



# AECOS, Inc.

45-939 Kamehameha Hwy, Suite 104 • Kaneohe, HI 96744

Telephone: (808) 234-7770 • Fax: (808) 234-7775 • aecos@aecos.com

**CLIENT:** Cardno-GS / Stantec  
737 Bishop Street, Suite 3050  
Honolulu HI 96813  
**ATTENTION:** Benjamin Berridge / Hannah Hubanks  
[Benjamin.Berridge@cardno-gs.com](mailto:Benjamin.Berridge@cardno-gs.com)

FILE No.: 1494  
REPORT DATE: 01/25/2024  
PAGE: 1 of 1


## AECOS REPORT OF RESULTS

**SAMPLE TYPE:** water  
**DATE SAMPLED:** 01/22/24  
**DATE/TIME RECEIVED:** 01/22/24 @1547  
**TEMP. CONTROL:** 10.5 °C  
**DATE/TIME ANALYZED:** 01/22/24 @1617

**AECOS LOG No.:** 49710

**SAMPLER:** J. Hawkins, B. Berridge  
**MATRIX:** Water  
**ANALYST:** R. Knapstein, J. Withrow

SAMPLE ID ↓	ANALYTE (UNITS)	Enterococcus (MPN/100ml)	Dilution Factor (10 ml / 100 ml)	Number of large positive wells	Number of small positive wells
	METHOD →	ASTM D650399	---	---	---
	TIME SAMPLED ↓				
U-3/WW-4	0900	930	10	40	8
D-8	0915	3900	10	49	22
D-2	0920	10,000	10	49	39
D-3	0935	1300	10	44	12
D-7	0945	3400	10	48	25
D-4	0945	320	10	20	5
WW-3	1005	320	10	24	0
WW-6	1010	12,000	10	49	41
D-6	1005	450	10	27	5
E-1	1045	480	10	27	7
E-1 / Dup	1050	440	10	26	6
U-2 / WW-5	1100	1200	10	38	22

  
for AECOS, Inc.



# AECOS, Inc.

45-939 Kamehameha Highway Suite 104  
Kaneohe, Oahu, HI 96744  
Tel: (808) 234-7770 Fax: 234-7775

## CHAIN OF CUSTODY FORM

PROJECT FILE No.	
LOG NUMBER	[ 049740 ]

CLIENT: *Cardno/Stantec GS* CONTACT: *Ben Berridge*  
 ADDRESS: *737 Bishop Street, Honolulu 96813* PHONE No.: ☎ *808-476-0067*  
 Purchase Order No.: \_\_\_\_\_

RUSH  
 SEE REVERSE  
 SPECIAL INSTRUCTIONS

SAMPLED									
	<input checked="" type="checkbox"/>	SAMPLE ID	DATE	TIME	SAMPLE TYPE	CONTAINER(S)		REQUESTED ANALYSES	PRESERVATION
1		<i>U-3/ww-4</i>	<i>1/22/2024</i>	<i>0900</i>	<i>W</i>	<i>1</i>	<i>idexx</i>	<i>enterococci</i>	
2		<i>D-8</i>		<i>09:15</i>					
3		<i>D-2</i>		<i>09:20</i>					
4		<i>D-3</i>		<i>09:35</i>					
5		<i>D-7</i>		<i>09:45</i>					
6		<i>D-4</i>		<i>09:45</i>					
7		<i>WW-3</i>		<i>10:05</i>					
8		<i>WW-6</i>		<i>10:10</i>					
9		<i>D-6</i>		<i>10:05</i>					
10		<i>E-1</i>		<i>10:45</i>					

CLIENTS PROVIDING SAMPLES TO THE LABORATORY SHOULD COMPLETE AS MUCH OF THE ABOVE FORM AS POSSIBLE, NOTE: NAME AND DATED SIGNATURE OF PERSON COLLECTING THE SAMPLE MUST BE ENTERED BELOW ↓. INFORMATION REQUESTED IN SHADED BOXES ABOVE TO BE FILLED IN BY THE LABORATORY.

SAMPLED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
 PRINT NAME *Jess Hawkins* *1/22/2024*  
 RELINQUISHED: \_\_\_\_\_ DATE *1/22*  
 SIGNATURE *Ben Berridge* TIME *2024*  
 TIME *1545*

RECEIVED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ TIME \_\_\_\_\_  
 RELINQUISHED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE OR INITIALS \_\_\_\_\_ TIME \_\_\_\_\_

RECEIVED FOR LABORATORY: \_\_\_\_\_ DATE *1/22*  
 SIGNATURE *[Signature]* TIME *2024*  
 RELINQUISHED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE OR INITIALS \_\_\_\_\_ TIME \_\_\_\_\_

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

PRECAUTIONS: \_\_\_\_\_

DISPOSAL: \_\_\_\_\_

USE (BLACK) INK

*T=10.5°C*

RETURN SAMPLE TO CLIENT



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45-939 Kamehameha Highway Suite 104  
Kaneohe, Oahu, HI 96744  
Tel: (808) 234-7770 Fax: 234-7775

## CHAIN OF CUSTODY FORM

PROJECT	
FILE No.	
LOG NUMBER	[ 49710 ]

CLIENT: <i>Stantec/Cardno &amp; S</i>	CONTACT: <i>Ben Berridge</i>
ADDRESS: <i>737 Bishop St., Honolulu HI 96813</i>	PHONE No.: <i>808-476-0067</i>
	Purchase Order No.: <input type="text"/>

RUSH  
 SEE REVERSE

SPECIAL INSTRUCTIONS

SAMPLED								PRESERVATION
	<input checked="" type="checkbox"/>	SAMPLE ID	DATE	TIME	SAMPLE TYPE	CONTAINER(S)	REQUESTED ANALYSES	
1		<i>E-1 Dup</i>	<i>1/22/2024</i>	<i>10:50</i>	<i>W</i>	<i>1 idexx</i>	<i>enterococci</i>	
2		<i>U-2/WW-S</i>	<i>1/22/2024</i>	<i>11:00</i>	<i>W</i>	<i>1 idexx</i>	<i>ehkrococci</i>	
3								
4								
5								
6								
7								
8								
9								
10								

CLIENTS PROVIDING SAMPLES TO THE LABORATORY SHOULD COMPLETE AS MUCH OF THE ABOVE FORM AS POSSIBLE, NOTE: NAME AND DATED SIGNATURE OF PERSON COLLECTING THE SAMPLE MUST BE ENTERED BELOW. INFORMATION REQUESTED IN SHADED BOXES ABOVE TO BE FILLED IN BY THE LABORATORY.

