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## Cover Page

**Order ID :** P4861

**Project ID :** Meeker Ave Plumes Superfund Site RI FS

**Client :** AECOM

**Lab Sample Number**

P4861-01

**Client Sample Number**

WC-11-A-202411

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: 11/27/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



## **CASE NARRATIVE**

### **AECOM**

**Project Name: Meeker Ave Plumes Superfund Site RI FS**

**Project # N/A**

**Chemtech Project # P4861**

**Test Name: TCLP BNA**

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

1 Water sample was received on 11/14/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for TCLP BNA.

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

The samples were analyzed on instrument BNA\_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um df. The analysis of TCLP BNA was based on method 8270E and extraction was done based on method 3510 and TCLP extraction method was 1311.

### **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 MS recoveries met the requirements for all compounds .

The MSD recoveries met the acceptable requirements .

The RPD met criteria .

The Blank Spike for {PB165052BS} with File ID: BF140596.D met requirements for all samples except for Pyridine[99%] . But associated samples have not positive hit for this compound therefore no corrective action was taken.

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

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

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

The Form 6 is not included in the data package because the Initial Calibration was performed using 8 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 <20% 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 > 20% 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
<b>U</b>	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.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>J</b>	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (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 is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
<b>E</b>	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	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”.
<b>N</b>	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.
<b>A</b>	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

Project #: P4861

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: PRADIP PRAJAPATI

Date: 11/27/2024



### LAB CHRONICLE

<b>OrderID:</b> P4861	<b>OrderDate:</b> 11/14/2024 1:44:00 PM
<b>Client:</b> AECOM	<b>Project:</b> Meeker Ave Plumes Superfund Site RI FS
<b>Contact:</b> Amit Haryani	<b>Location:</b> L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	WC-11-A-202411	TCLP	TCLP BNA	8270E	11/13/24	11/18/24	11/18/24	11/14/24



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

**SDG No.:** P4861  
**Client:** AECOM

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Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :				0.000				
			<b>Total Svoc :</b>			<b>0.00</b>		
			<b>Total Concentration:</b>			<b>0.00</b>		



# QC SUMMARY

### Surrogate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4848-02MS	TP-1MS	2-Fluorophenol	150	140	93		10	139
		Phenol-d6	150	136	91		10	134
		Nitrobenzene-d5	100	101	101		49	133
		2-Fluorobiphenyl	100	99.0	99		52	132
		2,4,6-Tribromophenol	150	159	106		44	137
P4848-02MSD	TP-1MSD	Terphenyl-d14	100	110	110		48	125
		2-Fluorophenol	150	144	96		10	139
		Phenol-d6	150	138	92		10	134
		Nitrobenzene-d5	100	104	104		49	133
		2-Fluorobiphenyl	100	100	100		52	132
P4861-01	WC-11-A-202411	2,4,6-Tribromophenol	150	159	106		44	137
		Terphenyl-d14	100	113	113		48	125
		2-Fluorophenol	150	132	88		10	139
		Phenol-d6	150	119	79		10	134
		Nitrobenzene-d5	100	100	100		49	133
PB165019TB	PB165019TB	2-Fluorobiphenyl	100	99.9	100		52	132
		2,4,6-Tribromophenol	150	158	105		44	137
		Terphenyl-d14	100	110	110		48	125
		2-Fluorophenol	150	126	84		10	139
		Phenol-d6	150	121	81		10	134
PB165052BL	PB165052BL	Nitrobenzene-d5	100	86.6	87		49	133
		2-Fluorobiphenyl	100	87.6	88		52	132
		2,4,6-Tribromophenol	150	124	83		44	137
		Terphenyl-d14	100	85.9	86		48	125
		2-Fluorophenol	150	138	92		10	139
PB165052BS	PB165052BS	Phenol-d6	150	132	88		10	134
		Nitrobenzene-d5	100	92.2	92		49	133
		2-Fluorobiphenyl	100	92.9	93		52	132
		2,4,6-Tribromophenol	150	133	88		44	137
		Terphenyl-d14	100	102	102		48	125
PB165052BS	PB165052BS	2-Fluorophenol	150	136	91		10	139
		Phenol-d6	150	133	89		10	134
		Nitrobenzene-d5	100	90.2	90		49	133
		2-Fluorobiphenyl	100	91.1	91		52	132
		2,4,6-Tribromophenol	150	143	95		44	137
		Terphenyl-d14	100	89.0	89		48	125

**Matrix Spike/Matrix Spike Duplicate Summary**

**SW-846**

**SDG No.:** P4861

**Client:** AECOM

**Analytical Method:** SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
<b>Lab Sample ID:</b>	<b>P4848-02MS</b>	<b>Client Sample ID:</b>	<b>TP-1MS</b>					<b>DataFile:</b>	<b>BF140465.D</b>		
Pyridine	500	0	320	ug/L	64				10	109	
1,4-Dichlorobenzene	500	0	400	ug/L	80				55	125	
2-Methylphenol	500	0	500	ug/L	100				37	126	
3+4-Methylphenols	500	0	510	ug/L	102				31	127	
Hexachloroethane	500	0	400	ug/L	80				49	110	
Nitrobenzene	500	0	460	ug/L	92				62	112	
Hexachlorobutadiene	500	0	430	ug/L	86				52	125	
2,4,6-Trichlorophenol	500	0	530	ug/L	106				78	112	
2,4,5-Trichlorophenol	500	0	520	ug/L	104				71	111	
2,4-Dinitrotoluene	500	0	530	ug/L	106				50	142	
Hexachlorobenzene	500	0	530	ug/L	106				72	115	
Pentachlorophenol	1000	0	1100	ug/L	110				25	139	

**Matrix Spike/Matrix Spike Duplicate Summary**

**SW-846**

**SDG No.:** P4861

**Client:** AECOM

**Analytical Method:** SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
<b>Lab Sample ID:</b>	<b>P4848-02MSD</b>	<b>Client Sample ID:</b>	<b>TP-1MSD</b>					<b>DataFile:</b>	<b>BF140466.D</b>		
Pyridine	500	0	320	ug/L	64	0			10	109	20
1,4-Dichlorobenzene	500	0	410	ug/L	82	2			55	125	20
2-Methylphenol	500	0	510	ug/L	102	2			37	126	20
3+4-Methylphenols	500	0	520	ug/L	104	2			31	127	20
Hexachloroethane	500	0	410	ug/L	82	2			49	110	20
Nitrobenzene	500	0	460	ug/L	92	0			62	112	20
Hexachlorobutadiene	500	0	440	ug/L	88	2			52	125	20
2,4,6-Trichlorophenol	500	0	550	ug/L	110	4			78	112	20
2,4,5-Trichlorophenol	500	0	520	ug/L	104	0			71	111	20
2,4-Dinitrotoluene	500	0	540	ug/L	108	2			50	142	20
Hexachlorobenzene	500	0	540	ug/L	108	2			72	115	20
Pentachlorophenol	1000	0	1100	ug/L	110	0			25	139	20

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8270E DataFile: BF140596.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD		Limits		
							Qual	Qual	Low	High	RPD
PB165052BS	Pyridine	50	49.3	ug/L	99		*		29	97	
	1,4-Dichlorobenzene	50	46.6	ug/L	93				76	103	
	2-Methylphenol	50	49.4	ug/L	99				69	109	
	3+4-Methylphenols	50	49.2	ug/L	98				67	106	
	Hexachloroethane	50	46.3	ug/L	93				76	118	
	Nitrobenzene	50	44.6	ug/L	89				58	106	
	Hexachlorobutadiene	50	44.9	ug/L	90				69	101	
	2,4,6-Trichlorophenol	50	48.0	ug/L	96				61	110	
	2,4,5-Trichlorophenol	50	47.2	ug/L	94				70	106	
	2,4-Dinitrotoluene	50	48.7	ug/L	97				60	115	
	Hexachlorobenzene	50	46.6	ug/L	93				73	106	
	Pentachlorophenol	100	100	ug/L	100				47	114	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165052BL

Lab Name: CHEMTECH Contract: AECO02  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861  
 Lab File ID: BF140605.D Lab Sample ID: PB165052BL  
 Instrument ID: BNA\_F Date Extracted: 11/18/2024  
 Matrix: (soil/water) water Date Analyzed: 11/25/2024  
 Level: (low/med) LOW Time Analyzed: 16:17

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
WC-11-A-202411	P4861-01	BF140459.D	11/18/2024
TP-1MS	P4848-02MS	BF140465.D	11/19/2024
PB165019TB	PB165019TB	BF140464.D	11/19/2024
TP-1MSD	P4848-02MSD	BF140466.D	11/19/2024
PB165052BS	PB165052BS	BF140596.D	11/25/2024

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



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: AECO02Lab Code: CHEMSAS No.: P4861 SDG NO.: P4861Lab File ID: BF140331.DDFTPP Injection Date: 11/13/2024Instrument ID: BNA\_FDFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.9
68	Less than 2.0% of mass 69	0.7 ( 1.8 ) 1
69	Mass 69 relative abundance	38
70	Less than 2.0% of mass 69	0.2 ( 0.6 ) 1
127	10.0 - 80.0% of mass 198	48.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	28.3
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	14
442	Greater than 50% of mass 198	88.6
443	15.0 - 24.0% of mass 442	16.7 ( 18.8 ) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF140332.D	11/13/2024	09:01
SSTDICC005	SSTDICC005	BF140333.D	11/13/2024	09:27
SSTDICC010	SSTDICC010	BF140334.D	11/13/2024	09:53
SSTDICC020	SSTDICC020	BF140335.D	11/13/2024	10:29
SSTDICC050	SSTDICC050	BF140337.D	11/13/2024	11:21
SSTDICC060	SSTDICC060	BF140338.D	11/13/2024	11:47
SSTDICC080	SSTDICC080	BF140339.D	11/13/2024	12:13
SSTDICCC040	SSTDICCC040	BF140340.D	11/13/2024	12:48



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: AECO02Lab Code: CHEMSAS No.: P4861 SDG NO.: P4861Lab File ID: BF140455.DDFTPP Injection Date: 11/18/2024Instrument ID: BNA\_FDFTPP Injection Time: 15:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.7
68	Less than 2.0% of mass 69	0.7 ( 1.9 ) 1
69	Mass 69 relative abundance	34.7
70	Less than 2.0% of mass 69	0.2 ( 0.5 ) 1
127	10.0 - 80.0% of mass 198	45.8
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	6.4
275	10.0 - 60.0% of mass 198	27.9
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	16.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.2 ( 18.2 ) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140456.D	11/18/2024	16:14
WC-11-A-202411	P4861-01	BF140459.D	11/18/2024	17:40



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: AECO02Lab Code: CHEMSAS No.: P4861 SDG NO.: P4861Lab File ID: BF140462.DDFTPP Injection Date: 11/19/2024Instrument ID: BNA\_FDFTPP Injection Time: 09:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	37.8
68	Less than 2.0% of mass 69	0.7 ( 1.9 ) 1
69	Mass 69 relative abundance	38.6
70	Less than 2.0% of mass 69	0.2 ( 0.5 ) 1
127	10.0 - 80.0% of mass 198	49.9
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	14.7
442	Greater than 50% of mass 198	91.9
443	15.0 - 24.0% of mass 442	17 ( 18.5 ) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140463.D	11/19/2024	10:34
PB165019TB	PB165019TB	BF140464.D	11/19/2024	11:00
TP-1MS	P4848-02MS	BF140465.D	11/19/2024	11:36
TP-1MSD	P4848-02MSD	BF140466.D	11/19/2024	12:02



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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: AECO02Lab Code: CHEMSAS No.: P4861 SDG NO.: P4861Lab File ID: BF140526.DDFTPP Injection Date: 11/21/2024Instrument ID: BNA\_FDFTPP Injection Time: 10:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.6 ( 1.8 ) 1
69	Mass 69 relative abundance	35.5
70	Less than 2.0% of mass 69	0.3 ( 0.7 ) 1
127	10.0 - 80.0% of mass 198	48
197	Less than 2.0% of mass 198	0.0
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	29.2
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.7
442	Greater than 50% of mass 198	99.8
443	15.0 - 24.0% of mass 442	18.1 ( 18.1 ) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF140528.D	11/21/2024	11:13
SSTDICC005	SSTDICC005	BF140529.D	11/21/2024	11:39
SSTDICC010	SSTDICC010	BF140530.D	11/21/2024	12:05
SSTDICC020	SSTDICC020	BF140531.D	11/21/2024	12:32
SSTDICCC040	SSTDICCC040	BF140532.D	11/21/2024	12:58
SSTDICC050	SSTDICC050	BF140533.D	11/21/2024	13:25
SSTDICC060	SSTDICC060	BF140534.D	11/21/2024	13:51
SSTDICC080	SSTDICC080	BF140535.D	11/21/2024	14:18



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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: AECO02Lab Code: CHEMSAS No.: P4861 SDG NO.: P4861Lab File ID: BF140589.DDFTPP Injection Date: 11/25/2024Instrument ID: BNA\_FDFTPP Injection Time: 09:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.8
68	Less than 2.0% of mass 69	0.7 ( 1.9 ) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 ( 0.6 ) 1
127	10.0 - 80.0% of mass 198	48.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	28.6
365	Greater than 1% of mass 198	3.7
441	Present, but less than mass 443	15.5
442	Greater than 50% of mass 198	98.2
443	15.0 - 24.0% of mass 442	18.5 ( 18.9 ) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140590.D	11/25/2024	09:33
PB165052BS	PB165052BS	BF140596.D	11/25/2024	12:09



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: AECO02Lab Code: CHEMSAS No.: P4861      SDG NO.: P4861Lab File ID: BF140603.DDFTPP Injection Date: 11/25/2024Instrument ID: BNA\_FDFTPP Injection Time: 15:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.6 ( 1.8 ) 1
69	Mass 69 relative abundance	34.8
70	Less than 2.0% of mass 69	0.2 ( 0.5 ) 1
127	10.0 - 80.0% of mass 198	46.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	28
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.4 ( 18.4 ) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140604.D	11/25/2024	15:49
PB165052BL	PB165052BL	BF140605.D	11/25/2024	16:17



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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/18/2024  
 Lab File ID: BF140456.D Time Analyzed: 16:14  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	136246	6.875	509583	8.16	277583	9.91
UPPER LIMIT	272492	7.375	1019170	8.657	555166	10.41
LOWER LIMIT	68123	6.375	254792	7.657	138792	9.41
EPA SAMPLE NO.						
01 WC-11-A-202411	130012	6.88	491807	8.15	276538	9.90

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 LOWER 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.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/18/2024  
 Lab File ID: BF140456.D Time Analyzed: 16:14  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	499315	11.398	237967	14.045	262467	15.533
UPPER LIMIT	998630	11.898	475934	14.545	524934	16.033
LOWER LIMIT	249658	10.898	118984	13.545	131234	15.033
EPA SAMPLE NO.						
01 WC-11-A-202411	538236	11.40	315994	14.05	154098	15.53

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.



8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/19/2024  
 Lab File ID: BF140463.D Time Analyzed: 10:34  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	137275	6.875	502770	8.16	278131	9.91
UPPER LIMIT	274550	7.375	1005540	8.657	556262	10.41
LOWER LIMIT	68637.5	6.375	251385	7.657	139066	9.41
EPA SAMPLE NO.						
01 PB165019TB	144350	6.87	545389	8.15	303191	9.90
02 TP-1MS	148608	6.88	566127	8.15	313272	9.91
03 TP-1MSD	147727	6.88	561678	8.15	311833	9.91

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.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/19/2024  
 Lab File ID: BF140463.D Time Analyzed: 10:34  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	524892	11.398	344697	14.069	292973	15.592
UPPER LIMIT	1049780	11.898	689394	14.569	585946	16.092
LOWER LIMIT	262446	10.898	172349	13.569	146487	15.092
EPA SAMPLE NO.						
01 PB165019TB	576588	11.40	369743	14.06	301857	15.57
02 TP-1MS	585294	11.40	347810	14.06	308234	15.57
03 TP-1MSD	573421	11.40	332365	14.06	278980	15.58

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 LOWER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.



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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024  
 Lab File ID: BF140590.D Time Analyzed: 09:33  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	105131	6.869	390145	8.15	212616	9.91
UPPER LIMIT	210262	7.369	780290	8.651	425232	10.41
LOWER LIMIT	52565.5	6.369	195073	7.651	106308	9.41
EPA SAMPLE NO.						
01 PB165052BS	94726	6.87	366046	8.15	205183	9.91

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.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024  
 Lab File ID: BF140590.D Time Analyzed: 09:33  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	399326	11.398	244297	14.051	211888	15.545
UPPER LIMIT	798652	11.898	488594	14.551	423776	16.045
LOWER LIMIT	199663	10.898	122149	13.551	105944	15.045
EPA SAMPLE NO.						
01 PB165052BS	398573	11.40	258584	14.06	208347	15.56

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.



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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024  
 Lab File ID: BF140604.D Time Analyzed: 15:49  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	106607	6.869	393427	8.15	218835	9.91
UPPER LIMIT	213214	7.369	786854	8.651	437670	10.41
LOWER LIMIT	53303.5	6.369	196714	7.651	109418	9.41
EPA SAMPLE NO.						
01 PB165052BL	100879	6.87	377922	8.15	213827	9.90

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 LOWER 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.: P4861 SAS No.: P4861 SDG NO.: P4861  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024  
 Lab File ID: BF140604.D Time Analyzed: 15:49  
 Instrument ID: BNA\_F GC Column: DB-UI ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	396344	11.398	217927	14.051	192376	15.551
UPPER LIMIT	792688	11.898	435854	14.551	384752	16.051
LOWER LIMIT	198172	10.898	108964	13.551	96188	15.051
EPA SAMPLE NO.						
01 PB165052BL	407609	11.40	220442	14.05	187220	15.55

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 LOWER 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:	AECOM	Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
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
BF140459.D	1	11/18/24 08:35	11/18/24 17:40	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
110-86-1	Pyridine	15.5	UQ	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	8.40	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	11.3	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.5	U	11.5	100	ug/L
67-72-1	Hexachloroethane	10.1	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	12.7	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	12.7	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	8.90	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	10.1	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	15.2	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	11.4	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	18.5	U	18.5	100	ug/L
<b>SURROGATES</b>						
367-12-4	2-Fluorophenol	132		10 - 139	88%	SPK: 150
13127-88-3	Phenol-d6	119		10 - 134	79%	SPK: 150
4165-60-0	Nitrobenzene-d5	100		49 - 133	100%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.9		52 - 132	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	158		44 - 137	105%	SPK: 150
1718-51-0	Terphenyl-d14	110		48 - 125	110%	SPK: 100
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	130000		6.875		
1146-65-2	Naphthalene-d8	492000		8.151		
15067-26-2	Acenaphthene-d10	277000		9.904		
1517-22-2	Phenanthrene-d10	538000		11.398		
1719-03-5	Chrysene-d12	316000		14.045		
1520-96-3	Perylene-d12	154000		15.533		



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## Report of Analysis

Client:	AECOM	Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
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
BF140459.D	1	11/18/24 08:35	11/18/24 17:40	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	------------	-------

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\_F\Data\BF111824\  
 Data File : BF140459.D  
 Acq On : 18 Nov 2024 17:40  
 Operator : RC/JU  
 Sample : P4861-01  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-A-202411

Quant Time: Nov 19 00:21:32 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 14:40:06 2024  
 Response via : Initial Calibration

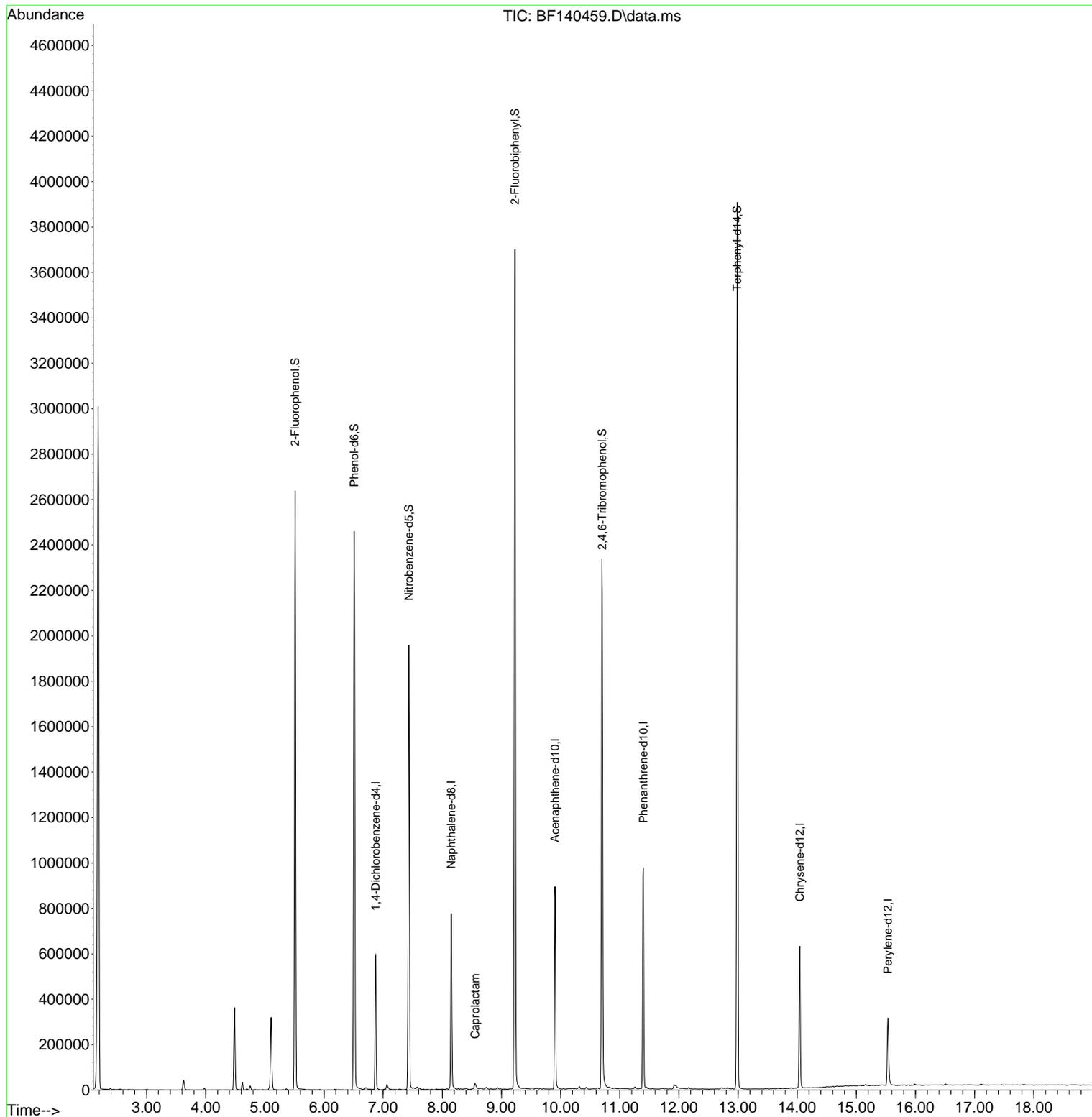
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	130012	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	491807	20.000	ng	0.00
39) Acenaphthene-d10	9.904	164	276538	20.000	ng	-0.01
64) Phenanthrene-d10	11.398	188	538236	20.000	ng	0.00
76) Chrysene-d12	14.045	240	315994	20.000	ng	0.00
86) Perylene-d12	15.533	264	154098	20.000	ng	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	1002968	131.715	ng	0.02
7) Phenol-d6	6.510	99	1223063	118.552	ng	0.00
23) Nitrobenzene-d5	7.434	82	948480	100.483	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	434081	157.850	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1719185	99.938	ng	0.00
79) Terphenyl-d14	12.986	244	1999313	109.825	ng	0.00
Target Compounds						
35) Caprolactam	8.551	113	5836	2.545	ng	Qvalue 89

