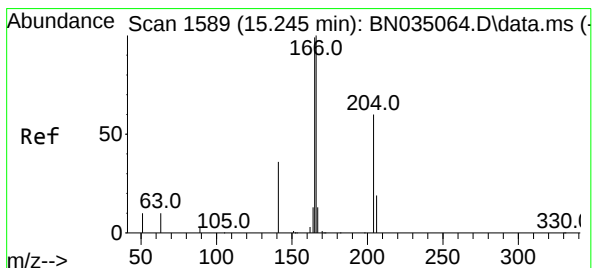
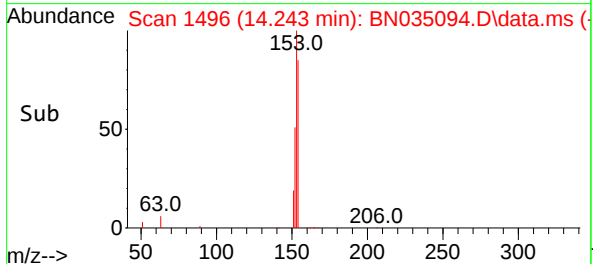
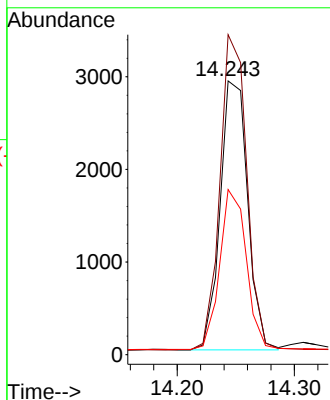
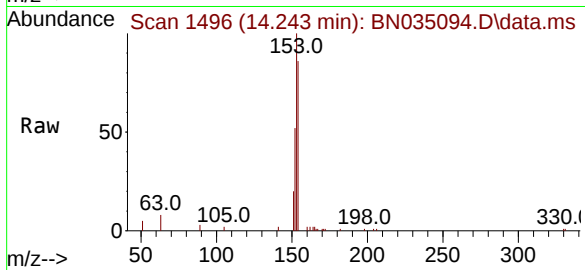




#17  
Acenaphthene  
Concen: 0.349 ng  
RT: 14.243 min Scan# 1496  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

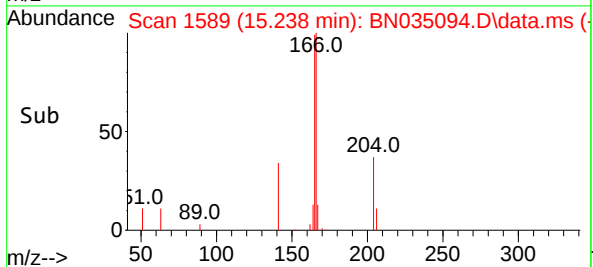
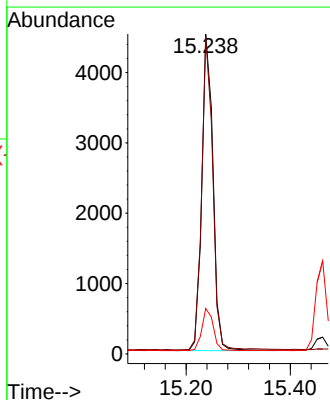
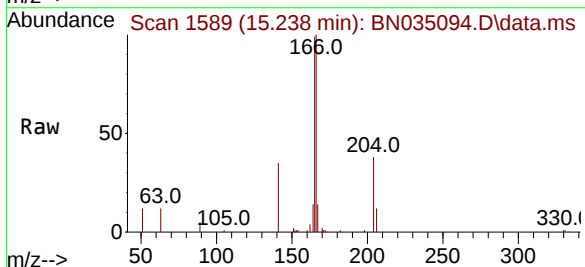
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

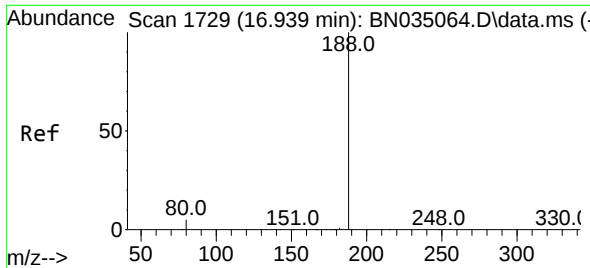
Tgt Ion:154 Resp: 4745  
Ion Ratio Lower Upper  
154 100  
153 114.6 91.6 137.4  
152 58.0 45.8 68.6



#18  
Fluorene  
Concen: 0.337 ng  
RT: 15.238 min Scan# 1589  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:166 Resp: 6723  
Ion Ratio Lower Upper  
166 100  
165 97.0 79.1 118.7  
167 13.6 10.6 16.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 16.932 min Scan# 1729

Delta R.T. -0.007 min

Lab File: BN035094.D

Acq: 14 Nov 2024 18:59

Instrument :

BNA\_N

ClientSampleId :

PB164402BS

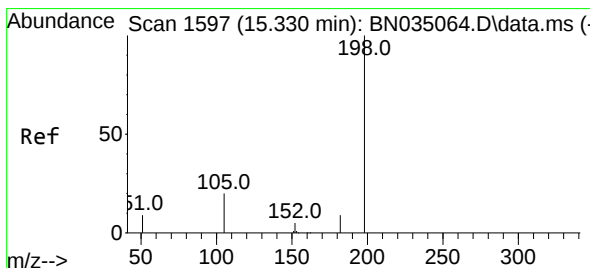
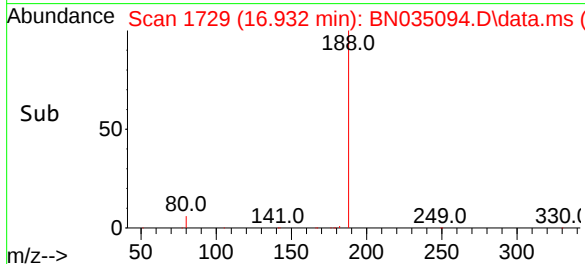
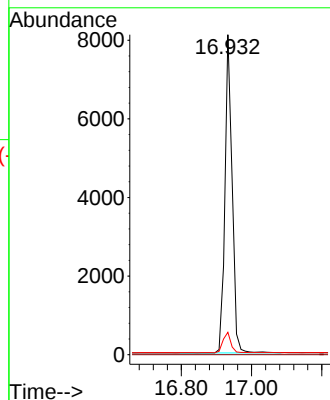
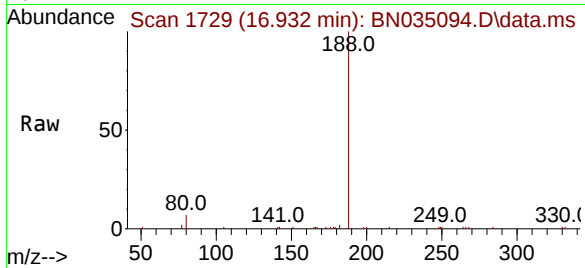
Tgt Ion:188 Resp: 11535

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 7.0 4.3 6.5#



#20

4,6-Dinitro-2-methylphenol

Concen: 0.274 ng

RT: 15.323 min Scan# 1597

Delta R.T. -0.007 min

Lab File: BN035094.D

Acq: 14 Nov 2024 18:59

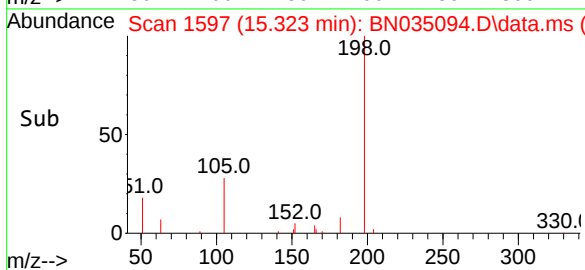
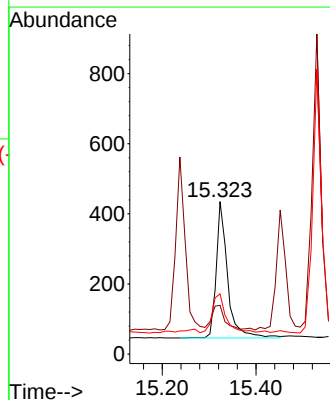
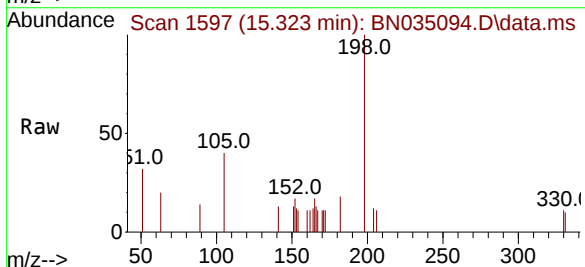
Tgt Ion:198 Resp: 659

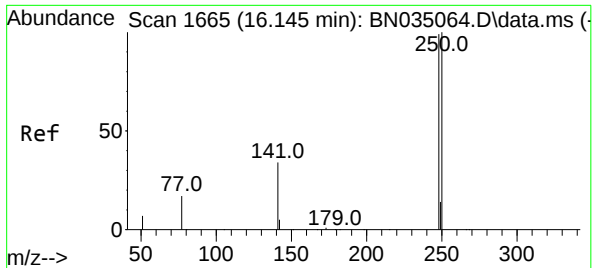
Ion Ratio Lower Upper

198 100

51 32.0 29.9 44.9

105 39.5 23.7 35.5#

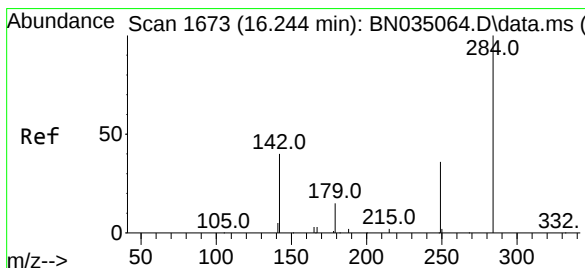
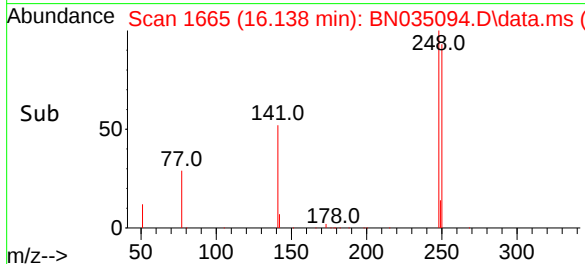
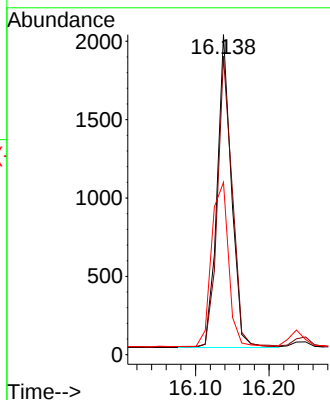
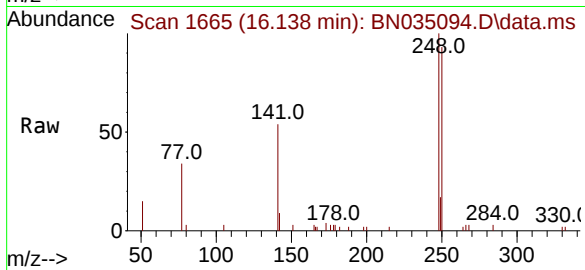




#21  
4-Bromophenyl-phenylether  
Concen: 0.368 ng  
RT: 16.138 min Scan# 1665  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

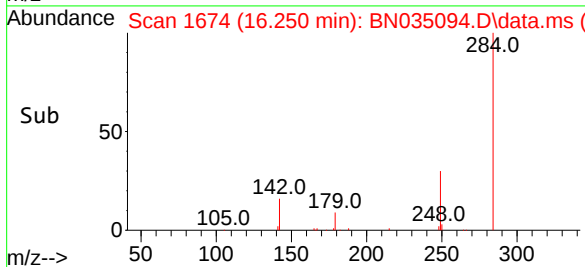
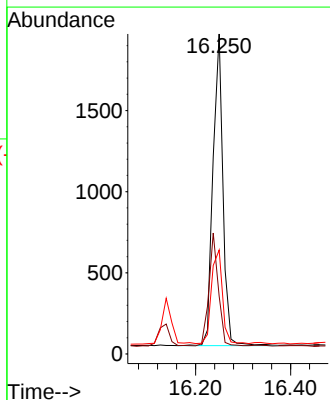
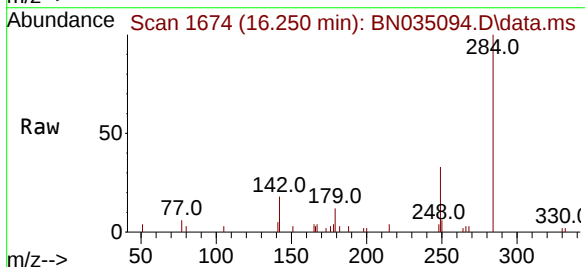
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

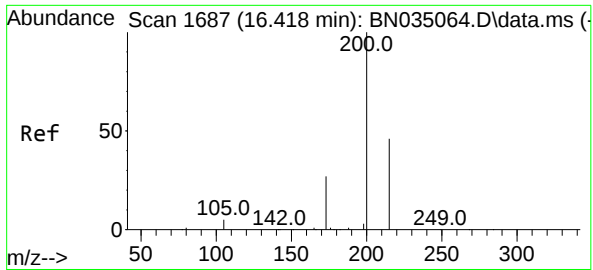
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 93.2  | 81.2  | 121.8 |
| 141     | 53.9  | 29.1  | 43.7  |



#22  
Hexachlorobenzene  
Concen: 0.367 ng  
RT: 16.250 min Scan# 1674  
Delta R.T. 0.005 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 34.3  | 28.2  | 42.4  |
| 249     | 33.1  | 26.2  | 39.2  |

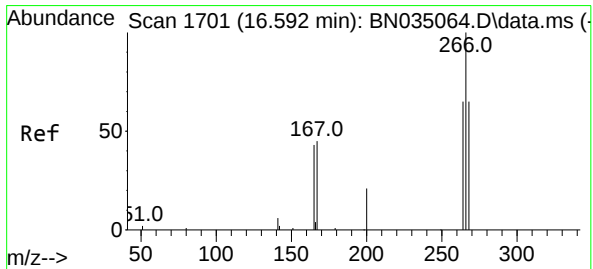
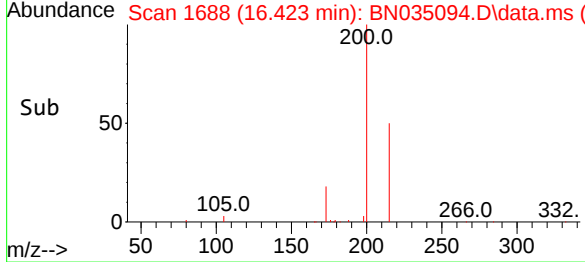
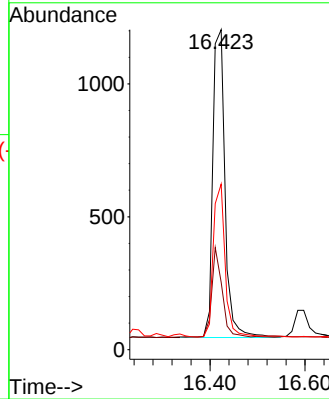
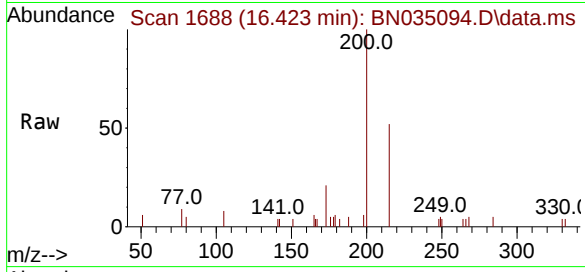




#23  
Atrazine  
Concen: 0.315 ng  
RT: 16.423 min Scan# 1688  
Delta R.T. 0.005 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

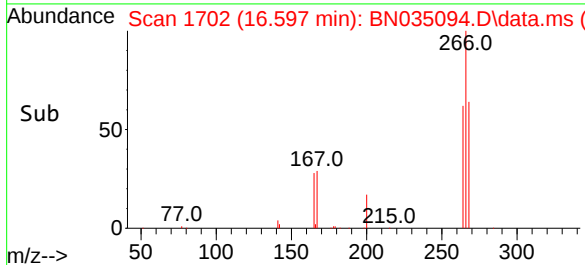
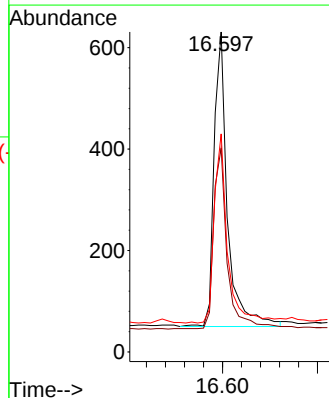
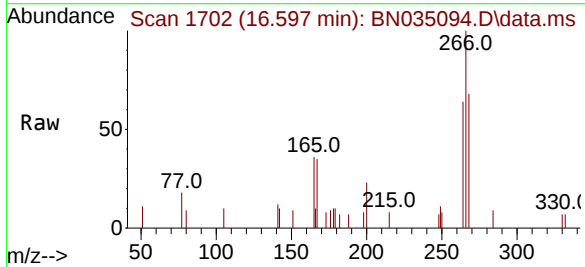
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

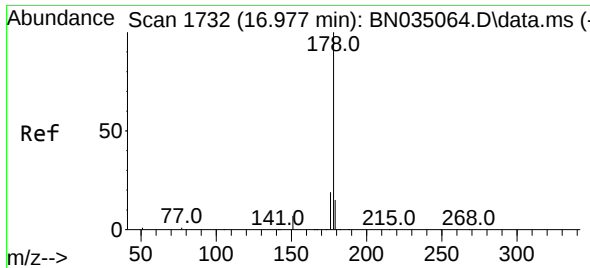
Tgt Ion:200 Resp: 2076  
Ion Ratio Lower Upper  
200 100  
173 21.1 22.6 33.8#  
215 51.7 37.8 56.6



#24  
Pentachlorophenol  
Concen: 0.320 ng  
RT: 16.597 min Scan# 1702  
Delta R.T. 0.005 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:266 Resp: 1142  
Ion Ratio Lower Upper  
266 100  
264 61.5 49.4 74.0  
268 63.2 52.6 79.0

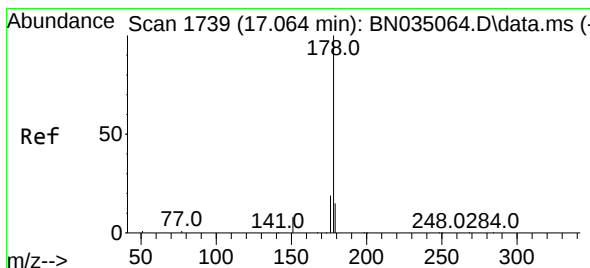
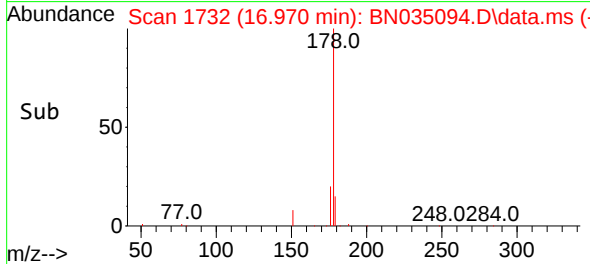
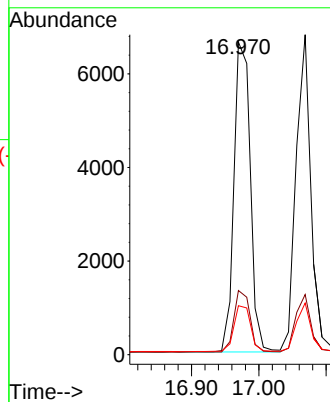
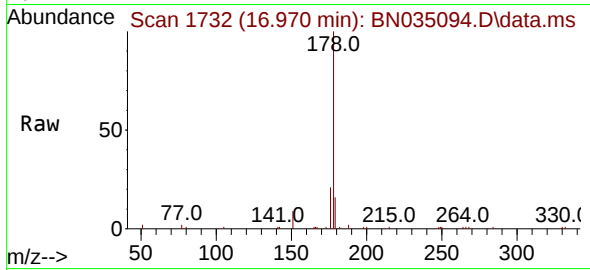




#25  
Phenanthrene  
Concen: 0.368 ng  
RT: 16.970 min Scan# 1732  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

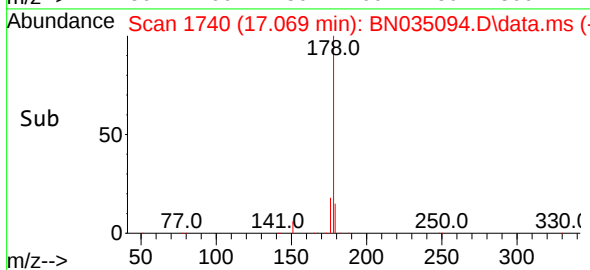
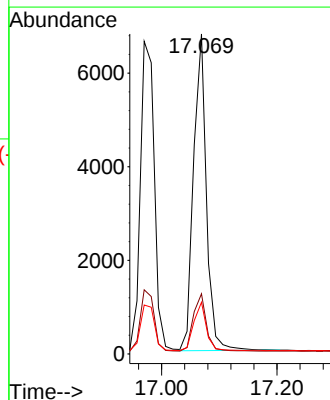
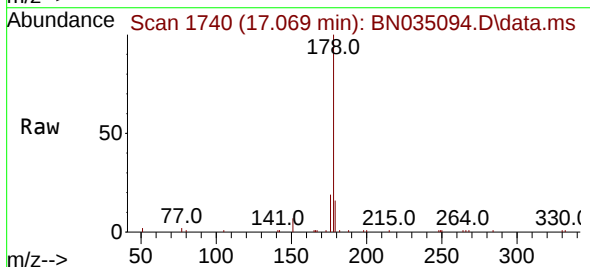
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