SAMPLED BY:	DATE
<i>Jess Hankins</i>	<i>1/22/20 24</i>
PRINT NAME <i>Ben Berridge</i>	
RELINQUISHED: <i>Ben Berridge</i>	DATE <i>1/22</i>
	<i>20 24</i>
SIGNATURE <i>[Signature]</i>	TIME <i>1545</i>

RECEIVED BY:	DATE
	<i>20</i>
SIGNATURE	TIME
RELINQUISHED:	DATE
	<i>20</i>
SIGNATURE OR INITIALS	TIME

RECEIVED FOR LABORATORY:	DATE <i>1/22</i>
	<i>20 24</i>
SIGNATURE <i>[Signature]</i>	TIME <i>1547</i>
RELINQUISHED:	DATE
	<i>20</i>
SIGNATURE OR INITIALS	TIME

COMMENTS:

PRECAUTIONS:

DISPOSAL:

USE (BLACK) INK

*T=10.5°C*

RETURN SAMPLE TO CLIENT



Anatek Labs Inc  
504 E Sprague Ave, Suite D  
Spokane, WA 99202

Report Number: P240124  
Report Date: February 21, 2024  
Client Project ID: [none]

### Analytical Report

Client Sample ID: WEA0829-01  
Matrix: water

PAL Sample ID: P240124-01  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 98 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Client Sample ID: WEA0829-03  
Matrix: water

PAL Sample ID: P240124-02  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 102 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Client Sample ID: WEA0829-04  
Matrix: water

PAL Sample ID: P240124-03  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 101 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Kara Greer, Project Manager

This analytical report complies with the ISO/IEC 17025:2017  
Quality Standard.



PACAGLAB.COM

503.626.7943  
21830 S.W. Alexander Ln  
Sherwood, OR 97140

Anatek Labs Inc  
504 E Sprague Ave, Suite D  
Spokane, WA 99202

Report Number: P240124  
Report Date: February 21, 2024  
Client Project ID: [none]

## Analytical Report

Client Sample ID: WEA0829-05  
Matrix: water

PAL Sample ID: P240124-04  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 94 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Kara Greer, Project Manager

*This analytical report complies with the ISO/IEC 17025:2017  
Quality Standard.*

Anatek Labs Inc  
504 E Sprague Ave, Suite D  
Spokane, WA 99202

**Report Number:** P240124  
**Report Date:** February 21, 2024  
**Client Project ID:** [none]

## Quality Assurance

**Method Blank Data**      **Matrix:** water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
2/12/24	2/13/24	24B1208-BLK1	Paraquat	Not Detected	< 10 ug/L	

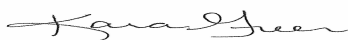
**Blank Spike Data**      **Matrix:** water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
2/12/24	2/13/24	24B1208-BS1	Paraquat	96	60-140	
2/12/24	2/13/24	24B1208-BSD1	Paraquat	99	60-140	

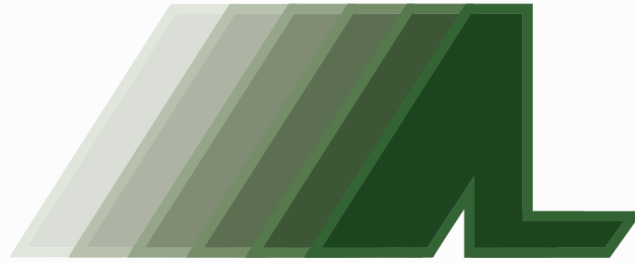
### Project Notes

Notes	Definition
H1	The sample was received and extracted outside of recommended hold time.

*This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.*



Kara Greer, Project Manager



**ANATEK LABS**

Analytical Results Report For:

**Stantec-GS**

Project Number:

**ADC Water Quality Monitoring**

Anatek Work Order:

**WEA0829**

# Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - email moscow@anateklabs.com  
 504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - email spokane@anateklabs.com

**Client:** Stantec-GS  
**Address:** 737 Bishop St., Ste. 3050  
 Honolulu, HI 96813  
**Attn:** Benjamin Berridge

**Work Order:** WEA0829  
**Project:** ADC Water Quality Monitoring  
**Reported:** 5/8/2024 21:10

## Analytical Results Report

**Sample Location:** WW-3  
**Lab/Sample Number:** WEA0829-01 **Collect Date:** 01/22/24 10:05  
**Date Received:** 01/25/24 09:50 **Collected By:**  
**Matrix:** Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	5.75	mg/L			1/27/24 0:00	ARS	EPA 160.2	C6
<b>Metals by ICP-MS</b>								
Arsenic	0.000907	mg/L	0.000140	0.00100	2/2/24 13:28	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 11:56	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Atrazine	<0.0500	ug/L	0.0500	0.100	2/9/24 21:13	MAH	EPA 625.1	
Metolachlor	<0.0500	ug/L	0.0500	0.100	2/9/24 21:13	MAH	EPA 625.1	
Permethrin	<0.250	ug/L	0.250	0.500	2/21/24 21:00	MAH	EPA 625.1	
-----								
<i>Surrogate: Terphenyl-d14</i>	<i>114%</i>		<i>25-135</i>		<i>2/9/24 21:13</i>	<i>MAH</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	1/29/24 23:28	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/29/24 23:28	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/29/24 23:28	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/29/24 23:28	EMG	NWTPH-HCID	
-----								
<i>Surrogate: n-Hexacosane</i>	<i>90.1%</i>		<i>50-150</i>		<i>1/29/24 23:28</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	