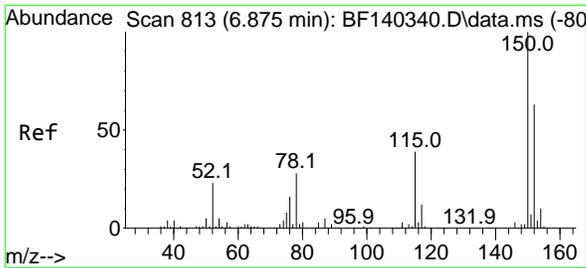
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111824\  
Data File : BF140459.D  
Acq On : 18 Nov 2024 17:40  
Operator : RC/JU  
Sample : P4861-01  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
WC-11-A-202411

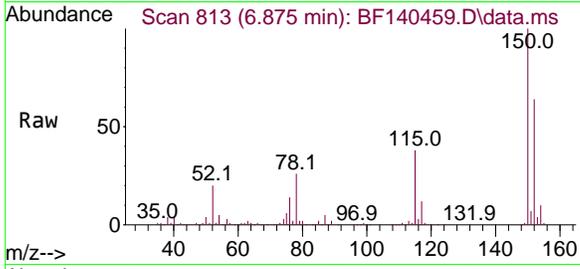
Quant Time: Nov 19 00:21:32 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 14:40:06 2024  
Response via : Initial Calibration



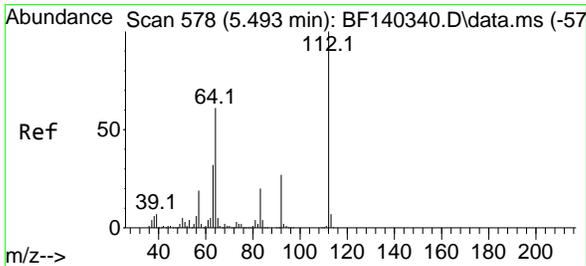
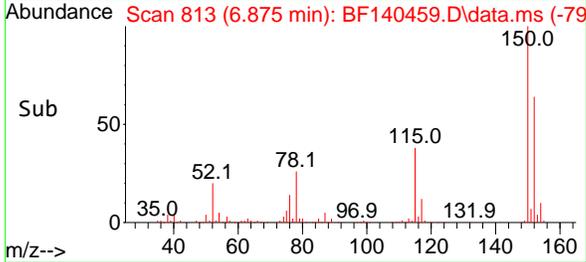
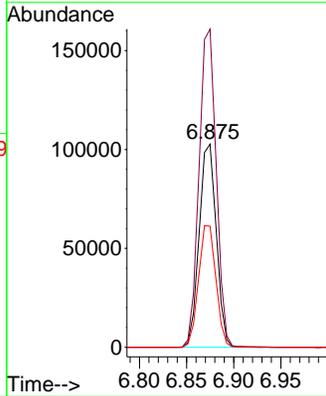


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 20.000 ng  
 RT: 6.875 min Scan# 81  
 Delta R.T. -0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-A-202411

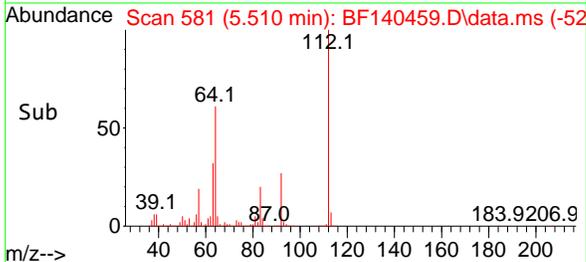
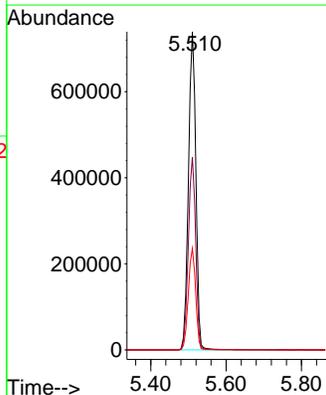
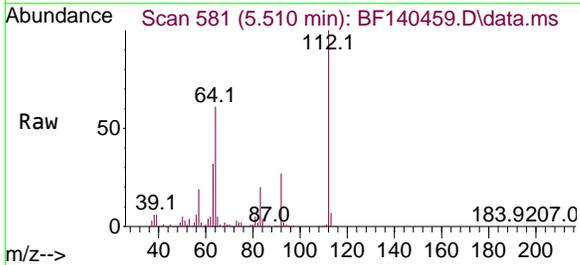


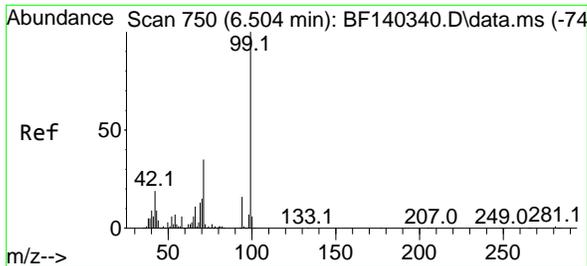
Tgt Ion:152 Resp: 130012  
 Ion Ratio Lower Upper  
 152 100  
 150 156.6 127.4 191.0  
 115 59.5 47.4 71.2



#5  
 2-Fluorophenol  
 Concen: 131.715 ng  
 RT: 5.510 min Scan# 581  
 Delta R.T. 0.018 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Tgt Ion:112 Resp: 1002968  
 Ion Ratio Lower Upper  
 112 100  
 64 60.6 49.2 73.8  
 63 31.9 25.6 38.4



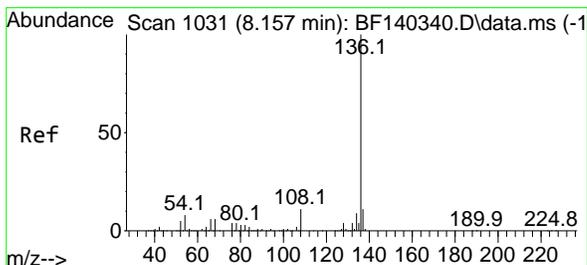
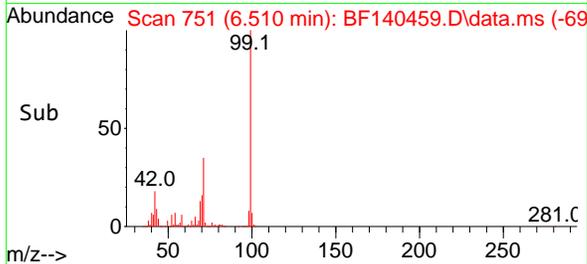
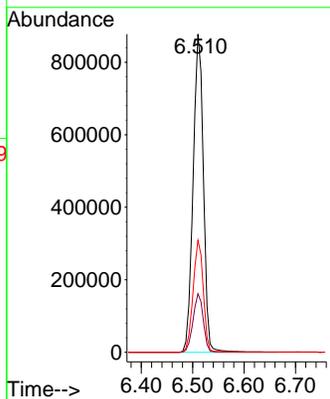
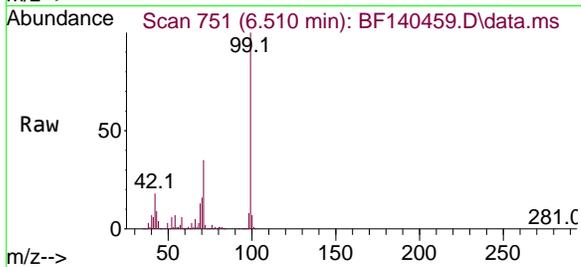


#7  
 Phenol-d6  
 Concen: 118.552 ng  
 RT: 6.510 min Scan# 71  
 Delta R.T. 0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-A-202411

Tgt Ion: 99 Resp: 1223063

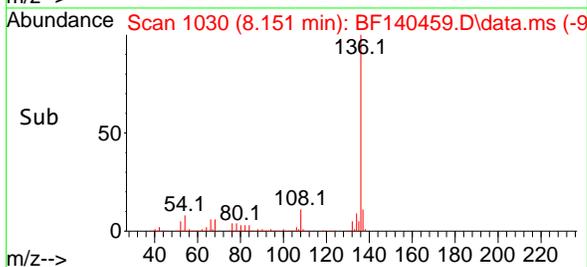
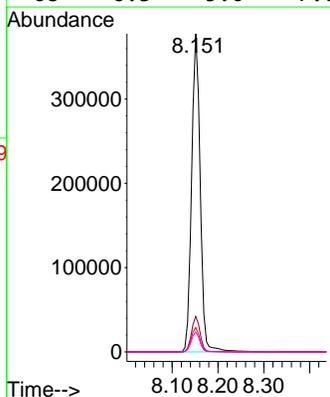
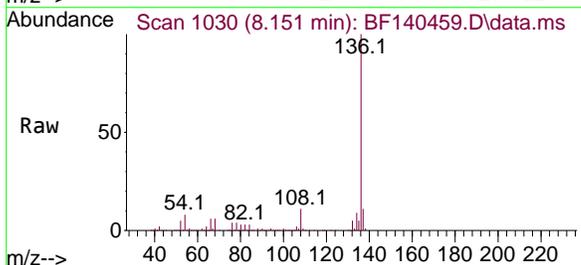
Ion	Ratio	Lower	Upper
99	100		
42	18.4	15.1	22.7
71	35.2	27.9	41.9

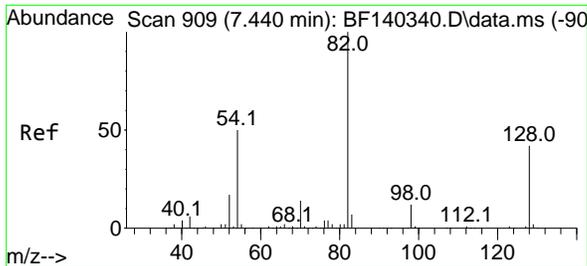


#21  
 Naphthalene-d8  
 Concen: 20.000 ng  
 RT: 8.151 min Scan# 1030  
 Delta R.T. -0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Tgt Ion: 136 Resp: 491807

Ion	Ratio	Lower	Upper
136	100		
137	11.1	8.7	13.1
54	7.7	6.5	9.7
68	6.3	5.0	7.6





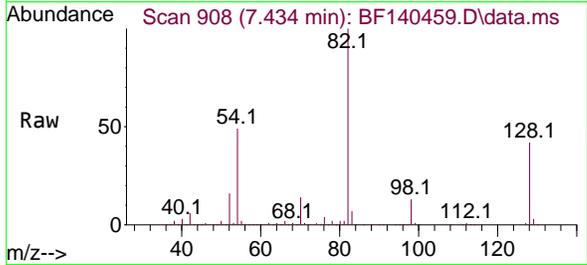
#23  
 Nitrobenzene-d5  
 Concen: 100.483 ng  
 RT: 7.434 min Scan# 909  
 Delta R.T. -0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument :

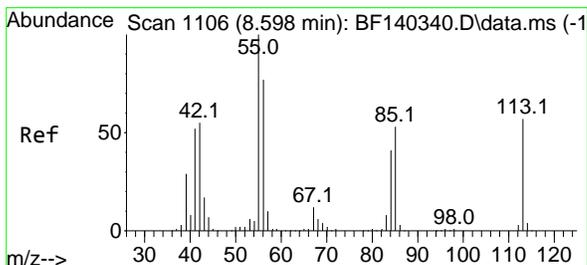
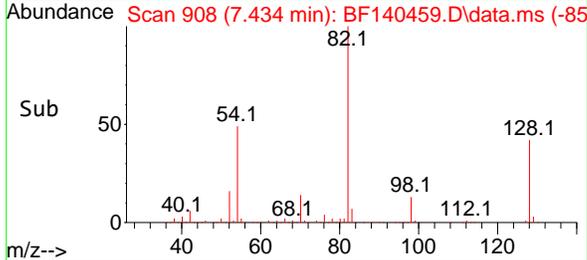
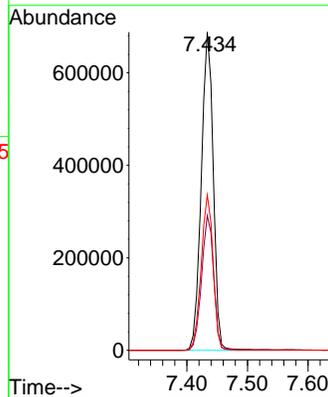
BNA\_F

ClientSampleId :

WC-11-A-202411

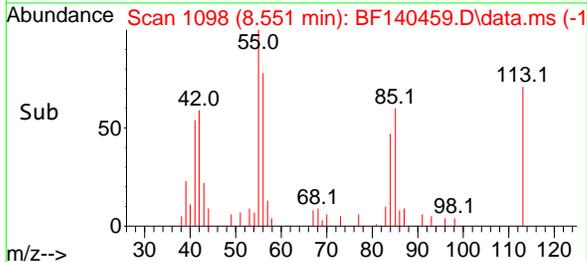
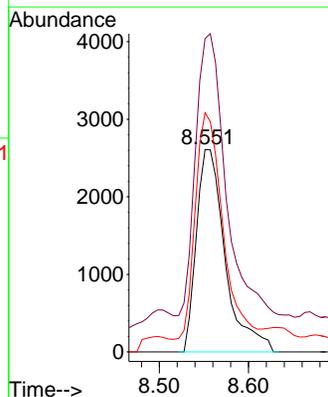
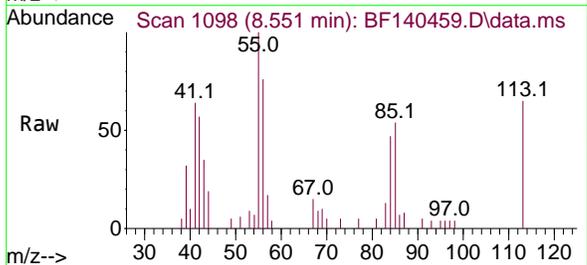


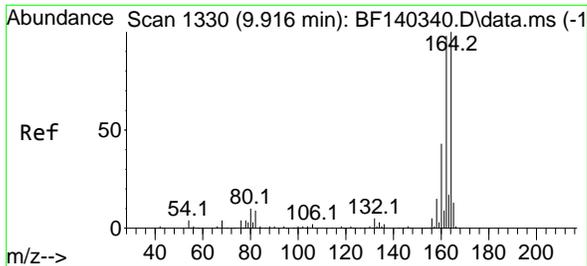
Tgt Ion: 82 Resp: 948480  
 Ion Ratio Lower Upper  
 82 100  
 128 42.4 33.3 49.9  
 54 48.8 39.8 59.8



#35  
 Caprolactam  
 Concen: 2.545 ng  
 RT: 8.551 min Scan# 1098  
 Delta R.T. -0.047 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Tgt Ion: 113 Resp: 5836  
 Ion Ratio Lower Upper  
 113 100  
 55 154.8 150.0 190.0  
 56 118.1 111.1 151.1



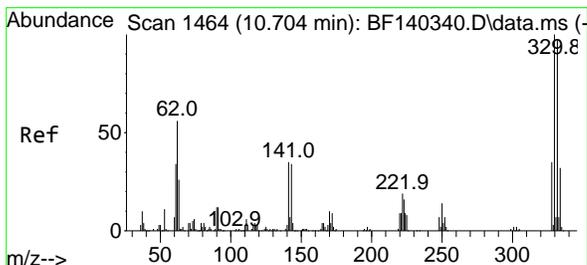
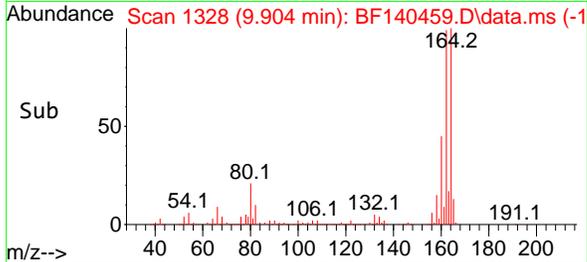
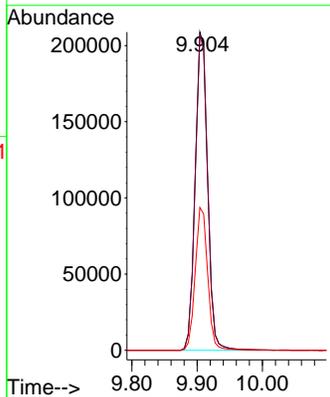
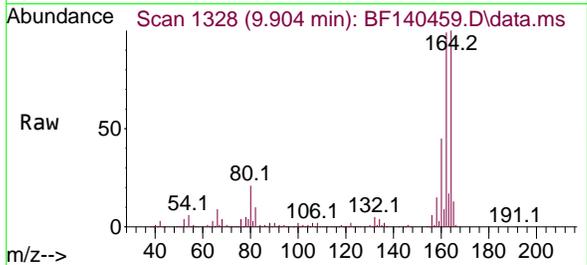


#39  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 9.904 min Scan# 11  
 Delta R.T. -0.012 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument : BNA\_F  
 ClientSampleId : WC-11-A-202411

Tgt Ion:164 Resp: 276538

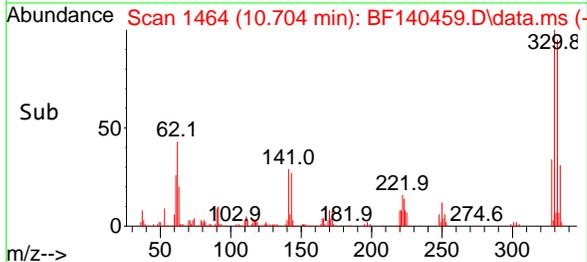
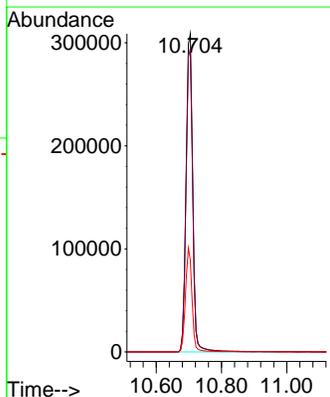
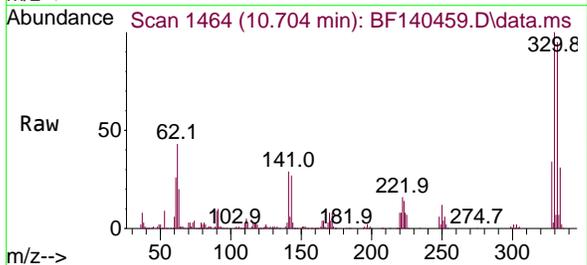
Ion	Ratio	Lower	Upper
164	100		
162	98.9	79.8	119.8
160	44.9	35.4	53.0

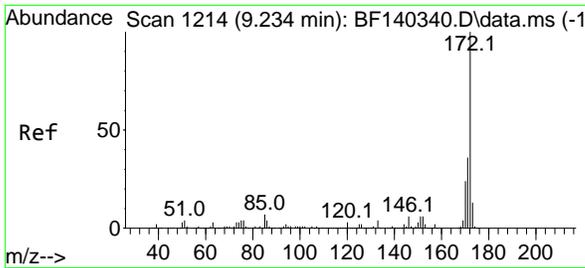


#42  
 2,4,6-Tribromophenol  
 Concen: 157.850 ng  
 RT: 10.704 min Scan# 1464  
 Delta R.T. 0.000 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Tgt Ion:330 Resp: 434081

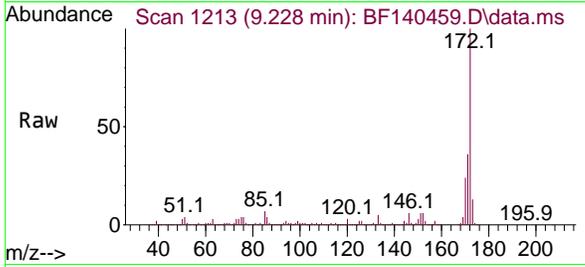
Ion	Ratio	Lower	Upper
330	100		
332	95.1	75.9	113.9
141	31.9	26.9	40.3



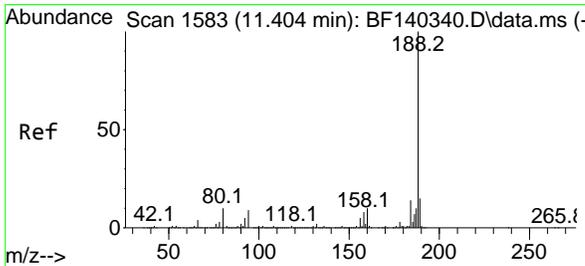
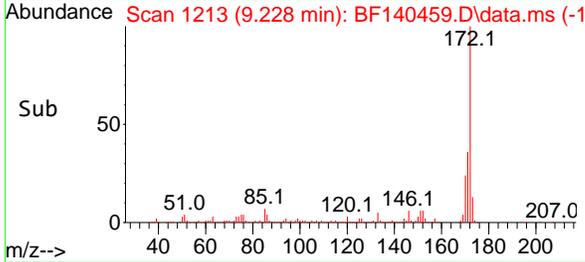
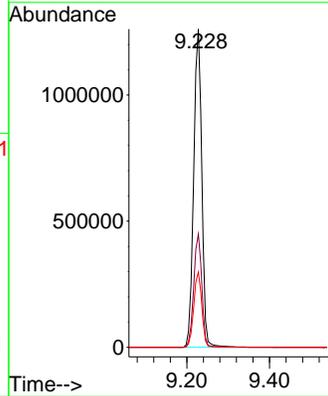


#45  
 2-Fluorobiphenyl  
 Concen: 99.938 ng  
 RT: 9.228 min Scan# 11  
 Delta R.T. -0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-A-202411

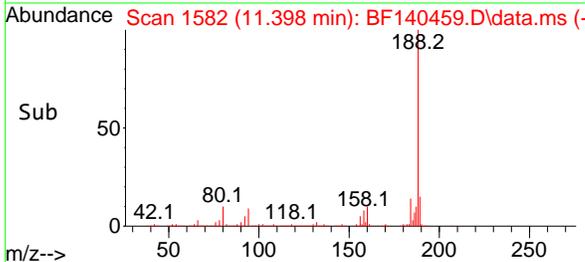
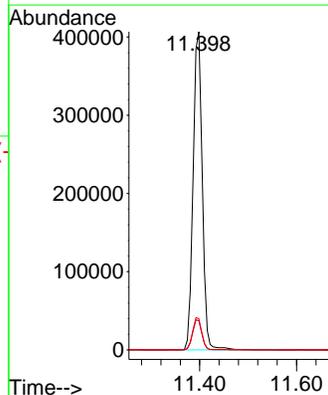
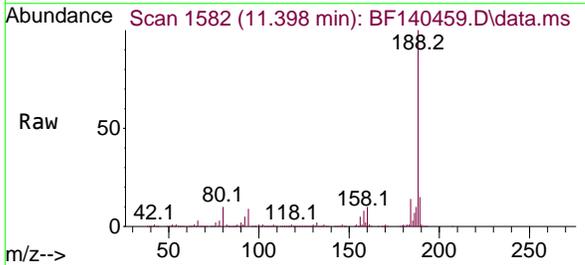


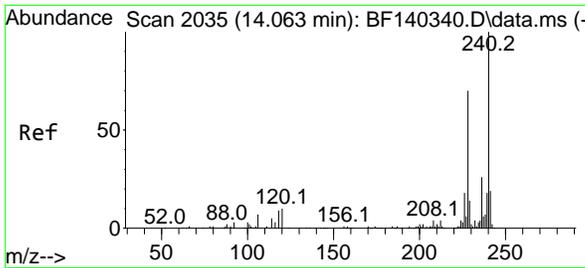
Tgt Ion:172 Resp: 1719185  
 Ion Ratio Lower Upper  
 172 100  
 171 35.6 28.5 42.7  
 170 23.7 19.1 28.7



#64  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.398 min Scan# 1582  
 Delta R.T. -0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

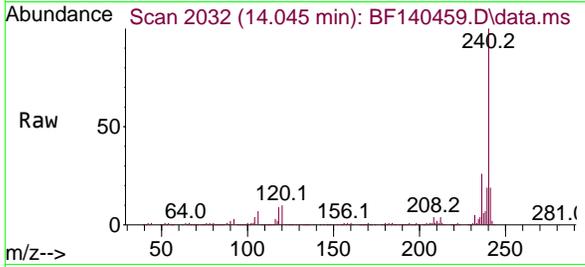
Tgt Ion:188 Resp: 538236  
 Ion Ratio Lower Upper  
 188 100  
 94 9.2 7.6 11.4  
 80 9.9 8.0 12.0