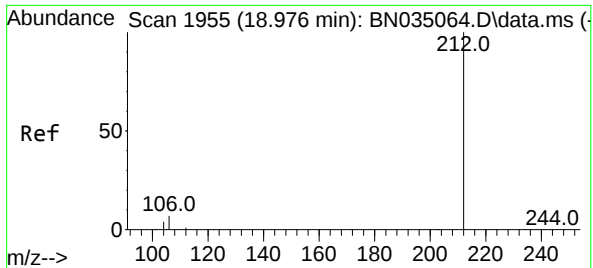
Tgt Ion:178 Resp: 11178  
Ion Ratio Lower Upper  
178 100  
176 19.6 15.2 22.8  
179 15.2 12.6 18.8



#26  
Anthracene  
Concen: 0.376 ng  
RT: 17.069 min Scan# 1740  
Delta R.T. 0.005 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:178 Resp: 10479  
Ion Ratio Lower Upper  
178 100  
176 18.3 14.6 22.0  
179 14.8 12.2 18.2

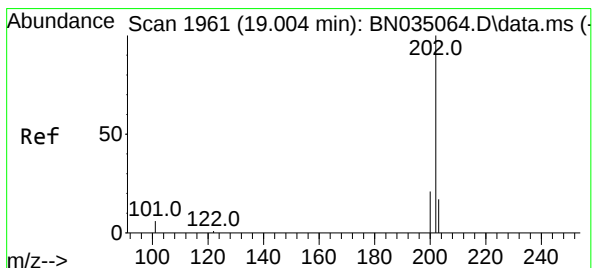
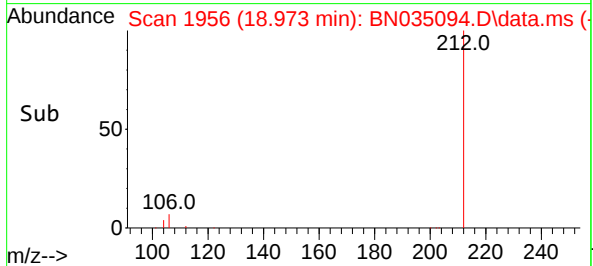
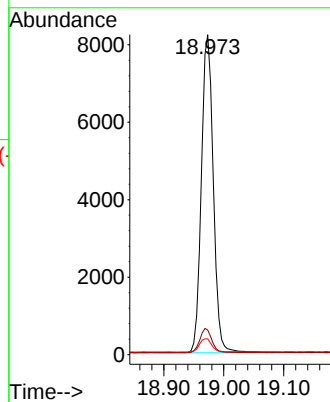
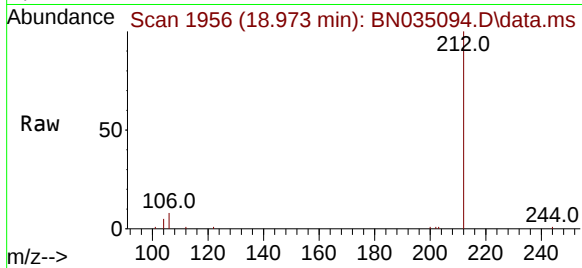




#27  
Fluoranthene-d10  
Concen: 0.322 ng  
RT: 18.973 min Scan# 1955  
Delta R.T. -0.002 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

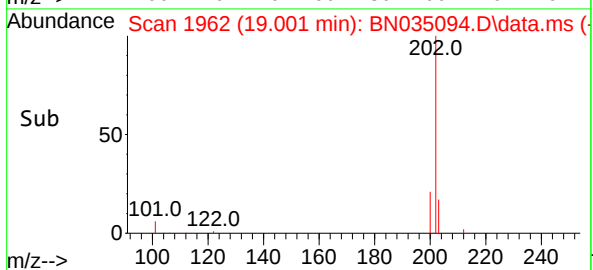
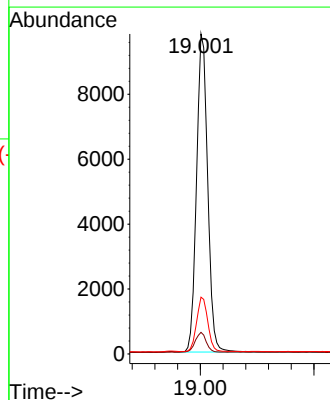
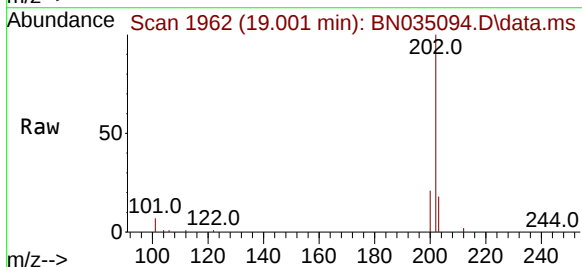
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

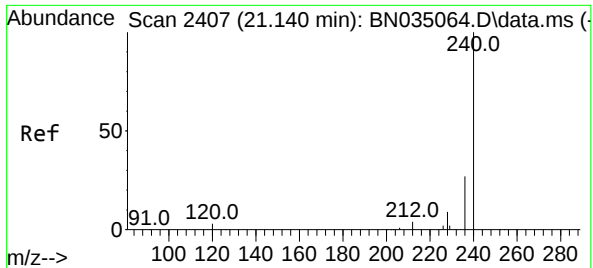
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 212     | 100   |       |       |
| 106     | 7.5   | 6.0   | 9.0   |
| 104     | 4.3   | 3.5   | 5.3   |



#28  
Fluoranthene  
Concen: 0.320 ng  
RT: 19.001 min Scan# 1962  
Delta R.T. -0.002 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 6.4   | 5.2   | 7.8   |
| 203     | 17.1  | 13.8  | 20.8  |

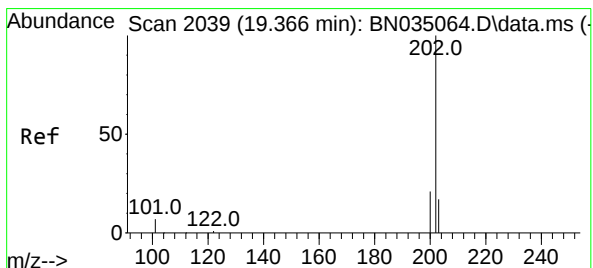
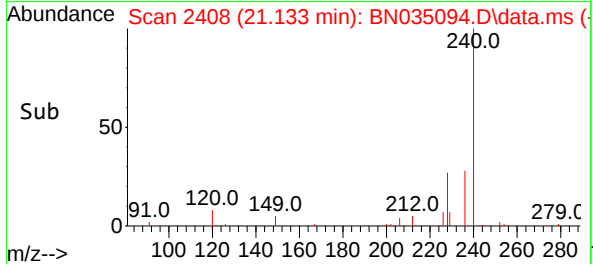
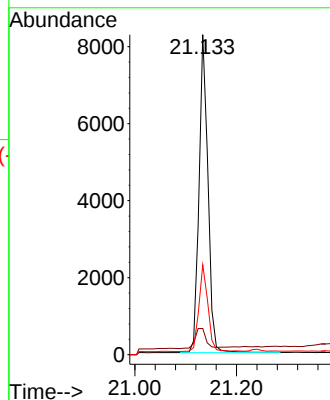
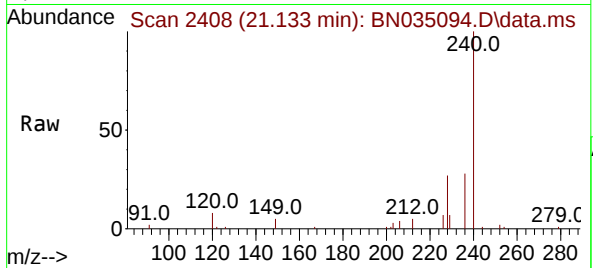




#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.133 min Scan# 2408  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

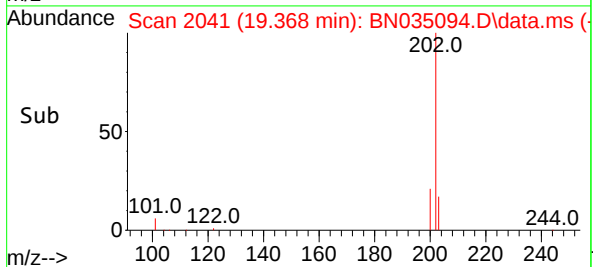
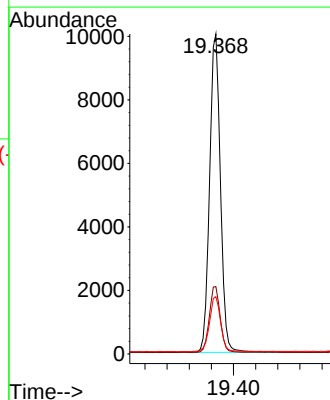
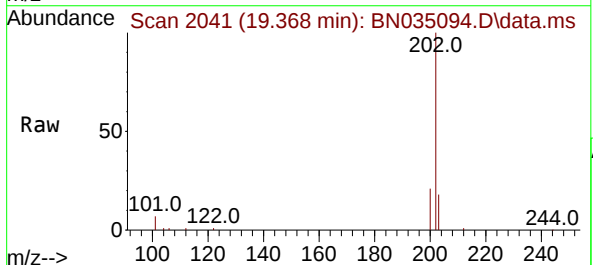
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BNA\_N  
ClientSampleId :  
PB164402BS

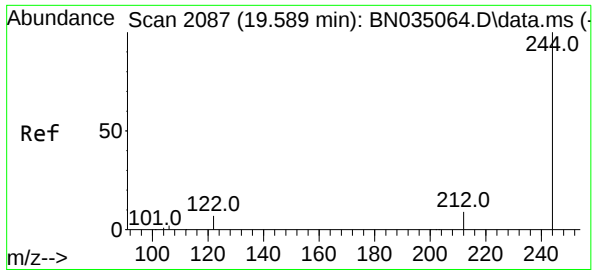
Tgt Ion:240 Resp: 9992  
Ion Ratio Lower Upper  
240 100  
120 8.2 3.8 5.6#  
236 28.1 22.2 33.2



#30  
Pyrene  
Concen: 0.409 ng  
RT: 19.368 min Scan# 2041  
Delta R.T. 0.002 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:202 Resp: 13626  
Ion Ratio Lower Upper  
202 100  
200 20.9 16.7 25.1  
203 17.9 14.2 21.4

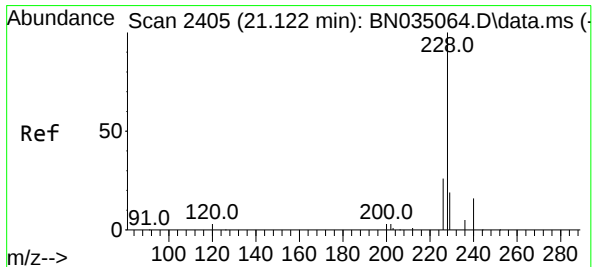
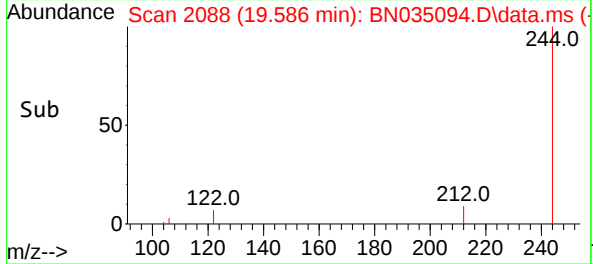
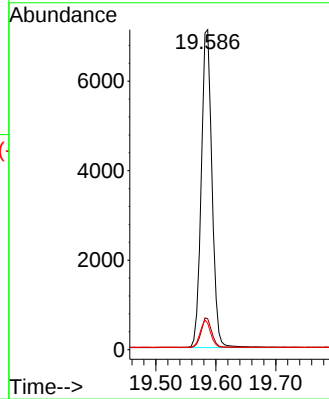
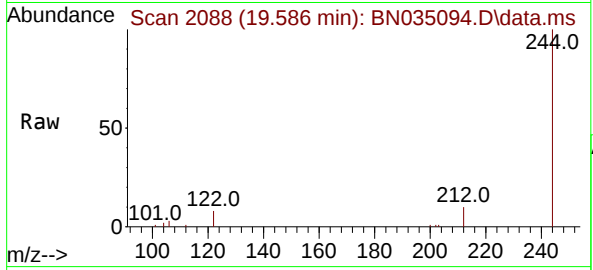




#31  
Terphenyl-d14  
Concen: 0.421 ng  
RT: 19.586 min Scan# 2088  
Delta R.T. -0.002 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

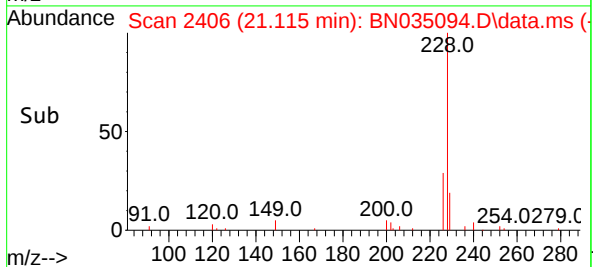
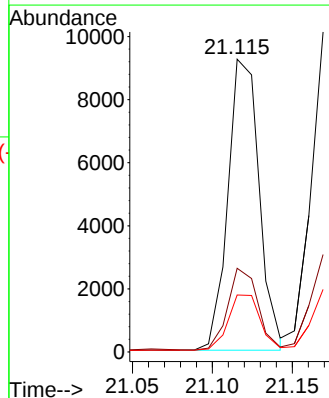
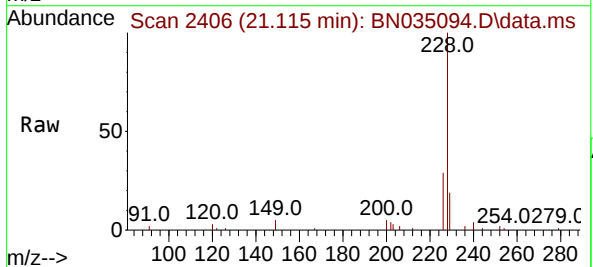
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

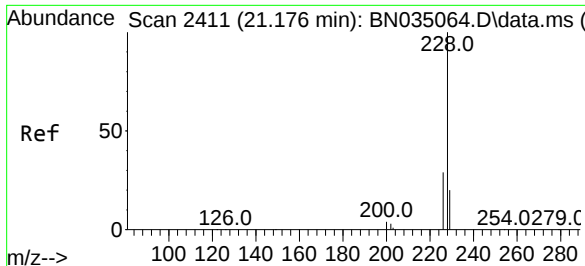
Tgt Ion:244 Resp: 8824  
Ion Ratio Lower Upper  
244 100  
212 9.7 7.6 11.4  
122 8.3 6.1 9.1



#32  
Benzo(a)anthracene  
Concen: 0.361 ng  
RT: 21.115 min Scan# 2406  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:228 Resp: 12572  
Ion Ratio Lower Upper  
228 100  
226 28.6 21.4 32.0  
229 19.4 15.7 23.5

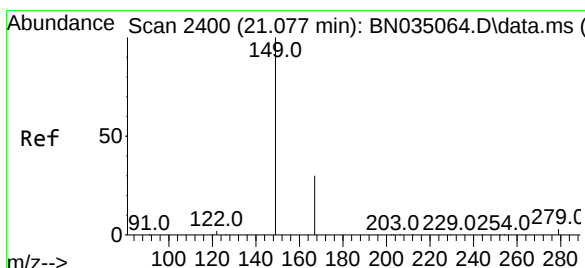
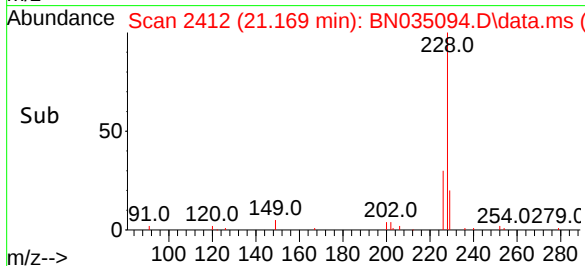
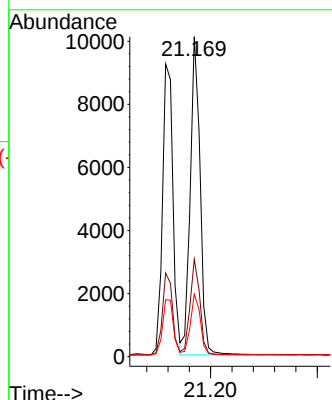
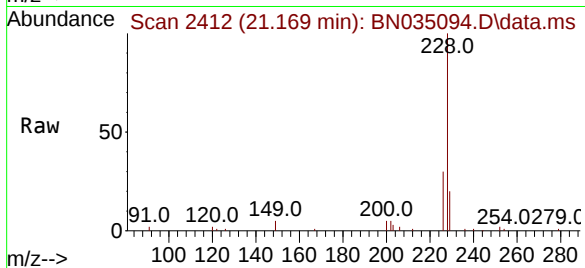




#33  
Chrysene  
Concen: 0.377 ng  
RT: 21.169 min Scan# 2411  
Delta R.T. -0.007 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

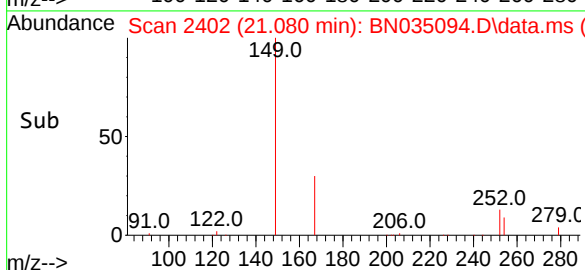
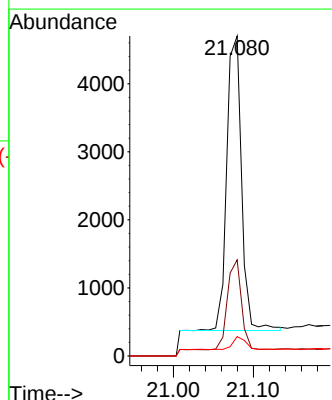
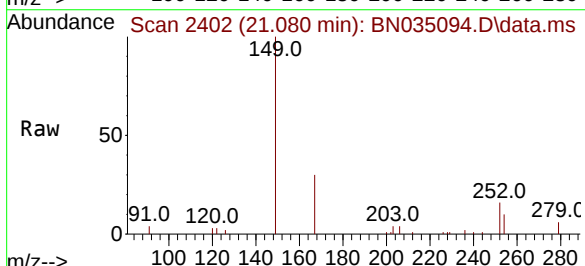
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

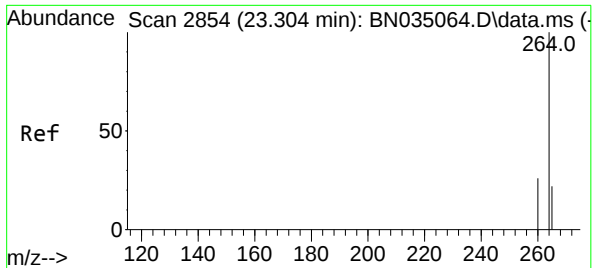
Tgt Ion:228 Resp: 12991  
Ion Ratio Lower Upper  
228 100  
226 30.5 23.7 35.5  
229 19.6 16.2 24.4



#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.305 ng  
RT: 21.080 min Scan# 2402  
Delta R.T. 0.002 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:149 Resp: 5566  
Ion Ratio Lower Upper  
149 100  
167 28.9 23.2 34.8  
279 3.6 3.2 4.8

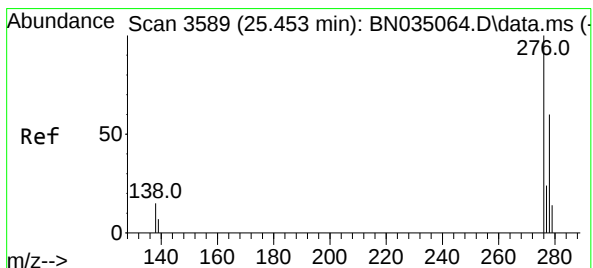
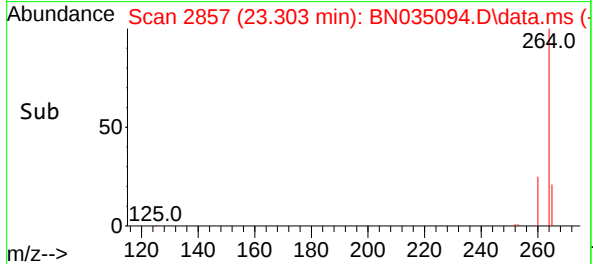
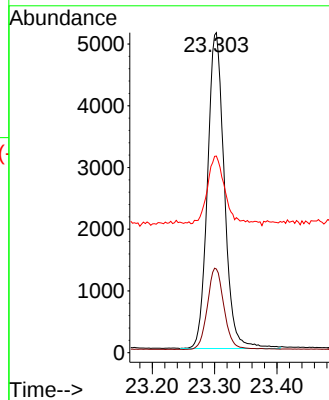
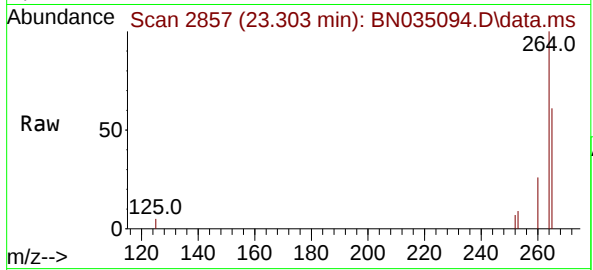