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Sample Location: WW-6  
Lab/Sample Number: WEA0829-02      Collect Date: 01/22/24 10:10  
Date Received: 01/25/24 09:50      Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	5.00	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000355	mg/L	0.000140	0.00100	2/2/24 13:35	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 11:59	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 0:23	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 0:23	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 0:23	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 0:23	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>95.0%</i>		<i>50-150</i>		<i>1/30/24 0:23</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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 504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - email spokane@anateklabs.com

Sample Location: E-1  
 Lab/Sample Number: WEA0829-03 Collect Date: 01/22/24 10:45  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	15.0	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00160	mg/L	0.000140	0.00100	2/2/24 13:38	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:06	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Atrazine	<0.0500	ug/L	0.0500	0.100	2/9/24 21:41	MAH	EPA 625.1	
Metolachlor	<0.0500	ug/L	0.0500	0.100	2/9/24 21:41	MAH	EPA 625.1	
Permethrin	<0.250	ug/L	0.250	0.500	2/21/24 21:28	MAH	EPA 625.1	
<hr/>								
<i>Surrogate: Terphenyl-d14</i>	<i>118%</i>		<i>25-135</i>		<i>2/9/24 21:41</i>	<i>MAH</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 1:18	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 1:18	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 1:18	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 1:18	EMG	NWTPH-HCID	
<hr/>								
<i>Surrogate: n-Hexacosane</i>	<i>88.4%</i>		<i>50-150</i>		<i>1/30/24 1:18</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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 504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - email spokane@anateklabs.com

Sample Location: E-1 Dup  
 Lab/Sample Number: WEA0829-04 Collect Date: 01/22/24 10:50  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	30.0	mg/L			2/5/24 17:03	ARY	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00137	mg/L	0.000140	0.00100	2/2/24 13:40	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:09	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Atrazine	<0.0500	ug/L	0.0500	0.100	2/9/24 22:08	MAH	EPA 625.1	
Metolachlor	<0.0500	ug/L	0.0500	0.100	2/9/24 22:08	MAH	EPA 625.1	
Permethrin	<0.250	ug/L	0.250	0.500	2/21/24 21:55	MAH	EPA 625.1	
<hr/>								
<i>Surrogate: Terphenyl-d14</i>	<i>104%</i>		<i>25-135</i>		<i>2/9/24 22:08</i>	<i>MAH</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 2:13	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 2:13	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 2:13	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 2:13	EMG	NWTPH-HCID	
<hr/>								
<i>Surrogate: n-Hexacosane</i>	<i>72.5%</i>		<i>50-150</i>		<i>1/30/24 2:13</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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 504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - email spokane@anateklabs.com

Sample Location: E-1 MS/MSD  
 Lab/Sample Number: WEA0829-05 Collect Date: 01/22/24 11:00  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	9.44	mg/L			2/1/24 15:32	ARY	EPA 160.2	C6
<b>Metals by ICP-MS</b>								
Arsenic	0.00125	mg/L	0.000140	0.00100	2/2/24 13:42	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:14	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Atrazine	<0.0500	ug/L	0.0500	0.100	2/9/24 22:36	MAH	EPA 625.1	
Metolachlor	<0.0500	ug/L	0.0500	0.100	2/9/24 22:36	MAH	EPA 625.1	
Permethrin	<0.250	ug/L	0.250	0.500	2/21/24 22:22	MAH	EPA 625.1	
<hr/>								
<i>Surrogate: Terphenyl-d14</i>	<i>99.4%</i>		<i>25-135</i>		<i>2/9/24 22:36</i>	<i>MAH</i>	<i>EPA 625.1</i>	
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 3:08	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 3:08	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 3:08	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 3:08	EMG	NWTPH-HCID	
<hr/>								
<i>Surrogate: n-Hexacosane</i>	<i>89.0%</i>		<i>50-150</i>		<i>1/30/24 3:08</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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 504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - email spokane@anateklabs.com

Sample Location: D-2  
 Lab/Sample Number: WEA0829-06 Collect Date: 01/22/24 09:20  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	8.00	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.0301	mg/L	0.000140	0.00100	2/2/24 13:45	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:16	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 4:03	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 4:03	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 4:03	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 4:03	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>82.0%</i>		<i>50-150</i>		<i>1/30/24 4:03</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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Sample Location: D-3  
 Lab/Sample Number: WEA0829-07 Collect Date: 01/22/24 09:35  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	7.00	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00131	mg/L	0.000140	0.00100	2/2/24 13:47	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:19	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 4:58	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 4:58	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 4:58	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 4:58	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>95.8%</i>		<i>50-150</i>		<i>1/30/24 4:58</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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Sample Location: D-4  
 Lab/Sample Number: WEA0829-08 Collect Date: 01/22/24 09:45  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	15.0	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00164	mg/L	0.000140	0.00100	2/2/24 13:49	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:42	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	2/2/24 22:02	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	2/2/24 22:02	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	2/2/24 22:02	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	2/2/24 22:02	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>96.7%</i>		<i>50-150</i>		<i>2/2/24 22:02</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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Sample Location: D-6  
 Lab/Sample Number: WEA0829-09 Collect Date: 01/22/24 10:05  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	8.00	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00152	mg/L	0.000140	0.00100	2/2/24 13:52	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:44	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 5:53	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 5:53	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 5:53	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 5:53	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>82.4%</i>		<i>50-150</i>		<i>1/30/24 5:53</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	