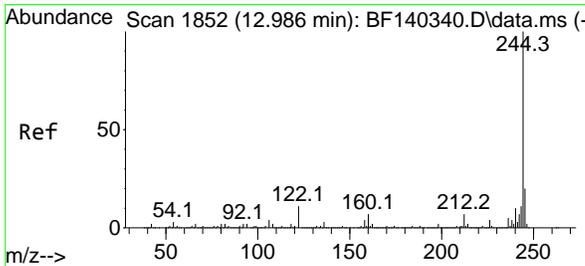
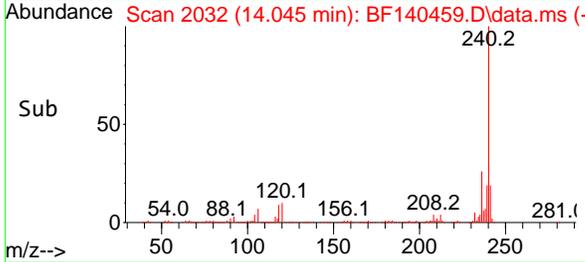
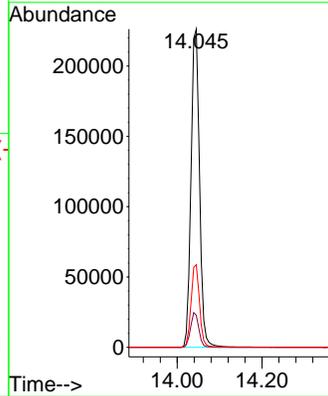
#76  
 Chrysene-d12  
 Concen: 20.000 ng  
 RT: 14.045 min Scan# 2032  
 Delta R.T. -0.006 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-A-202411



Tgt Ion:240 Resp: 315994

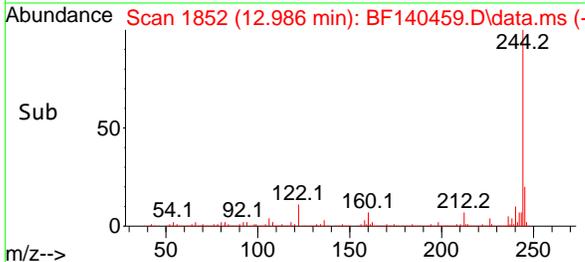
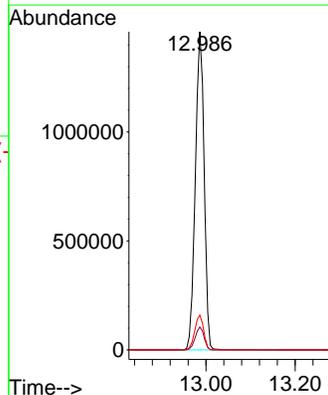
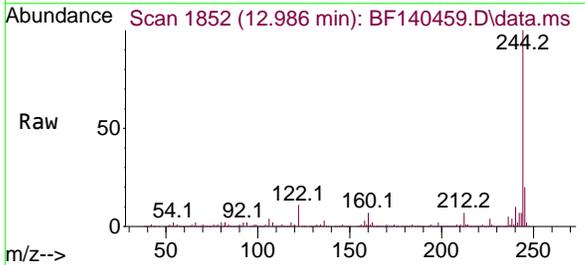
Ion	Ratio	Lower	Upper
240	100		
120	10.1	8.8	13.2
236	25.9	20.9	31.3

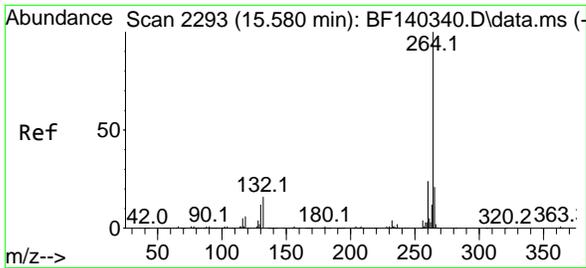


#79  
 Terphenyl-d14  
 Concen: 109.825 ng  
 RT: 12.986 min Scan# 1852  
 Delta R.T. 0.000 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Tgt Ion:244 Resp: 1999313

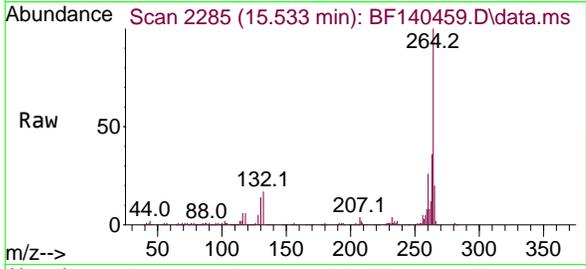
Ion	Ratio	Lower	Upper
244	100		
212	7.2	5.8	8.8
122	11.0	8.8	13.2





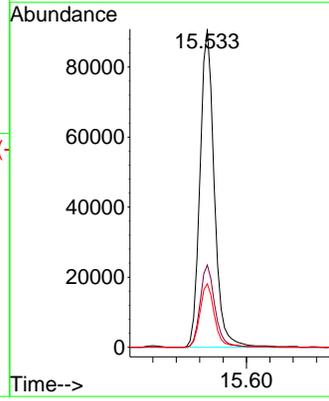
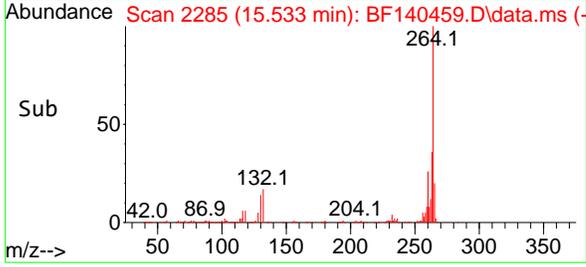
#86  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.533 min Scan# 21  
 Delta R.T. -0.024 min  
 Lab File: BF140459.D  
 Acq: 18 Nov 2024 17:40

Instrument :  
 BNA\_F  
 ClientSampleId :  
 WC-11-A-202411



Tgt Ion:264 Resp: 154098

Ion	Ratio	Lower	Upper
264	100		
260	25.9	19.2	28.8
265	19.9	17.1	25.7



### Report of Analysis

Client:	AECOM	Date Collected:	11/18/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/18/24
Client Sample ID:	PB165019TB	SDG No.:	P4861
Lab Sample ID:	PB165019TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
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
BF140464.D	1	11/18/24 08:35	11/19/24 11:00	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
110-86-1	Pyridine	15.5	UQ	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	8.40	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	11.3	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.5	U	11.5	100	ug/L
67-72-1	Hexachloroethane	10.1	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	12.7	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	12.7	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	8.90	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	10.1	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	15.2	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	11.4	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	18.5	U	18.5	100	ug/L
<b>SURROGATES</b>						
367-12-4	2-Fluorophenol	126		10 - 139	84%	SPK: 150
13127-88-3	Phenol-d6	121		10 - 134	81%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.6		49 - 133	87%	SPK: 100
321-60-8	2-Fluorobiphenyl	87.6		52 - 132	88%	SPK: 100
118-79-6	2,4,6-Tribromophenol	124		44 - 137	83%	SPK: 150
1718-51-0	Terphenyl-d14	85.9		48 - 125	86%	SPK: 100
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	144000		6.869		
1146-65-2	Naphthalene-d8	545000		8.151		
15067-26-2	Acenaphthene-d10	303000		9.904		
1517-22-2	Phenanthrene-d10	577000		11.398		
1719-03-5	Chrysene-d12	370000		14.057		
1520-96-3	Perylene-d12	302000		15.574		

### Report of Analysis

Client:	AECOM	Date Collected:	11/18/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/18/24
Client Sample ID:	PB165019TB	SDG No.:	P4861
Lab Sample ID:	PB165019TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
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
BF140464.D	1	11/18/24 08:35	11/19/24 11:00	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	------------	-------

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\_F\Data\BF111924\  
 Data File : BF140464.D  
 Acq On : 19 Nov 2024 11:00  
 Operator : RC/JU  
 Sample : PB165019TB  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PB165019TB

Quant Time: Nov 19 11:22:32 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 14:40:06 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	144350	20.000	ng	-0.01
21) Naphthalene-d8	8.151	136	545389	20.000	ng	0.00
39) Acenaphthene-d10	9.904	164	303191	20.000	ng	-0.01
64) Phenanthrene-d10	11.398	188	576588	20.000	ng	0.00
76) Chrysene-d12	14.057	240	369743	20.000	ng	0.00
86) Perylene-d12	15.574	264	301857	20.000	ng	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	1062437	125.666	ng	0.02
7) Phenol-d6	6.510	99	1388624	121.230	ng	0.00
23) Nitrobenzene-d5	7.434	82	906002	86.553	ng	0.00
42) 2,4,6-Tribromophenol	10.698	330	374546	124.228	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1651526	87.565	ng	0.00
79) Terphenyl-d14	12.986	244	1829349	85.880	ng	0.00

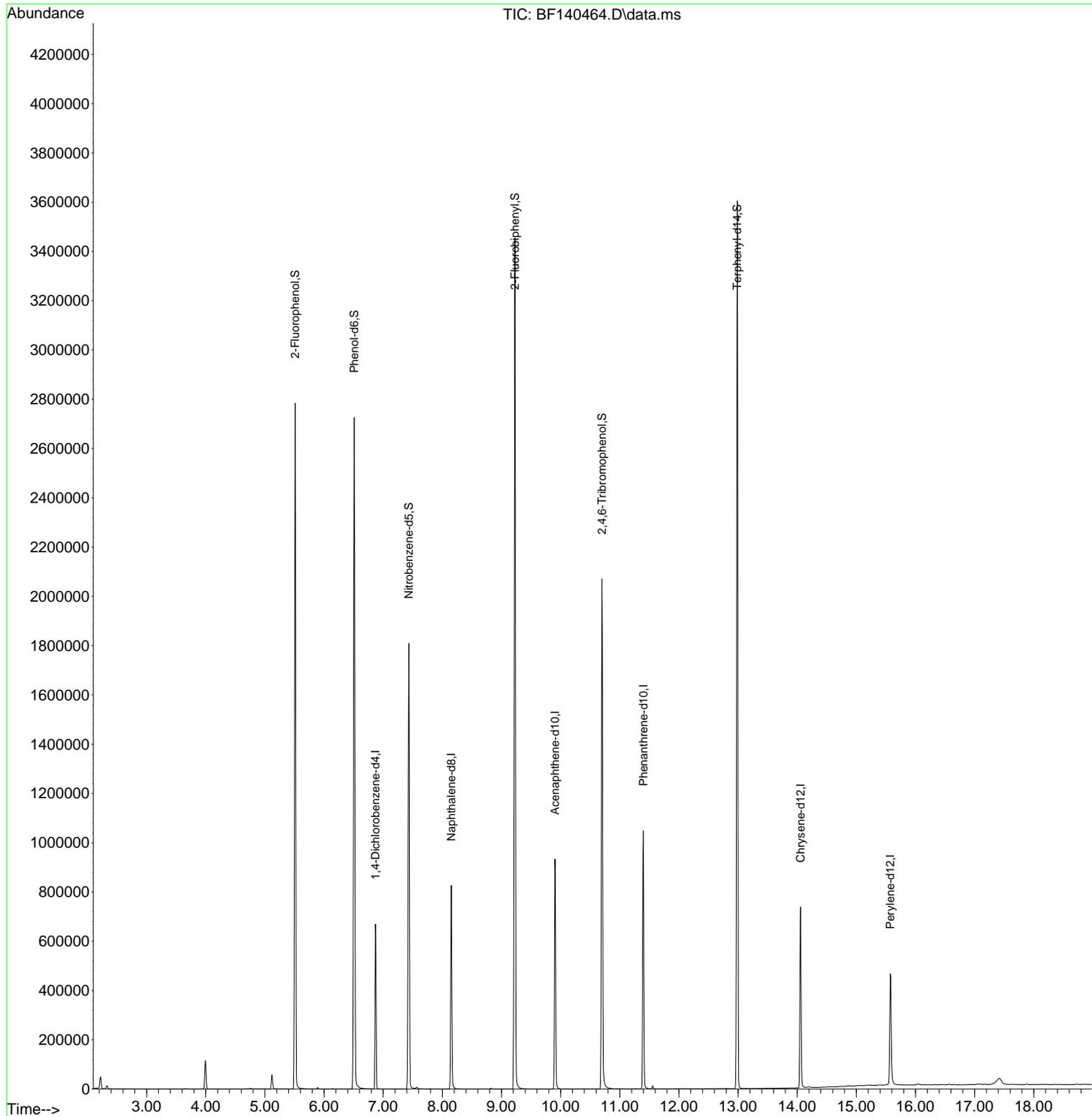
Target Compounds Qvalue

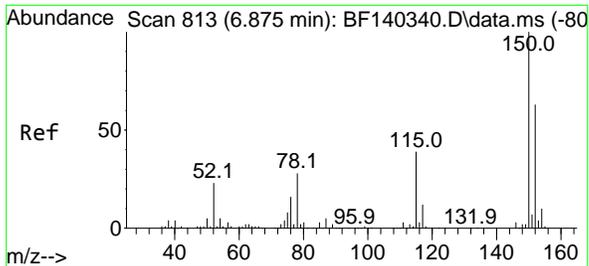
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111924\  
Data File : BF140464.D  
Acq On : 19 Nov 2024 11:00  
Operator : RC/JU  
Sample : PB165019TB  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
PB165019TB

Quant Time: Nov 19 11:22:32 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 14:40:06 2024  
Response via : Initial Calibration

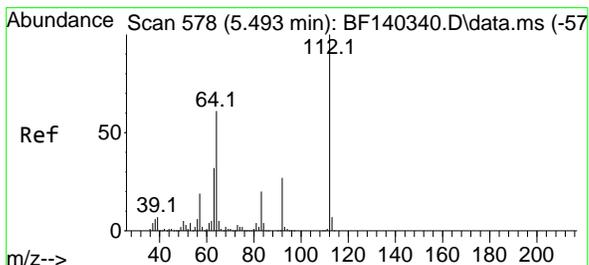
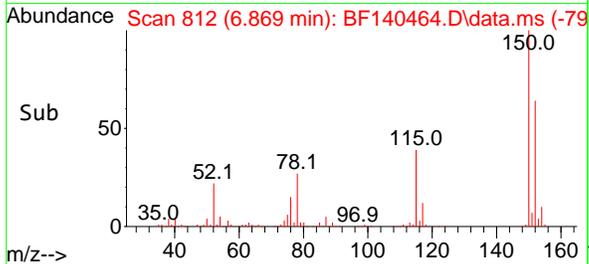
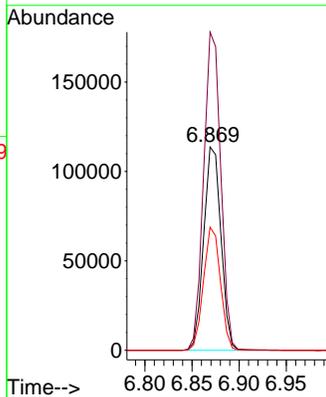
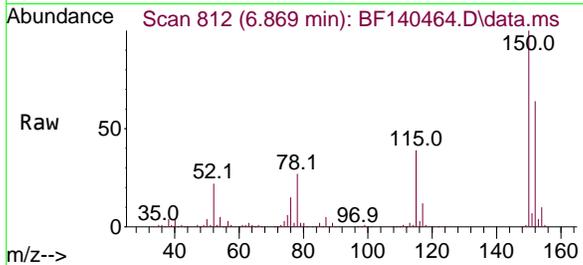




#1  
 1,4-Dichlorobenzene-d4  
 Concen: 20.000 ng  
 RT: 6.869 min Scan# 811  
 Delta R.T. -0.012 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

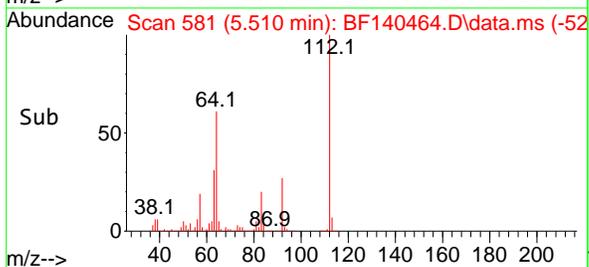
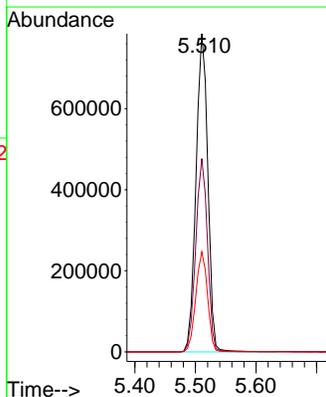
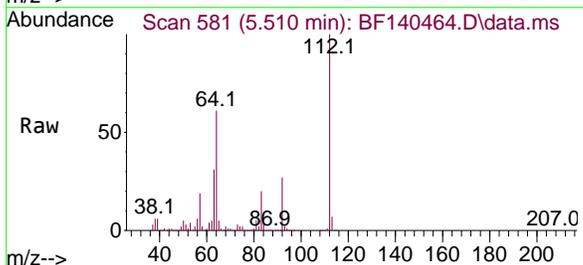
Instrument :  
 BNA\_F  
 ClientSampleId :  
 PB165019TB

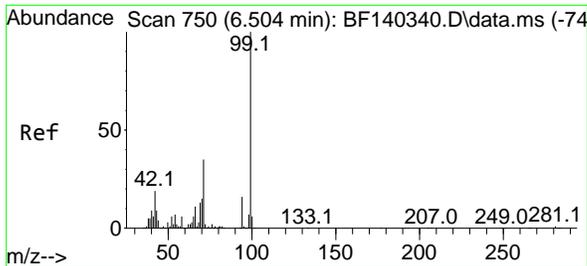
Tgt Ion:152 Resp: 144350  
 Ion Ratio Lower Upper  
 152 100  
 150 156.5 127.4 191.0  
 115 60.6 47.4 71.2



#5  
 2-Fluorophenol  
 Concen: 125.666 ng  
 RT: 5.510 min Scan# 581  
 Delta R.T. 0.018 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Tgt Ion:112 Resp: 1062437  
 Ion Ratio Lower Upper  
 112 100  
 64 60.8 49.2 73.8  
 63 31.5 25.6 38.4



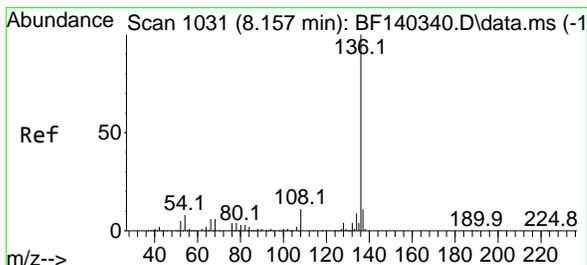
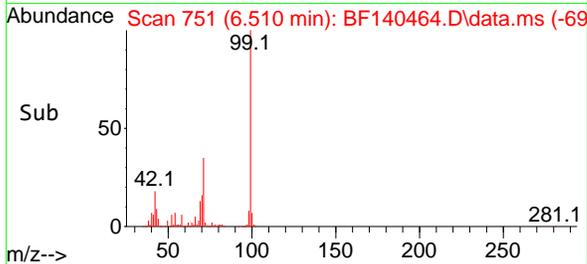
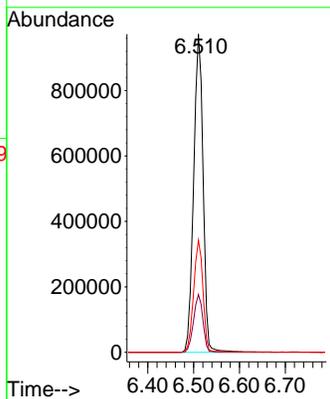
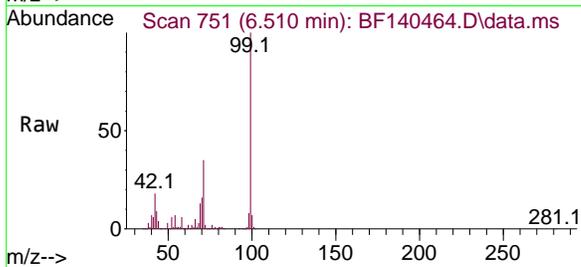


#7  
 Phenol-d6  
 Concen: 121.230 ng  
 RT: 6.510 min Scan# 71  
 Delta R.T. 0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PB165019TB

Tgt Ion: 99 Resp: 1388624

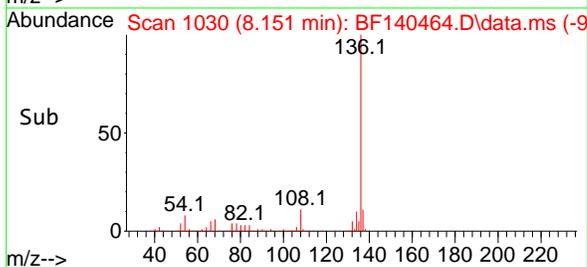
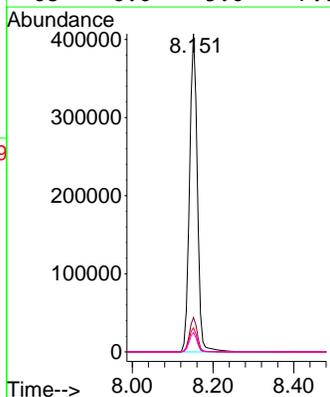
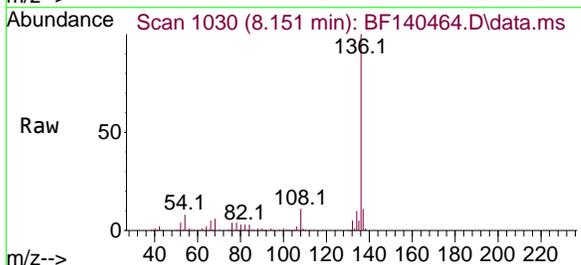
Ion	Ratio	Lower	Upper
99	100		
42	18.2	15.1	22.7
71	35.3	27.9	41.9

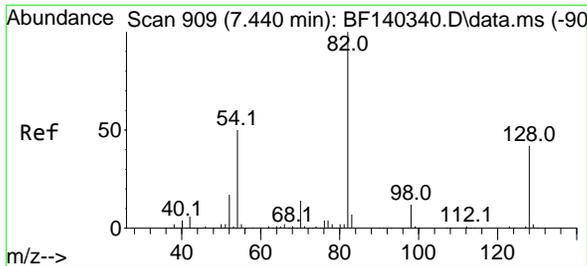


#21  
 Naphthalene-d8  
 Concen: 20.000 ng  
 RT: 8.151 min Scan# 1030  
 Delta R.T. -0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Tgt Ion: 136 Resp: 545389

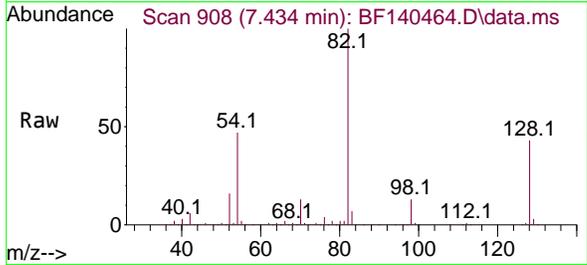
Ion	Ratio	Lower	Upper
136	100		
137	10.8	8.7	13.1
54	7.6	6.5	9.7
68	6.0	5.0	7.6



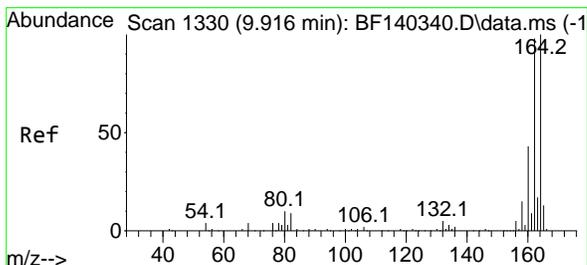
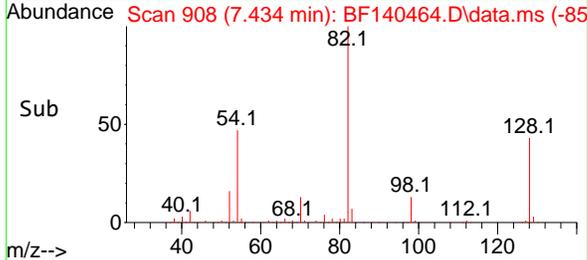
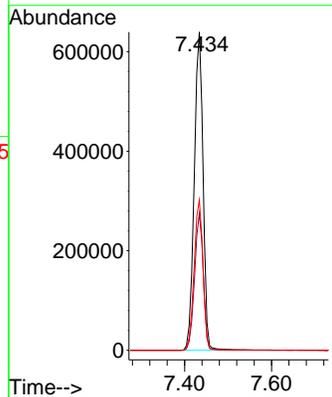