#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.303 min Scan# 21  
Delta R.T. -0.001 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

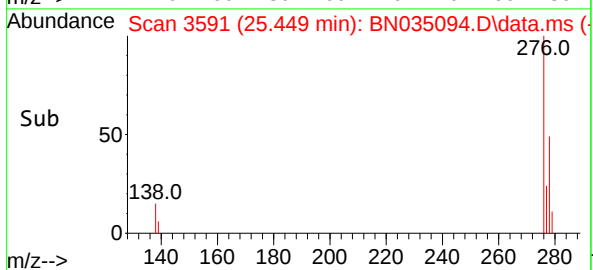
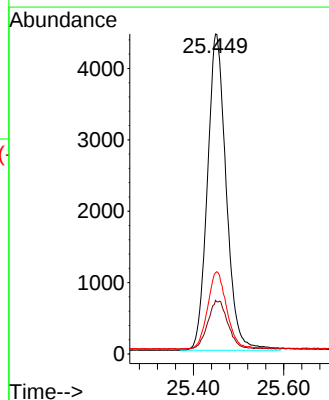
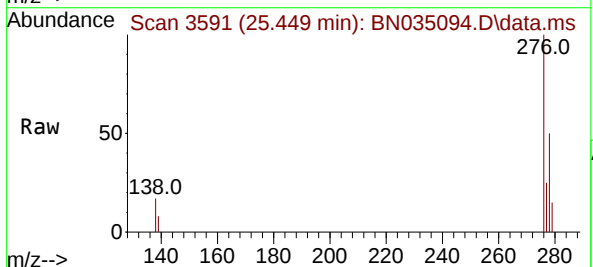
Instrument :  
BNA\_N  
ClientSampleId :  
PB164402BS

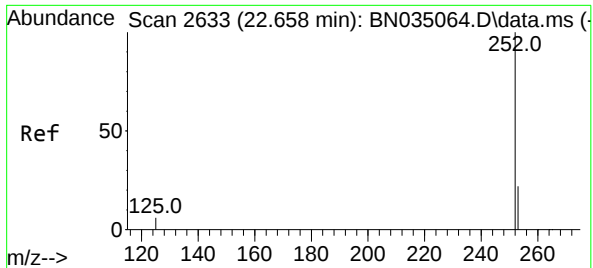
Tgt Ion:264 Resp: 9578  
Ion Ratio Lower Upper  
264 100  
260 26.1 20.9 31.3  
265 61.4 35.4 53.2#



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.335 ng  
RT: 25.449 min Scan# 3591  
Delta R.T. -0.004 min  
Lab File: BN035094.D  
Acq: 14 Nov 2024 18:59

Tgt Ion:276 Resp: 12815  
Ion Ratio Lower Upper  
276 100  
138 16.5 13.0 19.4  
277 24.6 19.8 29.6





#37

Benzo(b)fluoranthene

Concen: 0.391 ng

RT: 22.657 min Scan# 2636

Delta R.T. -0.001 min

Lab File: BN035094.D

Acq: 14 Nov 2024 18:59

Instrument :

BNA\_N

ClientSampleId :

PB164402BS

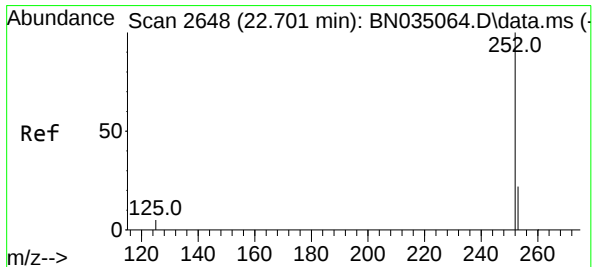
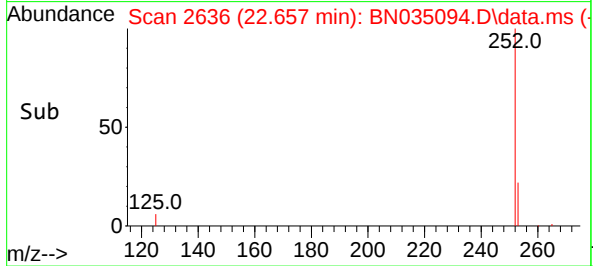
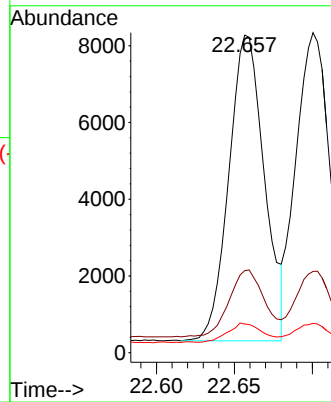
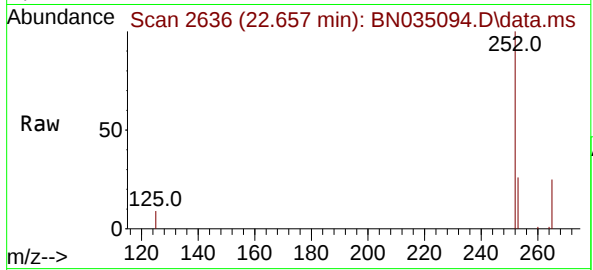
Tgt Ion:252 Resp: 12608

Ion Ratio Lower Upper

252 100

253 25.9 19.3 28.9

125 9.0 6.2 9.2



#38

Benzo(k)fluoranthene

Concen: 0.385 ng

RT: 22.700 min Scan# 2651

Delta R.T. -0.001 min

Lab File: BN035094.D

Acq: 14 Nov 2024 18:59

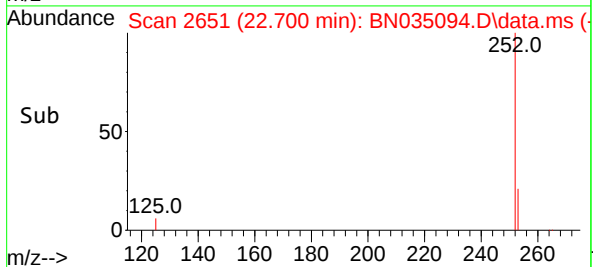
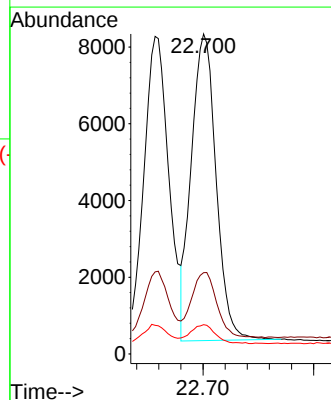
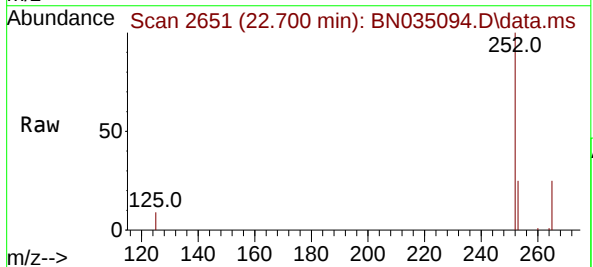
Tgt Ion:252 Resp: 12410

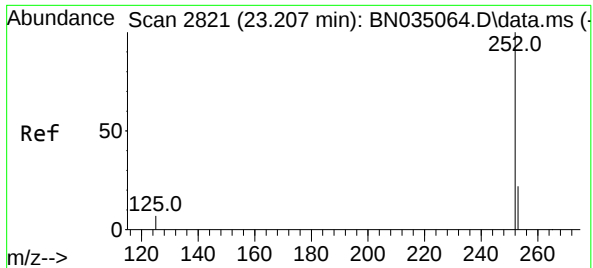
Ion Ratio Lower Upper

252 100

253 25.4 19.5 29.3

125 9.2 6.5 9.7





#39

Benzo(a)pyrene

Concen: 0.389 ng

RT: 23.206 min Scan# 21

Delta R.T. -0.001 min

Lab File: BN035094.D

Acq: 14 Nov 2024 18:59

Instrument :

BNA\_N

ClientSampleId :

PB164402BS

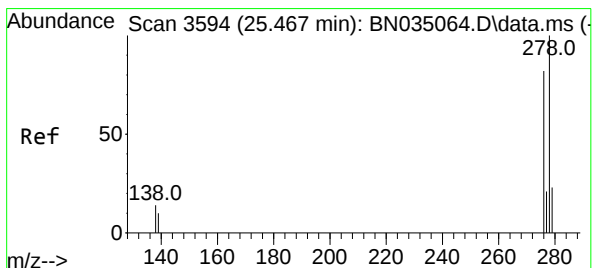
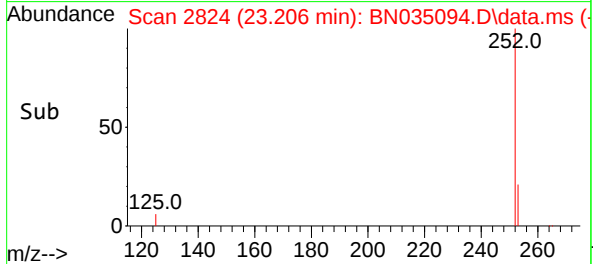
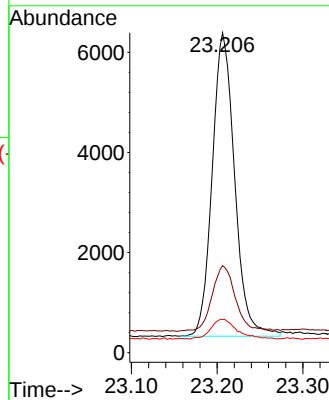
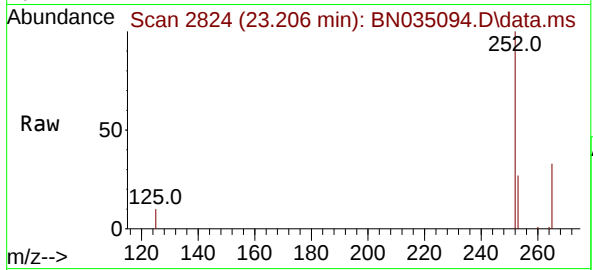
Tgt Ion:252 Resp: 11017

Ion Ratio Lower Upper

252 100

253 27.2 20.1 30.1

125 10.4 7.5 11.3



#40

Dibenzo(a,h)anthracene

Concen: 0.336 ng

RT: 25.466 min Scan# 3597

Delta R.T. -0.001 min

Lab File: BN035094.D

Acq: 14 Nov 2024 18:59

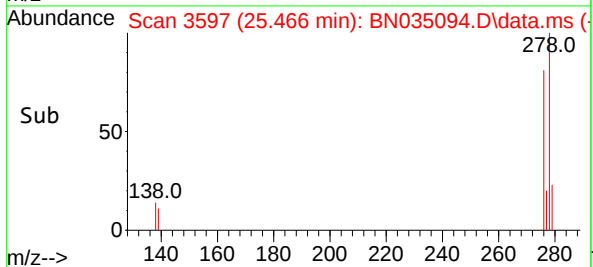
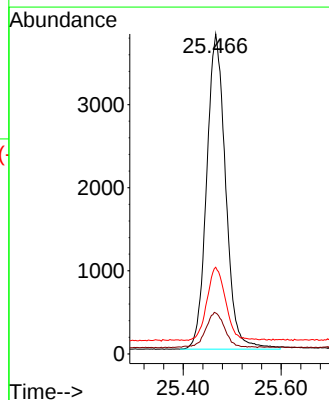
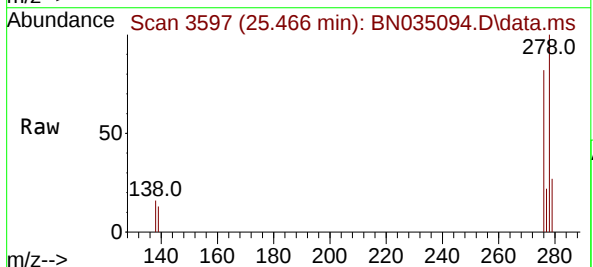
Tgt Ion:278 Resp: 10170

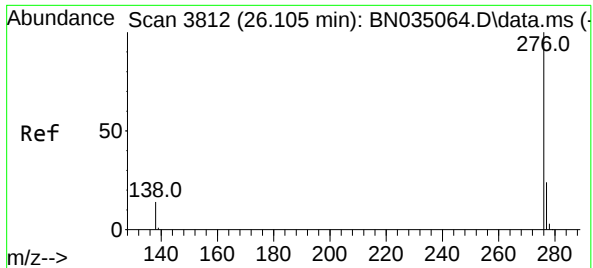
Ion Ratio Lower Upper

278 100

139 12.8 9.3 13.9

279 27.1 19.7 29.5





#41

Benzo(g,h,i)perylene

Concen: 0.300 ng

RT: 26.104 min Scan# 3815

Delta R.T. -0.001 min

Lab File: BN035094.D

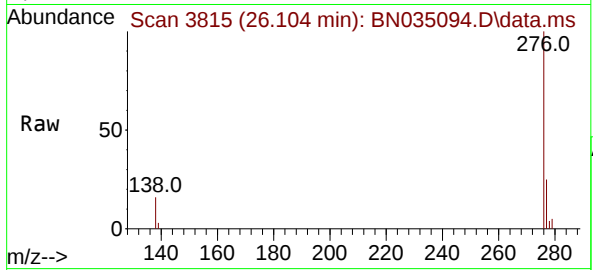
Acq: 14 Nov 2024 18:59

Instrument :

BNA\_N

ClientSampleId :

PB164402BS



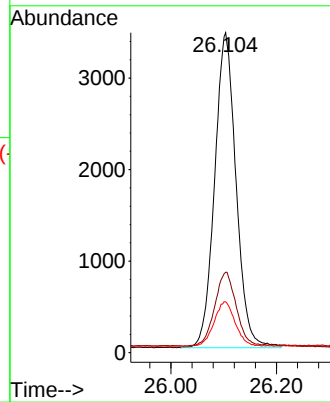
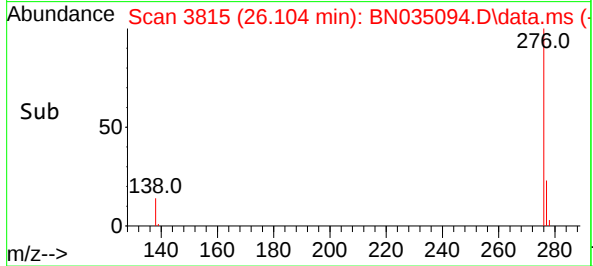
Tgt Ion:276 Resp: 9675

Ion Ratio Lower Upper

276 100

277 25.1 19.9 29.9

138 15.9 11.6 17.4



## Manual Integration Report

Sequence:

BN111324

Instrument

BNA\_n

| Sample ID  | File ID    | Parameter                      | Review By | Review On                | Supervised By | Supervised On            | Reason                      |
|------------|------------|--------------------------------|-----------|--------------------------|---------------|--------------------------|-----------------------------|
| SSTDICC1.6 | BN035066.D | Benzo(b)fluoranthene           | yogesh    | 11/14/2024<br>3:07:07 AM | mohammad      | 11/14/2024<br>3:22:04 AM | Peak Integrated by Software |
| SSTDICC3.2 | BN035067.D | Benzo(b)fluoranthene           | yogesh    | 11/14/2024<br>3:07:16 AM | mohammad      | 11/14/2024<br>3:22:04 AM | Peak Integrated by Software |
| SSTDICV0.4 | BN035069.D | 4,6-Dinitro-2-methylphe<br>nol | yogesh    | 11/14/2024<br>3:07:24 AM | mohammad      | 11/14/2024<br>3:22:04 AM | Peak Integrated by Software |



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

## Manual Integration Report

Sequence:

BN111424

Instrument

BNA\_n

Sample ID

File ID

Parameter

Review By

Review On

Supervised  
By

Supervised On

Reason

Instrument ID: **BNA\_N**

**Daily Analysis Runlog For Sequence/QC Batch ID # BN111324**

|                          |                                                  |                   |                                               |
|--------------------------|--------------------------------------------------|-------------------|-----------------------------------------------|
| Review By                | yogesh                                           | Review On         | 11/14/2024 3:07:49 AM                         |
| Supervise By             | mohammad                                         | Supervise On      | 11/14/2024 3:22:04 AM                         |
| SubDirectory             | BN111324                                         | HP Acquire Method | BNA_N, 8270_SiM HP Processing Method BN111324 |
| <b>STD. NAME</b>         | <b>STD REF.#</b>                                 |                   |                                               |
| Tune/Reschk              | SP6573                                           |                   |                                               |
| Initial Calibration Stds | SP6603,SP6602,SP6601,SP6600,SP6599,SP6598,SP6597 |                   |                                               |
| CCC                      | SP6601                                           |                   |                                               |
| Internal Standard/PEM    | SP6527                                           |                   |                                               |
| ICV/I.BLK                | SP6548                                           |                   |                                               |
| Surrogate Standard       |                                                  |                   |                                               |
| MS/MSD Standard          |                                                  |                   |                                               |
| LCS Standard             |                                                  |                   |                                               |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status   |
|-----|-------------|----------------|-------------------|----------|----------|
| 1   | DFTPP       | BN035061.D     | 13 Nov 2024 12:01 | RC/JU    | Ok       |
| 2   | SSTDIC0.1   | BN035062.D     | 13 Nov 2024 12:40 | RC/JU    | Ok       |
| 3   | SSTDIC0.2   | BN035063.D     | 13 Nov 2024 13:16 | RC/JU    | Ok       |
| 4   | SSTDIC0.4   | BN035064.D     | 13 Nov 2024 13:52 | RC/JU    | Ok       |
| 5   | SSTDIC0.8   | BN035065.D     | 13 Nov 2024 14:28 | RC/JU    | Ok       |
| 6   | SSTDIC1.6   | BN035066.D     | 13 Nov 2024 15:04 | RC/JU    | Ok,M     |
| 7   | SSTDIC3.2   | BN035067.D     | 13 Nov 2024 15:39 | RC/JU    | Ok,M     |
| 8   | SSTDIC5.0   | BN035068.D     | 13 Nov 2024 16:15 | RC/JU    | Ok       |
| 9   | SSTDICV0.4  | BN035069.D     | 13 Nov 2024 16:51 | RC/JU    | Ok,M     |
| 10  | PB164785BL  | BN035070.D     | 13 Nov 2024 17:27 | RC/JU    | Ok       |
| 11  | PB164785BS  | BN035071.D     | 13 Nov 2024 18:03 | RC/JU    | Ok       |
| 12  | PB164785BSD | BN035072.D     | 13 Nov 2024 18:38 | RC/JU    | Ok       |
| 13  | P4765-02    | BN035073.D     | 13 Nov 2024 19:14 | RC/JU    | Ok       |
| 14  | P4765-06    | BN035074.D     | 13 Nov 2024 19:50 | RC/JU    | Ok       |
| 15  | P4767-02    | BN035075.D     | 13 Nov 2024 20:26 | RC/JU    | Ok,M     |
| 16  | P4773-01    | BN035076.D     | 13 Nov 2024 21:01 | RC/JU    | Dilution |
| 17  | P4773-02    | BN035077.D     | 13 Nov 2024 21:37 | RC/JU    | Ok       |
| 18  | P4774-06    | BN035078.D     | 13 Nov 2024 22:13 | RC/JU    | Ok       |
| 19  | P4774-02    | BN035079.D     | 13 Nov 2024 22:49 | RC/JU    | ReRun    |
| 20  | SSTDIC0.4   | BN035080.D     | 13 Nov 2024 23:24 | RC/JU    | Ok       |

M : Manual Integration

Instrument ID: **BNA\_N**

**Daily Analysis Runlog For Sequence/QC Batch ID # BN111424**

|                          |                                                  |                   |                                               |
|--------------------------|--------------------------------------------------|-------------------|-----------------------------------------------|
| Review By                | yogesh                                           | Review On         | 11/15/2024 5:16:11 AM                         |
| Supervise By             | mohammad                                         | Supervise On      | 11/15/2024 5:49:46 AM                         |
| SubDirectory             | BN111424                                         | HP Acquire Method | BNA_N, 8270_SiM HP Processing Method BN111324 |
| <b>STD. NAME</b>         | <b>STD REF.#</b>                                 |                   |                                               |
| Tune/Reschk              | SP6573                                           |                   |                                               |
| Initial Calibration Stds | SP6603,SP6602,SP6601,SP6600,SP6599,SP6598,SP6597 |                   |                                               |
| CCC                      | SP6601                                           |                   |                                               |
| Internal Standard/PEM    | SP6527                                           |                   |                                               |
| ICV/I.BLK                | SP6548                                           |                   |                                               |
| Surrogate Standard       |                                                  |                   |                                               |
| MS/MSD Standard          |                                                  |                   |                                               |
| LCS Standard             |                                                  |                   |                                               |

| Sr# | SampleId   | Data File Name | Date-Time         | Operator | Status   |
|-----|------------|----------------|-------------------|----------|----------|
| 1   | DFTPP      | BN035081.D     | 14 Nov 2024 08:53 | RC/JU    | Ok       |
| 2   | SSTDCCC0.4 | BN035082.D     | 14 Nov 2024 10:12 | RC/JU    | Ok       |
| 3   | PB164402BL | BN035083.D     | 14 Nov 2024 10:48 | RC/JU    | Ok       |
| 4   | P4495-11   | BN035084.D     | 14 Nov 2024 11:24 | RC/JU    | Dilution |
| 5   | P4495-11DL | BN035085.D     | 14 Nov 2024 12:31 | RC/JU    | Ok       |
| 6   | P4495-13   | BN035086.D     | 14 Nov 2024 13:22 | RC/JU    | Dilution |
| 7   | P4495-13DL | BN035087.D     | 14 Nov 2024 14:10 | RC/JU    | Ok       |
| 8   | P3845-21   | BN035088.D     | 14 Nov 2024 14:59 | RC/JU    | Dilution |
| 9   | P3845-21DL | BN035089.D     | 14 Nov 2024 15:58 | RC/JU    | Ok,M     |
| 10  | P4774-02RE | BN035090.D     | 14 Nov 2024 16:35 | RC/JU    | Confirms |
| 11  | P4773-04   | BN035091.D     | 14 Nov 2024 17:11 | RC/JU    | Ok       |
| 12  | P4773-03   | BN035092.D     | 14 Nov 2024 17:47 | RC/JU    | Ok       |
| 13  | P4773-01DL | BN035093.D     | 14 Nov 2024 18:23 | RC/JU    | Ok       |
| 14  | PB164402BS | BN035094.D     | 14 Nov 2024 18:59 | RC/JU    | Ok       |
| 15  | SSTDCCC0.4 | BN035095.D     | 14 Nov 2024 19:35 | RC/JU    | Ok       |