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Sample Location: D-7  
 Lab/Sample Number: WEA0829-10 Collect Date: 01/22/24 09:45  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	23.0	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000282	mg/L	0.000140	0.00100	2/2/24 13:54	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:47	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 6:48	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 6:48	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 6:48	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 6:48	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>96.5%</i>		<i>50-150</i>		<i>1/30/24 6:48</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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Sample Location: D-8  
Lab/Sample Number: WEA0829-11 Collect Date: 01/22/24 10:05  
Date Received: 01/25/24 09:50 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	4.00	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00484	mg/L	0.000140	0.00100	2/2/24 14:05	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:49	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 7:43	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 7:43	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 7:43	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 7:43	EMG	NWTPH-HCID	
Surrogate: n-Hexacosane	80.2%		50-150		1/30/24 7:43	EMG	NWTPH-HCID	

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Sample Location: U-2/WW-5  
 Lab/Sample Number: WEA0829-12 Collect Date: 01/22/24 11:00  
 Date Received: 01/25/24 09:50 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	4.00	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000193	mg/L	0.000140	0.00100	2/2/24 14:08	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:32	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 8:38	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 8:38	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 8:38	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 8:38	EMG	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>99.2%</i>		<i>50-150</i>		<i>1/30/24 8:38</i>	<i>EMG</i>	<i>NWTPH-HCID</i>	

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Sample Location: U-3/WW-4  
Lab/Sample Number: WEA0829-13 Collect Date: 01/22/24 09:00  
Date Received: 01/25/24 09:50 Collected By:  
Matrix: Water

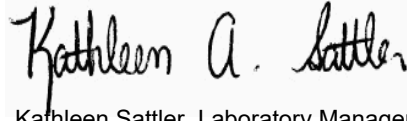
Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	16.0	mg/L			1/27/24 13:45	ARS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000275	mg/L	0.000140	0.00100	2/2/24 14:10	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0710	ug/L	0.0710	0.100	2/5/24 12:52	JLG	EPA 245.1	
<b>Semivolatiles</b>								
Diesel	<0.0520	mg/L	0.0520	0.0800	1/30/24 9:33	EMG	NWTPH-HCID	
Gasoline	<0.160	mg/L	0.160	0.400	1/30/24 9:33	EMG	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	1/30/24 9:33	EMG	NWTPH-HCID	
Mineral Oil	<0.160	mg/L	0.160	0.400	1/30/24 9:33	EMG	NWTPH-HCID	
Surrogate: n-Hexacosane	92.1%		50-150		1/30/24 9:33	EMG	NWTPH-HCID	

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Authorized Signature,



Kathleen Sattler, Laboratory Manager

C6	Initial analysis within holding time; internal QC didn't pass. Confirmatory analysis past holding time, did not confirm initial result. Result of second analysis reported.
J	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
S12	Surrogate recovery was low.
PQL	Practical Quantitation Limit
ND	Not Detected
MDL	Method Detection Limit
Dry	Sample results reported on a dry weight basis
*	Not a state-certified analyte
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was spiked or duplicated.

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The results reported related only to the samples indicated.

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## Quality Control Data

### Inorganics

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEA0840 - W Filtration</b>										
<b>Blank (BEA0840-BLK1)</b>										
TSS	<1			mg/L						
Prepared: 01/27/24 13:45- Analyzed: 02/05/24 17:03										
<b>Blank (BEA0840-BLK2)</b>										
TSS	<1			mg/L						
Prepared: 01/27/24 13:45- Analyzed: 02/05/24 17:03										
<b>Blank (BEA0840-BLK3)</b>										
TSS	<1			mg/L						
Prepared: 01/27/24 13:45- Analyzed: 02/05/24 17:03										
<b>Blank (BEA0840-BLK4)</b>										
TSS	<1			mg/L						
Prepared: 01/27/24 13:45- Analyzed: 02/05/24 17:03										
<b>LCS (BEA0840-BS1)</b>										
TSS	92.0			mg/L	100		92.0	90-110		
Prepared: 01/27/24 00:00- Analyzed: 02/05/24 17:03										
<b>Duplicate (BEA0840-DUP2)</b>										
TSS	32.0			mg/L		30.0			6.45	20
Source: WEA0829-04 Prepared: 01/27/24 00:00- Analyzed: 02/05/24 17:03										
<b>Batch: BEB0037 - W Filtration</b>										
<b>Blank (BEB0037-BLK1)</b>										
TSS	<1			mg/L						
Prepared: 02/01/24 15:32- Analyzed: 02/05/24 16:55										
<b>Blank (BEB0037-BLK2)</b>										
TSS	<1			mg/L						
Prepared: 02/01/24 15:32- Analyzed: 02/05/24 16:55										
<b>LCS (BEB0037-BS1)</b>										
TSS	92.0			mg/L	100		92.0	90-110		
Prepared: 02/01/24 15:32- Analyzed: 02/05/24 16:55										

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## Quality Control Data (Continued)

### Inorganics (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEB0037 - W Filtration (Continued)</b>										
<b>LCS (BEB0037-BS2)</b>										
TSS	94.0			mg/L	100		94.0	90-110		
Prepared: 02/01/24 15:32- Analyzed: 02/05/24 16:55										
<b>Duplicate (BEB0037-DUP1)</b>										
TSS	6.25			mg/L		5.75			8.33	20
Source: WEA0829-01 Prepared: 02/01/24 15:32- Analyzed: 02/05/24 16:55										