#23  
 Nitrobenzene-d5  
 Concen: 86.553 ng  
 RT: 7.434 min Scan# 90  
 Delta R.T. -0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Instrument :  
 BNA\_F  
 ClientSampleId :  
 PB165019TB

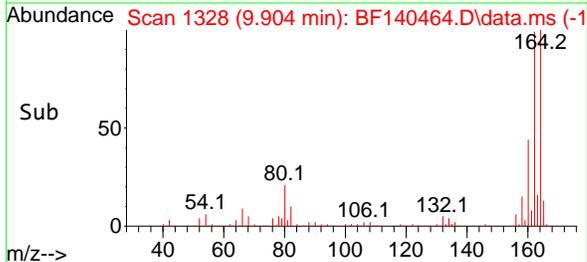
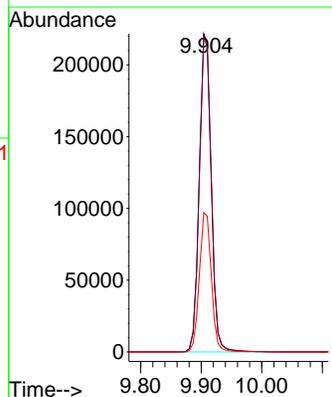
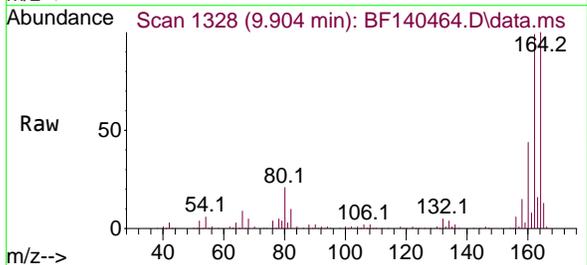


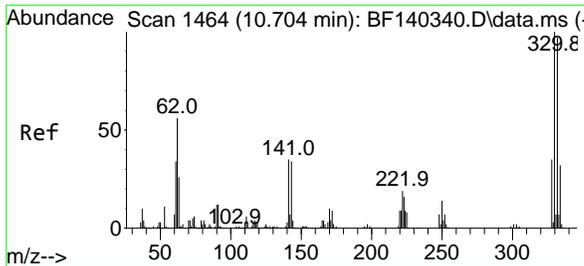
Tgt Ion: 82 Resp: 906002  
 Ion Ratio Lower Upper  
 82 100  
 128 43.0 33.3 49.9  
 54 47.3 39.8 59.8



#39  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 9.904 min Scan# 1328  
 Delta R.T. -0.012 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Tgt Ion: 164 Resp: 303191  
 Ion Ratio Lower Upper  
 164 100  
 162 98.9 79.8 119.8  
 160 43.7 35.4 53.0





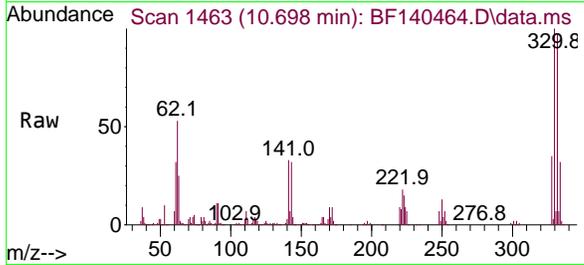
#42  
 2,4,6-Tribromophenol  
 Concen: 124.228 ng  
 RT: 10.698 min Scan# 14  
 Delta R.T. -0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Instrument :

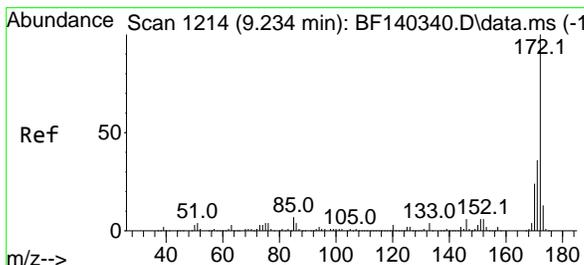
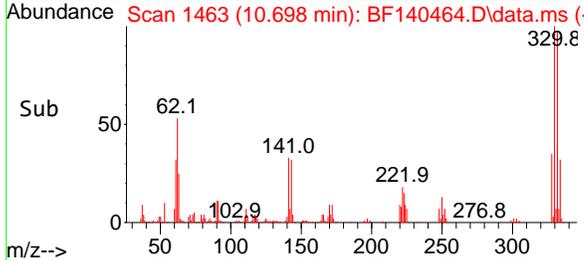
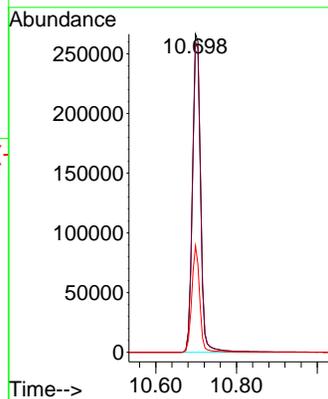
BNA\_F

ClientSampleId :

PB165019TB

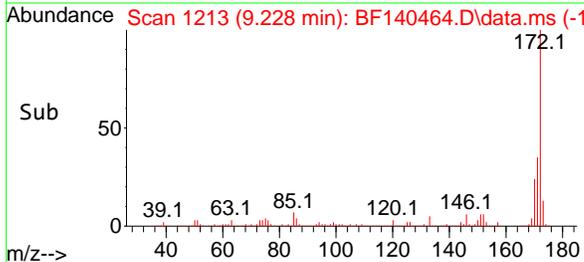
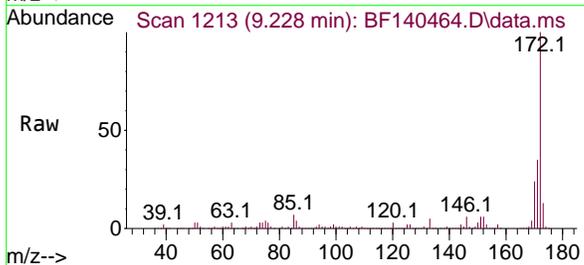
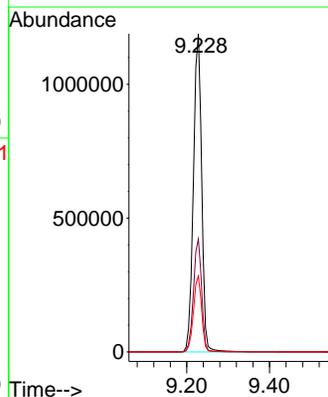


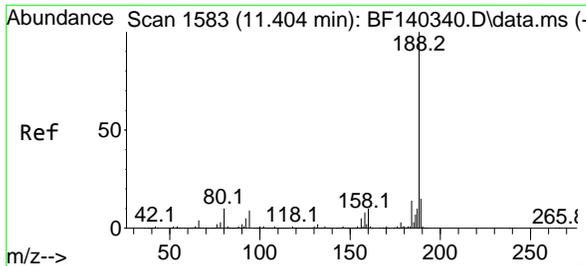
Tgt Ion:330 Resp: 374546  
 Ion Ratio Lower Upper  
 330 100  
 332 96.9 75.9 113.9  
 141 32.3 26.9 40.3



#45  
 2-Fluorobiphenyl  
 Concen: 87.565 ng  
 RT: 9.228 min Scan# 1213  
 Delta R.T. -0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Tgt Ion:172 Resp: 1651526  
 Ion Ratio Lower Upper  
 172 100  
 171 35.4 28.5 42.7  
 170 23.8 19.1 28.7





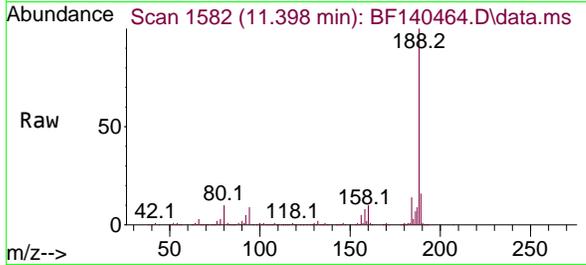
#64  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.398 min Scan# 11  
 Delta R.T. -0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Instrument :

BNA\_F

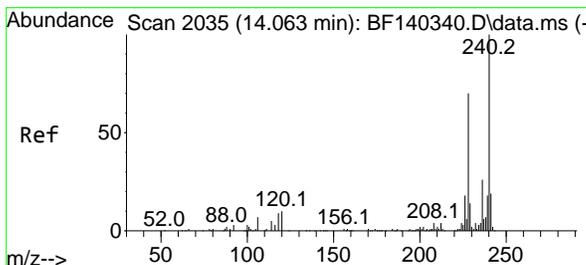
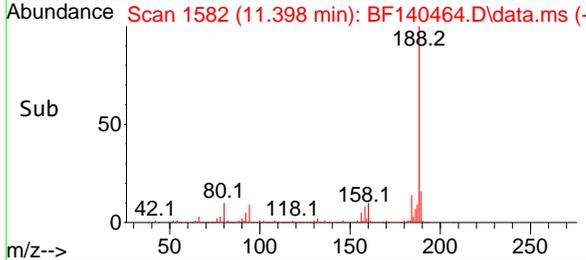
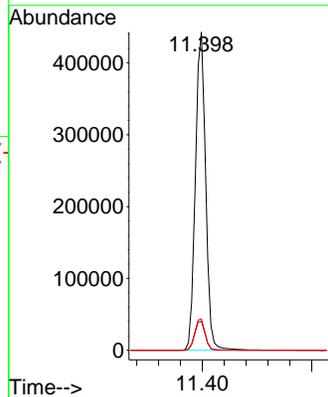
ClientSampleId :

PB165019TB



Tgt Ion:188 Resp: 576588

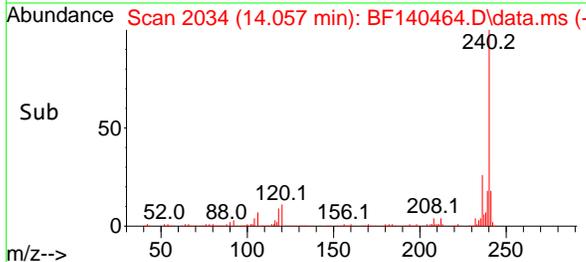
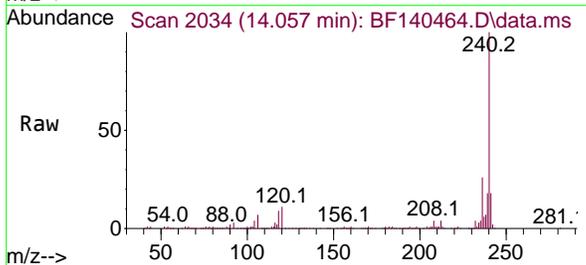
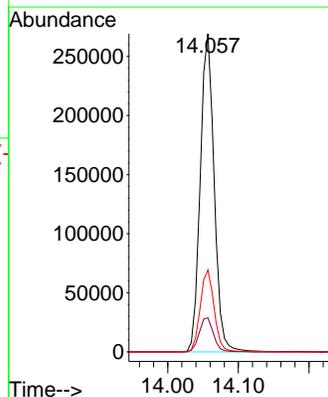
Ion	Ratio	Lower	Upper
188	100		
94	9.1	7.6	11.4
80	9.8	8.0	12.0

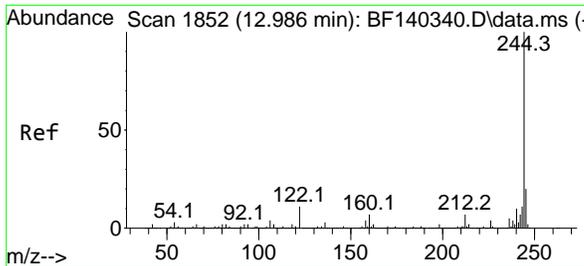


#76  
 Chrysene-d12  
 Concen: 20.000 ng  
 RT: 14.057 min Scan# 2034  
 Delta R.T. 0.006 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Tgt Ion:240 Resp: 369743

Ion	Ratio	Lower	Upper
240	100		
120	10.7	8.8	13.2
236	25.8	20.9	31.3





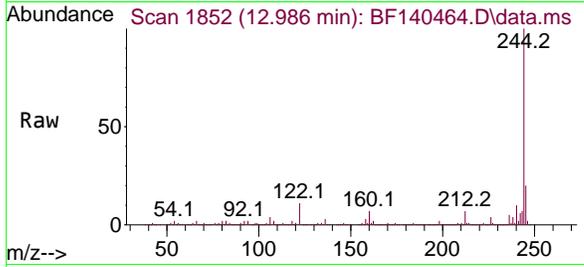
#79  
 Terphenyl-d14  
 Concen: 85.880 ng  
 RT: 12.986 min Scan# 1852  
 Delta R.T. 0.000 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Instrument :

BNA\_F

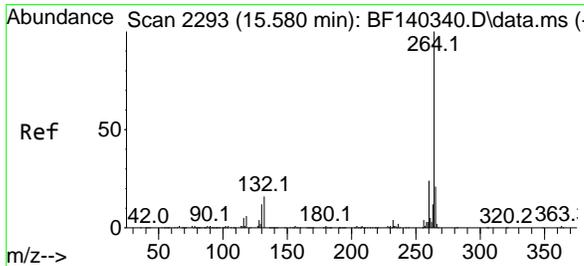
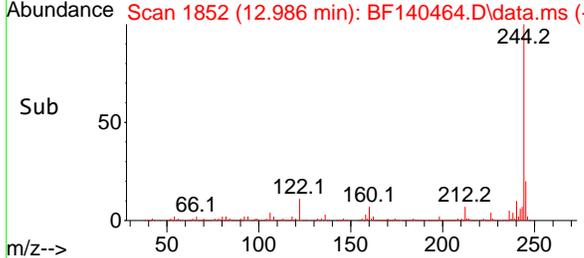
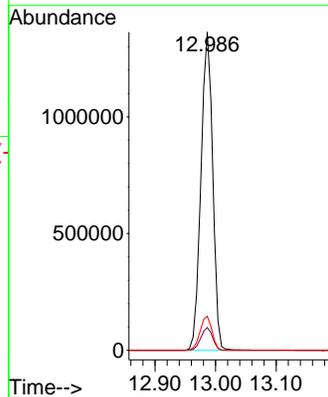
ClientSampleId :

PB165019TB



Tgt Ion:244 Resp: 1829349

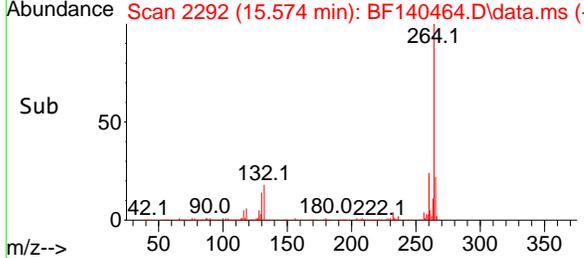
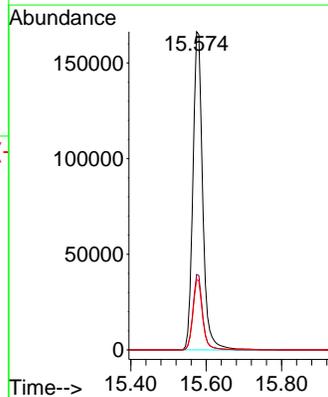
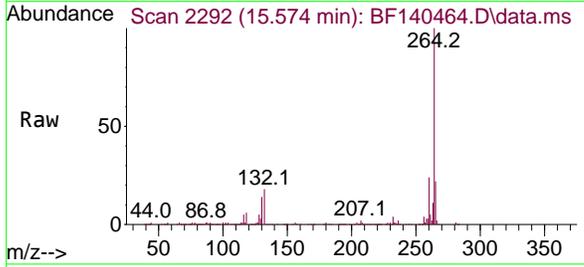
Ion	Ratio	Lower	Upper
244	100		
212	7.2	5.8	8.8
122	10.7	8.8	13.2



#86  
 Perylene-d12  
 Concen: 20.000 ng  
 RT: 15.574 min Scan# 2292  
 Delta R.T. 0.018 min  
 Lab File: BF140464.D  
 Acq: 19 Nov 2024 11:00

Tgt Ion:264 Resp: 301857

Ion	Ratio	Lower	Upper
264	100		
260	23.7	19.2	28.8
265	22.1	17.1	25.7





# CALIBRATION SUMMARY

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AECO02  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG No.: P4861  
 Instrument ID: BNA\_F Calibration Date(s): 11/13/2024 11/13/2024  
 Calibration Time(s): 09:01 12:48

LAB FILE ID:								
RRF2.5 = BF140332.D			RRF005 = BF140333.D			RRF010 = BF140334.D		
RRF020 = BF140335.D			RRF050 = BF140337.D			RRF060 = BF140338.D		
COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF050	RRF060	RRF	% RSD
Pyridine		1.430	1.343	1.323	1.189	1.237	1.283	7.6
2-Fluorophenol		1.329	1.257	1.223	1.090	1.118	1.171	8.8
Phenol-d6		1.773	1.691	1.643	1.483	1.507	1.587	8.1
1,4-Dichlorobenzene		1.590	1.534	1.486	1.306	1.326	1.408	9.5
2-Methylphenol		1.092	1.062	1.072	0.998	1.016	1.035	5.1
3+4-Methylphenols		1.436	1.427	1.359	1.200	1.198	1.295	10.2
Nitrobenzene-d5		0.411	0.401	0.399	0.368	0.379	0.384	5.3
Hexachloroethane		0.562	0.543	0.550	0.500	0.506	0.520	6.3
Nitrobenzene		0.423	0.421	0.406	0.390	0.394	0.400	4.6
Hexachlorobutadiene		0.220	0.214	0.210	0.188	0.190	0.199	7.7
2,4,6-Trichlorophenol		0.380	0.374	0.374	0.360	0.352	0.363	3.9
2-Fluorobiphenyl		1.524	1.396	1.351	1.125	1.110	1.244	14.5
2,4,5-Trichlorophenol		0.421	0.417	0.412	0.387	0.390	0.397	5.4
2,4-Dinitrotoluene		0.414	0.400	0.417	0.387	0.382	0.391	5.8
2,4,6-Tribromophenol		0.220	0.211	0.207	0.191	0.189	0.199	6.9
Hexachlorobenzene		0.251	0.242	0.232	0.209	0.215	0.225	7.5
Pentachlorophenol		0.097	0.108	0.124	0.131	0.130	0.121	10.9
Terphenyl-d14		1.226	1.185	1.108	1.139	1.190	1.152	4.3

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
Method File : 8270-BF111324.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
Last Update : Wed Nov 13 14:40:06 2024  
Response Via : Initial Calibration

Calibration Files

2.5 =BF140332.D 5 =BF140333.D 10 =BF140334.D 20 =BF140335.D 40 =BF140340.D 50 =BF140337.D 60 =BF140338.D 80 =BF140339.D

Table with columns: Compound, 2.5, 5, 10, 20, 40, 50, 60, 80, Avg, %RSD. Rows include 1) I 1,4-Dichlorobenzen..., 2) 1,4-Dioxane, 3) Pyridine, 4) n-Nitrosodimet..., 5) S 2-Fluorophenol, 6) Aniline, 7) S Phenol-d6, 8) 2-Chlorophenol, 9) Benzaldehyde, 10) C Phenol, 11) bis(2-Chloroet..., 12) 1,3-Dichlorobe..., 13) C 1,4-Dichlorobe..., 14) 1,2-Dichlorobe..., 15) Benzyl Alcohol, 16) 2,2'-oxybis(1-..., 17) 2-Methylphenol, 18) Hexachloroethane, 19) P n-Nitroso-di-n... 1.032, 20) 3+4-Methylphenols, 21) I Naphthalene-d8, 22) Acetophenone, 23) S Nitrobenzene-d5, 24) Nitrobenzene, 25) Isophorone, 26) C 2-Nitrophenol, 27) 2,4-Dimethylph..., 28) bis(2-Chloroet..., 29) C 2,4-Dichloroph..., 30) 1,2,4-Trichlor..., 31) Naphthalene, 32) Benzoic acid, 33) 4-Chloroaniline, 34) C Hexachlorobuta..., 35) Caprolactam, 36) C 4-Chloro-3-met..., 37) 2-Methylnaphth..., 38) 1-Methylnaphth...



Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
Method File : 8270-BF111324.M

		-----ISTD-----								
86) I	Perylene-d12									
87)	Indeno(1,2,3-c...	1.116	1.150	1.138	1.258	1.316	1.354	1.317	1.235	8.02
88)	Benzo(b)fluora...	1.405	1.352	1.471	1.263	1.235	1.233	1.199	1.308	7.82
89)	Benzo(k)fluora...	1.286	1.241	1.120	1.060	0.952	0.935	0.888	1.069	14.47
90) C	Benzo(a)pyrene	1.100	1.053	1.054	1.005	0.970	0.980	0.948	1.016	5.40
91)	Dibenzo(a,h)an...	0.941	0.952	0.944	1.039	1.074	1.121	1.077	1.021	7.30
92)	Benzo(g,h,i)pe...	0.941	0.963	0.954	1.063	1.122	1.146	1.120	1.044	8.55

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(#) = Out of Range

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
 Data File : BF140332.D  
 Acq On : 13 Nov 2024 09:01  
 Operator : RC/JU  
 Sample : SSTDICC2.5  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDICC2.5

Quant Time: Nov 13 14:21:19 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 13:11:08 2024  
 Response via : Initial Calibration

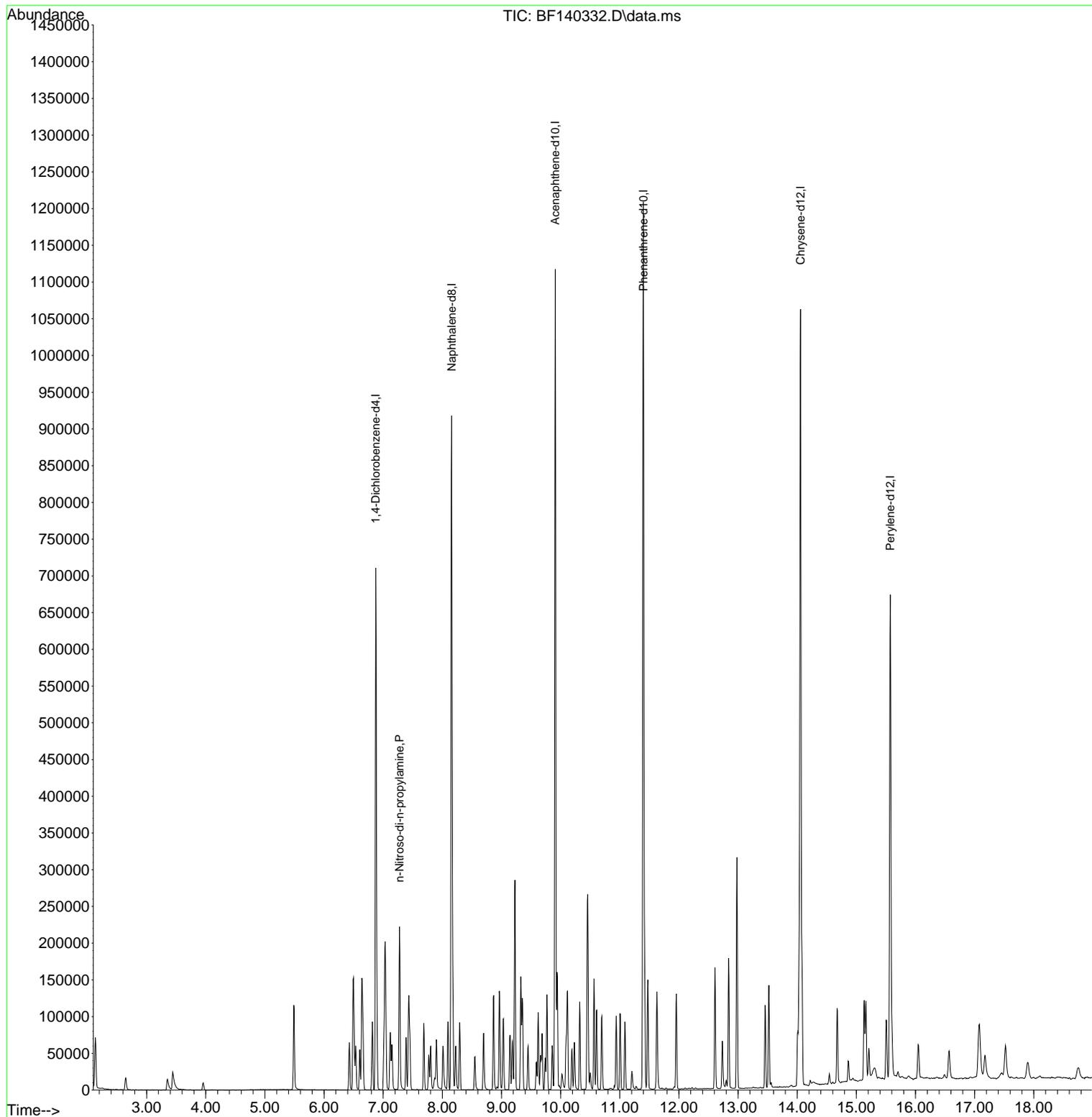
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	147206	20.000	ng	0.00	
21) Naphthalene-d8	8.157	136	569357	20.000	ng	0.00	
39) Acenaphthene-d10	9.910	164	324094	20.000	ng	0.00	
64) Phenanthrene-d10	11.398	188	631650	20.000	ng	0.00	
76) Chrysene-d12	14.057	240	473843	20.000	ng	0.00	
86) Perylene-d12	15.574	264	387360	20.000	ng	0.02	
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0d	0.000	ng		
7) Phenol-d6	0.000	99	0d	0.000	ng		
23) Nitrobenzene-d5	0.000	82	0d	0.000	ng		
42) 2,4,6-Tribromophenol	0.000	330	0d	0.000	ng		
45) 2-Fluorobiphenyl	0.000	172	0d	0.000	ng		
79) Terphenyl-d14	0.000	244	0d	0.000	ng		
Target Compounds							
19) n-Nitroso-di-n-propyla...	7.275	70	18995	2.692	ng		Qvalue 97

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

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140332.D  
Acq On : 13 Nov 2024 09:01  
Operator : RC/JU  
Sample : SSTDICC2.5  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SSTDICC2.5

Quant Time: Nov 13 14:21:19 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 13:11:08 2024  
Response via : Initial Calibration





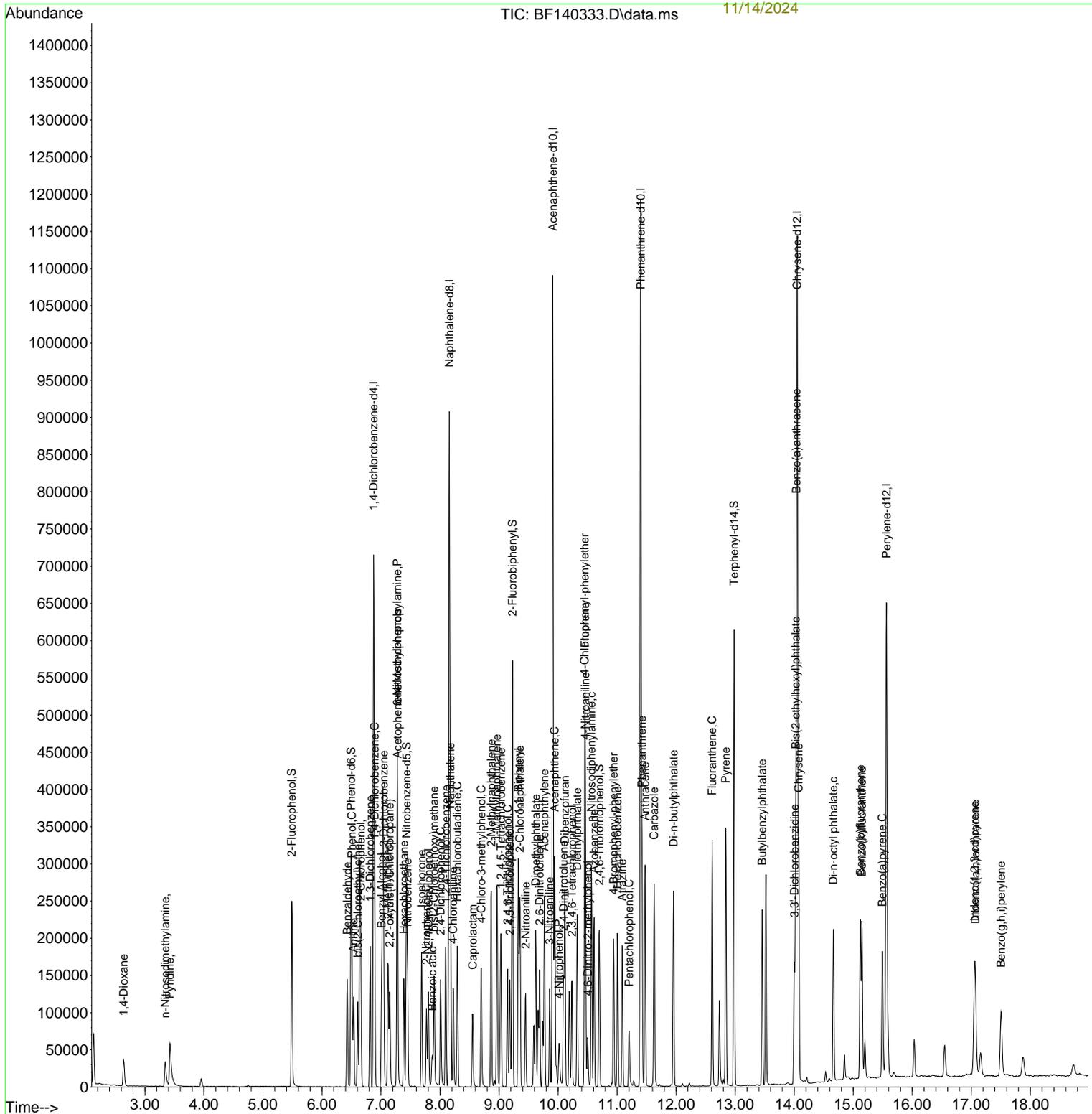


Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
 Data File : BF140333.D  
 Acq On : 13 Nov 2024 09:27  
 Operator : RC/JU  
 Sample : SSTDICC005  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

**Instrument :**  
 BNA\_F  
**ClientSampleId :**  
 SSTDICC005

Quant Time: Nov 13 14:22:24 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 13:11:08 2024  
 Response via : Initial Calibration

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





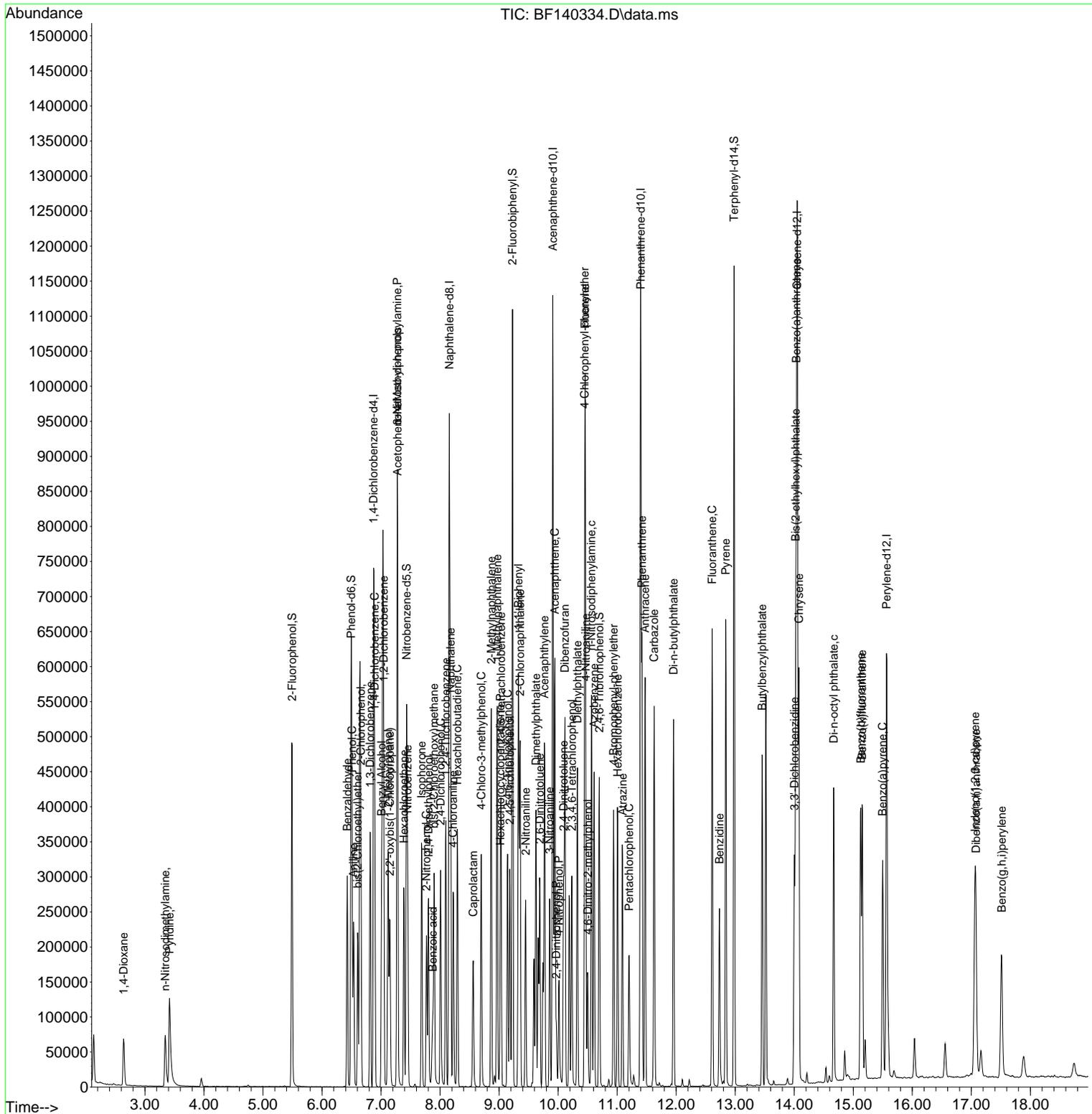


Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
 Data File : BF140334.D  
 Acq On : 13 Nov 2024 09:53  
 Operator : RC/JU  
 Sample : SSTDICC010  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

**Instrument :**  
 BNA\_F  
**ClientSampleId :**  
 SSTDICC010

Quant Time: Nov 13 14:23:21 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 13:11:08 2024  
 Response via : Initial Calibration

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



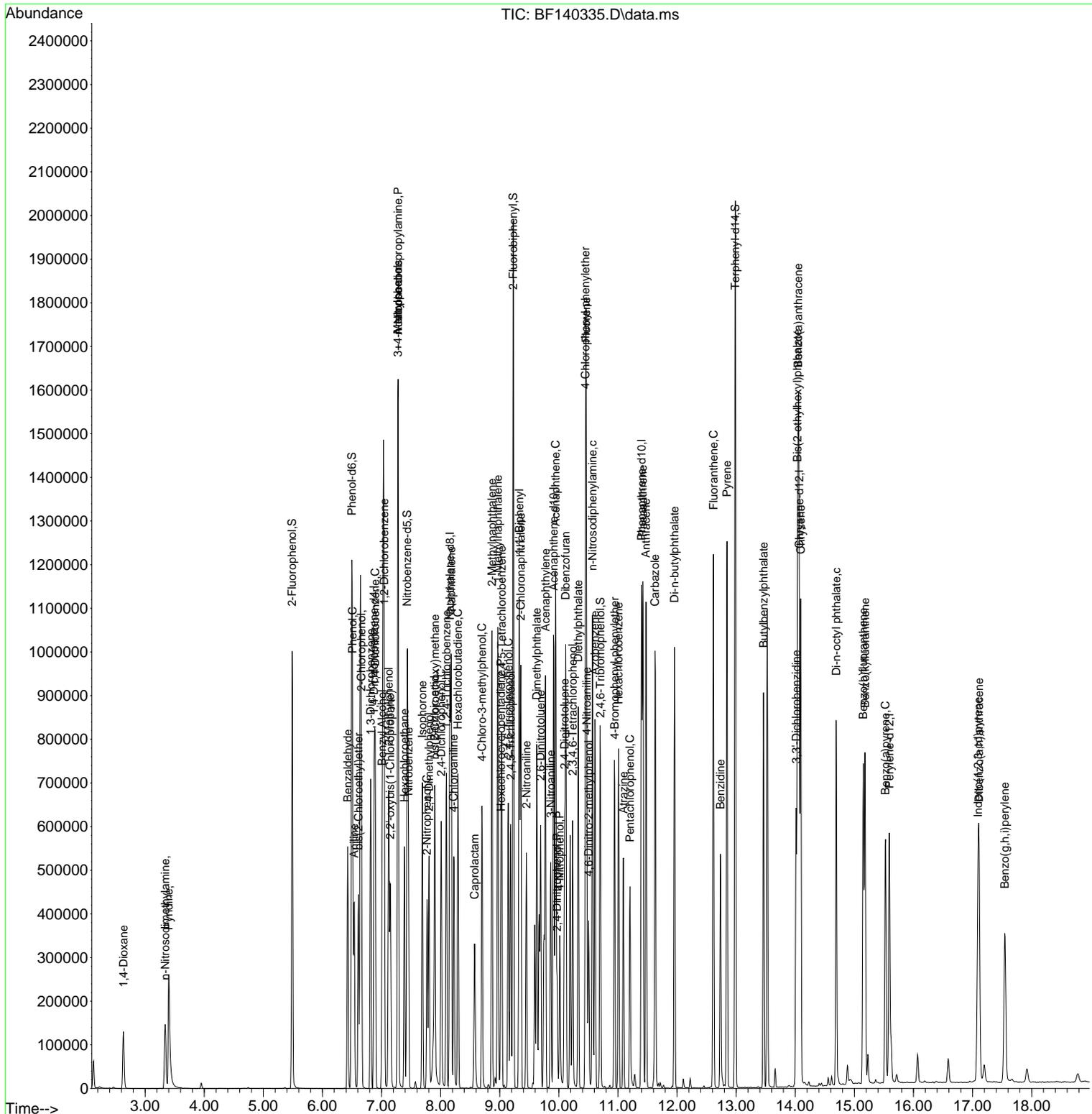




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140335.D  
Acq On : 13 Nov 2024 10:29  
Operator : RC/JU  
Sample : SSTDICC020  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SSTDICC020

Quant Time: Nov 13 14:24:16 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 13:11:08 2024  
Response via : Initial Calibration









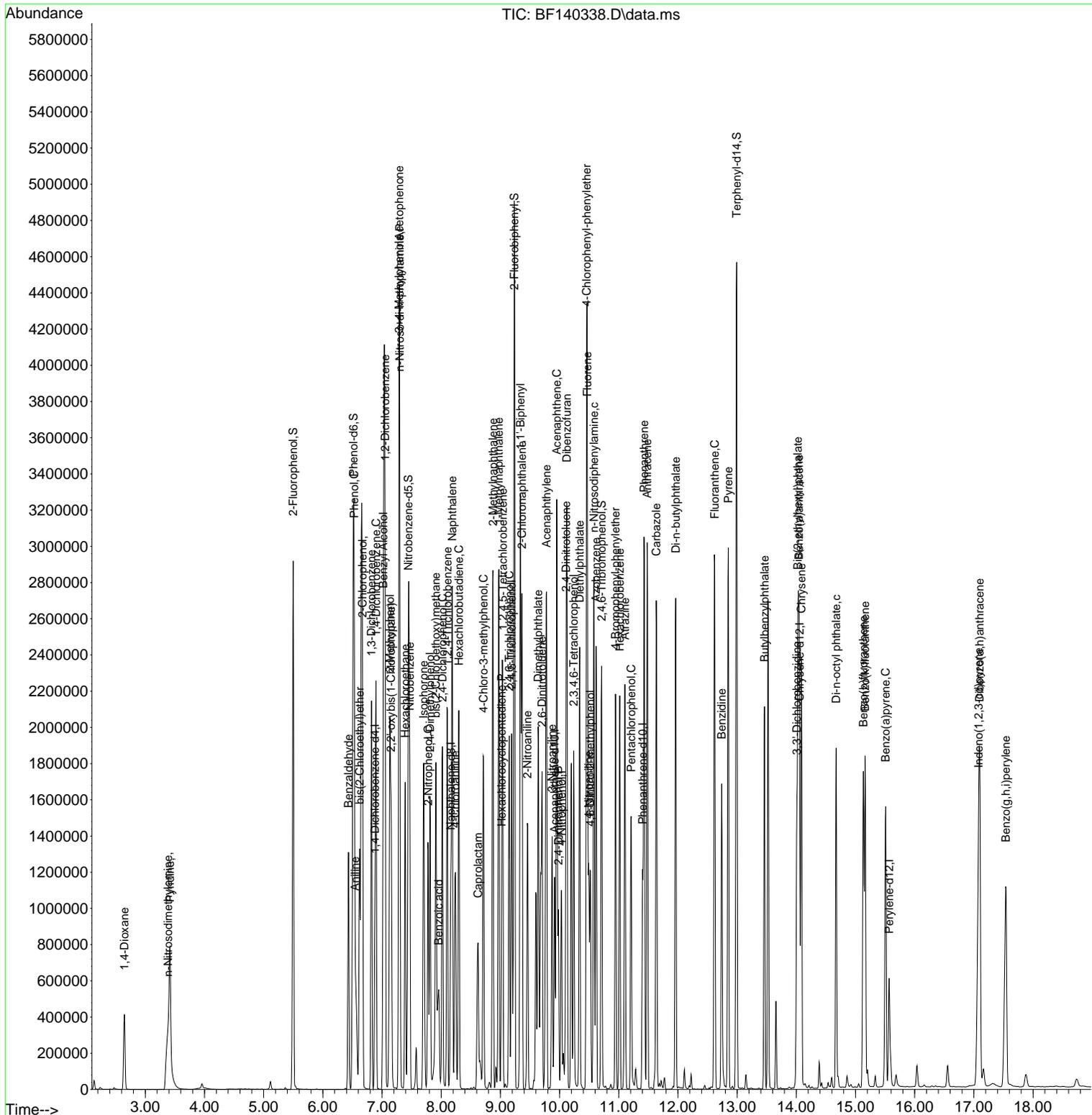




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140338.D  
Acq On : 13 Nov 2024 11:47  
Operator : RC/JU  
Sample : SSTDICC060  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SSTDICC060

Quant Time: Nov 13 14:26:57 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 13:11:08 2024  
Response via : Initial Calibration





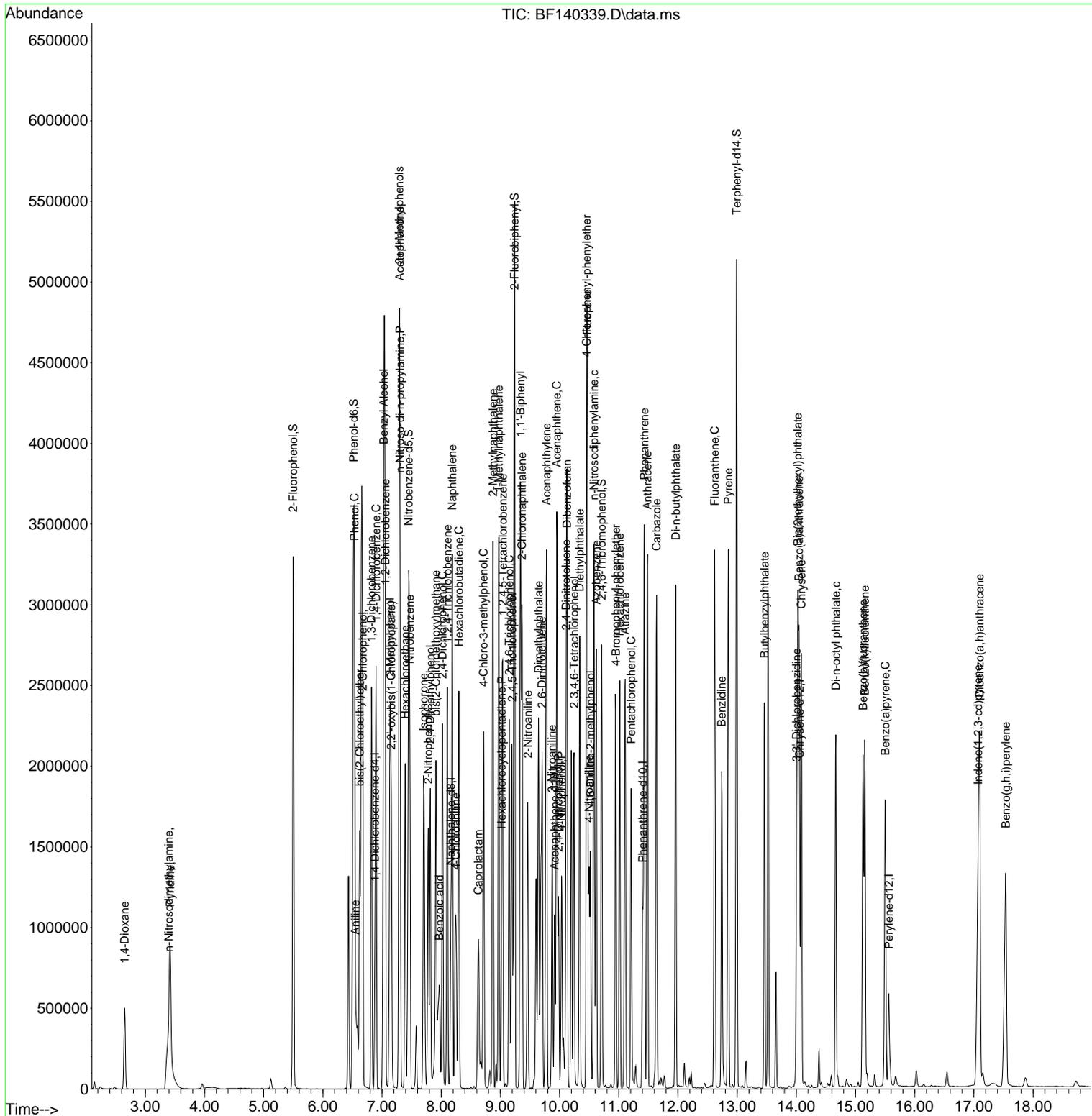


Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140339.D  
Acq On : 13 Nov 2024 12:13  
Operator : RC/JU  
Sample : SSTDICC080  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_F  
Client Sample Id :  
SSTDICC080

Quant Time: Nov 13 14:36:37 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 13:11:08 2024  
Response via : Initial Calibration