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN111324**

|              |          |                   |                                           |
|--------------|----------|-------------------|-------------------------------------------|
| Review By    | yogesh   | Review On         | 11/14/2024 3:07:49 AM                     |
| Supervise By | mohammad | Supervise On      | 11/14/2024 3:22:04 AM                     |
| SubDirectory | BN111324 | HP Acquire Method | BNA_N, 8270_HP Processing Method BN111324 |

| STD. NAME                | STD REF.#                                        |
|--------------------------|--------------------------------------------------|
| Tune/Reschk              | SP6573                                           |
| Initial Calibration Stds | SP6603,SP6602,SP6601,SP6600,SP6599,SP6598,SP6597 |
| CCC                      | SP6601                                           |
| Internal Standard/PEM    | SP6527                                           |
| ICV/I.BLK                | SP6548                                           |
| Surrogate Standard       |                                                  |
| MS/MSD Standard          |                                                  |
| LCS Standard             |                                                  |

| Sr# | SampleID    | ClientID            | Data File Name | Date-Time         | Comment          | Operator | Status   |
|-----|-------------|---------------------|----------------|-------------------|------------------|----------|----------|
| 1   | DFTPP       | DFTPP               | BN035061.D     | 13 Nov 2024 12:01 |                  | RC/JU    | Ok       |
| 2   | SSTDICC0.1  | SSTDICC0.1          | BN035062.D     | 13 Nov 2024 12:40 |                  | RC/JU    | Ok       |
| 3   | SSTDICC0.2  | SSTDICC0.2          | BN035063.D     | 13 Nov 2024 13:16 |                  | RC/JU    | Ok       |
| 4   | SSTDICCC0.4 | SSTDICCC0.4         | BN035064.D     | 13 Nov 2024 13:52 |                  | RC/JU    | Ok       |
| 5   | SSTDICC0.8  | SSTDICC0.8          | BN035065.D     | 13 Nov 2024 14:28 |                  | RC/JU    | Ok       |
| 6   | SSTDICC1.6  | SSTDICC1.6          | BN035066.D     | 13 Nov 2024 15:04 |                  | RC/JU    | Ok,M     |
| 7   | SSTDICC3.2  | SSTDICC3.2          | BN035067.D     | 13 Nov 2024 15:39 |                  | RC/JU    | Ok,M     |
| 8   | SSTDICC5.0  | SSTDICC5.0          | BN035068.D     | 13 Nov 2024 16:15 |                  | RC/JU    | Ok       |
| 9   | SSTDICV0.4  | ICVBN111324         | BN035069.D     | 13 Nov 2024 16:51 |                  | RC/JU    | Ok,M     |
| 10  | PB164785BL  | PB164785BL          | BN035070.D     | 13 Nov 2024 17:27 |                  | RC/JU    | Ok       |
| 11  | PB164785BS  | PB164785BS          | BN035071.D     | 13 Nov 2024 18:03 |                  | RC/JU    | Ok       |
| 12  | PB164785BSD | PB164785BSD         | BN035072.D     | 13 Nov 2024 18:38 |                  | RC/JU    | Ok       |
| 13  | P4765-02    | DSN002              | BN035073.D     | 13 Nov 2024 19:14 |                  | RC/JU    | Ok       |
| 14  | P4765-06    | DSN003              | BN035074.D     | 13 Nov 2024 19:50 |                  | RC/JU    | Ok       |
| 15  | P4767-02    | TOWER-2             | BN035075.D     | 13 Nov 2024 20:26 |                  | RC/JU    | Ok,M     |
| 16  | P4773-01    | RW7-SP100-20241107  | BN035076.D     | 13 Nov 2024 21:01 | Need 2X Dilution | RC/JU    | Dilution |
| 17  | P4773-02    | RW7-SP201-20241107  | BN035077.D     | 13 Nov 2024 21:37 |                  | RC/JU    | Ok       |
| 18  | P4774-06    | BP-VPB-190-GW-638-6 | BN035078.D     | 13 Nov 2024 22:13 |                  | RC/JU    | Ok       |

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN111324**

|              |          |                   |                                           |
|--------------|----------|-------------------|-------------------------------------------|
| Review By    | yogesh   | Review On         | 11/14/2024 3:07:49 AM                     |
| Supervise By | mohammad | Supervise On      | 11/14/2024 3:22:04 AM                     |
| SubDirectory | BN111324 | HP Acquire Method | BNA_N, 8270_HP Processing Method BN111324 |

| STD. NAME                | STD REF.#                                        |
|--------------------------|--------------------------------------------------|
| Tune/Reschk              | SP6573                                           |
| Initial Calibration Stds | SP6603,SP6602,SP6601,SP6600,SP6599,SP6598,SP6597 |
| CCC                      | SP6601                                           |
| Internal Standard/PEM    | SP6527                                           |
| ICV/I.BLK                | SP6548                                           |
| Surrogate Standard       |                                                  |
| MS/MSD Standard          |                                                  |
| LCS Standard             |                                                  |

|    |            |                    |            |                   |                |       |       |
|----|------------|--------------------|------------|-------------------|----------------|-------|-------|
| 19 | P4774-02   | VPB190-HYD-2024110 | BN035079.D | 13 Nov 2024 22:49 | Surrogate Fail | RC/JU | ReRun |
| 20 | SSTDCCC0.4 | SSTDCCC0.4EC       | BN035080.D | 13 Nov 2024 23:24 |                | RC/JU | Ok    |

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN111424**

|                          |                                                  |                   |                                           |
|--------------------------|--------------------------------------------------|-------------------|-------------------------------------------|
| Review By                | yogesh                                           | Review On         | 11/15/2024 5:16:11 AM                     |
| Supervise By             | mohammad                                         | Supervise On      | 11/15/2024 5:49:46 AM                     |
| SubDirectory             | BN111424                                         | HP Acquire Method | BNA_N, 8270_HP Processing Method BN111324 |
| <b>STD. NAME</b>         | <b>STD REF.#</b>                                 |                   |                                           |
| Tune/Reschk              | SP6573                                           |                   |                                           |
| Initial Calibration Stds | SP6603,SP6602,SP6601,SP6600,SP6599,SP6598,SP6597 |                   |                                           |
| CCC                      | SP6601                                           |                   |                                           |
| Internal Standard/PEM    | SP6527                                           |                   |                                           |
| ICV/I.BLK                | SP6548                                           |                   |                                           |
| Surrogate Standard       |                                                  |                   |                                           |
| MS/MSD Standard          |                                                  |                   |                                           |
| LCS Standard             |                                                  |                   |                                           |

| Sr# | SampleID   | ClientID            | Data File Name | Date-Time         | Comment                                                | Operator | Status   |
|-----|------------|---------------------|----------------|-------------------|--------------------------------------------------------|----------|----------|
| 1   | DFTPP      | DFTPP               | BN035081.D     | 14 Nov 2024 08:53 |                                                        | RC/JU    | Ok       |
| 2   | SSTDCCC0.4 | SSTDCCC0.4          | BN035082.D     | 14 Nov 2024 10:12 |                                                        | RC/JU    | Ok       |
| 3   | PB164402BL | PB164402BL          | BN035083.D     | 14 Nov 2024 10:48 |                                                        | RC/JU    | Ok       |
| 4   | P4495-11   | PT-BNA-SOIL         | BN035084.D     | 14 Nov 2024 11:24 | PT Sample, Need 50X Dilution                           | RC/JU    | Dilution |
| 5   | P4495-11DL | PT-BNA-SOILDL       | BN035085.D     | 14 Nov 2024 12:31 |                                                        | RC/JU    | Ok       |
| 6   | P4495-13   | PT-PAH-SOIL         | BN035086.D     | 14 Nov 2024 13:22 | PT Sample, Need 5X Dilution                            | RC/JU    | Dilution |
| 7   | P4495-13DL | PT-PAH-SOILDL       | BN035087.D     | 14 Nov 2024 14:10 |                                                        | RC/JU    | Ok       |
| 8   | P3845-21   | RR-PAH-WP           | BN035088.D     | 14 Nov 2024 14:59 | PT Sample Analyzed for confirmation, Need 10X Dilution | RC/JU    | Dilution |
| 9   | P3845-21DL | RR-PAH-WPDL         | BN035089.D     | 14 Nov 2024 15:58 | PT Sample Analyzed for confirmation                    | RC/JU    | Ok,M     |
| 10  | P4774-02RE | VPB190-HYD-20241107 | BN035090.D     | 14 Nov 2024 16:35 | Surrogate Fail                                         | RC/JU    | Confirms |
| 11  | P4773-04   | RW7-SP303-20241107  | BN035091.D     | 14 Nov 2024 17:11 |                                                        | RC/JU    | Ok       |
| 12  | P4773-03   | RW7-SP302-20241107  | BN035092.D     | 14 Nov 2024 17:47 |                                                        | RC/JU    | Ok       |
| 13  | P4773-01DL | RW7-SP100-20241107  | BN035093.D     | 14 Nov 2024 18:23 |                                                        | RC/JU    | Ok       |
| 14  | PB164402BS | PB164402BS          | BN035094.D     | 14 Nov 2024 18:59 |                                                        | RC/JU    | Ok       |
| 15  | SSTDCCC0.4 | SSTDCCC0.4EC        | BN035095.D     | 14 Nov 2024 19:35 |                                                        | RC/JU    | Ok       |

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/25/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:20  
Out Date: 10/24/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133085

| 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   |
|----------|------------------|--------|-----------------|---------------|--------------------------|----------------------------|---------|------------|
| P4488-09 | HCC-1            | 1      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oil sample |
| P4488-10 | HCC-2            | 2      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oil sample |
| P4495-01 | PT-AN-SOIL       | 3      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-02 | PT-CORR-SOIL     | 4      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-03 | PT-CN-SOIL       | 5      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-04 | PT-CN-SOIL       | 6      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-05 | PT-FP-SOIL       | 7      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-06 | PT-CR6-SOIL      | 8      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-07 | PT-NUT-SOIL      | 9      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-08 | PT-NUT-SOIL      | 10     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-09 | PT-OGP-SOIL      | 11     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-10 | PT-MET-SOIL      | 12     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-11 | PT-BNA-SOIL      | 13     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-12 | PT-TRIAZINE-SOIL | 14     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-13 | PT-PAH-SOIL      | 15     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-14 | PT-DIES-SOIL     | 16     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-15 | PT-GAS-SOIL      | 17     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-16 | PT-NJEPH-SOIL    | 18     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-17 | PT-HERB-SOIL     | 19     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-18 | PT-PCB-SOIL      | 20     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-19 | PT-PCBO-SOIL     | 21     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-20 | PT-PEST-SOIL     | 22     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-21 | PT-CHLR-SOIL     | 23     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-22 | PT-TXP-SOIL      | 24     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-23 | PT-VOA-SOIL      | 25     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-24 | PT-SOL-SOIL      | 26     | 0.92            | 8.80          | 9.72                     | 7.58                       | 75.7    |            |
| P4495-25 | PT-NO2-SOIL      | 27     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4508-01 | TP-3             | 28     | 1.14            | 8.38          | 9.52                     | 8.64                       | 89.5    |            |



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/25/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:20  
Out Date: 10/24/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133085

| 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 |
|----------|-----------------|--------|----------------|--------------|-------------------------|---------------------------|---------|----------|
| P4508-02 | TP-3-EPH        | 29     | 1.15           | 8.81         | 9.96                    | 9.22                      | 91.6    |          |
| P4508-03 | TP-3-VOC        | 30     | 1.15           | 8.66         | 9.81                    | 8.88                      | 89.3    |          |
| P4508-05 | BP-F23          | 31     | 1.15           | 8.82         | 9.97                    | 9.22                      | 91.5    |          |
| P4508-06 | BP-F23-EPH      | 32     | 1.14           | 8.83         | 9.97                    | 9.29                      | 92.3    |          |
| P4508-07 | BP-F23-VOC      | 33     | 1.15           | 8.40         | 9.55                    | 8.61                      | 88.8    |          |
| P4508-09 | BP-F22          | 34     | 1.18           | 8.78         | 9.96                    | 9.15                      | 90.8    |          |
| P4508-10 | BP-F22-EPH      | 35     | 1.15           | 8.70         | 9.85                    | 8.98                      | 90.0    |          |
| P4508-11 | BP-F22-VOC      | 36     | 1.16           | 8.60         | 9.76                    | 8.68                      | 87.4    |          |
| P4509-02 | AU-06-10232024  | 37     | 1.12           | 8.82         | 9.94                    | 9.44                      | 94.3    |          |
| P4510-01 | FDH119M-1-1     | 38     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-02 | FDH119M-1-2     | 39     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-03 | BC271327-1-1    | 40     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-04 | BC271327-1-2    | 41     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-05 | BC271327-2-1    | 42     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-06 | BC271327-2-2    | 43     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-07 | FDA886K-1-1     | 44     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-08 | FDA886K-1-2     | 45     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-09 | FDA886K-2-1     | 46     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-10 | FDA886K-2-2     | 47     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-11 | HID111K-1-1     | 48     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-12 | HID111K-1-2     | 49     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-13 | HID111K-2-1     | 50     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-14 | HID111K-2-2     | 51     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-15 | HID111K-3-1     | 52     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-16 | HID111K-3-2     | 53     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-17 | FDA563W-1-1     | 54     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-18 | FDA563W-1-2     | 55     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |
| P4510-19 | FDA563W-2-1     | 56     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc     |



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/25/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:20  
Out Date: 10/24/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133085

| 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        |
|----------|------------------|--------|----------------|--------------|-------------------------|---------------------------|---------|-----------------|
| P4510-20 | FDA563W-2-2      | 57     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-21 | JEC128C-1-1      | 58     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-22 | JEC128C-1-2      | 59     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-23 | JEC128C-2-1      | 60     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-24 | JEC128C-2-2      | 61     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4511-02 | 267              | 62     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | debris          |
| P4512-03 | VNJ-212          | 63     | 1.15           | 8.81         | 9.96                    | 9.66                      | 96.6    |                 |
| P4512-04 | VNJ-212-E2       | 64     | 1.16           | 8.48         | 9.64                    | 9.39                      | 97.1    |                 |
| P4513-01 | D3683            | 65     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oil sample      |
| P4513-02 | D3694            | 66     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | debris          |
| P4513-03 | D3695            | 67     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | debris          |
| P4514-01 | BC274653-1-1     | 68     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-02 | BC274653-1-2     | 69     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-03 | BC274767-1-1     | 70     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-04 | BC274767-1-2     | 71     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-05 | BC274767-2-1     | 72     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-06 | BC274767-2-2     | 73     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4515-01 | CHVB0783         | 74     | 1.15           | 8.83         | 9.98                    | 5.28                      | 46.8    |                 |
| P4516-01 | 72-11986         | 75     | 1.12           | 8.67         | 9.79                    | 8.93                      | 90.1    |                 |
| P4517-01 | NASSAU-ST-CO     | 76     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |
| P4517-03 | S.JEFFERSON-CO-1 | 77     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |
| P4517-05 | S.JEFFERSON-CO-2 | 78     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |
| P4517-07 | FOREST-ST-CO     | 79     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |

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

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-102324

WorkList ID : 184679

Department : Wet-Chemistry

Date : 10-23-2024 08:16:39

| Sample   | Customer Sample  | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4488-09 | HCC-1            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/22/2024   | Chemtech -SO |
| P4488-10 | HCC-2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/22/2024   | Chemtech -SO |
| P4495-01 | PT-AN-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-02 | PT-CORR-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-03 | PT-CN-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-04 | PT-CN-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-05 | PT-FP-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-06 | PT-CR6-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-07 | PT-NUT-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-08 | PT-NUT-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-09 | PT-OGH-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-10 | PT-MET-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-11 | PT-BNA-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-12 | PT-TRIAZINE-SOIL | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-13 | PT-PAH-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-14 | PT-DIES-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-15 | PT-GAS-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-16 | PT-NJEPH-SOIL    | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-17 | PT-HERB-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-18 | PT-PCB-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-19 | PT-PCBO-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |

Date/Time 10/23/24 16:00  
 Raw Sample Received by: JH WCI  
 Raw Sample Relinquished by: JH WCI

Date/Time 10/23/24  
 Raw Sample Received by: JH WCI  
 Raw Sample Relinquished by: JH WCI

W 133085

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-102324      WorkList ID : 184679      Department : Wet-Chemistry      Date : 10-23-2024 08:16:39

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4495-20 | PT-PEST-SOIL    | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-21 | PT-CHLR-SOIL    | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-22 | PT-TXP-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-23 | PT-VOA-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-24 | PT-SOL-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-25 | PT-NO2-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4508-01 | TP-3            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-02 | TP-3-EPH        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-03 | TP-3-VOC        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-05 | BP-F23          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-06 | BP-F23-EPH      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-07 | BP-F23-VOC      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-09 | BP-F22          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-10 | BP-F22-EPH      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-11 | BP-F22-VOC      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4509-02 | AU-06-10232024  | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-01 | FDH119M-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-02 | FDH119M-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-03 | BC271327-1-1    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-04 | BC271327-1-2    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-05 | BC271327-2-1    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |

|                             |          |       |                             |          |       |
|-----------------------------|----------|-------|-----------------------------|----------|-------|
| Date/Time                   | 10/23/24 | 16:00 | Date/Time                   | 10/23/24 | 17:30 |
| Raw Sample Received by:     | JP WWC   |       | Raw Sample Received by:     | JP WWC   |       |
| Raw Sample Relinquished by: | JP WWC   |       | Raw Sample Relinquished by: | JP WWC   |       |

# WORKLIST(Hardcopy Internal Chain)

133085

WorkList Name : %1-102324      WorkList ID : 184679      Department : Wet-Chemistry      Date : 10-23-2024 08:16:39

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4510-06 | BC271327-2-2    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-07 | FDA886K-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-08 | FDA886K-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-09 | FDA886K-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-10 | FDA886K-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-11 | HID111K-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-12 | HID111K-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-13 | HID111K-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-14 | HID111K-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-15 | HID111K-3-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-16 | HID111K-3-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-17 | FDA563W-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-18 | FDA563W-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-19 | FDA563W-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-20 | FDA563W-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-21 | JEC128C-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-22 | JEC128C-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-23 | JEC128C-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-24 | JEC128C-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4511-02 | 267             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4512-03 | VNJ-212         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |

Date/Time 10/23/24      Date/Time 10/23/24      Date/Time 17130  
 Raw Sample Received by: CP      Raw Sample Received by: CP      Raw Sample Received by: CP  
 Raw Sample Relinquished by: CP      Raw Sample Relinquished by: CP      Raw Sample Relinquished by: CP

# WORKLIST(Hardcopy Internal Chain)

W 133085

WorkList Name : %1-102324      WorkList ID : 184679      Department : Wet-Chemistry      Date : 10-23-2024 08:16:39

| Sample   | Customer Sample  | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4512-04 | VNJ-212-E2       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4513-01 | D3683            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4513-02 | D3694            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4513-03 | D3695            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4514-01 | BC274653-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-02 | BC274653-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-03 | BC274767-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-04 | BC274767-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-05 | BC274767-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-06 | BC274767-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4515-01 | CHVB0783         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K62                         | 10/23/2024   | Chemtech -SO |
| P4516-01 | 72-11986         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K62                         | 10/23/2024   | Chemtech -SO |
| P4517-01 | NASSAU-ST-CO     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4517-03 | S.JEFFERSON-CO-1 | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4517-05 | S.JEFFERSON-CO-2 | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4517-07 | FOREST-ST-CO     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |

Date/Time  
Raw Sample Received by:  
Raw Sample Relinquished by:

10/23/24  
161-00  
W CWC

Date/Time  
Raw Sample Received by:  
Raw Sample Relinquished by:

10/23/24  
CP 82  
JL WWC

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Extraction Start Date : 10/25/2024

Matrix : Solid

Extraction Start Time : 09:50

Weigh By: EH

Extraction By: RJ

Extraction End Date : 10/25/2024

Balance check: RJ

Filter By: RJ

Extraction End Time : 12:50

Balance ID: EX-SC-2

pH Meter ID: N/A

Concentration By: RS

pH Strip Lot#: N/A

Hood ID: 3,7

Supervisor By : rajesh

Extraction Method: ☐ Separatory Funnel ☐ Continuous Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☒ Soxhlet

| Standard Name | MLS USED | Concentration ug/mL | STD REF. # FROM LOG |
|---------------|----------|---------------------|---------------------|
| Surrogate     | 1.0ML    | 0.4 PPM             | SP6636              |
| Spike Sol 1   | 1.0ML    | 0.4 PPM             | SP6606              |
| 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            | EP2538     |
| Baked Na2SO4       | N/A            | EP2551     |
| Sand               | N/A            | E2865      |
| Methylene Chloride | N/A            | E3822      |
| 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:

1.5ML Vial Lot # 2210673. P4495-11 ,Use from P164401.