## Quality Control Data (Continued)

### Metals by ICP-MS

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEA0967 - W 3010 Digest</b>										
<b>Blank (BEA0967-BLK1)</b>										
Arsenic	ND		0.00100	mg/L						
Prepared: 01/31/24 10:06- Analyzed: 02/02/24 13:21										
<b>LCS (BEA0967-BS1)</b>										
Arsenic	0.0526		0.00100	mg/L	0.0500		105	85-115		
Prepared: 01/31/24 10:06- Analyzed: 02/02/24 13:26										
<b>Matrix Spike (BEA0967-MS1)</b>										
Arsenic	0.0562		0.00100	mg/L	0.0500	0.000275	112	70-130		
Source: WEA0829-13 Prepared: 01/31/24 10:06- Analyzed: 02/02/24 13:31										
<b>Matrix Spike (BEA0967-MS2)</b>										
Arsenic	0.0479		0.00100	mg/L	0.0500	0.000907	94.1	70-130		
Source: WEA0829-01 Prepared: 01/31/24 10:06- Analyzed: 02/02/24 14:12										
<b>Matrix Spike Dup (BEA0967-MSD1)</b>										
Arsenic	0.0541		0.00100	mg/L	0.0500	0.000275	108	70-130	3.73	20
Source: WEA0829-13 Prepared: 01/31/24 10:06- Analyzed: 02/02/24 13:33										
<b>Matrix Spike Dup (BEA0967-MSD2)</b>										
Arsenic	0.0510		0.00100	mg/L	0.0500	0.000907	100	70-130	6.11	20
Source: WEA0829-01 Prepared: 01/31/24 10:06- Analyzed: 02/02/24 14:15										

## Quality Control Data (Continued)

### Mercury

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEA0987 - W 245.1 Digest</b>										
<b>Blank (BEA0987-BLK1)</b>										
Mercury	ND		0.100	ug/L						
Prepared: 01/31/24 14:55- Analyzed: 02/05/24 11:51										
<b>LCS (BEA0987-BS1)</b>										
Mercury	5.37		0.100	ug/L	5.60		95.9	85-115		
Prepared: 01/31/24 14:55- Analyzed: 02/05/24 11:54										
<b>Matrix Spike (BEA0987-MS1)</b>										
Mercury	5.26		0.100	ug/L	5.60	<0.0710	93.9	70-130		
Source: WEA0829-02 Prepared: 01/31/24 14:55- Analyzed: 02/05/24 12:01										
<b>Matrix Spike (BEA0987-MS2)</b>										
Source: WEA0829-12 Prepared: 01/31/24 14:55- Analyzed: 02/05/24 12:34										

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## Quality Control Data (Continued)

### Mercury (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEA0987 - W 245.1 Digest (Continued)</b>										
<b>Matrix Spike (BEA0987-MS2)</b>			<b>Source: WEA0829-12</b>		Prepared: 01/31/24 14:55- Analyzed: 02/05/24 12:34					
Mercury	5.19		0.100	ug/L	5.60	<0.0710	92.7	70-130		
<b>Matrix Spike Dup (BEA0987-MSD1)</b>			<b>Source: WEA0829-02</b>		Prepared: 01/31/24 14:55- Analyzed: 02/05/24 12:04					
Mercury	4.92		0.100	ug/L	5.60	<0.0710	87.9	70-130	6.68	20
<b>Matrix Spike Dup (BEA0987-MSD2)</b>			<b>Source: WEA0829-12</b>		Prepared: 01/31/24 14:55- Analyzed: 02/05/24 12:37					
Mercury	4.57		0.100	ug/L	5.60	<0.0710	81.6	70-130	12.7	20

## Quality Control Data (Continued)

### Semivolatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEA0864 - W TPH-Dx</b>										
<b>Blank (BEA0864-BLK1)</b>					Prepared: 01/29/24 11:20- Analyzed: 01/29/24 20:44					
Lube Oil	ND		0.0800	mg/L						
Mineral Oil	ND		0.400	mg/L						
Gasoline	ND		0.400	mg/L						
Diesel	ND		0.0800	mg/L						
<i>Surrogate: n-Hexacosane</i>			<i>0.207</i>	<i>mg/L</i>	<i>0.200</i>		<i>103</i>	<i>50-150</i>		
<b>LCS (BEA0864-BS1)</b>					Prepared: 01/29/24 11:20- Analyzed: 01/29/24 21:38					
Diesel	0.873		0.0800	mg/L	1.04		83.9	70-130		
<i>Surrogate: n-Hexacosane</i>			<i>0.152</i>	<i>mg/L</i>	<i>0.200</i>		<i>75.8</i>	<i>50-150</i>		
<b>LCS Dup (BEA0864-BSD1)</b>					Prepared: 01/29/24 11:20- Analyzed: 01/29/24 22:33					
Diesel	0.967		0.0800	mg/L	1.04		92.9	70-130	10.2	20
<i>Surrogate: n-Hexacosane</i>			<i>0.196</i>	<i>mg/L</i>	<i>0.200</i>		<i>97.6</i>	<i>50-150</i>		
<b>Batch: BEB0058 - W TPH-Dx</b>										
<b>Blank (BEB0058-BLK1)</b>					Prepared: 02/02/24 10:22- Analyzed: 02/02/24 19:16					
Lube Oil	ND		0.0800	mg/L						
Mineral Oil	ND		0.400	mg/L						
Gasoline	ND		0.400	mg/L						
Diesel	ND		0.0800	mg/L						
<i>Surrogate: n-Hexacosane</i>			<i>S12</i>	<i>0.0978</i>	<i>mg/L</i>	<i>0.200</i>	<i>48.8</i>	<i>50-150</i>		
<b>LCS (BEB0058-BS1)</b>					Prepared: 02/02/24 10:22- Analyzed: 02/02/24 20:11					
Diesel	0.742		0.0800	mg/L	1.04		71.4	70-130		
<i>Surrogate: n-Hexacosane</i>			<i>0.184</i>	<i>mg/L</i>	<i>0.200</i>		<i>91.9</i>	<i>50-150</i>		



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## Quality Control Data (Continued)

### Semivolatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BEB0058 - W TPH-Dx (Continued)</b>										
<b>LCS Dup (BEB0058-BSD1)</b>										
					Prepared: 02/02/24 10:22- Analyzed: 02/02/24 21:06					
Diesel	0.843		0.0800	mg/L	1.04		81.1	70-130	12.7	20
<i>Surrogate: n-Hexacosane</i>			<i>0.180</i>	<i>mg/L</i>	<i>0.200</i>		<i>89.7</i>	<i>50-150</i>		
<b>Batch: BEB0358 - SVOC Water</b>										
<b>Blank (BEB0358-BLK1)</b>										
					Prepared: 01/29/24 00:29- Analyzed: 02/09/24 20:45					
Atrazine	ND		0.100	ug/L						
Metolachlor	ND		0.100	ug/L						
Permethrin	ND		0.500	ug/L						
<i>Surrogate: Terphenyl-d14</i>			<i>27.6</i>	<i>ug/L</i>	<i>25.0</i>		<i>110</i>	<i>25-135</i>		
<b>LCS (BEB0358-BS1)</b>										
					Prepared: 01/29/24 00:29- Analyzed: 02/09/24 19:50					
Atrazine	4.67		0.100	ug/L	5.00		93.4	60-125		
Metolachlor	4.48		0.100	ug/L	5.00		89.6	60-125		
<i>Surrogate: Terphenyl-d14</i>			<i>26.4</i>	<i>ug/L</i>	<i>25.0</i>		<i>105</i>	<i>25-135</i>		
<b>LCS Dup (BEB0358-BSD1)</b>										
					Prepared: 01/29/24 00:29- Analyzed: 02/09/24 20:17					
Atrazine	4.49		0.100	ug/L	5.00		89.8	60-125	3.93	25
Metolachlor	4.28		0.100	ug/L	5.00		85.6	60-125	4.57	25
<i>Surrogate: Terphenyl-d14</i>			<i>25.2</i>	<i>ug/L</i>	<i>25.0</i>		<i>101</i>	<i>25-135</i>		



## Chain of Custody Record

1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246  
 504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 838-4433

WEA0829



Due: 02/08/24

Anatek  
Log-In #

Company Name: <b>Stantec GS (form. Cardno-GS)</b>				Project Manager: <b>Benjamin Berridge</b>										
Address: <b>737 Bishop St Suite 3050</b>				Project Name & #: <b>ADC Water Quality Monitoring</b>										
City: <b>Honolulu</b>		State: <b>HI</b>		Zip: <b>96813</b>		Email Address: <b>benjamin.berridge@cardno-gs.com</b>								
Phone: <b>(808) 476-0067</b>				Purchase Order #:										
Fax:				Sampler Name & phone:										
<b>Provide Sample Description</b>				<b>List Analyses Requested</b>				<b>Note Special Instructions/Comments</b>						
Storm water samples				Preservative:				<b>**Please do not conduct TPH GRO analysis until Cardno confirms it should be run.</b>						
				# of Containers	Sample Volume	TSS EPA 160.2	TPH HClD - SW 846 MOD 8015					**TPH GRO SW846/MS015	Arsenic EPA 200.8	Mercury EPA 245.1
Lab ID	Sample Identification	Sampling Date/Time	Matrix											
3	WW-3	1-22-2024 / 10:05 HST	Water	7		X	X	X	X	X	X	X		
2	WW-6	1-22-2024 / 10:10 HST	Water	5		X	X	X	X	X	X	X		
1	E-1	1-22-2024 / 10:45 HST	Water	7		X	X	X	X	X	X	X		
2	E-1 DUP	1-22-2024 / 10:50 HST	Water	7		X	X	X	X	X	X	X		
1	E-1 MS/MSD	1-22-2024 / 11:00 HST	Water	7		X	X	X	X	X	X	X		
1	D-2	1-22-2024 / 09:20 HST	Water	5		X	X	X	X	X	X	X		
3	D-3	1-22-2024 / 09:35 HST	Water	5		X	X	X	X	X	X	X		
3	D-4	1-22-2024 / 09:45 HST	Water	5		X	X	X	X	X	X	X		
3	D-6	1-22-2024 / 10:05 HST	Water	5		X	X	X	X	X	X	X		
3	D-7	1-22-2024 / 09:45 HST	Water	5		X	X	X	X	X	X	X		
2	D-8	1-22-2024 / 09:15 HST	Water	5		X	X	X	X	X	X	X		
3	U-2/WW-5	1-22-2024 / 11:00 HST	Water	5		X	X	X	X	X	X	X		
1	U-3/WW-4	1-22-2024 / 09:00 HST	Water	5		X	X	X	X	X	X	X		
		Printed Name	Signature	Company	Date	Time								
Relinquished by		Benjamin Berridge		Stantec	1-23-24	14:00								
Received by					1/25/24	0950								
Relinquished by														
Received by														
Relinquished by														
Received by														
												<b>Inspection Checklist</b>		
												Received Intact?	Y	N
												Labels & Chains Agree?	Y	N
												Containers Sealed?	Y	N
												VOC Head Space?	Y	N
												Temperature (°C): <u>6.9/7.6 IR-6-cooler 3</u> <u>4.4/5.1 IR-6-cooler 2</u> <u>2.2/2.9 IR-6-cooler 1</u>		
												Preservative:		
												Date & Time: <u>1/25/24 1000</u>		
												Inspected By: <u>SH</u>		
												<u>Fedex</u>		