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



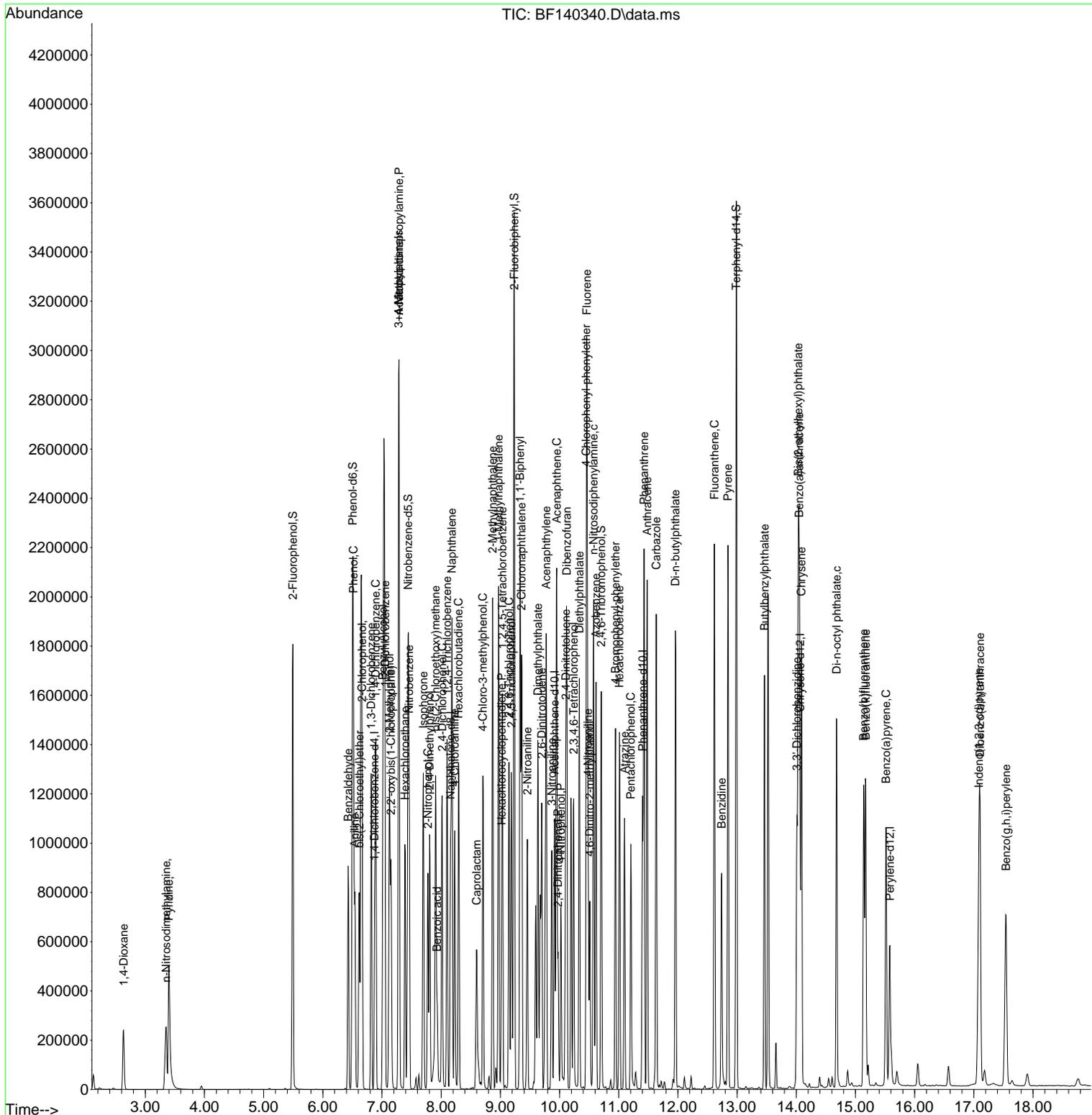




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
 Data File : BF140340.D  
 Acq On : 13 Nov 2024 12:48  
 Operator : RC/JU  
 Sample : SSTDICCC040  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDICCC040

Quant Time: Nov 13 14:28:55 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 13:11:08 2024  
 Response via : Initial Calibration



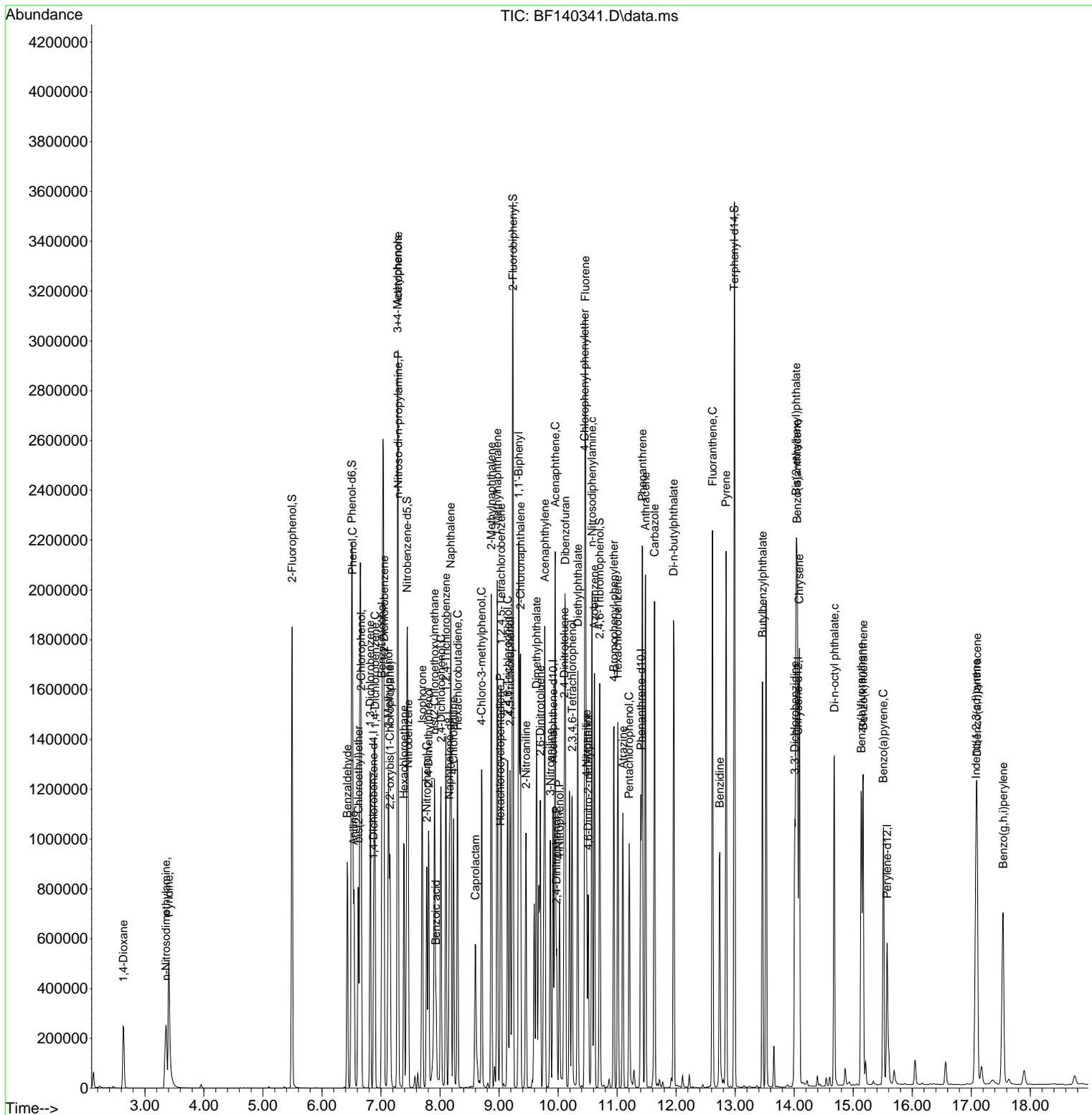




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140341.D  
Acq On : 13 Nov 2024 13:19  
Operator : RC/JU  
Sample : SSTDICV040  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
ICVBF111324

Quant Time: Nov 13 14:41:15 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 14:40:06 2024  
Response via : Initial Calibration







Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140341.D  
Acq On : 13 Nov 2024 13:19  
Operator : RC/JU  
Sample : SSTDICV040  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
ICVBF111324

Quant Time: Nov 13 14:41:15 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 14:40:06 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)
----------	-------	------	-----------	------------

(#) = Out of Range

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





Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111324\  
Data File : BF140341.D  
Acq On : 13 Nov 2024 13:19  
Operator : RC/JU  
Sample : SSTDICV040  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
ICVBF111324

Quant Time: Nov 13 14:41:15 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 14:40:06 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)
----------	--------	-------	------	-------	----------

-----  
(#) = Out of Range

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







Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
Method File : 8270-BF111324.M

		-----ISTD-----								
86) I	Perylene-d12									
87)	Indeno(1,2,3-c...	1.116	1.150	1.138	1.258	1.316	1.354	1.317	1.235	8.02
88)	Benzo(b)fluora...	1.405	1.352	1.471	1.263	1.235	1.233	1.199	1.308	7.82
89)	Benzo(k)fluora...	1.286	1.241	1.120	1.060	0.952	0.935	0.888	1.069	14.47
90) C	Benzo(a)pyrene	1.100	1.053	1.054	1.005	0.970	0.980	0.948	1.016	5.40
91)	Dibenzo(a,h)an...	0.941	0.952	0.944	1.039	1.074	1.121	1.077	1.021	7.30
92)	Benzo(g,h,i)pe...	0.941	0.963	0.954	1.063	1.122	1.146	1.120	1.044	8.55

-----  
(#) = Out of Range





Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
Method File : 8270-BF112124.M

		-----ISTD-----								
86) I	Perylene-d12									
87)	Indeno(1,2,3-c...	1.209	1.283	1.299	1.304	1.306	1.409	1.313	1.303	4.51
88)	Benzo(b)fluora...	1.347	1.256	1.380	1.186	1.248	1.207	1.168	1.256	6.41
89)	Benzo(k)fluora...	1.243	1.236	1.059	1.101	1.022	1.055	0.980	1.099	9.34
90) C	Benzo(a)pyrene	1.062	1.050	1.063	1.007	0.998	1.014	0.957	1.021	3.81
91)	Dibenzo(a,h)an...	1.015	1.038	1.063	1.068	1.075	1.149	1.064	1.067	3.90
92)	Benzo(g,h,i)pe...	1.033	1.090	1.078	1.085	1.094	1.161	1.083	1.089	3.48

-----  
(#) = Out of Range



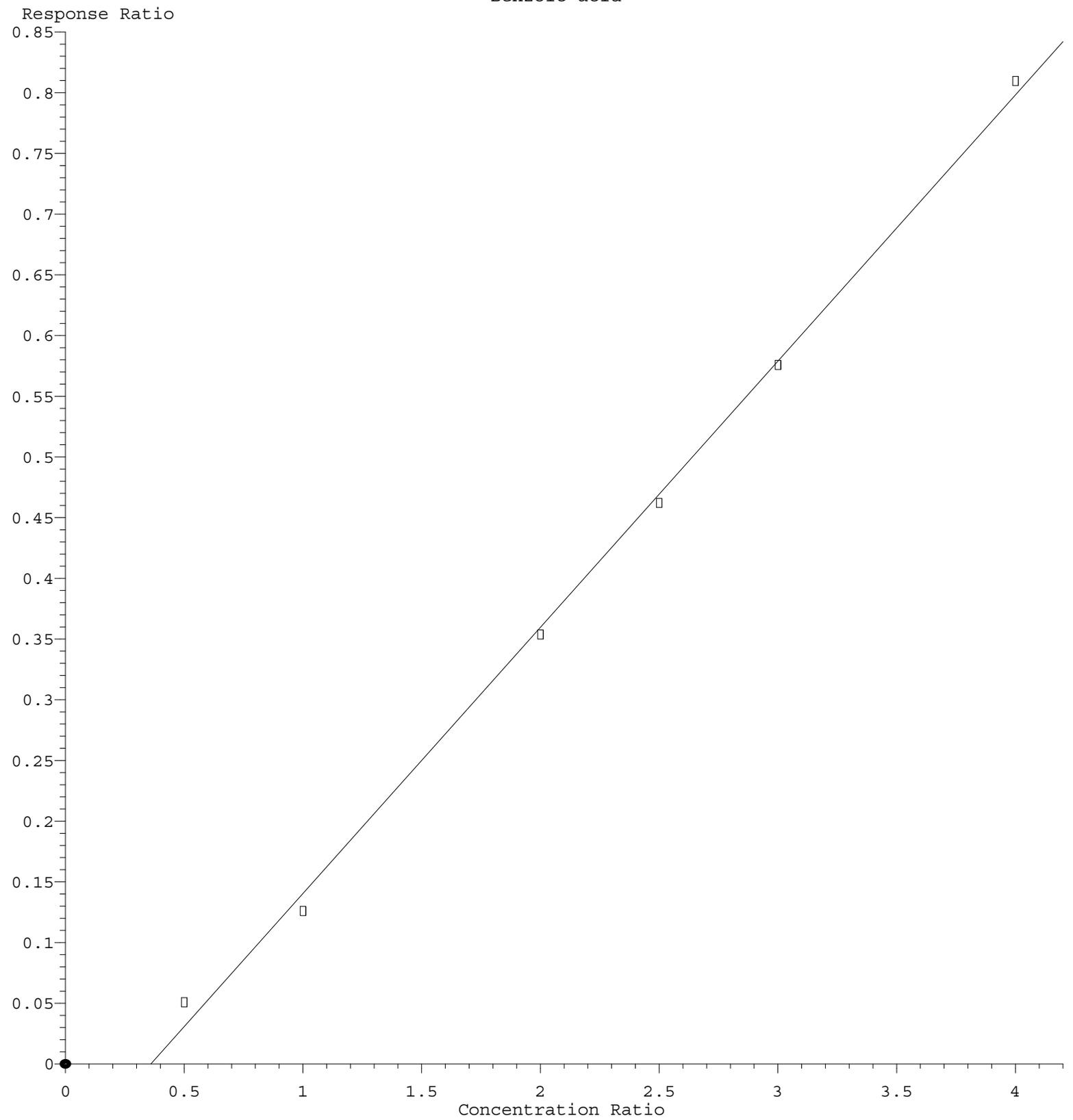


Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
Method File : 8270-BF112124.M

		-----ISTD-----								
86) I	Perylene-d12									
87)	Indeno(1,2,3-c...	1.209	1.283	1.299	1.304	1.306	1.409	1.313	1.303	4.51
88)	Benzo(b)fluora...	1.347	1.256	1.380	1.186	1.248	1.207	1.168	1.256	6.41
89)	Benzo(k)fluora...	1.243	1.236	1.059	1.101	1.022	1.055	0.980	1.099	9.34
90) C	Benzo(a)pyrene	1.062	1.050	1.063	1.007	0.998	1.014	0.957	1.021	3.81
91)	Dibenzo(a,h)an...	1.015	1.038	1.063	1.068	1.075	1.149	1.064	1.067	3.90
92)	Benzo(g,h,i)pe...	1.033	1.090	1.078	1.085	1.094	1.161	1.083	1.089	3.48

-----  
(#) = Out of Range

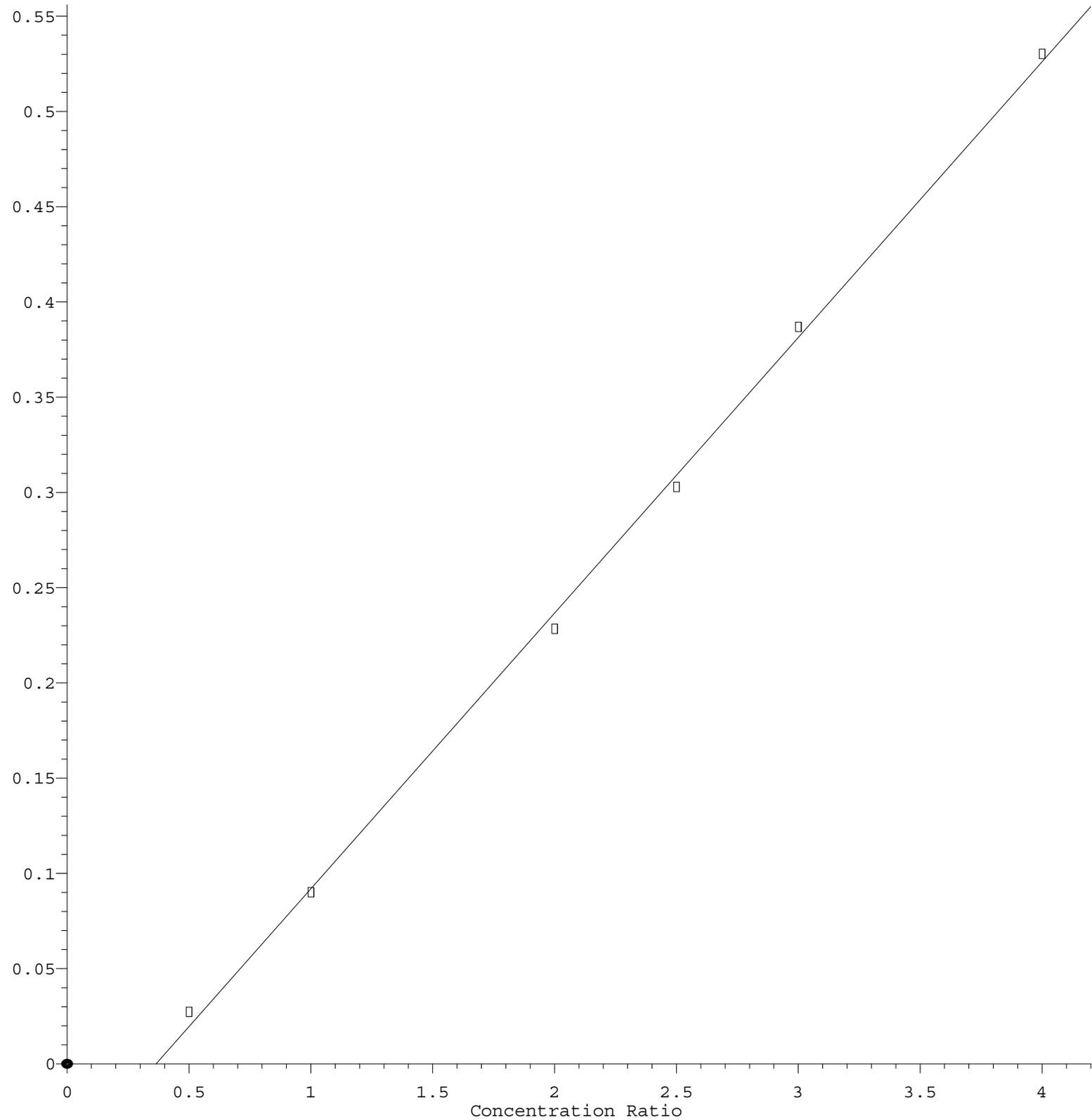
# Benzoic acid



Response = 2.193e-001 \* Amt - 7.887e-002  
Coef of Det (r^2) = 0.997922 Curve Fit: Linear  
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M  
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024

Hexachlorocyclopentadiene

Response Ratio



Response = 1.448e-001 \* Amt - 5.280e-002

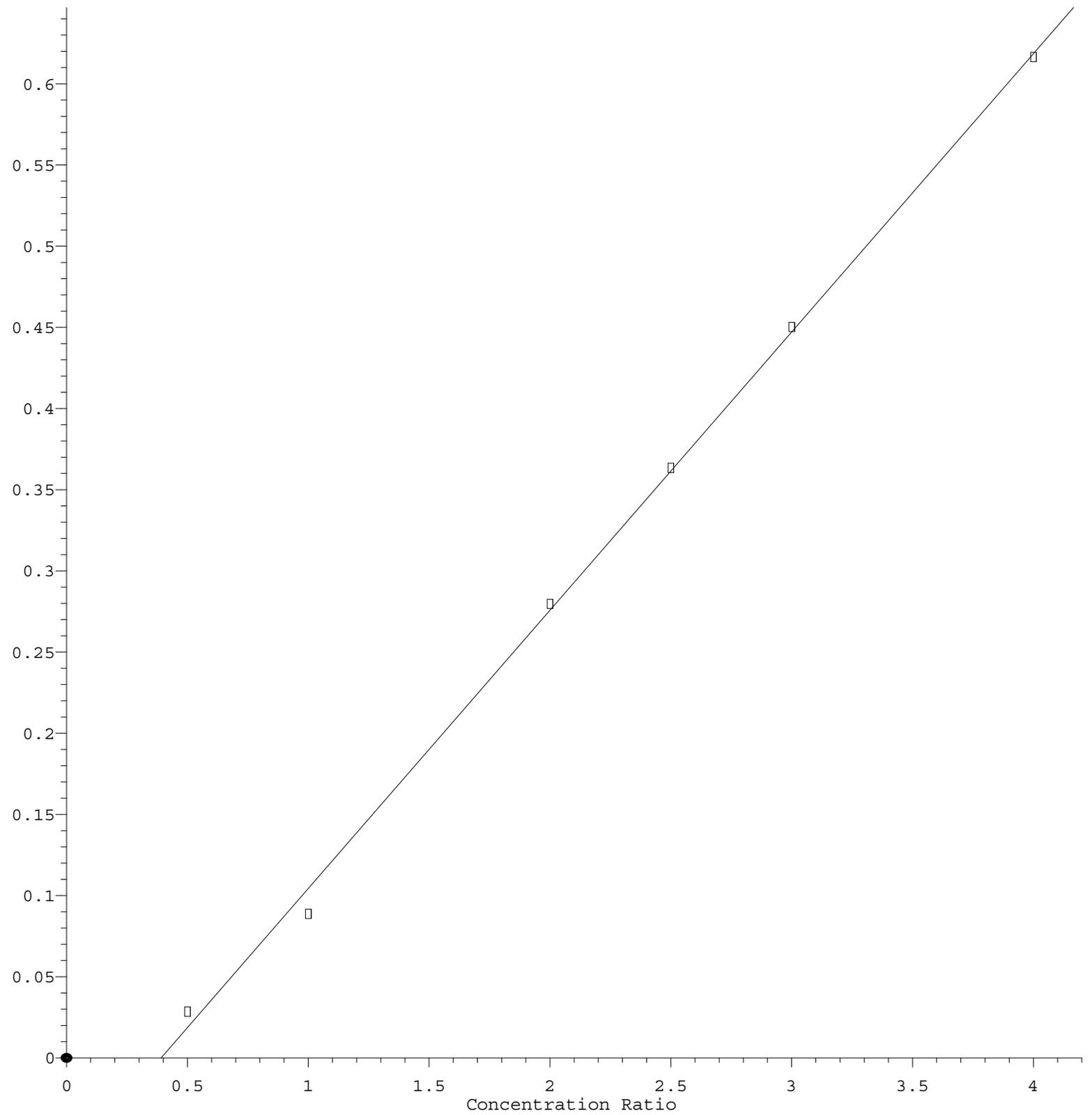
Coef of Det (r^2) = 0.998763 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M