KD Bath ID: N/A

Envap ID: NE VAP-02

KD Bath Temperature: N/A

Envap Temperature: 40 °C

| Date / Time | Prepped Sample Relinquished By/Location | Received By/Location |
|-------------|-----------------------------------------|----------------------|
| 10/25/24    | RP (Ext. Locs)                          | RLSunc               |
| 12:55       | Preparation Group                       | Analysis Group       |

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 10/25/2024

| Sample ID  | Client Sample ID | Test             | g / mL | PH  | Surr/Spike By: |            | Final Vol.<br>(mL) | JarID | Comments | Prep<br>Pos |
|------------|------------------|------------------|--------|-----|----------------|------------|--------------------|-------|----------|-------------|
|            |                  |                  |        |     | AddedBy        | VerifiedBy |                    |       |          |             |
| PB164402BL | SBLK402          | SVOCMS<br>Group2 | 30.02  | N/A | RUPESH         | ritesh     | 1                  |       |          | U5-1        |
| PB164402BS | SLCS402          | SVOCMS<br>Group2 | 30.03  | N/A | RUPESH         | ritesh     | 1                  |       |          | 2           |
| P4495-11   | PT-BNA-SOIL      | SVOCMS<br>Group2 | 30.07  | N/A | RUPESH         | ritesh     | 1                  |       |          | 3           |
| P4495-13   | PT-PAH-SOIL      | SVOCMS<br>Group3 | 30.00  | N/A | RUPESH         | ritesh     | 1                  |       |          | 4           |

\* Extracts relinquished on the same date as received.



me 10/20/24

WORKLIST(Hardcopy Internal Chain)

WorkList Name : P4495M      WorkList ID : 184771      Department : Extraction      Date : 10-25-2024 09:18:20

| Sample   | Customer Sample | Matrix | Test          | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method        |
|----------|-----------------|--------|---------------|--------------|----------|-----------------------------|--------------|---------------|
| P4495-11 | PT-BNA-SOIL     | Solid  | SVOCMS Group2 | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | 8270-Modified |
| P4495-13 | PT-PAH-SOIL     | Solid  | SVOCMS Group3 | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | 8270-Modified |

Date/Time 10/20/24 9:45  
Raw Sample Received by: DJ (Cat 104)  
Raw Sample Relinquished by: AP gm

Date/Time 10/21/24 10:10  
Raw Sample Received by: AP gm  
Raw Sample Relinquished by: DJ (Cat 104)

## Prep Standard - Chemical Standard Summary

**Order ID :** P4495

**Test :** SVOCMS Group3

**Prepbatch ID :** PB164402,

**Sequence ID/Qc Batch ID:** BN111424,BN111424,

**Standard ID :**

EP2538,EP2551,SP6527,SP6547,SP6548,SP6573,SP6596,SP6597,SP6598,SP6599,SP6600,SP6601,SP6602,SP6603,SP6606,SP6636,

**Chemical ID :**

E2865,E3551,E3746,E3759,E3768,E3786,E3788,E3793,E3794,E3822,S10103,S10247,S10782,S10977,S 11003,S11011,S11097,S11494,S11566,S11766,S11771,S12029,S12077,S12096,S12105,S12112,S12113,S12117,S12126,S12453,

## 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>           |
|------------------|----------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|--------------------------------|
| 3868             | METHELENE CHLORIDE+ACETONE | <a href="#">EP2538</a> | 09/17/2024       | 03/11/2025             | Rajesh Parikh      | None           | None             | RUPESHKUMAR SHAH<br>09/17/2024 |

**FROM** 8000.00000ml of E3793 + 8000.00000ml of E3794 = Final Quantity: 1600.000 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="#">EP2551</a> | 10/18/2024       | 01/03/2025             | Rajesh Parikh      | Extraction_SC ALE_2<br>(EX-SC-2) | None             | RUPESHKUMAR SHAH<br>10/18/2024 |

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

## SVOC 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> |
|------------------|---------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3493             | Internal Standard 0.4 PPM | <a href="#">SP6527</a> | 06/10/2024       | 12/05/2024             | Jagrut Upadhyay    | None           | None             | mohammad ahmed       |
|                  |                           |                        |                  |                        |                    |                |                  | 07/05/2024           |

**FROM** 0.10000ml of S12029 + 4.90000ml of E3759 = Final Quantity: 5.000 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> |
|------------------|---------------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3355             | 8270-SIM MDL-3.2PPM<br>CALIBRATION STOCK SOL- 2ND | <a href="#">SP6547</a> | 07/08/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | mohammad ahmed       |
|                  |                                                   |                        |                  |                        |                    |                |                  | 07/08/2024           |

**FROM** SOURCE  
0.00630ml of S10977 + 0.01280ml of S11003 + 0.03200ml of S10782 + 0.03200ml of S11766 + 0.06400ml of S11566 +  
0.06400ml of S12096 + 0.06400ml of S12117 + 19.72490ml of E3746 = Final Quantity: 20.000 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>         |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 3356                                                                                                                   | 8270-SIM MDL-0.4PPM<br>CALIBRATION SOL ICV-2ND | <a href="#">SP6548</a> | 07/08/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | mohammad ahmed<br>07/08/2024 |
| <b>SOURCE</b><br><b>FROM</b> 0.87500ml of E3746 + 0.01000ml of SP6527 + 0.12500ml of SP6547 = Final Quantity: 1.010 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>       |
|------------------------------------------------------------------------------------------|----------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 3895                                                                                     | 50 ug/ml DFTPP 8270E | <a href="#">SP6573</a> | 07/15/2024       | 01/08/2025             | Rahul Chavli       | None           | None             | Yogesh Patel<br>07/17/2024 |
| <b><u>FROM</u></b> 1.00000ml of S10247 + 19.00000ml of E3768 = Final Quantity: 20.000 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>       |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 3339             | 8270 sim calibration stock 10ppm (CPI)                                                                                                                                                                    | <a href="#">SP6596</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel<br>08/21/2024 |
| <u>FROM</u>      | 0.02500ml of S12113 + 0.03350ml of S10103 + 0.05000ml of S11494 + 0.10000ml of S12112 + 0.12500ml of S10782 + 0.25000ml of S11097 + 0.25000ml of S12077 + 24.16650ml of E3786 = Final Quantity: 25.000 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>           |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|--------------------------------|
| 3361                                                                                                         | 8270-SIM MDL-5PPM<br>CALIBRATION SOLUTION | <a href="#">SP6597</a> | 08/09/2024       | 11/21/2024             | Jagrut<br>Upadhyay | None           | None             | Yogesh Patel<br><br>08/21/2024 |
| <b><u>FROM</u></b> 0.50000ml of E3786 + 0.01000ml of SP6527 + 0.50000ml of SP6596 = Final Quantity: 1.010 ml |                                           |                        |                  |                        |                    |                |                  |                                |

## SVOC 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> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3341             | 8270-SIM MDL-3.2PPM CALIBRATION SOLUTION | <a href="#">SP6598</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 08/21/2024           |

**FROM** 0.68000ml of E3786 + 0.01000ml of SP6527 + 0.32000ml of SP6596 = Final Quantity: 1.010 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> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3344             | 8270-SIM MDL-1.6PPM CALIBRATION SOLUTION | <a href="#">SP6599</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 08/21/2024           |

**FROM** 0.84000ml of E3786 + 0.01000ml of SP6527 + 0.16000ml of SP6596 = Final Quantity: 1.010 ml

## SVOC 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> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3342             | 8270-SIM MDL-0.8PPM CALIBRATION SOLUTION | <a href="#">SP6600</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 08/21/2024           |

**FROM** 0.92000ml of E3786 + 0.01000ml of SP6527 + 0.08000ml of SP6596 = Final Quantity: 1.010 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> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3343             | 8270-SIM MDL-0.4PPM CALIBRATION SOLUTION | <a href="#">SP6601</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 08/21/2024           |

**FROM** 0.96000ml of E3786 + 0.01000ml of SP6527 + 0.04000ml of SP6596 = Final Quantity: 1.010 ml

## SVOC 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> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3345             | 8270-SIM MDL-0.2PPM CALIBRATION SOLUTION | <a href="#">SP6602</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 08/21/2024           |

**FROM** 0.50000ml of E3786 + 0.01000ml of SP6527 + 0.50000ml of SP6601 = Final Quantity: 1.010 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> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3346             | 8270-SIM MDL-0.1PPM CALIBRATION SOLUTION | <a href="#">SP6603</a> | 08/09/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 08/21/2024           |

**FROM** 0.75000ml of E3786 + 0.01000ml of SP6527 + 0.25000ml of SP6601 = Final Quantity: 1.010 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>             |
|------------------|------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------------|
| 3492             | 8270-SIM-Spike 0.4 PPM | <a href="#">SP6606</a> | 08/20/2024       | 02/12/2025             | Rahul Chavli       | None           | None             | mohammad ahmed<br><br>08/21/2024 |

**FROM** 0.00160ml of S11011 + 0.02000ml of S11771 + 0.04000ml of S12105 + 0.04000ml of S12126 + 0.04000ml of S12453 + 99.85840ml of E3788 = Final Quantity: 100.000 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>             |
|------------------|----------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------------|
| 3491             | 8270-SIM-Surrogate 0.4 PPM | <a href="#">SP6636</a> | 10/04/2024       | 11/21/2024             | Jagrut Upadhyay    | None           | None             | mohammad ahmed<br><br>10/18/2024 |

**FROM** 0.00400ml of S10977 + 0.00800ml of S11003 + 0.02000ml of S10782 + 99.96800ml of E3788 = Final Quantity: 100.000 ml

## 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 | 12/31/2024      | 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 | 01/03/2025      | 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) | 24C0162011 | 11/25/2024      | 05/25/2024 / Rajesh     | 05/08/2024 / Rajesh         | E3746          |

| 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) | 24D1962005 | 12/08/2024      | 06/08/2024 / Rajesh     | 05/31/2024 / Rajesh         | E3759          |

| 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) | 24E2462004 | 01/08/2025      | 07/08/2024 / Rajesh     | 06/21/2024 / Rajesh         | E3768          |

| 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) | 24F1062004 | 02/01/2025      | 08/01/2024 / Rajesh     | 07/16/2024 / Rajesh         | E3786          |

### CHEMICAL RECEIPT LOG BOOK

| 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) | 23H1462005 | 04/23/2025      | 08/13/2024 / Rajesh     | 08/13/2024 / Rajesh         | E3788          |

| Supplier         | ItemCode / ItemName               | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-----------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | 9005-05 / Acetone Ultra (cs/4x4L) | 24E0761004 | 03/11/2025      | 09/12/2024 / Rajesh     | 09/11/2024 / Rajesh         | E3793          |

| 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) | 24G2362009 | 03/17/2025      | 09/17/2024 / Rajesh     | 09/03/2024 / Rajesh         | E3794          |

| 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 # |
|-------------------|-----------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-112090-04 / CLP Acid Surrogate Solution, 7500 mg/L, 1ml | 440246 | 02/08/2025      | 08/08/2024 / Jagrut     | 12/09/2021 / Christian      | S10103         |

| Supplier | ItemCode / ItemName                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31615 / SV Mixture, GC/MS Tuning Mixture, CH2Cl2, 1mL, | A0182667 | 01/15/2025      | 07/15/2024 / Rahul      | 03/18/2022 / Christian      | S10247         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 33913 / SOM01.0 SIM Analysis Standard (Surrogate), 2000 PPM | A0186160 | 11/21/2024      | 05/21/2024 / Jagrut     | 09/07/2022 / Christian      | S10782         |

| Supplier | ItemCode / ItemName                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul | A0188108 | 11/30/2024      | 05/31/2024 / Jagrut     | 12/28/2022 / Christian      | S10977         |

| Supplier | ItemCode / ItemName                                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31086 / Base Neutral Surrogate 5000ug/ml,CH <sub>2</sub> Cl <sub>2</sub> ,5ml | A0189418 | 11/30/2024      | 05/31/2024 / Jagrut     | 12/28/2022 / Christian      | S11003         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555872 / Custom Standard, pentachlorophenol Std [CS 5328-5] | A0193449 | 02/20/2025      | 08/20/2024 / yogesh     | 01/13/2023 / Christian      | S11011         |

| Supplier          | ItemCode / ItemName                                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|----------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | z-110381-01 / 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1ml | 495831 | 02/08/2025      | 08/08/2024 / Jagrut     | 02/07/2023 / Christian      | S11097         |

| Supplier          | ItemCode / ItemName                                               | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|-------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110094-02 / CLP Base/Neutral Surrogate Solution, 5000 mg/L, 1ml | 506889 | 02/08/2025      | 08/08/2024 / Jagrut     | 08/11/2023 / Yogesh         | S11494         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                                                                   | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request] | A0201940 | 12/05/2024      | 06/05/2024 / Rahul      | 09/18/2023 / Kiran          | S11566         |

[CS 4978-1]

| Supplier | ItemCode / ItemName                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride | A0196453 | 12/14/2024      | 06/14/2024 / Rahul      | 11/21/2023 / Rahul          | S11766         |

| Supplier | ItemCode / ItemName                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride | A0196453 | 02/20/2025      | 08/20/2024 / Rahul      | 11/21/2023 / Rahul          | S11771         |

| Supplier | ItemCode / ItemName                                                                        | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> , 1mL | A0201320 | 12/05/2024      | 06/05/2024 / Rahul      | 12/21/2023 / Rahul          | S12029         |

| Supplier          | ItemCode / ItemName                                                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|--------------------------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days) | 414127 | 02/08/2025      | 08/08/2024 / Jagrut     | 01/31/2024 / Rahul          | S12077         |

| Supplier | ItemCode / ItemName                                                                                  | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555224 / Custom 8270 Plus Std #2 [2nd lot at \$85 per ampul if requested - contact ARM with Request] | A0207706 | 12/05/2024      | 06/05/2024 / Rahul      | 02/05/2024 / Rahul          | S12096         |

[CS 4978-2]

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                                                                  | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555224 / Custom 8270 Plus Std #2 [2nd lot at \$85 per ampul if requested - contact ARM with Request] | A0207706 | 02/12/2025      | 08/12/2024 / Rahul      | 02/05/2024 / Rahul          | S12105         |

[CS 4978-2]

| Supplier          | ItemCode / ItemName                                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|----------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml | 454157 | 01/09/2025      | 07/09/2024 / Jagrut     | 03/08/2024 / Rahul          | S12112         |

| Supplier          | ItemCode / ItemName                                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|----------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml | 454157 | 02/09/2025      | 08/09/2024 / Jagrut     | 03/08/2024 / Rahul          | S12113         |

| Supplier | ItemCode / ItemName                                                                                                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> [New Solvent 100% CH <sub>2</sub> Cl <sub>2</sub> ] | A0203726 | 12/05/2024      | 06/05/2024 / Rahul      | 03/15/2024 / Rahul          | S12117         |

| Supplier | ItemCode / ItemName                                                                                                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> [New Solvent 100% CH <sub>2</sub> Cl <sub>2</sub> ] | A0203726 | 02/12/2025      | 08/12/2024 / Rahul      | 03/15/2024 / Rahul          | S12126         |

| Supplier | ItemCode / ItemName                                                                                   | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request] | A0214021 | 02/12/2025      | 08/12/2024 / Rahul      | 07/23/2024 / RAHUL          | S12453         |

[CS 4978-1]



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

Rev 0

Page 1 of 1

|                     |                 |                 |                    |                   |                                               |
|---------------------|-----------------|-----------------|--------------------|-------------------|-----------------------------------------------|
| <b>Catalog No.:</b> | <b>Lot No.:</b> | <b>Storage:</b> | <b>Solvent:</b>    | <b>Exp. Date:</b> | <b>Description:</b>                           |
| Z-112090            | 440246          | ≤ -10 °C        | Methylene Chloride | 2/16/2026         | CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL |
| -04                 |                 |                 |                    |                   |                                               |

| Compound                      | CAS No.    | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-------------------------------|------------|------------|------------------|---------------------|
| 2-chlorophenol-d <sub>4</sub> | 93951-73-6 | 99.3       | 248.12.7P        | 7487 ± 17.2         |
| 2-fluorophenol                | 367-12-4   | 99.8       | 10.7.3.3P        | 7513 ± 17.26        |
| phenol-d <sub>6</sub>         | 13127-88-3 | 99.9       | 949.120.8P       | 7481 ± 17.19        |
| 2,4,6-tribromophenol          | 118-79-6   | 99.8       | 12.1.6P          | 7469 ± 17.17        |

Received on

02/25/21

by  
CG

S9236  
to

S9240

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

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.

Certified By: \_\_\_\_\_

Erica Castiglione  
Chemist



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Receivalon  
02/07/23 by CG

Sheet S11096  
to  
S11099

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 4

| Catalog No.: | Lot No.: | Storage: | Solvent:           | Exp. Date: | Description:                                                   |
|--------------|----------|----------|--------------------|------------|----------------------------------------------------------------|
| Z-110381-01  | 495831   | ≤ -10 °C | Methylene Chloride | 10/30/2027 | Method 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1 mL |

| Compound                          | CAS No.  | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-----------------------------------|----------|------------|------------------|---------------------|
| acenaphthene                      | 83-32-9  | 99.9       | 13.1.5P          | 1003 ± 17.27        |
| acenaphthylene                    | 208-96-8 | 97.6       | 14.290.1P        | 999.8 ± 17.22       |
| aniline                           | 62-53-3  | 99.9       | 64.7.1P          | 995 ± 17.13         |
| anthracene                        | 120-12-7 | 99.5       | 15.7.1P          | 1001 ± 17.24        |
| azobenzene                        | 103-33-3 | 98.1       | 252.7.2P         | 999.1 ± 17.21       |
| benzo[a]anthracene                | 56-55-3  | 100        | 16.7.3P          | 1001 ± 17.24        |
| benzo[b]fluoranthene              | 205-99-2 | 99.8       | 17.421.3P        | 1001 ± 19.91        |
| benzo[k]fluoranthene              | 207-08-9 | 98.9       | 18.421.4P        | 1001 ± 17.92        |
| benzo[ghi]perylene                | 191-24-2 | 93         | 19.286.4P        | 999.6 ± 19.88       |
| benzo[a]pyrene                    | 50-32-8  | 97         | 20.286.2P        | 999.1 ± 26.35       |
| benzyl alcohol                    | 100-51-6 | 99.9       | 65.18.1P         | 1001 ± 17.24        |
| bis(2-chloroethoxy)methane        | 111-91-1 | 99.1       | 31.3.15P         | 999.7 ± 17.89       |
| bis(2-chloroethyl)ether           | 111-44-4 | 99.8       | 32.7.1P          | 1001 ± 17.23        |
| bis(2-chloro-1-methylethyl) ether | 108-60-1 | 99.5       | 34.3.13P         | 999.5 ± 17.89       |
| bis(2-ethylhexyl)adipate          | 103-23-1 | 99.5       | 874.7.1P         | 999.5 ± 17.21       |
| bis(2-ethylhexyl)phthalate        | 117-81-7 | 99.4       | 33.29.1P         | 998.8 ± 19.86       |
| 4-bromophenyl phenyl ether        | 101-55-3 | 99.4       | 35.7.1P          | 999.1 ± 17.2        |
| butyl benzyl phthalate            | 85-68-7  | 98.4       | 36.1.6P          | 984.7 ± 19.58       |
| carbazole                         | 86-74-8  | 99.4       | 239.7.2P         | 1000 ± 17.22        |

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

*Brianna Smith*

Certified By: \_\_\_\_\_

Brianna Smith  
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.

# Certificate of Analysis

Page 4 of 4

Catalog No.: Z-110381-01

Lot No.: 495831

Expiration Date: 10/30/2027

| <u>Compound</u>        | <u>CAS No.</u> | <u>Purity (%)</u> | <u>Compound Lot No.</u> | <u>Concentration, mg/L</u> |
|------------------------|----------------|-------------------|-------------------------|----------------------------|
| 1,2,4-trichlorobenzene | 120-82-1       | 99.6              | 54.29.1P                | 1000 ± 17.22               |
| 2,4,5-trichlorophenol  | 95-95-4        | 96.5              | 121.7.1.1P              | 1000 ± 17.22               |
| 2,4,6-trichlorophenol  | 88-06-2        | 99.6              | 113.7.1P                | 1002 ± 17.25               |

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By:



Briana Smith  
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.