Starting sequence Fri Feb 09 16:04:58 2024

Instrument Name: MSD4

Sequence File: T:\Data1\MSD4\SEQUENCES\2024\CARDNO.s

Comment: CARDNO 625

Operator: MAH

Data Path: T:\DATA1\MSD4\2024\FEB\09CD\

Method Path: C:\MSDCHEM\1\METHODS\

Line Type	Vial	DataFile	Method	Sample Name
1) Sample	1	00101001	SVOCT1	SYS
2) Sample	2	00201002	CARDSIM	CARDNO 10 PPM
3) Sample	3	00301003	CARDSIM	CARDNO 5 PPM
4) Sample	4	00401004	CARDSIM	CARDNO 2.5 PPM
5) Sample	5	00501005	CARDSIM	CARDNO 1 PPM
6) Sample	6	00601006	CARDSIM	CARDNO 0.5 PPM
7) Sample	7	00701007	CARDSIM	CARDNO 0.1 PPM
8) Sample	8	00801008	CARDSIM	CARDNO 0.05 PPM
9) Sample	11	01101009	CARDSIM	BEB0358-BS1
10) Sample	12	01201010	CARDSIM	BEB0358-BSD1
11) Sample	13	01301011	CARDSIM	BEB0358-BLK1
12) Sample	14	01401012	CARDSIM	WEA0829-01
13) Sample	15	01501013	CARDSIM	WEA0829-02
14) Sample	16	01601014	CARDSIM	WEA0829-03
15) Sample	17	01701015	CARDSIM	WEA0829-04

Sequence completed Fri Feb 09 22:57:09 2024

T:\DATA1\MSD4\2024\FEB\09CD\2024 Feb 09 1604 Quality Log.LOG

T:\DATA1\MSD4\2024\FEB\09CD\2024 Feb 09 1604 Sequence Log .LOG



QC Checklist for EPA 8270/625.1 - SOCs

Analysis Date: 2-9-24

<input checked="" type="checkbox"/>	QC Parameter	Acceptance Criteria	Frequency	Notes
<input checked="" type="checkbox"/>	DFTPP Tune	See SOP/Method	Every 12 hours	
<input checked="" type="checkbox"/>	Sys Check	DDT breakdown <20%	Every 12 hours	
<input checked="" type="checkbox"/>	System Performance	Anthracene & phenanthrene baseline separated	Each analysis batch	
<input checked="" type="checkbox"/>	System Performance	Benzo[a]anthracene & chrysene valley >75%	Each analysis batch	
<input checked="" type="checkbox"/>	System Performance	Benzo(b/k)fluoranthenes - valley >50% of average of both peaks	Each analysis batch	
<input checked="" type="checkbox"/>	System Performance	Peak tailing factors for benzidine & PCP <2	Each analysis batch	
<input checked="" type="checkbox"/>	Initial Calibration	90% of compounds RRF RSD <20% 8270: True value within 30%		
<input checked="" type="checkbox"/>	RE	See table on back of this checklist		Include CCRF report in packet
<input checked="" type="checkbox"/>	Internal Standard	±30% of CCV and ±50% of ICAL average	All samples	
<input checked="" type="checkbox"/>	Surrogate Recovery	Per control chart	All samples	
<input checked="" type="checkbox"/>	ICV/QCS	±30%, 50% at MRL	Each ICAL	
<input checked="" type="checkbox"/>	Blanks	No interferences	Each extraction batch	
<input checked="" type="checkbox"/>	CCV - 8270	80-120% - 80% of analytes pass	Each analysis batch w/o an ICAL	ICAL /
<input checked="" type="checkbox"/>	CCV - 625	80-120% - all reported analytes must pass	Each analysis batch w/o an ICAL	
	MS/MSD of LFB/LFB Dup	Per control chart	Every 20 samples	
<input checked="" type="checkbox"/>	Bench Sheet Present	Standards/reagents noted		
<input checked="" type="checkbox"/>	Cal Prep Form Present	Standards/reagents noted		
<input checked="" type="checkbox"/>	Dilutions Noted?			

Comments:  
Analyst: [Signature]

Checklist Completed Date: 2-12-24

Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_



Guidance Response Factors – EPA Method 8270E – Table 4			
2,3,4,6-Tetrachlorophenol	0.01	bis(2-Ethylhexyl)phthalate	0.01
2,4,5-Trichlorophenol	0.2	Butyl benzyl phthalate	0.01
2,4,6-Trichlorophenol	0.2	Carbazole	0.01
2,4-Dichlorophenol	0.2	Chrysene	0.7
2,4-Dimethylphenol	0.2	Dibenz[a,h]anthracene	0.4
2,4-Dinitrophenol	0.01	Dibenzofuran	0.8
2,4-Dinitrotoluene	0.2	Diethyl phthalate	0.01
2,6-Dinitrotoluene	0.2	Dimethyl phthalate	0.01
2-Chloronaphthalene	0.8	Di-n-butyl phthalate	0.01
2-Chlorophenol	0.8	Di-n-octyl phthalate	0.01
3,3'-Dichlorobenzidine	0.01	Fluoranthene	0.6
4,6-Dinitro-2-methylphenol	0.01	Fluorene	0.9
4-Bromophenyl-phenylether	0.1	Hexachlorobenzene	0.1
4-Chloro-3-methylphenol	0.2	Hexachlorobutadiene	0.01
4-Chloroaniline	0.01	Hexachlorocyclopentadiene	0.05
4-Chlorophenyl phenyl ether	0.4	Hexachloroethane	0.3
Acenaphthene	0.9	Indeno[1,2,3-cd]pyrene	0.5
Acenaphthylene	0.9	Isophorone	0.4
Aniline	0.7	Naphthalene	0.7
Benzo[a]anthracene	0.8	Nitrobenzene	0.2
Benzo[a]pyrene	0.7	n-Nitroso-di-n-propylamine	0.5
Benzo[b]fluoranthene	0.7	n-Nitrosodiphenylamine	0.01
Benzo[ghi]perylene	0.5	Pentachlorophenol	0.05
Benzo[k]fluoranthene	0.7	Phenanthrene	0.7
bis(2-Chloroethoxy)methane	0.3	Phenol	0.8
bis(2-Chloroethyl)ether	0.7	Pyrene	0.6
bis(2-chloroisopropyl)ether	0.01		

From Method 8270E, 11.3.4.2. *Table 4 contains minimum RFs that may be used as guidance in determining if the system is behaving properly and as a check to see if calibration standards are prepared correctly. Because the minimum RFs in Table 4 were determined using specific ions and instrument conditions that may vary, it is neither expected nor required that all analytes meet these minimum RFs. The information is provided as guidance only.*