Calibration Table Last Updated: Thu Nov 21 15:23:48 2024

2,4-Dinitrophenol

Response Ratio



Response = 1.715e-001 \* Amt - 6.708e-002

Coef of Det (r^2) = 0.998475 Curve Fit: Linear

Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M

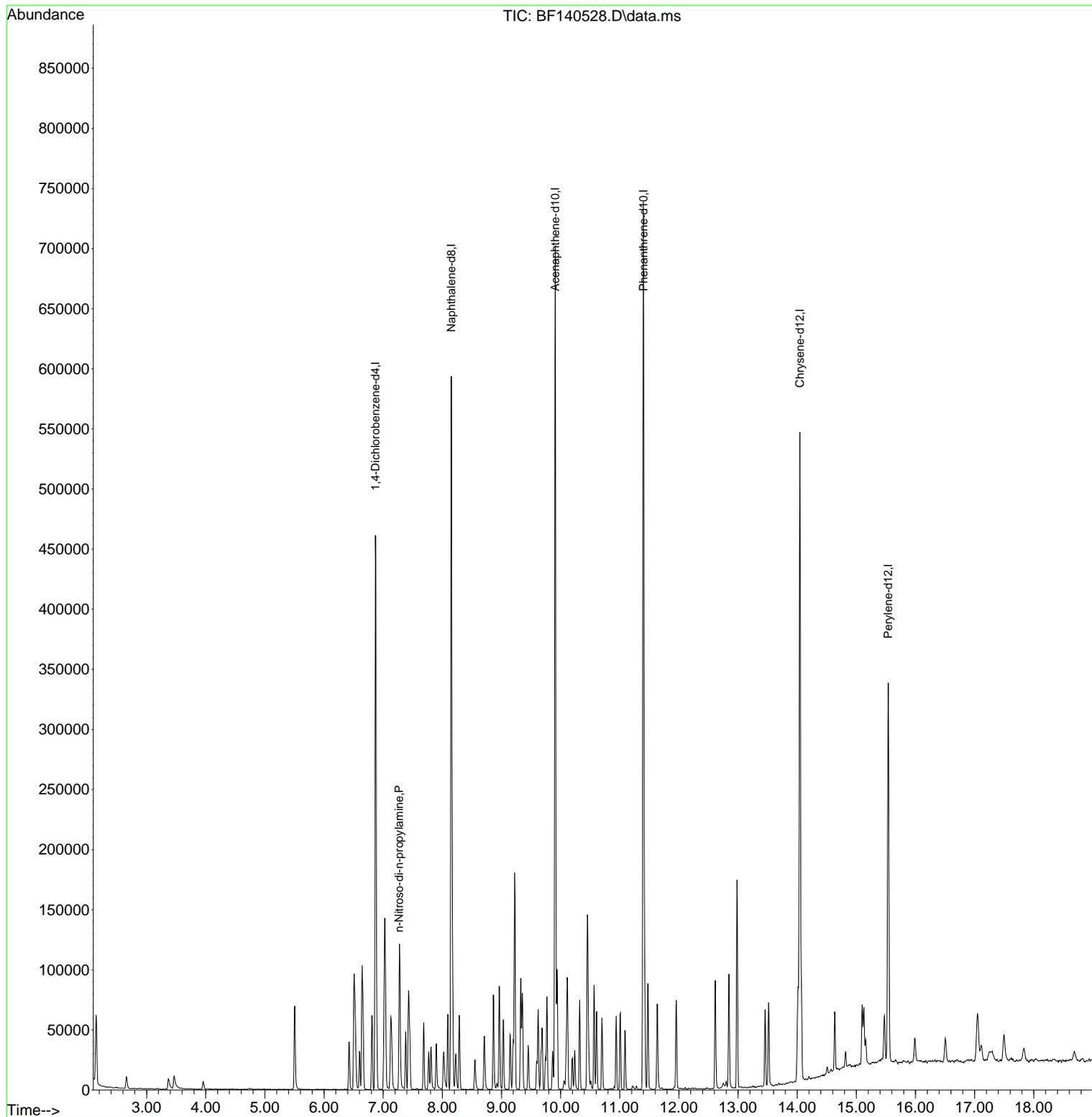
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024



Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
Data File : BF140528.D  
Acq On : 21 Nov 2024 11:13  
Operator : RC/JU  
Sample : SSTDICC2.5  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SSTDICC2.5

Quant Time: Nov 21 15:08:58 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Nov 21 14:50:10 2024  
Response via : Initial Calibration



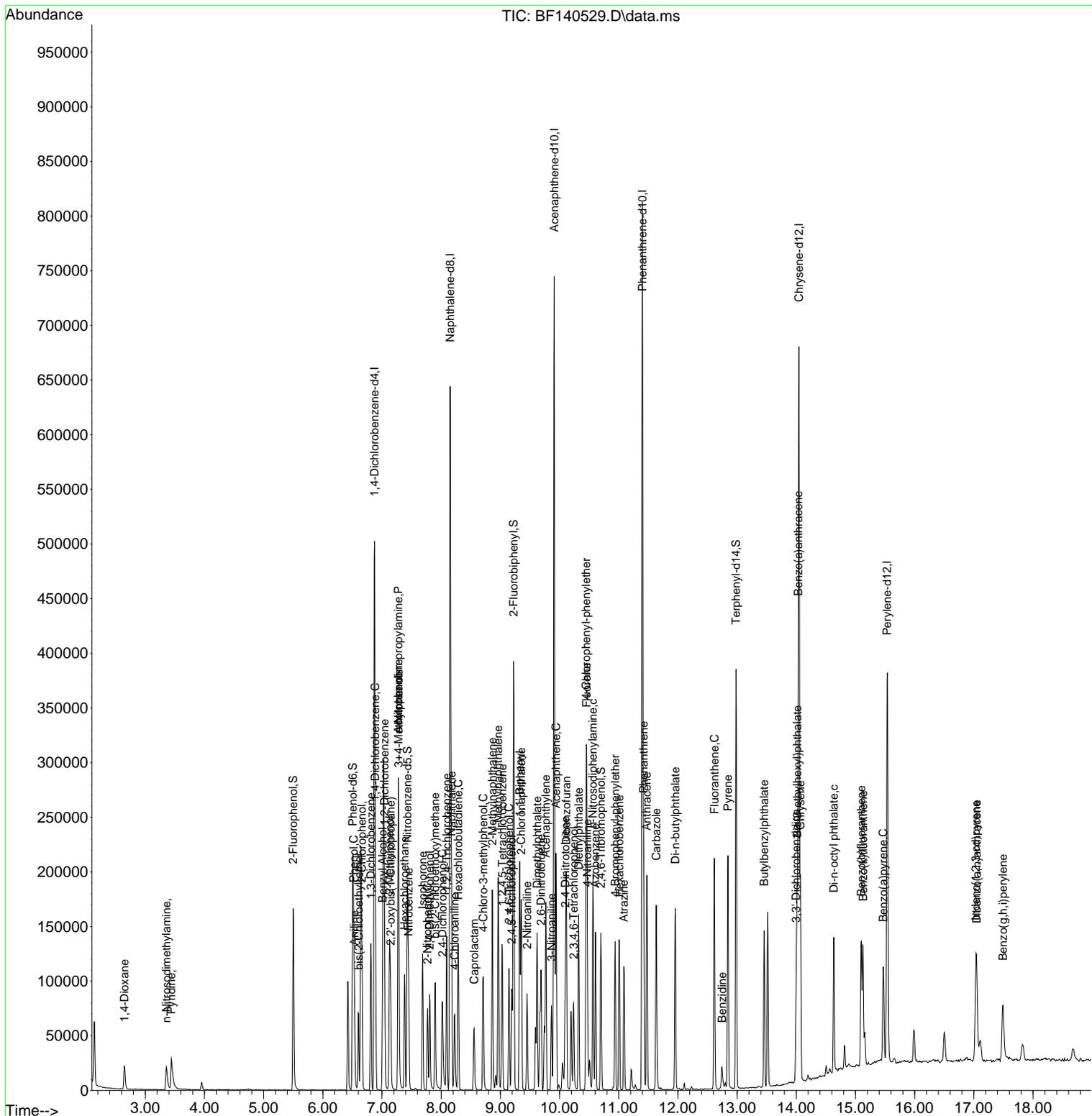




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
 Data File : BF140529.D  
 Acq On : 21 Nov 2024 11:39  
 Operator : RC/JU  
 Sample : SSTDICC005  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

**Instrument :**  
 BNA\_F  
**ClientSampleId :**  
 SSTDICC005

Quant Time: Nov 21 15:09:49 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 14:50:10 2024  
 Response via : Initial Calibration





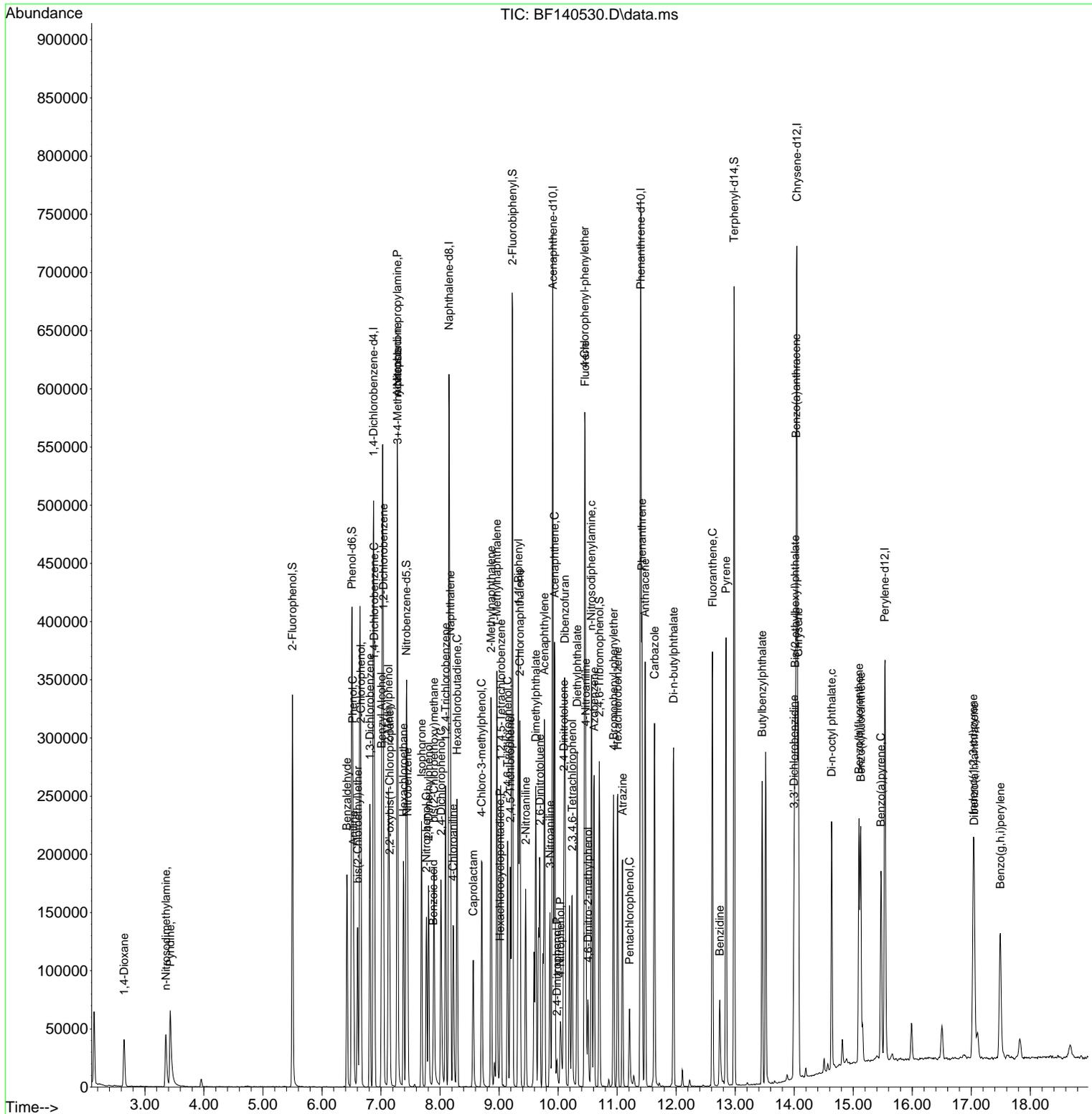


Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
 Data File : BF140530.D  
 Acq On : 21 Nov 2024 12:05  
 Operator : RC/JU  
 Sample : SSTDICC010  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 Client Sample Id :  
 SSTDICC010

Quant Time: Nov 21 15:10:46 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 14:50:10 2024  
 Response via : Initial Calibration

Manual Integrations  
**APPROVED**  
 Reviewed By :Yogesh Patel 11/22/2024  
 Supervised By :mohammad ahmed 11/22/2024





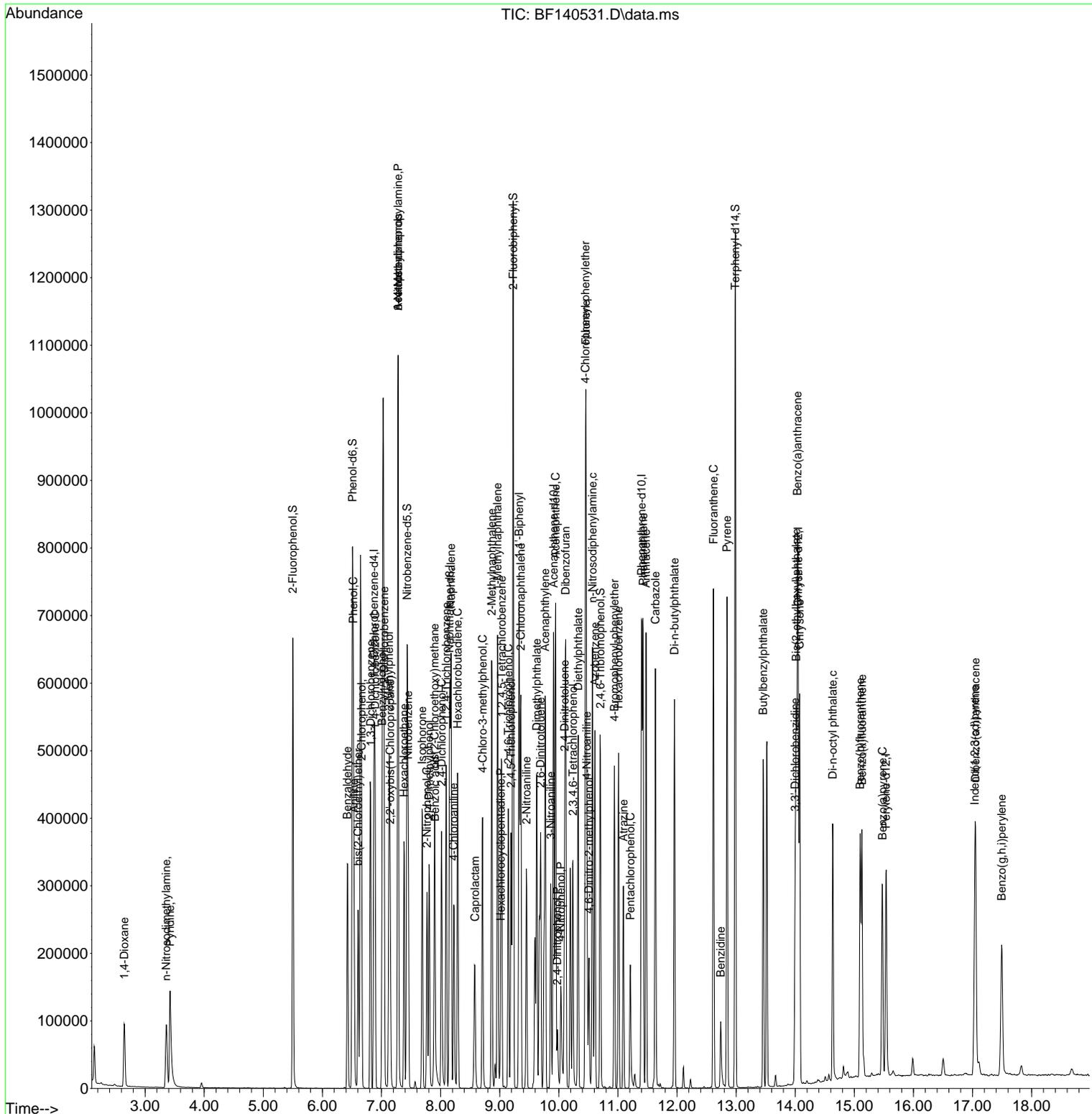


Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
Data File : BF140531.D  
Acq On : 21 Nov 2024 12:32  
Operator : RC/JU  
Sample : SSTDICC020  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SSTDICC020

Quant Time: Nov 21 15:11:39 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Nov 21 14:50:10 2024  
Response via : Initial Calibration

Manual Integrations  
APPROVED  
Reviewed By :Yogesh Patel 11/22/2024  
Supervised By :mohammad ahmed 11/22/2024





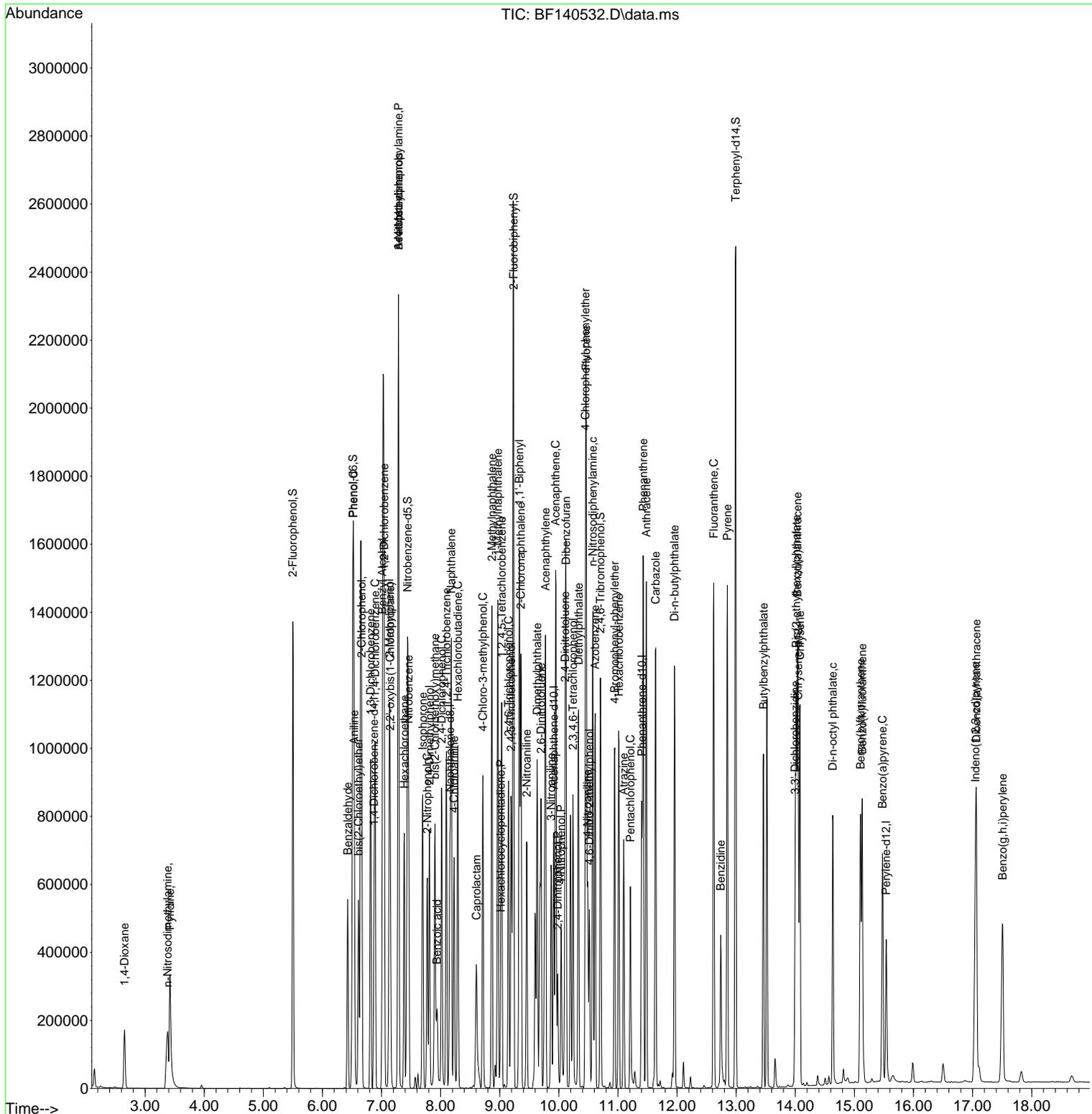


Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
 Data File : BF140532.D  
 Acq On : 21 Nov 2024 12:58  
 Operator : RC/JU  
 Sample : SSTDICCC040  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDICCC040

Manual Integrations  
**APPROVED**  
 Reviewed By :Yogesh Patel 11/22/2024  
 Supervised By :mohammad ahmed 11/22/2024

Quant Time: Nov 21 15:12:33 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 14:50:10 2024  
 Response via : Initial Calibration



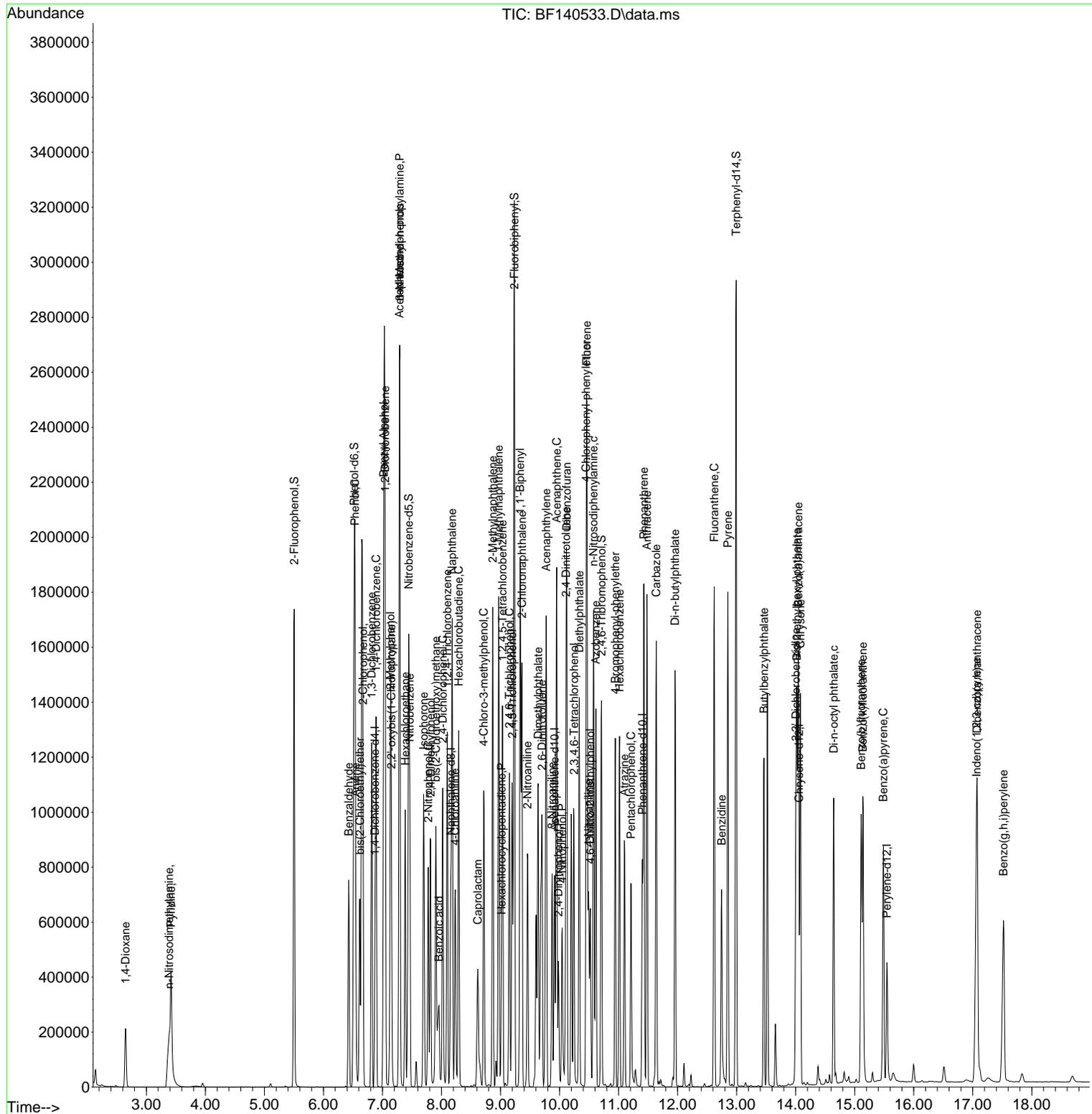




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
 Data File : BF140533.D  
 Acq On : 21 Nov 2024 13:25  
 Operator : RC/JU  
 Sample : SSTDICC050  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDICC050

Quant Time: Nov 21 15:13:26 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 14:50:10 2024  
 Response via : Initial Calibration