# 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.*

Received on  
03/10/22  
by  
CG  
S10242  
to  
S10247

**Catalog No. :** 31615 **Lot No.:** A0182667  
**Description :** GC/MS Tuning Mixture  
GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** March 31, 2025 **Storage:** 10°C or colder  
**Handling:** Contains carcinogen/reproductive toxin. **Ship:** Ambient

### CERTIFIED VALUES

| Elution Order   | Compound                                                                             | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                       |                                       |
|-----------------|--------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------|---------------------------------------|
| 1               | Pentachlorophenol<br>CAS # 87-86-5 (Lot 211229RSR)<br>Purity 99%                     | 1,003.6 µg/mL               | +/- 5.8897 µg/mL<br>+/- 45.7132 µg/mL<br>+/- 66.0037 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2               | DFTPP (Decafluorotriphenylphosphine)<br>CAS # 5074-71-5 (Lot Q117-147)<br>Purity 95% | 1,006.6 µg/mL               | +/- 5.9074 µg/mL<br>+/- 45.8508 µg/mL<br>+/- 66.2023 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3               | Benzidine<br>CAS # 92-87-5 (Lot 211228JLM)<br>Purity 99%                             | 1,008.4 µg/mL               | +/- 5.9179 µg/mL<br>+/- 45.9318 µg/mL<br>+/- 66.3193 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4               | 4,4'-DDT<br>CAS # 50-29-3 (Lot 210916JLM)<br>Purity 99%                              | 1,007.6 µg/mL               | +/- 5.9132 µg/mL<br>+/- 45.8954 µg/mL<br>+/- 66.2667 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| <b>Solvent:</b> | Methylene chloride<br>CAS # 75-09-2<br>Purity 99%                                    |                             |                                                            |                                       |

**Column:**

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

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**

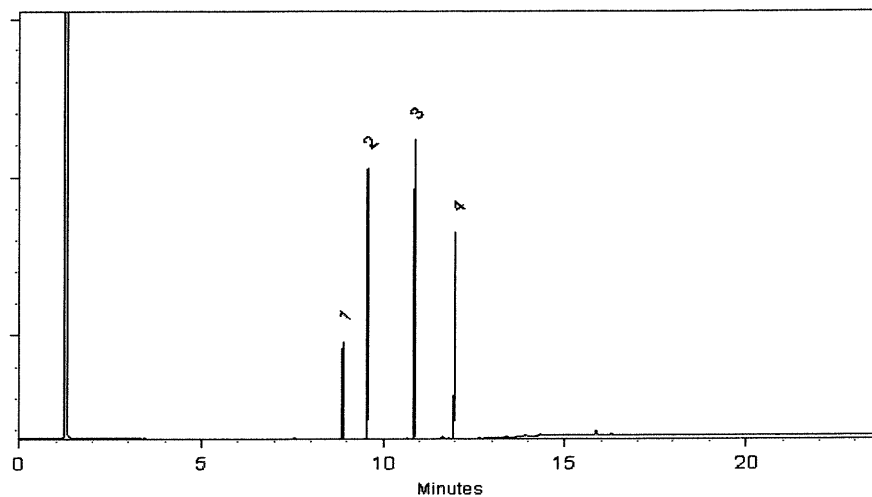
250°C

**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.

Morgan Craighead - Mix Technician

Date Mixed: 08-Mar-2022

Balance: B345965662

Marlene Cowan - Operations Tech I

Date Passed: 10-Mar-2022

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## 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. :** 33913 **Lot No.:** A0186160

**Description :** SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2028 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

Received on  
09/07/22  
by  
CG  
S10778  
to  
S10782

### CERTIFIED VALUES

| Elution Order                                                     | Compound                                                              | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                         |
|-------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------|
| 1                                                                 | 2-Methylnaphthalene-d10<br>CAS # 7297-45-2 (Lot EF-135)<br>Purity 96% | 2,015.0 µg/mL               | +/- 11.8254 µg/mL Gravimetric<br>+/- 90.7728 µg/mL Unstressed<br>+/- 100.7207 µg/mL Stressed |
| 2                                                                 | Fluoranthene-d10<br>CAS # 93951-69-0 (Lot PR-20668)<br>Purity 99%     | 2,007.0 µg/mL               | +/- 11.7782 µg/mL Gravimetric<br>+/- 90.4107 µg/mL Unstressed<br>+/- 100.3188 µg/mL Stressed |
| <b>Solvent:</b> Methylene chloride<br>CAS # 75-09-2<br>Purity 99% |                                                                       |                             |                                                                                              |

**Column:**

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

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**

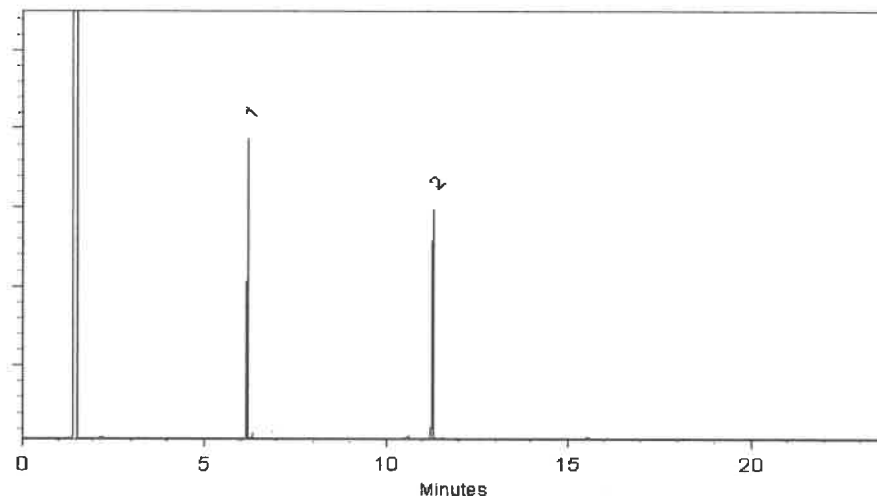
250°C

**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.

John Friedline - Operations Technician I

Date Mixed: 09-Jun-2022

Balance: B442140311

Martina Cowan - Operations Tech II ARM QC

Date Passed: 13-Jun-2022

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis



ISO 17034 Accredited  
Reference Material Producer  
Certificate #3222.01



ISO/IEC 17025 Accredited  
Testing Laboratory  
Certificate #3222.02

### 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. :** 31087 **Lot No.:** A0188108

**Description :** Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** August 31, 2030 **Storage:** 10°C or colder

**Ship:** Ambient

Received by  
CG on  
12/28/22  
S10951  
FO  
S10980

### CERTIFIED VALUES

| Elution Order | Compound                                                               | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                          |
|---------------|------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------|
| 1             | 2-Fluorophenol<br>CAS # 367-12-4<br>Purity 99%<br>(Lot STBF3761V)      | 10,088.5 µg/mL              | +/- 58.6554 µg/mL Gravimetric<br>+/- 294.4162 µg/mL Unstressed<br>+/- 357.2628 µg/mL Stressed |
| 2             | Phenol-d6<br>CAS # 13127-88-3<br>Purity 99%<br>(Lot PR-31262)          | 10,043.3 µg/mL              | +/- 58.3923 µg/mL Gravimetric<br>+/- 293.0957 µg/mL Unstressed<br>+/- 355.6603 µg/mL Stressed |
| 3             | 2,4,6-Tribromophenol<br>CAS # 118-79-6<br>Purity 99%<br>(Lot MKCJ7664) | 10,010.0 µg/mL              | +/- 58.1990 µg/mL Gravimetric<br>+/- 292.1253 µg/mL Unstressed<br>+/- 354.4829 µg/mL Stressed |

**Solvent:** Methanol  
CAS # 67-56-1  
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:**

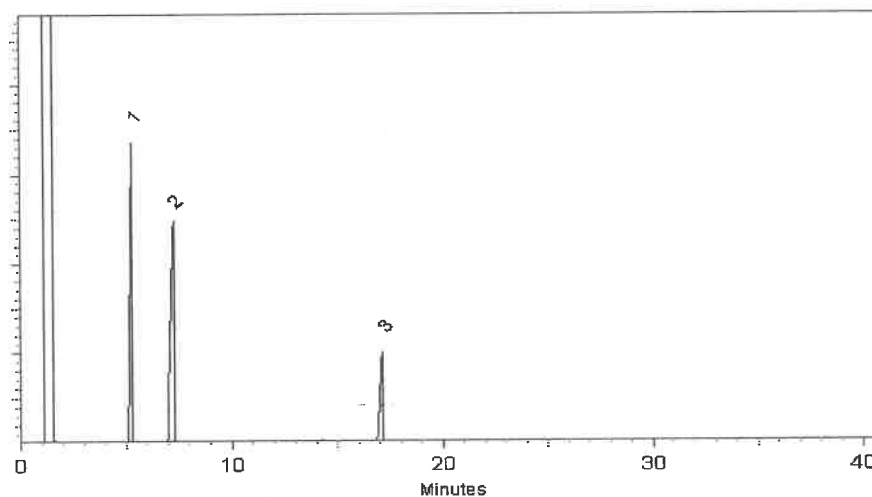
250°C

**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.

  
Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 Balance: 1127510105

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
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## CERTIFIED REFERENCE MATERIAL

# 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. :** 31086 **Lot No.:** A0189418  
**Description :** B/N Surrogate Mix (4/89 SOW)  
Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Handling:** Sonicate prior to use. **Ship:** Ambient

Received by  
CG on  
12/28/22  
\$10981  
to  
S11010

### CERTIFIED VALUES

| Elution Order | Compound                                                         | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                          |
|---------------|------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------|
| 1             | Nitrobenzene-d5<br>CAS # 4165-60-0 (Lot PR-29940A)<br>Purity 99% | 5,009.8 µg/mL               | +/- 29.1271 µg/mL Gravimetric<br>+/- 225.6421 µg/mL Unstressed<br>+/- 250.3778 µg/mL Stressed |
| 2             | 2-Fluorobiphenyl<br>CAS # 321-60-8 (Lot 00021384)<br>Purity 99%  | 5,026.6 µg/mL               | +/- 29.2250 µg/mL Gravimetric<br>+/- 226.4003 µg/mL Unstressed<br>+/- 251.2191 µg/mL Stressed |
| 3             | p-Terphenyl-d14<br>CAS # 1718-51-0 (Lot PR-30504)<br>Purity 99%  | 5,027.3 µg/mL               | +/- 29.2289 µg/mL Gravimetric<br>+/- 226.4304 µg/mL Unstressed<br>+/- 251.2524 µg/mL Stressed |

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

#### Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

**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:**

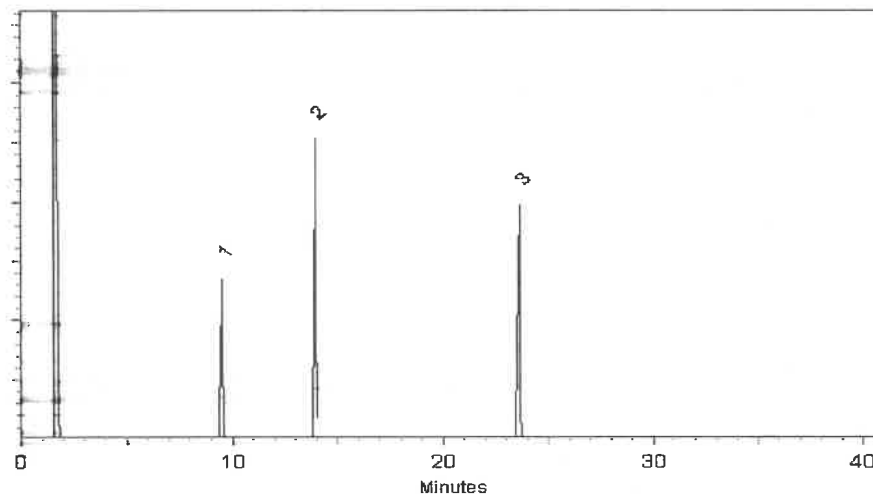
250°C

**Det. Temp:**

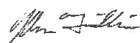
330°C

**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.

  
John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022

Balance: 1128353505

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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



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

gravimetric



## 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.:** 555872 **Lot No.:** A0193449  
**Description:** Custom Pentachlorophenol Standard  
Custom Pentachlorophenol Standard 25,000µg/mL, Methanol,  
1mL/ampul  
**Container Size:** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date:** January 31, 2026 **Storage:** 10°C or colder  
**Ship:** Ambient

Received on  
01/13/23  
by  
CG  
S11011  
+0  
S11015

## CERTIFIED VALUES

| Component # | Compound          | CAS #   | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|-------------------|---------|----------|--------|-----------------------------|----------------------------------------|
| 1           | Pentachlorophenol | 87-86-5 | RP221012 | 99%    | 25,050.0 µg/mL              | +/- 778.6378                           |

**Solvent:** Methanol  
**CAS #** 67-56-1  
**Purity** 99%

*Russ Bookhamer*

Russ Bookhamer - Operations Technician I

**Date Mixed:** 11-Jan-2023

**Balance:** B442140311

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/ $\mu$ ECD, 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.

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

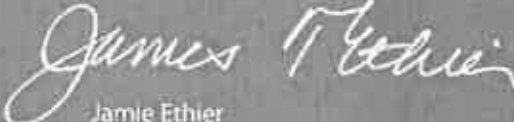
## Certificate of Analysis

| 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



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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)



Material No.: 9266-A4  
Batch No.: 24C0162011  
Manufactured Date: 2024-01-04  
Expiration Date: 2025-04-04  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                             | Specification          | Result   |
|--------------------------------------------------------------------------------------------------|------------------------|----------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                             | $\leq 5$               | < 1      |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)                             | $\leq 10$              | 2        |
| Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water) | $\geq 99.8 \%$         | 100.0 %  |
| Color (APHA)                                                                                     | $\leq 10$              | 10       |
| Residue after Evaporation                                                                        | $\leq 1.0 \text{ ppm}$ | 0.2 ppm  |
| Titration Acid ( $\mu\text{eq/g}$ )                                                              | $\leq 0.3$             | < 0.1    |
| Chloride (Cl)                                                                                    | $\leq 10 \text{ ppm}$  | < 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: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC  
Manufacturer source batch: MG24A04224

E 3746

Ken Koehnlein  
Sr. Manager, Quality Assurance

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



Material No.: 9266-A4  
Batch No.: 24D1962005  
Manufactured Date: 2024-03-16  
Expiration Date: 2025-06-15  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                       | Specification          | Result   |
|--------------------------------------------------------------------------------------------|------------------------|----------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                       | $\leq 5$               | < 1      |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)                       | $\leq 10$              | 8        |
| 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                                                                  | $\leq 1.0 \text{ ppm}$ | 0.1 ppm  |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$             | < 0.1    |
| Chloride (Cl)                                                                              | $\leq 10 \text{ ppm}$  | < 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: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC  
Manufacturer source batch: MG24C16563

E 3759

Jamie Croak  
Director Quality Operations, Bioscience Production

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



Material No.: 9266-A4  
Batch No.: 24E2462004  
Manufactured Date: 2024-04-10  
Expiration Date: 2025-07-10  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                       | Specification          | Result   |
|--------------------------------------------------------------------------------------------|------------------------|----------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                       | $\leq 5$               | 3        |
| 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) | $\geq 99.8 \%$         | 100.0 %  |
| Color (APHA)                                                                               | $\leq 10$              | 5        |
| Residue after Evaporation                                                                  | $\leq 1.0 \text{ ppm}$ | 0.1 ppm  |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$             | < 0.1    |
| Chloride (Cl)                                                                              | $\leq 10 \text{ ppm}$  | 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: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC  
Manufacturer source batch: MG24D10725

E 3768

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

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



Material No.: 9266-A4  
Batch No.: 24F1062004  
Manufactured Date: 2024-04-15  
Expiration Date: 2025-07-15  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                             | Specification  | Result   |
|--------------------------------------------------------------------------------------------------|----------------|----------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                             | $\leq 5$       | < 1      |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)                             | $\leq 10$      | 7        |
| Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (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 | 0.1 ppm  |
| Titration Acid ( $\mu$ 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: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC  
Manufacturer source batch: MG24D15750

E 3786

Jamie Croak  
Director Quality Operations, Bioscience Production

Acetone

BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

Avantor™



Material No.: 9254-03  
Batch No.: 23H1462005  
Manufactured Date: 2023-07-26  
Expiration Date: 2026-07-25  
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 %      | 99.7 %      |
| Color (APHA)                                                            | ≤ 10          | 5           |
| Residue after Evaporation                                               | ≤ 1.0 ppm     | 0.3 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (μeq/g)                                                  | ≤ 0.3         | 0.1         |
| Titration Base (μeq/g)                                                  | ≤ 0.6         | < 0.1       |
| Water (H <sub>2</sub> O)                                                | ≤ 0.5 %       | 0.3 %       |
| 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: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 8/13/24

E 3788

Ken Koehnlein  
Sr. Manager, Quality Assurance

Acetone  
CMOS

avantor™



Material No.: 9005-05  
Batch No.: 24E0761004  
Manufactured Date: 2024-05-02  
Retest Date: 2029-05-01  
Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | ≥ 99.5 %      | 99.8 %      |
| Color (APHA)                                                            | ≤ 10          | < 5         |
| Residue after Evaporation                                               | ≤ 5 ppm       | < 1 ppm     |
| Titration Acid (μeq/g)                                                  | ≤ 0.3         | 0.1         |
| Titration Base (μeq/g)                                                  | ≤ 0.5         | 0.1         |
| Water (H <sub>2</sub> O)                                                | ≤ 0.5 %       | 0.1 %       |
| Solubility in H <sub>2</sub> O                                          | Passes Test   | Passes Test |
| Chloride (Cl)                                                           | ≤ 0.2 ppm     | < 0.2 ppm   |
| Phosphate (PO <sub>4</sub> )                                            | ≤ 0.05 ppm    | < 0.05 ppm  |
| Trace Impurities – Aluminum (Al)                                        | ≤ 50.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)                                            | ≤ 5.0 ppb     | < 5.0 ppb   |
| Trace Impurities – Barium (Ba)                                          | ≤ 20.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Beryllium (Be)                                       | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Bismuth (Bi)                                         | ≤ 20.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Boron (B)                                            | ≤ 10.0 ppb    | < 5.0 ppb   |
| Trace Impurities – Cadmium (Cd)                                         | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Calcium (Ca)                                         | ≤ 25.0 ppb    | 3.6 ppb     |
| Trace Impurities – Chromium (Cr)                                        | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Cobalt (Co)                                          | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Copper (Cu)                                          | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Gallium (Ga)                                         | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Germanium (Ge)                                       | ≤ 10.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Gold (Au)                                            | ≤ 20 ppb      | < 5 ppb     |
| Trace Impurities – Iron (Fe)                                            | ≤ 20.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Lead (Pb)                                            | ≤ 10.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Lithium (Li)                                         | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Magnesium (Mg)                                       | ≤ 20 ppb      | < 1 ppb     |
| Trace Impurities – Manganese (Mn)                                       | ≤ 10.0 ppb    | < 1.0 ppb   |

>>> Continued on page 2 >>>

Recd. by RP on 9/11/24

E3793

Acetone  
CMOS



Material No.: 9005-05  
Batch No.: 24E0761004

| Test                                              | Specification | Result     |
|---------------------------------------------------|---------------|------------|
| Trace Impurities – Molybdenum (Mo)                | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Nickel (Ni)                    | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Niobium (Nb)                   | ≤ 50.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Potassium (K)                  | ≤ 10.0 ppb    | < 10.0 ppb |
| Trace Impurities – Silicon (Si)                   | ≤ 50 ppb      | < 10 ppb   |
| Trace Impurities – Silver (Ag)                    | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Sodium (Na)                    | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Strontium (Sr)                 | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Tantalum (Ta)                  | ≤ 50.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Thallium (Tl)                  | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Tin (Sn)                       | ≤ 20.0 ppb    | < 10.0 ppb |
| Trace Impurities – Titanium (Ti)                  | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Vanadium (V)                   | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Zinc (Zn)                      | ≤ 20.0 ppb    | 7.9 ppb    |
| Trace Impurities – Zirconium (Zr)                 | ≤ 10.0 ppb    | < 1.0 ppb  |
| Particle Count – 0.5 µm and greater (Rion KS42AF) | ≤ 100 par/ml  | 8 par/ml   |
| Particle Count – 1.0 µm and greater (Rion KS42AF) | ≤ 8 par/ml    | 2 par/ml   |

>>> Continued on page 3 >>>

Acetone  
CMOS



Material No.: 9005-05  
Batch No.: 24E0761004

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Microelectronic Use  
Country of Origin: USA  
Packaging Site: Paris Mfg Ctr & DC

Michelle Bales  
Sr. Manager, Quality Assurance

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



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                                                                  | $\leq 1.0 \text{ ppm}$ | 0.2 ppm           |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$             | $< 0.1$           |
| Chloride (Cl)                                                                              | $\leq 10 \text{ ppm}$  | $< 5 \text{ ppm}$ |
| 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

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

Avantor Performance Materials LLC



5580 Skyline 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

Page 1 of 1

| Catalog No.: Lot No.:              | Storage: | Solvent:           | Exp. Date: | Rev              | Description:                                          |
|------------------------------------|----------|--------------------|------------|------------------|-------------------------------------------------------|
| Z-110094-02 506889                 | ≤ -10 °C | Methylene Chloride | 7/25/2028  | 0                | CLP Base/Neutral Surrogate Solution, 5,000 mg/L, 1 ml |
| Compound                           |          | CAS No.            | Purity (%) | Compound Lot No. | Concentration, mg/L                                   |
| 1,2-dichlorobenzene-d <sub>4</sub> |          | 2199-69-1          | 99.7       | 247.29.3P        | 5035 ± 28.02                                          |
| 2-fluorobiphenyl                   |          | 321-60-8           | 99.69      | 8.286.1.1P       | 4999 ± 103.66                                         |
| nitrobenzene-d5                    |          | 4165-60-0          | 99.67      | 7.9.3P           | 4988 ± 27.32                                          |
| p-terphenyl-d14                    |          | 1718-51-0          | 99.3       | 9.120.8P         | 5005 ± 27.85                                          |

511494 } Y.P.  
↓ 08/11/2023  
511498

\*Not a certified value

Certified By: \_\_\_\_\_  
Clint Tipton  
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.





110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



**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.:** 555223  
**Description:** Custom 8270 Plus Standard #1  
Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size:** 2 mL  
**Expiration Date:** September 30, 2025  
**Handling:** This product is photosensitive.  
**Lot No.:** A0201940  
**Pkg Amt:** > 1 mL  
**Storage:** 10°C or colder  
**Ship:** Ambient

511539



51568

Y.P.  
09/19/23

## CERTIFIED VALUES

| Component # | Compound               | CAS #     | Lot #      | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|------------------------|-----------|------------|--------|-----------------------------|----------------------------------------|
| 1           | 3,3'-Dichlorobenzidine | 91-94-1   | S230321RSR | 99%    | 1,001.0 µg/mL               | +/- 22.9799                            |
| 2           | Atrazine               | 1912-24-9 | 5FYWL      | 99%    | 1,010.0 µg/mL               | +/- 23.1865                            |
| 3           | Benzidine              | 92-87-5   | S221205RSR | 99%    | 1,008.0 µg/mL               | +/- 23.1406                            |
| 4           | epsilon-Caprolactam    | 105-60-2  | I16X016    | 99%    | 1,008.0 µg/mL               | +/- 23.1406                            |

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

REVIEWED

By Jennifer Pollino at 7:10 am, Sep 13, 2023

Sam Moodler - Operations Tech I

Date Mixed: 13-Sep-2023

Balance: B345965662

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

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## 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. :** 31853 **Lot No.:** A0196453  
**Description :** 1,4-dioxane  
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** March 31, 2028 **Storage:** 0°C or colder  
**Ship:** Ambient

S11749  
↓  
S11794 } RC / 11/30/23

### CERTIFIED VALUES

| Elution Order | Compound    | CAS #    | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------|----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 1,4-Dioxane | 123-91-1 | SHBN3770 | 99%    | 2,013.0 µg/mL               | +/- 25.0521                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

## Quality Confirmation Test

**Column:**

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

**Carrier Gas:**

hydrogen-constant flow 1.8 mL/min.

**Temp. Program:**

80°C (hold 0.1 min.) to 330°C  
@ 9.6°C/min. (hold 2.86 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

340°C

**Det. Type:**

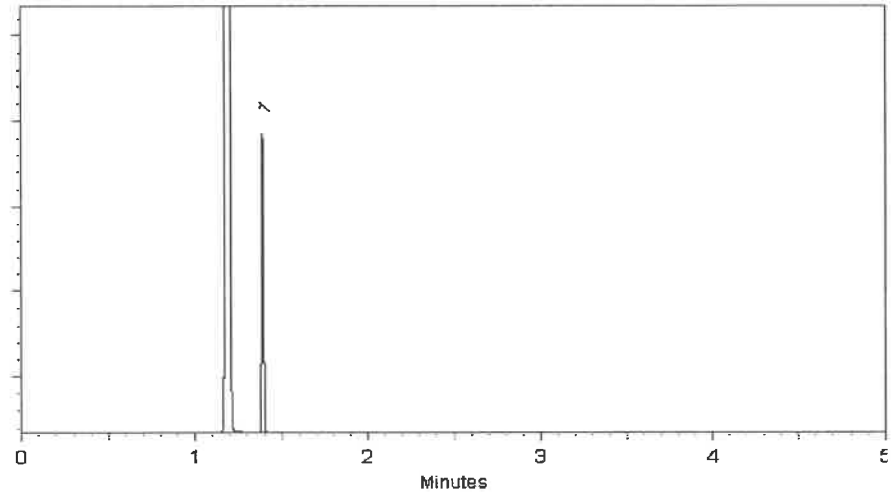
FID

**Split Vent:**

100 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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-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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## 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. :** 31853 **Lot No.:** A0196453  
**Description :** 1,4-dioxane  
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** March 31, 2028 **Storage:** 0°C or colder  
**Ship:** Ambient

S11749  
↓  
S11794 } RC / 11/30/23

### CERTIFIED VALUES

| Elution Order | Compound    | CAS #    | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------|----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 1,4-Dioxane | 123-91-1 | SHBN3770 | 99%    | 2,013.0 µg/mL               | +/- 25.0521                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

## Quality Confirmation Test

**Column:**

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

**Carrier Gas:**

hydrogen-constant flow 1.8 mL/min.

**Temp. Program:**

80°C (hold 0.1 min.) to 330°C  
@ 9.6°C/min. (hold 2.86 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

340°C

**Det. Type:**

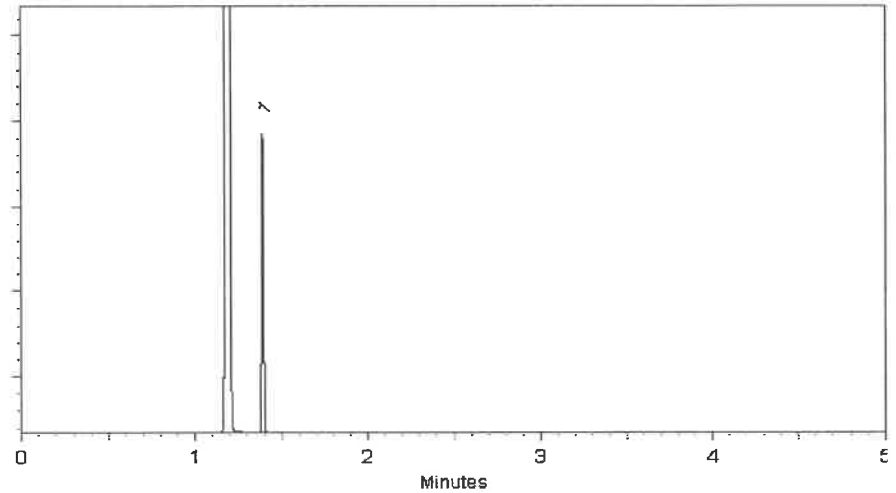
FID

**Split Vent:**

100 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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-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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## 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. :** 31206 **Lot No.:** A0201320

**Description :** SV Internal Standard Mix 2mg/ml  
SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride,  
1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2029 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

S12013  
↓  
S12042 } RC  
12/26/23

### CERTIFIED VALUES

| Elution Order | Compound               | CAS #      | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------|------------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 1,4-Dichlorobenzene-d4 | 3855-82-1  | PR-30447 | 99%    | 2,017.0 µg/mL               | +/- 90.8469                            |
| 2             | Naphthalene-d8         | 1146-65-2  | M-2180   | 99%    | 2,011.3 µg/mL               | +/- 90.5917                            |
| 3             | Acenaphthene-d10       | 15067-26-2 | PR-33507 | 99%    | 2,008.6 µg/mL               | +/- 90.4685                            |
| 4             | Phenanthrene-d10       | 1517-22-2  | PR-32303 | 99%    | 2,019.4 µg/mL               | +/- 90.9550                            |
| 5             | Chrysene-d12           | 1719-03-5  | PR-32210 | 99%    | 2,013.7 µg/mL               | +/- 90.6968                            |
| 6             | Perylene-d12           | 1520-96-3  | PR-33205 | 99%    | 2,012.7 µg/mL               | +/- 90.6517                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**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:**

75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

330°C

**Det. Type:**

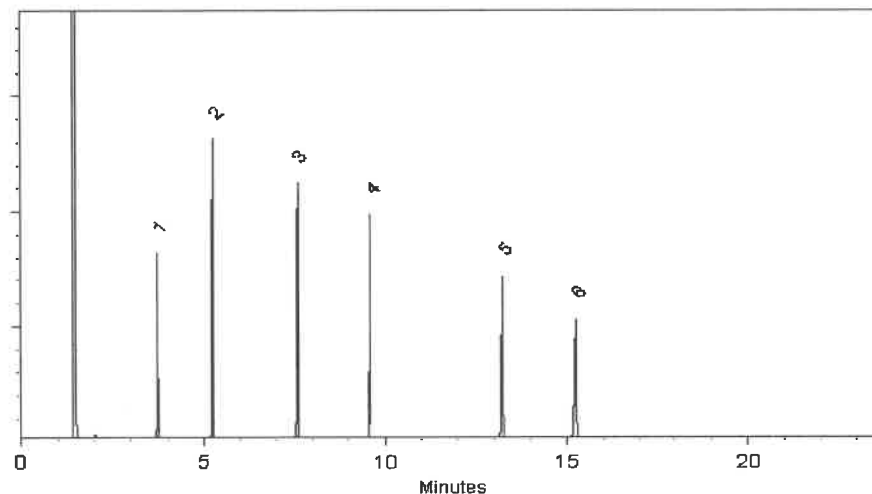
FID

**Split Vent:**

10 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.

Peter Robbins - Operations Technician I

Date Mixed: 23-Aug-2023

Balance Serial # B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 25-Aug-2023

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



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

Rev 0

Page 1 of 1

|                     |                 |                 |                    |                   |                                           |
|---------------------|-----------------|-----------------|--------------------|-------------------|-------------------------------------------|
| <b>Catalog No.:</b> | <b>Lot No.:</b> | <b>Storage:</b> | <b>Solvent:</b>    | <b>Exp. Date:</b> | <b>Description:</b>                       |
| Z-110816-01         | 414127          | ≤ -10 °C        | Methylene Chloride | 6/21/2025         | Custom 8270 Mix, 4-79,<br>1000 mg/L, 1 mL |

| Compound    | CAS No.   | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-------------|-----------|------------|------------------|---------------------|
| atrazine    | 1912-24-9 | 99.5       | 337.7.3P         | 997 ± 5.81          |
| benzidine   | 92-87-5   | 99.9       | 124.18.6.2P      | 991.8 ± 5.77        |
| caprolactam | 105-60-2  | 99.9       | 271.1.6P         | 999 ± 5.82          |

912075 } RC  
↓  
912079 } 02/01/24

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: \_\_\_\_\_

Shane Overcash  
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.



110 Benner Circle  
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## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



### 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. :** 555224 **Lot No.:** A0207706

**Description :** Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 28, 2026 **Storage:** 10°C or colder

**Ship:** Ambient

512082 } RC/  
↓  
512111 } 02/22/24

### CERTIFIED VALUES

| Component # | Compound                   | CAS #    | Lot #        | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|----------------------------|----------|--------------|--------|-----------------------------|----------------------------------------|
| 1           | 1,2,4,5-Tetrachlorobenzene | 95-94-3  | MKCT9480     | 99%    | 1,001.0 µg/mL               | +/- 29.424320                          |
| 2           | Acetophenone               | 98-86-2  | STBH8205     | 99%    | 1,004.0 µg/mL               | +/- 29.512504                          |
| 3           | Benzaldehyde               | 100-52-7 | RD231129RSRA | 99%    | 1,005.0 µg/mL               | +/- 29.541899                          |
| 4           | Benzoic acid               | 65-85-0  | MKCR2694     | 99%    | 1,003.0 µg/mL               | +/- 29.483110                          |
| 5           | Biphenyl                   | 92-52-4  | MKCL6515     | 99%    | 1,006.0 µg/mL               | +/- 29.571294                          |

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

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

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024

Balance: B345965662



110 Benner Circle  
Bellefonte, PA 16823-8812  
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



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. :** 555224 **Lot No.:** A0207706

**Description :** Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 28, 2026 **Storage:** 10°C or colder

**Ship:** Ambient

512082 } RC/  
↓  
512111 } 02/22/24

## CERTIFIED VALUES

| Component # | Compound                   | CAS #    | Lot #        | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|----------------------------|----------|--------------|--------|-----------------------------|----------------------------------------|
| 1           | 1,2,4,5-Tetrachlorobenzene | 95-94-3  | MKCT9480     | 99%    | 1,001.0 µg/mL               | +/- 29.424320                          |
| 2           | Acetophenone               | 98-86-2  | STBH8205     | 99%    | 1,004.0 µg/mL               | +/- 29.512504                          |
| 3           | Benzaldehyde               | 100-52-7 | RD231129RSRA | 99%    | 1,005.0 µg/mL               | +/- 29.541899                          |
| 4           | Benzoic acid               | 65-85-0  | MKCR2694     | 99%    | 1,003.0 µg/mL               | +/- 29.483110                          |
| 5           | Biphenyl                   | 92-52-4  | MKCL6515     | 99%    | 1,006.0 µg/mL               | +/- 29.571294                          |

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

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

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024

Balance: B345965662



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

Rev 0

Page 1 of 1

| Catalog No.: | Lot No.: | Storage: | Solvent:     | Exp. Date: | Description:                             |                     |
|--------------|----------|----------|--------------|------------|------------------------------------------|---------------------|
| Z-020223-01  | 454157   | ≤ -10 °C | P/T Methanol | 6/10/2026  | 1,4-Dioxane Solution, 2000 mg/L,<br>1 mL |                     |
| Compound     |          |          | CAS No.      | Purity (%) | Compound Lot No.                         | Concentration, mg/L |
| 1,4-dioxane  |          |          | 123-91-1     | 100        | 223.1.3P                                 | 1997 ± 57.08        |

512112 } RC/  
↓  
912116 } 03/08/24

\*Not a certified value

Certified By: \_\_\_\_\_

Melissa Workoff  
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 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
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Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 1

| Catalog No.: | Lot No.: | Storage: | Solvent:     | Exp. Date: | Description:                             |                     |
|--------------|----------|----------|--------------|------------|------------------------------------------|---------------------|
| Z-020223-01  | 454157   | ≤ -10 °C | P/T Methanol | 6/10/2026  | 1,4-Dioxane Solution, 2000 mg/L,<br>1 mL |                     |
| Compound     |          |          | CAS No.      | Purity (%) | Compound Lot No.                         | Concentration, mg/L |
| 1,4-dioxane  |          |          | 123-91-1     | 100        | 223.1.3P                                 | 1997 ± 57.08        |

512112 } RC/  
↓  
912116 } 03/08/24

\*Not a certified value

Certified By: \_\_\_\_\_

Melissa Workoff  
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.



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. :** 31850 **Lot No.:** A0203726

**Description :** 8270 MegaMix®  
8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2025 **Storage:** 0°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

512117 } RC/  
↓ 03/18/24  
512146 }

### CERTIFIED VALUES

| Elution Order | Compound                     | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Pyridine                     | 110-86-1 | SHBP6240    | 99%    | 1,001.6 µg/mL               | +/- 36.4412                            |
| 2             | N-Nitrosodimethylamine       | 62-75-9  | 230209JLM   | 99%    | 1,005.9 µg/mL               | +/- 36.5968                            |
| 3             | Phenol                       | 108-95-2 | MKCK1120    | 99%    | 1,003.3 µg/mL               | +/- 36.5038                            |
| 4             | Aniline                      | 62-53-3  | X22F726     | 99%    | 1,005.8 µg/mL               | +/- 36.5928                            |
| 5             | Bis(2-chloroethyl)ether      | 111-44-4 | SHBL6942    | 99%    | 1,008.1 µg/mL               | +/- 36.6776                            |
| 6             | 2-Chlorophenol               | 95-57-8  | STBJ3909    | 99%    | 1,001.8 µg/mL               | +/- 36.4492                            |
| 7             | 1,3-Dichlorobenzene          | 541-73-1 | BCCD5315    | 99%    | 1,002.3 µg/mL               | +/- 36.4654                            |
| 8             | 1,4-Dichlorobenzene          | 106-46-7 | MKBS7929V   | 99%    | 1,003.7 µg/mL               | +/- 36.5159                            |
| 9             | Benzyl alcohol               | 100-51-6 | SHBK5469    | 99%    | 1,008.7 µg/mL               | +/- 36.6979                            |
| 10            | 1,2-Dichlorobenzene          | 95-50-1  | SHBN3835    | 99%    | 1,000.3 µg/mL               | +/- 36.3926                            |
| 11            | 2-Methylphenol (o-cresol)    | 95-48-7  | SHBN7598    | 99%    | 1,003.5 µg/mL               | +/- 36.5099                            |
| 12            | 2,2'-oxybis(1-chloropropane) | 108-60-1 | 29-MAR-45-5 | 99%    | 1,007.3 µg/mL               | +/- 36.6493                            |
| 13            | 3-Methylphenol (m-cresol)    | 108-39-4 | STBJ0710    | 99%    | 504.3 µg/mL                 | +/- 18.3500                            |
| 14            | 4-Methylphenol (p-cresol)    | 106-44-5 | SHBN3411    | 99%    | 503.6 µg/mL                 | +/- 18.3237                            |
| 15            | N-Nitroso-di-n-propylamine   | 621-64-7 | N63MG       | 99%    | 1,008.3 µg/mL               | +/- 36.6857                            |
| 16            | Hexachloroethane             | 67-72-1  | QTORH       | 99%    | 1,007.5 µg/mL               | +/- 36.6554                            |
| 17            | Nitrobenzene                 | 98-95-3  | 10224044    | 99%    | 1,008.6 µg/mL               | +/- 36.6938                            |

|    |                                               |           |             |     |         |       |             |
|----|-----------------------------------------------|-----------|-------------|-----|---------|-------|-------------|
| 18 | Isophorone                                    | 78-59-1   | MKCC9506    | 99% | 1,005.9 | µg/mL | +/- 36.5988 |
| 19 | 2-Nitrophenol                                 | 88-75-5   | RP230710    | 99% | 1,003.2 | µg/mL | +/- 36.4998 |
| 20 | 2,4-Dimethylphenol                            | 105-67-9  | XW5GK       | 99% | 1,003.8 | µg/mL | +/- 36.5200 |
| 21 | Bis(2-chloroethoxy)methane                    | 111-91-1  | 13670200    | 99% | 1,002.1 | µg/mL | +/- 36.4573 |
| 22 | 2,4-Dichlorophenol                            | 120-83-2  | BCBZ6787    | 99% | 1,003.7 | µg/mL | +/- 36.5180 |
| 23 | 1,2,4-Trichlorobenzene                        | 120-82-1  | SHBP5900    | 99% | 1,007.6 | µg/mL | +/- 36.6574 |
| 24 | Naphthalene                                   | 91-20-3   | STBL1057    | 99% | 1,008.3 | µg/mL | +/- 36.6837 |
| 25 | 4-Chloroaniline                               | 106-47-8  | BCCJ3217    | 99% | 1,001.3 | µg/mL | +/- 36.4290 |
| 26 | Hexachlorobutadiene                           | 87-68-3   | RP230823RSR | 98% | 1,008.3 | µg/mL | +/- 36.6829 |
| 27 | 4-Chloro-3-methylphenol                       | 59-50-7   | BCCD4461    | 99% | 1,003.1 | µg/mL | +/- 36.4937 |
| 28 | 2-Methylnaphthalene                           | 91-57-6   | STBK0259    | 96% | 1,001.9 | µg/mL | +/- 36.4505 |
| 29 | 1-Methylnaphthalene                           | 90-12-0   | 5234.00-8   | 98% | 1,000.0 | µg/mL | +/- 36.3838 |
| 30 | Hexachlorocyclopentadiene                     | 77-47-4   | 099063I14L  | 98% | 1,008.5 | µg/mL | +/- 36.6909 |
| 31 | 2,4,6-Trichlorophenol                         | 88-06-2   | STBJ5914    | 99% | 1,004.4 | µg/mL | +/- 36.5442 |
| 32 | 2,4,5-Trichlorophenol                         | 95-95-4   | FHN01       | 98% | 1,001.9 | µg/mL | +/- 36.4512 |
| 33 | 2-Chloronaphthalene                           | 91-58-7   | RPN7O       | 99% | 1,001.1 | µg/mL | +/- 36.4230 |
| 34 | 2-Nitroaniline                                | 88-74-4   | RP230531    | 99% | 1,002.9 | µg/mL | +/- 36.4876 |
| 35 | 1,4-Dinitrobenzene                            | 100-25-4  | RP230816    | 99% | 1,005.7 | µg/mL | +/- 36.5887 |
| 36 | Acenaphthylene                                | 208-96-8  | p06V        | 98% | 1,009.5 | µg/mL | +/- 36.7265 |
| 37 | 1,3-Dinitrobenzene                            | 99-65-0   | 1-DXX-24-1  | 99% | 1,004.4 | µg/mL | +/- 36.5422 |
| 38 | Dimethylphthalate                             | 131-11-3  | 358221L17K  | 99% | 1,005.9 | µg/mL | +/- 36.5968 |
| 39 | 2,6-Dinitrotoluene                            | 606-20-2  | BCCG1833    | 99% | 1,003.2 | µg/mL | +/- 36.4998 |
| 40 | 1,2-Dinitrobenzene                            | 528-29-0  | RP230428    | 99% | 1,002.2 | µg/mL | +/- 36.4634 |
| 41 | Acenaphthene                                  | 83-32-9   | MKCR7169    | 99% | 1,009.3 | µg/mL | +/- 36.7221 |
| 42 | 3-Nitroaniline                                | 99-09-2   | RP230822RSR | 99% | 1,003.9 | µg/mL | +/- 36.5240 |
| 43 | 2,4-Dinitrophenol                             | 51-28-5   | DR230417RSR | 99% | 1,002.0 | µg/mL | +/- 36.4553 |
| 44 | Dibenzofuran                                  | 132-64-9  | MKCD9952    | 99% | 1,006.7 | µg/mL | +/- 36.6251 |
| 45 | 2,4-Dinitrotoluene                            | 121-14-2  | MKAA0690V   | 99% | 1,003.8 | µg/mL | +/- 36.5220 |
| 46 | 4-Nitrophenol                                 | 100-02-7  | RP230627    | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 47 | 2,3,4,6-Tetrachlorophenol                     | 58-90-2   | PR-30126    | 99% | 1,008.7 | µg/mL | +/- 36.6979 |
| 48 | 2,3,5,6-Tetrachlorophenol                     | 935-95-5  | RP230919    | 99% | 1,006.3 | µg/mL | +/- 36.6130 |
| 49 | Fluorene                                      | 86-73-7   | 10241100    | 99% | 1,008.3 | µg/mL | +/- 36.6857 |
| 50 | 4-Chlorophenyl phenyl ether                   | 7005-72-3 | MKCT7248    | 99% | 1,003.8 | µg/mL | +/- 36.5220 |
| 51 | Diethylphthalate                              | 84-66-2   | MKCD2547    | 99% | 1,008.6 | µg/mL | +/- 36.6958 |
| 52 | 4-Nitroaniline                                | 100-01-6  | RP230111    | 99% | 1,001.1 | µg/mL | +/- 36.4230 |
| 53 | 4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) | 534-52-1  | 230718JLM   | 99% | 1,002.0 | µg/mL | +/- 36.4553 |

|    |                            |          |               |     |         |       |             |
|----|----------------------------|----------|---------------|-----|---------|-------|-------------|
| 54 | Diphenylamine              | 122-39-4 | MKCH1042      | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 55 | Azobenzene                 | 103-33-3 | BCKK0887      | 99% | 1,005.8 | µg/mL | +/- 36.5928 |
| 56 | 4-Bromophenyl phenyl ether | 101-55-3 | STBH6361      | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 57 | Hexachlorobenzene          | 118-74-1 | 14821700      | 99% | 1,007.5 | µg/mL | +/- 36.6554 |
| 58 | Pentachlorophenol          | 87-86-5  | RP230530RSR   | 99% | 1,008.8 | µg/mL | +/- 36.7019 |
| 59 | Phenanthrene               | 85-01-8  | MKCQ8876      | 99% | 1,008.4 | µg/mL | +/- 36.6877 |
| 60 | Anthracene                 | 120-12-7 | MKCR0570      | 99% | 1,009.0 | µg/mL | +/- 36.7100 |
| 61 | Carbazole                  | 86-74-8  | 14351100      | 99% | 1,000.9 | µg/mL | +/- 36.4149 |
| 62 | Di-n-butylphthalate        | 84-74-2  | MKCN4337      | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 63 | Fluoranthene               | 206-44-0 | MKCQ4728      | 99% | 1,009.6 | µg/mL | +/- 36.7302 |
| 64 | Pyrene                     | 129-00-0 | BCCG8479      | 98% | 1,007.2 | µg/mL | +/- 36.6453 |
| 65 | Benzyl butyl phthalate     | 85-68-7  | X12I018       | 99% | 1,002.1 | µg/mL | +/- 36.4573 |
| 66 | Bis(2-ethylhexyl)adipate   | 103-23-1 | MKCM1988      | 99% | 1,005.2 | µg/mL | +/- 36.5705 |
| 67 | Benz(a)anthracene          | 56-55-3  | I220012022BAA | 99% | 1,002.2 | µg/mL | +/- 36.4614 |
| 68 | Chrysene                   | 218-01-9 | RP230601      | 99% | 1,008.3 | µg/mL | +/- 36.6837 |
| 69 | Bis(2-ethylhexyl)phthalate | 117-81-7 | MKCQ3468      | 99% | 1,001.8 | µg/mL | +/- 36.4472 |
| 70 | Di-n-octyl phthalate       | 117-84-0 | 14382700      | 99% | 1,006.0 | µg/mL | +/- 36.6008 |
| 71 | Benzo(b)fluoranthene       | 205-99-2 | 012013B       | 99% | 1,002.8 | µg/mL | +/- 36.4836 |
| 72 | Benzo(k)fluoranthene       | 207-08-9 | 012022K       | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 73 | Benzo(a)pyrene             | 50-32-8  | P54915-0703   | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 74 | Indeno(1,2,3-cd)pyrene     | 193-39-5 | 12-JKL-118-9  | 97% | 1,009.4 | µg/mL | +/- 36.7243 |
| 75 | Dibenz(a,h)anthracene      | 53-70-3  | 2-ASA-59-1    | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 76 | Benzo(g,h,i)perylene       | 191-24-2 | RP231003RSR   | 99% | 1,002.9 | µg/mL | +/- 36.4876 |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%