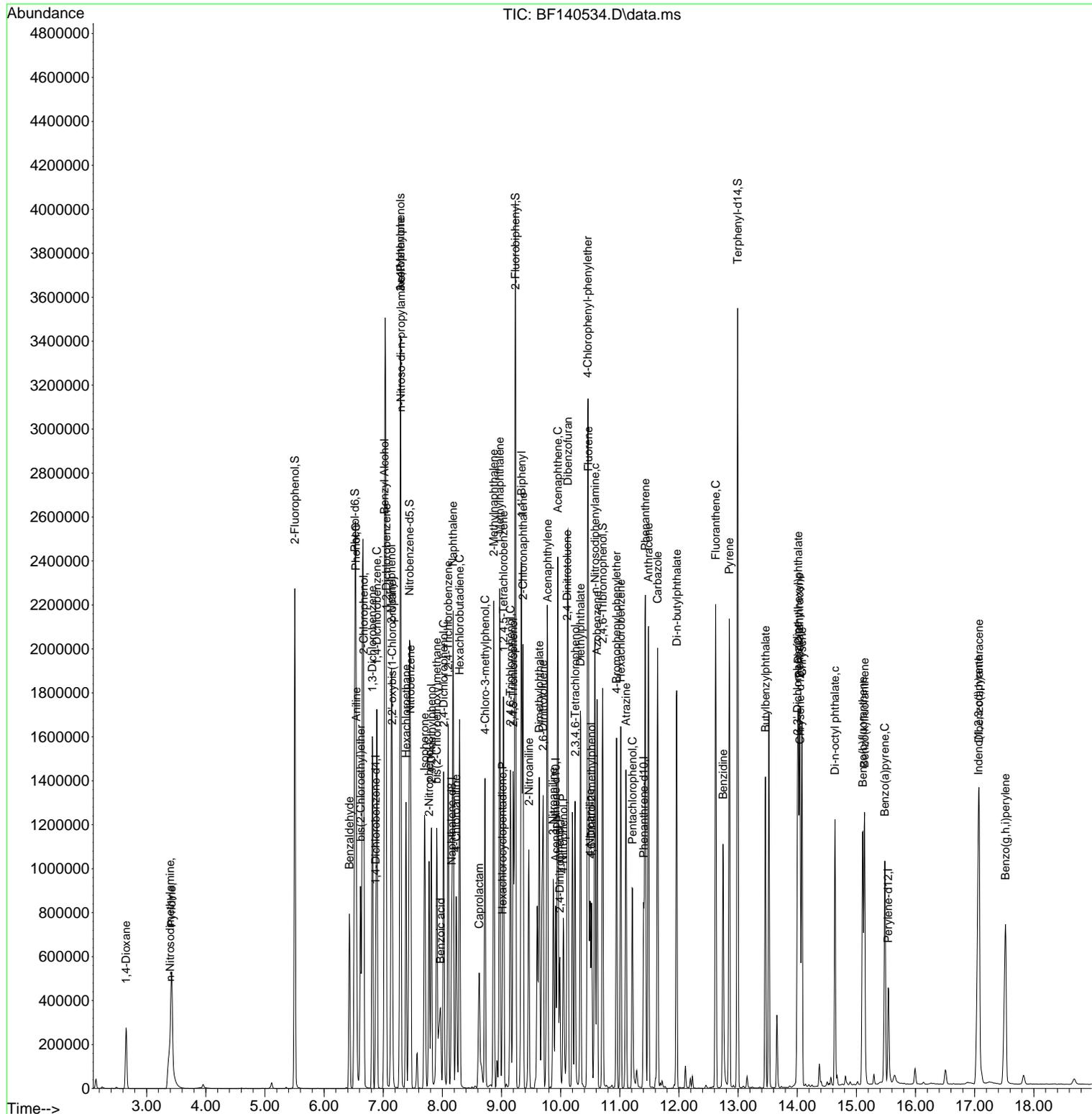




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
 Data File : BF140534.D  
 Acq On : 21 Nov 2024 13:51  
 Operator : RC/JU  
 Sample : SSTDICC060  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDICC060

Quant Time: Nov 21 15:14:21 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 14:50:10 2024  
 Response via : Initial Calibration



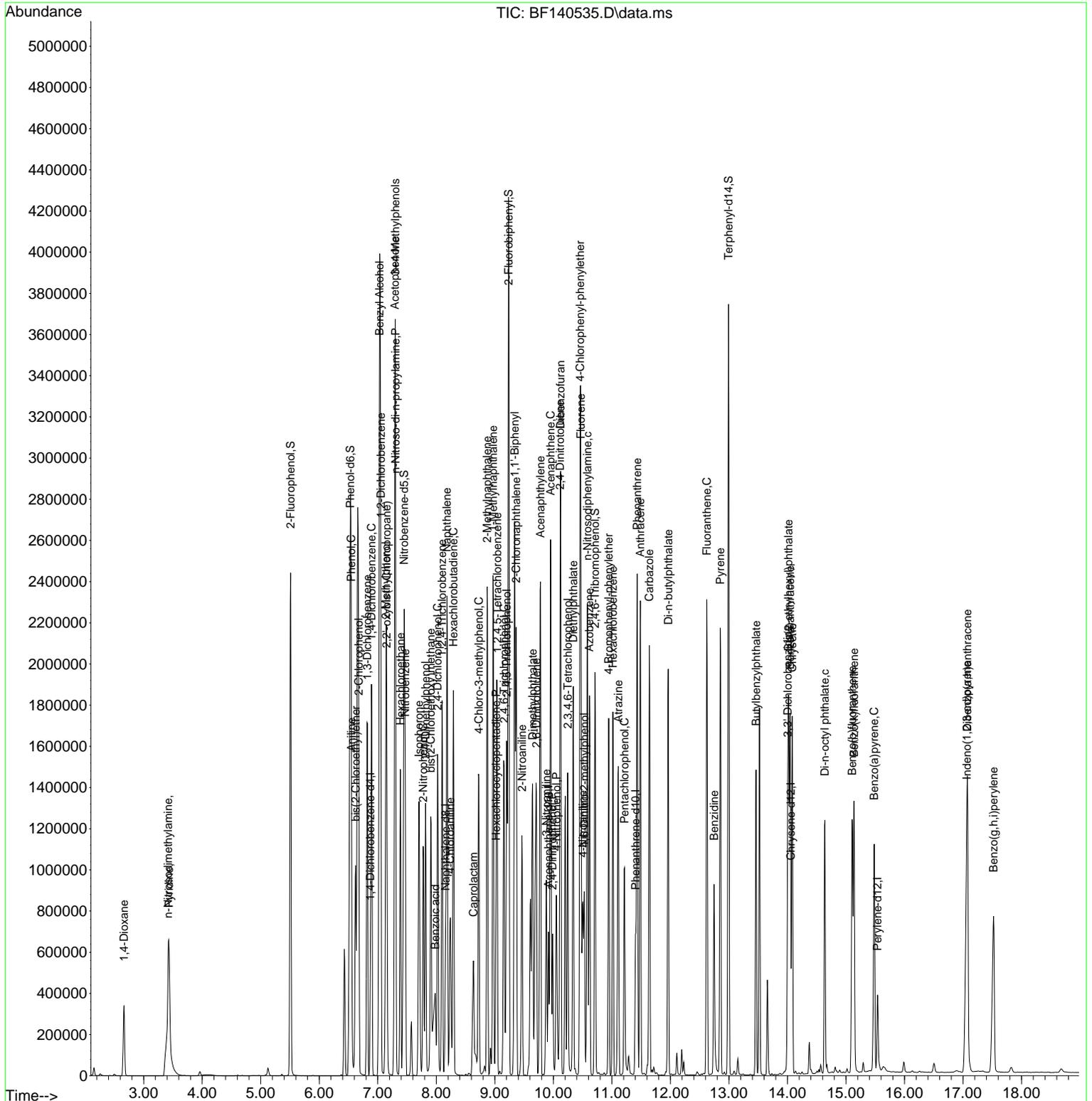




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
Data File : BF140535.D  
Acq On : 21 Nov 2024 14:18  
Operator : RC/JU  
Sample : SSTDICC080  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SSTDICC080

Quant Time: Nov 21 15:15:15 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Nov 21 14:50:10 2024  
Response via : Initial Calibration







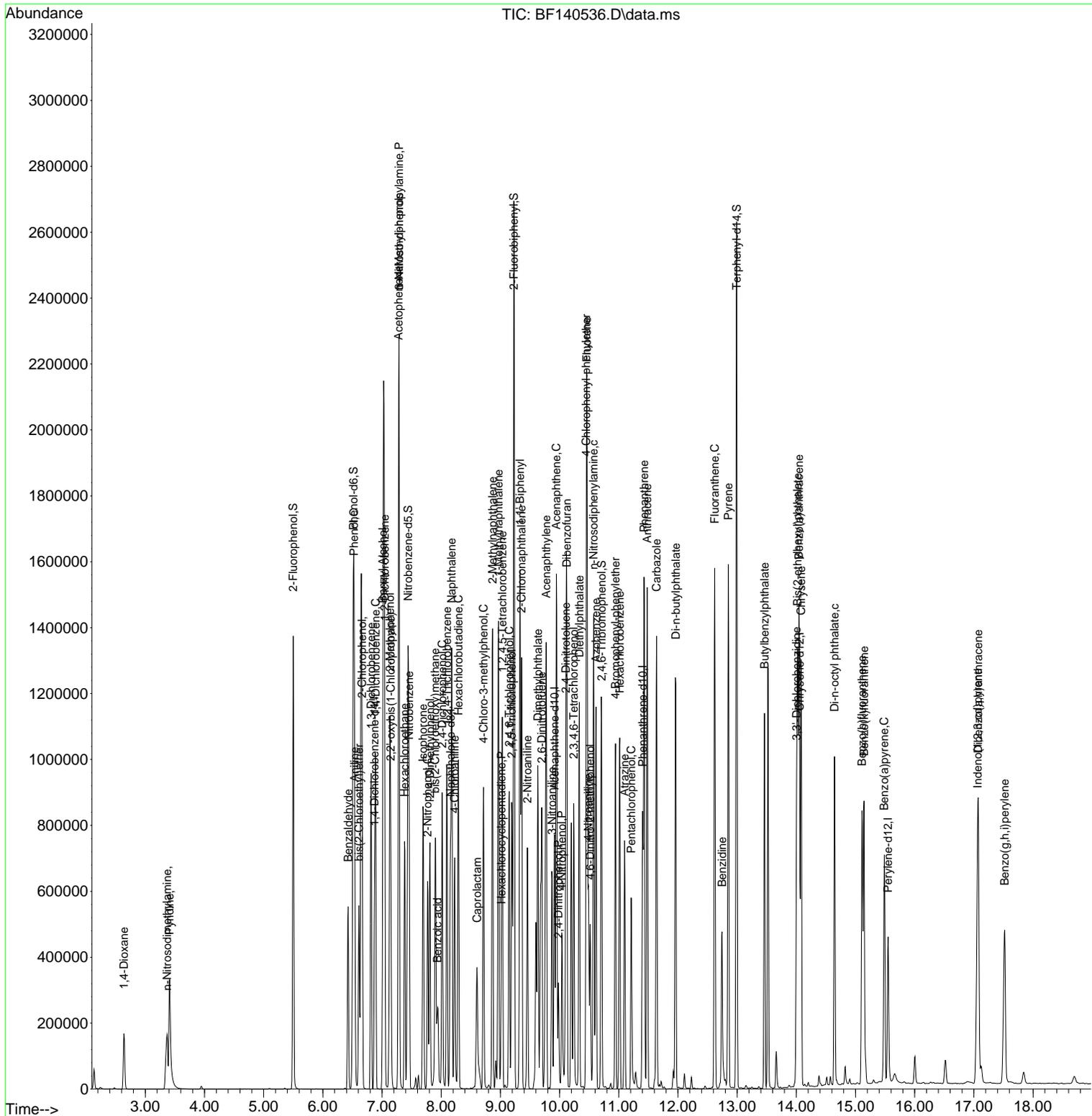
Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
 Data File : BF140536.D  
 Acq On : 21 Nov 2024 15:07  
 Operator : RC/JU  
 Sample : SSTDICV040  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 Client Sample Id :  
 ICVBF112124

Quant Time: Nov 21 16:11:44 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 15:23:48 2024  
 Response via : Initial Calibration

Manual Integrations  
 APPROVED

Reviewed By :Yogesh Patel 11/22/2024  
 Supervised By :mohammad ahmed 11/22/2024







Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112124\  
Data File : BF140536.D  
Acq On : 21 Nov 2024 15:07  
Operator : RC/JU  
Sample : SSTDICV040  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
ICVBF112124

Quant Time: Nov 21 16:11:44 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Nov 21 15:23:48 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)
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(#) = Out of Range

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





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

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## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG No.: P4861  
 Instrument ID: BNA\_F Calibration Date/Time: 11/18/2024 16:14  
 Lab File ID: BF140456.D Init. Calib. Date(s): 11/13/2024 11/13/2024  
 EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48  
 GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.283	1.283		0.0	
2-Fluorophenol	1.171	1.145		-2.2	
Phenol-d6	1.587	1.518		-4.3	
1,4-Dichlorobenzene	1.408	1.381		-1.9	20.0
2-Methylphenol	1.035	0.997		-3.7	
3+4-Methylphenols	1.295	1.232		-4.9	
Nitrobenzene-d5	0.384	0.371		-3.4	
Hexachloroethane	0.520	0.518		-0.4	
Nitrobenzene	0.400	0.389		-2.8	
Hexachlorobutadiene	0.199	0.198		-0.5	20.0
2,4,6-Trichlorophenol	0.363	0.357		-1.7	20.0
2-Fluorobiphenyl	1.244	1.247		0.2	
2,4,5-Trichlorophenol	0.397	0.402		1.3	
2,4-Dinitrotoluene	0.391	0.388		-0.8	
2,4,6-Tribromophenol	0.199	0.196		-1.5	
Hexachlorobenzene	0.225	0.232		3.1	
Pentachlorophenol	0.121	0.115		-5.0	20.0
Terphenyl-d14	1.152	1.275		10.7	

All other compounds must meet a minimum RRF of 0.010.





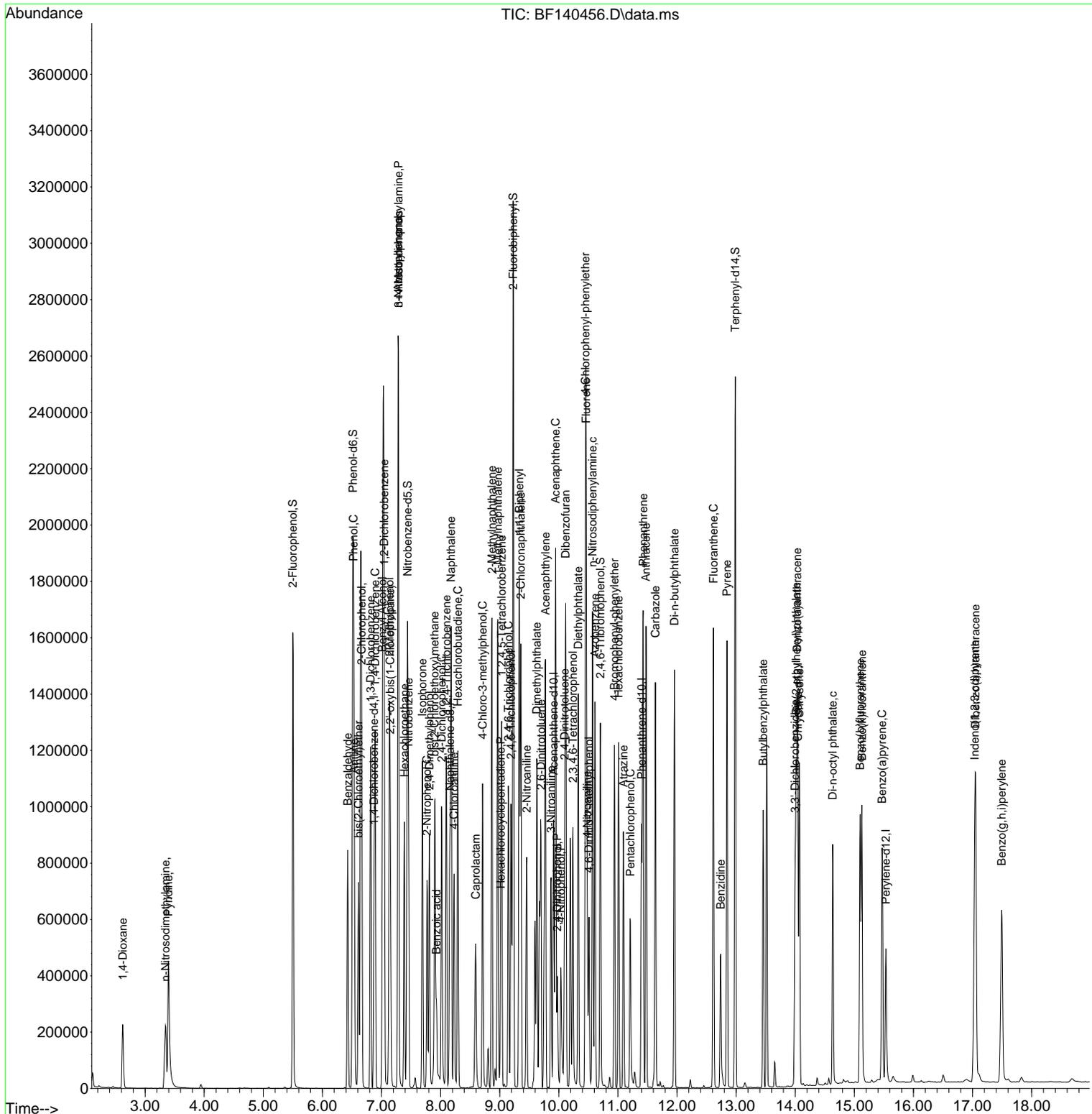
Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111824\  
 Data File : BF140456.D  
 Acq On : 18 Nov 2024 16:14  
 Operator : RC/JU  
 Sample : SSTDCCC040  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

**Instrument :**  
 BNA\_F  
**ClientSampleId :**  
 SSTDCCC040

Quant Time: Nov 18 16:54:12 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 14:40:06 2024  
 Response via : Initial Calibration

**Manual Integrations**  
**APPROVED**

Reviewed By :Yogesh Patel 11/19/2024  
 Supervised By :mohammad ahmed 11/19/2024







Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111824\  
Data File : BF140456.D  
Acq On : 18 Nov 2024 16:14  
Operator : RC/JU  
Sample : SSTDCCC040  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_F  
LabSampleId :  
SSTDCCC040

Quant Time: Nov 18 16:54:12 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Nov 13 14:40:06 2024  
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Max. RRF Dev : 25% Max. Rel. Area : 150%

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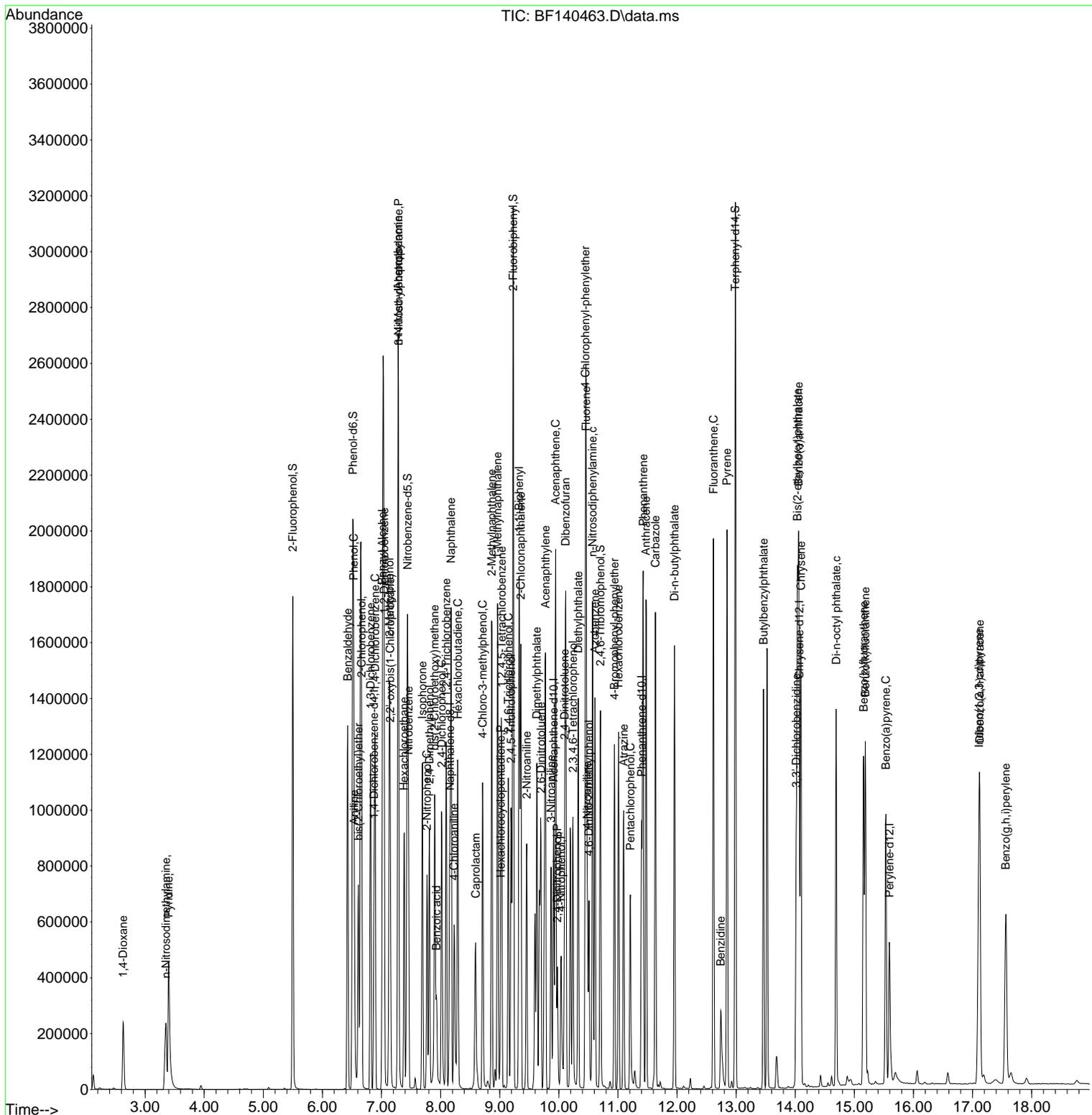




Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111924\  
 Data File : BF140463.D  
 Acq On : 19 Nov 2024 10:34  
 Operator : RC/JU  
 Sample : SSTDCCC040  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDCCC040

Quant Time: Nov 19 11:22:03 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Nov 13 14:40:06 2024  
 Response via : Initial Calibration







Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF111924\  
Data File : BF140463.D  
Acq On : 19 Nov 2024 10:34  
Operator : RC/JU  
Sample : SSTDCCC040  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_F  
LabSampleId :  
SSTDCCC040

Quant Time: Nov 19 11:22:03 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
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Operator : RC/JU  
Sample : SSTDCCC040  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_F  
LabSampleId :  
SSTDCCC040

Quant Time: Nov 19 11:22:03 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF111324.M  
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QLast Update : Wed Nov 13 14:40:06 2024  
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Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
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Lab Name: CHEMTECH Contract: AECO02  
 Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG No.: P4861  
 Instrument ID: BNA\_F Calibration Date/Time: 11/25/2024 09:33  
 Lab File ID: BF140590.D Init. Calib. Date(s): 11/21/2024 11/21/2024  
 EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18  
 GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.084	1.124		3.7	
2-Fluorophenol	1.172	1.119		-4.5	
Phenol-d6	1.550	1.507		-2.8	
1,4-Dichlorobenzene	1.435	1.399		-2.5	20.0
2-Methylphenol	1.010	0.988		-2.2	
3+4-Methylphenols	1.298	1.252		-3.5	
Nitrobenzene-d5	0.391	0.377		-3.6	
Hexachloroethane	0.536	0.520		-3.0	
Nitrobenzene	0.404	0.386		-4.5	
Hexachlorobutadiene	0.215	0.212		-1.4	20.0
2,4,6-Trichlorophenol	0.367	0.368		0.3	20.0
2-Fluorobiphenyl	1.342	1.315		-2.0	
2,4,5-Trichlorophenol	0.399	0.405		1.5	
2,4-Dinitrotoluene	0.397	0.407		2.5	
2,4,6-Tribromophenol	0.214	0.210		-1.9	
Hexachlorobenzene	0.238	0.233		-2.1	
Pentachlorophenol	0.105	0.110		4.8	20.0
Terphenyl-d14	1.284	1.204		-6.2	

All other compounds must meet a minimum RRF of 0.010.





Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF112524\  
 Data File : BF140590.D  
 Acq On : 25 Nov 2024 09:33  
 Operator : RC/JU  
 Sample : SSTDCCC040  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SSTDCCC040

Quant Time: Nov 25 18:48:05 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF112124.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Nov 21 15:23:48 2024  
 Response via : Initial Calibration