110 Benner Circle  
Bellefonte, PA 16823-8812  
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## 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. :** 31850 **Lot No.:** A0203726

**Description :** 8270 MegaMix®  
8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2025 **Storage:** 0°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

512117 } RC/  
↓ 03/18/24  
512146 }

### CERTIFIED VALUES

| Elution Order | Compound                     | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Pyridine                     | 110-86-1 | SHBP6240    | 99%    | 1,001.6 µg/mL               | +/- 36.4412                            |
| 2             | N-Nitrosodimethylamine       | 62-75-9  | 230209JLM   | 99%    | 1,005.9 µg/mL               | +/- 36.5968                            |
| 3             | Phenol                       | 108-95-2 | MKCK1120    | 99%    | 1,003.3 µg/mL               | +/- 36.5038                            |
| 4             | Aniline                      | 62-53-3  | X22F726     | 99%    | 1,005.8 µg/mL               | +/- 36.5928                            |
| 5             | Bis(2-chloroethyl)ether      | 111-44-4 | SHBL6942    | 99%    | 1,008.1 µg/mL               | +/- 36.6776                            |
| 6             | 2-Chlorophenol               | 95-57-8  | STBJ3909    | 99%    | 1,001.8 µg/mL               | +/- 36.4492                            |
| 7             | 1,3-Dichlorobenzene          | 541-73-1 | BCCD5315    | 99%    | 1,002.3 µg/mL               | +/- 36.4654                            |
| 8             | 1,4-Dichlorobenzene          | 106-46-7 | MKBS7929V   | 99%    | 1,003.7 µg/mL               | +/- 36.5159                            |
| 9             | Benzyl alcohol               | 100-51-6 | SHBK5469    | 99%    | 1,008.7 µg/mL               | +/- 36.6979                            |
| 10            | 1,2-Dichlorobenzene          | 95-50-1  | SHBN3835    | 99%    | 1,000.3 µg/mL               | +/- 36.3926                            |
| 11            | 2-Methylphenol (o-cresol)    | 95-48-7  | SHBN7598    | 99%    | 1,003.5 µg/mL               | +/- 36.5099                            |
| 12            | 2,2'-oxybis(1-chloropropane) | 108-60-1 | 29-MAR-45-5 | 99%    | 1,007.3 µg/mL               | +/- 36.6493                            |
| 13            | 3-Methylphenol (m-cresol)    | 108-39-4 | STBJ0710    | 99%    | 504.3 µg/mL                 | +/- 18.3500                            |
| 14            | 4-Methylphenol (p-cresol)    | 106-44-5 | SHBN3411    | 99%    | 503.6 µg/mL                 | +/- 18.3237                            |
| 15            | N-Nitroso-di-n-propylamine   | 621-64-7 | N63MG       | 99%    | 1,008.3 µg/mL               | +/- 36.6857                            |
| 16            | Hexachloroethane             | 67-72-1  | QTORH       | 99%    | 1,007.5 µg/mL               | +/- 36.6554                            |
| 17            | Nitrobenzene                 | 98-95-3  | 10224044    | 99%    | 1,008.6 µg/mL               | +/- 36.6938                            |

|    |                                               |           |             |     |         |       |             |
|----|-----------------------------------------------|-----------|-------------|-----|---------|-------|-------------|
| 18 | Isophorone                                    | 78-59-1   | MKCC9506    | 99% | 1,005.9 | µg/mL | +/- 36.5988 |
| 19 | 2-Nitrophenol                                 | 88-75-5   | RP230710    | 99% | 1,003.2 | µg/mL | +/- 36.4998 |
| 20 | 2,4-Dimethylphenol                            | 105-67-9  | XW5GK       | 99% | 1,003.8 | µg/mL | +/- 36.5200 |
| 21 | Bis(2-chloroethoxy)methane                    | 111-91-1  | 13670200    | 99% | 1,002.1 | µg/mL | +/- 36.4573 |
| 22 | 2,4-Dichlorophenol                            | 120-83-2  | BCBZ6787    | 99% | 1,003.7 | µg/mL | +/- 36.5180 |
| 23 | 1,2,4-Trichlorobenzene                        | 120-82-1  | SHBP5900    | 99% | 1,007.6 | µg/mL | +/- 36.6574 |
| 24 | Naphthalene                                   | 91-20-3   | STBL1057    | 99% | 1,008.3 | µg/mL | +/- 36.6837 |
| 25 | 4-Chloroaniline                               | 106-47-8  | BCCJ3217    | 99% | 1,001.3 | µg/mL | +/- 36.4290 |
| 26 | Hexachlorobutadiene                           | 87-68-3   | RP230823RSR | 98% | 1,008.3 | µg/mL | +/- 36.6829 |
| 27 | 4-Chloro-3-methylphenol                       | 59-50-7   | BCCD4461    | 99% | 1,003.1 | µg/mL | +/- 36.4937 |
| 28 | 2-Methylnaphthalene                           | 91-57-6   | STBK0259    | 96% | 1,001.9 | µg/mL | +/- 36.4505 |
| 29 | 1-Methylnaphthalene                           | 90-12-0   | 5234.00-8   | 98% | 1,000.0 | µg/mL | +/- 36.3838 |
| 30 | Hexachlorocyclopentadiene                     | 77-47-4   | 099063I14L  | 98% | 1,008.5 | µg/mL | +/- 36.6909 |
| 31 | 2,4,6-Trichlorophenol                         | 88-06-2   | STBJ5914    | 99% | 1,004.4 | µg/mL | +/- 36.5442 |
| 32 | 2,4,5-Trichlorophenol                         | 95-95-4   | FHN01       | 98% | 1,001.9 | µg/mL | +/- 36.4512 |
| 33 | 2-Chloronaphthalene                           | 91-58-7   | RPN7O       | 99% | 1,001.1 | µg/mL | +/- 36.4230 |
| 34 | 2-Nitroaniline                                | 88-74-4   | RP230531    | 99% | 1,002.9 | µg/mL | +/- 36.4876 |
| 35 | 1,4-Dinitrobenzene                            | 100-25-4  | RP230816    | 99% | 1,005.7 | µg/mL | +/- 36.5887 |
| 36 | Acenaphthylene                                | 208-96-8  | p06V        | 98% | 1,009.5 | µg/mL | +/- 36.7265 |
| 37 | 1,3-Dinitrobenzene                            | 99-65-0   | 1-DXX-24-1  | 99% | 1,004.4 | µg/mL | +/- 36.5422 |
| 38 | Dimethylphthalate                             | 131-11-3  | 358221L17K  | 99% | 1,005.9 | µg/mL | +/- 36.5968 |
| 39 | 2,6-Dinitrotoluene                            | 606-20-2  | BCCG1833    | 99% | 1,003.2 | µg/mL | +/- 36.4998 |
| 40 | 1,2-Dinitrobenzene                            | 528-29-0  | RP230428    | 99% | 1,002.2 | µg/mL | +/- 36.4634 |
| 41 | Acenaphthene                                  | 83-32-9   | MKCR7169    | 99% | 1,009.3 | µg/mL | +/- 36.7221 |
| 42 | 3-Nitroaniline                                | 99-09-2   | RP230822RSR | 99% | 1,003.9 | µg/mL | +/- 36.5240 |
| 43 | 2,4-Dinitrophenol                             | 51-28-5   | DR230417RSR | 99% | 1,002.0 | µg/mL | +/- 36.4553 |
| 44 | Dibenzofuran                                  | 132-64-9  | MKCD9952    | 99% | 1,006.7 | µg/mL | +/- 36.6251 |
| 45 | 2,4-Dinitrotoluene                            | 121-14-2  | MKAA0690V   | 99% | 1,003.8 | µg/mL | +/- 36.5220 |
| 46 | 4-Nitrophenol                                 | 100-02-7  | RP230627    | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 47 | 2,3,4,6-Tetrachlorophenol                     | 58-90-2   | PR-30126    | 99% | 1,008.7 | µg/mL | +/- 36.6979 |
| 48 | 2,3,5,6-Tetrachlorophenol                     | 935-95-5  | RP230919    | 99% | 1,006.3 | µg/mL | +/- 36.6130 |
| 49 | Fluorene                                      | 86-73-7   | 10241100    | 99% | 1,008.3 | µg/mL | +/- 36.6857 |
| 50 | 4-Chlorophenyl phenyl ether                   | 7005-72-3 | MKCT7248    | 99% | 1,003.8 | µg/mL | +/- 36.5220 |
| 51 | Diethylphthalate                              | 84-66-2   | MKCD2547    | 99% | 1,008.6 | µg/mL | +/- 36.6958 |
| 52 | 4-Nitroaniline                                | 100-01-6  | RP230111    | 99% | 1,001.1 | µg/mL | +/- 36.4230 |
| 53 | 4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) | 534-52-1  | 230718JLM   | 99% | 1,002.0 | µg/mL | +/- 36.4553 |

|    |                            |          |               |     |         |       |             |
|----|----------------------------|----------|---------------|-----|---------|-------|-------------|
| 54 | Diphenylamine              | 122-39-4 | MKCH1042      | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 55 | Azobenzene                 | 103-33-3 | BCKK0887      | 99% | 1,005.8 | µg/mL | +/- 36.5928 |
| 56 | 4-Bromophenyl phenyl ether | 101-55-3 | STBH6361      | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 57 | Hexachlorobenzene          | 118-74-1 | 14821700      | 99% | 1,007.5 | µg/mL | +/- 36.6554 |
| 58 | Pentachlorophenol          | 87-86-5  | RP230530RSR   | 99% | 1,008.8 | µg/mL | +/- 36.7019 |
| 59 | Phenanthrene               | 85-01-8  | MKCQ8876      | 99% | 1,008.4 | µg/mL | +/- 36.6877 |
| 60 | Anthracene                 | 120-12-7 | MKCR0570      | 99% | 1,009.0 | µg/mL | +/- 36.7100 |
| 61 | Carbazole                  | 86-74-8  | 14351100      | 99% | 1,000.9 | µg/mL | +/- 36.4149 |
| 62 | Di-n-butylphthalate        | 84-74-2  | MKCN4337      | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 63 | Fluoranthene               | 206-44-0 | MKCQ4728      | 99% | 1,009.6 | µg/mL | +/- 36.7302 |
| 64 | Pyrene                     | 129-00-0 | BCCG8479      | 98% | 1,007.2 | µg/mL | +/- 36.6453 |
| 65 | Benzyl butyl phthalate     | 85-68-7  | X12I018       | 99% | 1,002.1 | µg/mL | +/- 36.4573 |
| 66 | Bis(2-ethylhexyl)adipate   | 103-23-1 | MKCM1988      | 99% | 1,005.2 | µg/mL | +/- 36.5705 |
| 67 | Benz(a)anthracene          | 56-55-3  | I220012022BAA | 99% | 1,002.2 | µg/mL | +/- 36.4614 |
| 68 | Chrysene                   | 218-01-9 | RP230601      | 99% | 1,008.3 | µg/mL | +/- 36.6837 |
| 69 | Bis(2-ethylhexyl)phthalate | 117-81-7 | MKCQ3468      | 99% | 1,001.8 | µg/mL | +/- 36.4472 |
| 70 | Di-n-octyl phthalate       | 117-84-0 | 14382700      | 99% | 1,006.0 | µg/mL | +/- 36.6008 |
| 71 | Benzo(b)fluoranthene       | 205-99-2 | 012013B       | 99% | 1,002.8 | µg/mL | +/- 36.4836 |
| 72 | Benzo(k)fluoranthene       | 207-08-9 | 012022K       | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 73 | Benzo(a)pyrene             | 50-32-8  | P54915-0703   | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 74 | Indeno(1,2,3-cd)pyrene     | 193-39-5 | 12-JKL-118-9  | 97% | 1,009.4 | µg/mL | +/- 36.7243 |
| 75 | Dibenz(a,h)anthracene      | 53-70-3  | 2-ASA-59-1    | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 76 | Benzo(g,h,i)perylene       | 191-24-2 | RP231003RSR   | 99% | 1,002.9 | µg/mL | +/- 36.4876 |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%





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

gravimetric



### 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. :** 555223 **Lot No.:** A0214021

**Description :** Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2026 **Storage:** 10°C or colder

**Handling:** This product is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound               | CAS #     | Lot #      | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|------------------------|-----------|------------|--------|-----------------------------|----------------------------------------|
| 1           | 3,3'-Dichlorobenzidine | 91-94-1   | S240326RSR | 99%    | 1,004.0 µg/mL               | +/- 23.0487                            |
| 2           | Atrazine               | 1912-24-9 | 5FYWL      | 99%    | 1,005.0 µg/mL               | +/- 23.0717                            |
| 3           | Benzidine              | 92-87-5   | S240430RSR | 99%    | 1,006.0 µg/mL               | +/- 23.0947                            |
| 4           | epsilon-Caprolactam    | 105-60-2  | Y16H012    | 99%    | 1,000.0 µg/mL               | +/- 22.9569                            |

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

S12449 } RC/  
↓  
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

**Date Mixed:** 18-Jul-2024

**Balance:** 1128353505

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.



# SHIPPING DOCUMENTS

# Packing List

6390 Joyce Dr., #100  
Golden, CO 80403

Tel: +1-303-940-0033  
Fax: +1-303-940-0043  
info@phenova.com  
www.phenova.com

Received : SJ  
10/23/24  
9:47

For terms and conditions of your order, please visit:  
[www.phenova.com/home/termsofsale](http://www.phenova.com/home/termsofsale)

| Date       | Order # |
|------------|---------|
| 10/21/2024 | 318989  |



## Ship To

Alliance Tech Group - Newark  
ATTN: Sohil Jodhani  
284 Sheffield St., #1  
Mountainside, NJ 07092  
USA

| Customer PO # | Terms  | PT Acct # | Customer # | Ship Via      | F.O.B.     |
|---------------|--------|-----------|------------|---------------|------------|
| 240903-01     | Net 30 | ZCM-100   | 1500470    | FedEx 2nd Day | Golden, CO |

| Qty Ordered | Qty Shipped | Qty Backorder | Part Number      | Part Description              | Study Number | Lot Number |
|-------------|-------------|---------------|------------------|-------------------------------|--------------|------------|
| 1           | 1           | 0             | PT-MET-SOIL      | SOIL/HW Trace Metals          | HW1024       | 7098-04    |
| 1           | 1           | 0             | PT-CR6-SOIL      | SOIL/HW Hexavalent Chromium ✓ | HW1024       | 7098-05D   |
| 1           | 1           | 0             | PT-CN-SOIL       | SOIL/HW Cyanide               | HW1024       | 7098-06    |
| 1           | 1           | 0             | PT-CORR-SOIL     | SOIL/HW Corrosivity/pH ✓      | HW1024       | 7098-11    |
| 1           | 1           | 0             | PT-FP-SOIL       | SOIL/HW Flash Point           | HW1024       | 7098-10    |
| 1           | 1           | 0             | PT-AN-SOIL       | SOIL/HW Anions ✓              | HW1024       | 7098-08    |
| 1           | 1           | 0             | PT-NUT-SOIL      | SOIL/HW Nutrients ✓           | HW1024       | 7098-09B   |
| 1           | 1           | 0             | PT-SOL-SOIL      | SOIL/HW Solids                | HW1024       | 7098-31    |
| 1           | 1           | 0             | PT-NO2-SOIL      | SOIL/HW Nitrite as N          | HW1024       | 7098-71    |
| 1           | 1           | 0             | PT-GAS-SOIL      | SOIL/HW Gasoline              | HW1024       | 7098-96    |
| 1           | 1           | 0             | PT-DIES-SOIL     | SOIL/HW Diesel in Soil        | HW1024       | 7098-100   |
| 1           | 1           | 0             | PT-OGR-SOIL      | SOIL/HW Oil and Grease ✓      | HW1024       | 7098-94    |
| 1           | 1           | 0             | PT-VOA-SOIL      | SOIL/HW Volatiles             | HW1024       | 7098-12    |
| 1           | 1           | 0             | PT-BNA-SOIL      | SOIL/HW BNAs                  | HW1024       | 7098-13    |
| 1           | 1           | 0             | PT-PEST-SOIL     | SOIL/HW Pesticides            | HW1024       | 7098-14    |
| 1           | 1           | 0             | PT-CHLR-SOIL     | SOIL/HW Chlordane             | HW1024       | 7098-15    |
| 1           | 1           | 0             | PT-TXP-SOIL      | SOIL/HW Toxaphene             | HW1024       | 7098-16    |
| 1           | 1           | 0             | PT-PCB-SOIL      | SOIL/HW PCBs                  | HW1024       | 7098-17    |
| 1           | 1           | 0             | PT-PCBO-SOIL     | SOIL/HW PCBs in Oil           | HW1024       | 7098-88    |
| 1           | 1           | 0             | PT-HERB-SOIL     | SOIL/HW Herbicides            | HW1024       | 7098-18    |
| 1           | 1           | 0             | PT-PAH-SOIL      | SOIL/HW PAHs                  | HW1024       | 7098-22    |
| 1           | 1           | 0             | PT-TRIAZINE-SOIL | SOIL/HW Triazine Pesticides   | HW1024       | 7098-106   |



**phenova**<sup>®</sup>  
Certified Reference Materials

A Phenomenex<sup>®</sup>  
Company

6390 Joyce Dr., #100  
Golden, CO 80403

Tel: +1-303-940-0033  
Fax: +1-303-940-0043  
info@phenova.com  
www.phenova.com

For terms and conditions of your order, please visit:  
[www.phenova.com/home/termsforsale](http://www.phenova.com/home/termsforsale)

Received - SJ  
10/23/24  
9247

## Packing List

| Date       | Order # |
|------------|---------|
| 10/21/2024 | 318989  |



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ATTN: Sohil Jodhani  
284 Sheffield St., #1  
Mountainside, NJ 07092  
USA

| Customer PO # |             | Terms         | PT Acct #     | Customer #        | Ship Via      | F.O.B.     |
|---------------|-------------|---------------|---------------|-------------------|---------------|------------|
| 240903-01     |             | Net 30        | ZCM-100       | 1500470           | FedEx 2nd Day | Golden, CO |
| Qty Ordered   | Qty Shipped | Qty Backorder | Part Number   | Part Description  | Study Number  | Lot Number |
| 1             | 1           | 0             | PT-NJEPH-SOIL | NJ EPH in SOIL ✓✓ | HW1024        | 7098-105   |



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

### Laboratory Certification

| Certified By         | License No.      |
|----------------------|------------------|
|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0830          |
|                      |                  |
| DOD ELAP (ANAB)      | L2219            |
|                      |                  |
| Maine                | 2024021          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255424 Rev 1     |
|                      |                  |
| New Jersey           | 20012            |
|                      |                  |
| New York             | 11376            |
|                      |                  |
| Pennsylvania         | 68-00548         |
|                      |                  |
| Soil Permit          | 525-24-234-08441 |
|                      |                  |
| Texas                | T104704488       |