# Anatek Labs, Inc

1282 Alturas Drive  
Moscow, ID 83843

1,4-Dioxane Cal. Standard Prep. Form

Method: EPA 625.1/8270D

IS/Surrogate Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
CLP B/N Surrogate	2303399	11/24	1000
CLP Internal Standard	2302846	9/24	2000

Target Compound Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
Chlorpyrifos	2302538	5/26	1000
Metolachlor	2302539	12/27	1000
Atrazine	2302537	10/27	1000

Calibration Dilution Template

Desired Concentration (ppm)	Stock Concentration (ppm) **	uL Standard Added	Final Volume (uL)
10	100	100	1000
5	100	50	1000
2.5	100	25	1000
1.0	100	10	1000
0.5	100	5	1000
0.1	100	1	1000
0.05	100	0.5	1000

Calibration made from target compound standards in the table. 25 uL of surrogate and 10 uL of IS stock added to each standard point. Dilutions were made in MeCl<sub>2</sub> (2301678).

Response Factor Report MSD4

Method Path : T:\Data1\MSD4\METHODS\2024\  
 Method File : Cardo-0209.M  
 Title : EPA 8270D - GC MSD4  
 Last Update : Mon Feb 12 09:49:25 2024  
 Response Via : Initial Calibration

Calibration Files

0.05=00801008.D 10 =00201002.D 5 =00301003.D 2.5 =00401004.D 1 =00501005.D 0.5 =00601006.D

Compound	0.05	10	5	2.5	1	0.5	0.1	Avg	%RSD
1) I Dichlorobenzene-d5	-----ISTD-----								
2) S 2-Fluorobiphenyl	1.785	1.985	1.897	1.913	1.994	1.955	1.614	1.878	7.22
3) I Acenaphthene-d10	-----ISTD-----								
4) Atrazine	0.294	0.377	0.379	0.310	0.331	0.284	0.274	0.321	13.37
5) Metolachlor	0.810	1.133	1.077	0.867	0.906	0.782	0.759	0.905	16.21
6) Chlorpyrifos	0.181	0.226	0.224	0.180	0.197	0.162	0.157	0.190	14.55
7) I Chrysene-d12	-----ISTD-----								
8) S Terphenyl-d14	0.842	0.862	0.889	0.881	0.825	0.874	0.845	0.860	2.72

(#) = Out of Range

Cardo-0209.M Mon Feb 12 09:49:40 2024

PREPARATION BENCH SHEET

Organics

Organics

BEB0358

BEB0358

Matrix: Water

Prepared using: SVOC - SVOC Water

<b>Analyses</b> SVOC 625 MISC	<b>Spiking Solution(s)</b> 2400673 Cardho Spk 100	<b>Surrogate Solution(s)</b> 2303399 CLP B/N 1000
----------------------------------	--	--

Analysis	Lab Number	Sample and Source ID	Date Due	Extract by	Prepared - By	Initial (mL)	Final (mL)	ul Spike	ul Surrogate	Extraction Comments
QC	BEB0358-BLK1	Blank			1/29/24 0:29 MAH	1000	1			
QC	BEB0358-BS1	LCS			1/29/24 0:29 MAH	1000	1	50		
QC	BEB0358-BSD1	LCS Dup			1/29/24 0:29 MAH	1000	1	50		
SVOC 625 MISC	WEA0829-01	WW-3	02/06/2024	01/29/2024	1/29/24 0:29 MAH	1000	1			
SVOC 625 MISC	WEA0829-03	E-1	02/06/2024	01/29/2024	1/29/24 0:29 MAH	1000	1			
SVOC 625 MISC	WEA0829-04	E-1 Dup	02/06/2024	01/29/2024	1/29/24 0:29 MAH	1000	1			
SVOC 625 MISC	WEA0829-05	E-1 MS/MSD	02/06/2024	01/29/2024	1/29/24 0:29 MAH	1000	1			

Reagents

Standard	Description	LotNum
2000154	Acetone - GC grade	59074
2300314	H2SO4	62089
2301808	Diazomethane	N/A
2400200	CLP I.S. Spike 2000	061422

Batch Comments:

Acidic start/stop time: 3PM- 8AM  
 Basic start/stop tiime: 8AM-3PM  
 Instrument: 7890/5975 GCMS  
 Ext. Method: 3520C liq-liq/Waste Dilution/Microextr  
 TurboVap: 01  
 Balance: 04

Analyst:

Date

2-9-24

Run Date:

Date



<b>Internal Standard ICal Average Responses</b>	<b>CARDNO-020923</b>
	(method)

	1,4 Dichlorobenzene-d4	Naphthalene-d8	Acenaphthene-d10	Phenanthrene-d10	Chrysene-d12	Perylene-d12
0.05	15354796.81		18923558.5		17138405.09	
10	19107655.35		24647222.63		21539274.78	
5	16775866.86		22150165.94		18679150.2	
2.5	10376129.86		13782478		12228701.93	
1	18615788.34		24556032.5		23680116.91	
0.5	10944573.33		14864158.25		12949911.18	
0.1	18362166.29		20270741.83		19040623.32	
<b>Average</b>	15648140	#DIV/0!	19884908	#DIV/0!	17893740	#DIV/0!

50%	7824070	#DIV/0!	9942454	#DIV/0!	8946870	#DIV/0!
150%	23472209	#DIV/0!	29827362	#DIV/0!	26840611	#DIV/0!

Analyst: MAH

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00101001.D  
 Acq On : 9 Feb 2024 4:09 pm  
 Operator : MAH  
 Sample : SYS  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e

Method : T:\Data1\MSD4\METHODS\2024\BNA-0206.M  
 Title : EPA 8270D / EPA 625.1 - MSD4  
 Last Update : Mon Feb 05 15:14:30 2024

Spectrum Information: Scan 1833

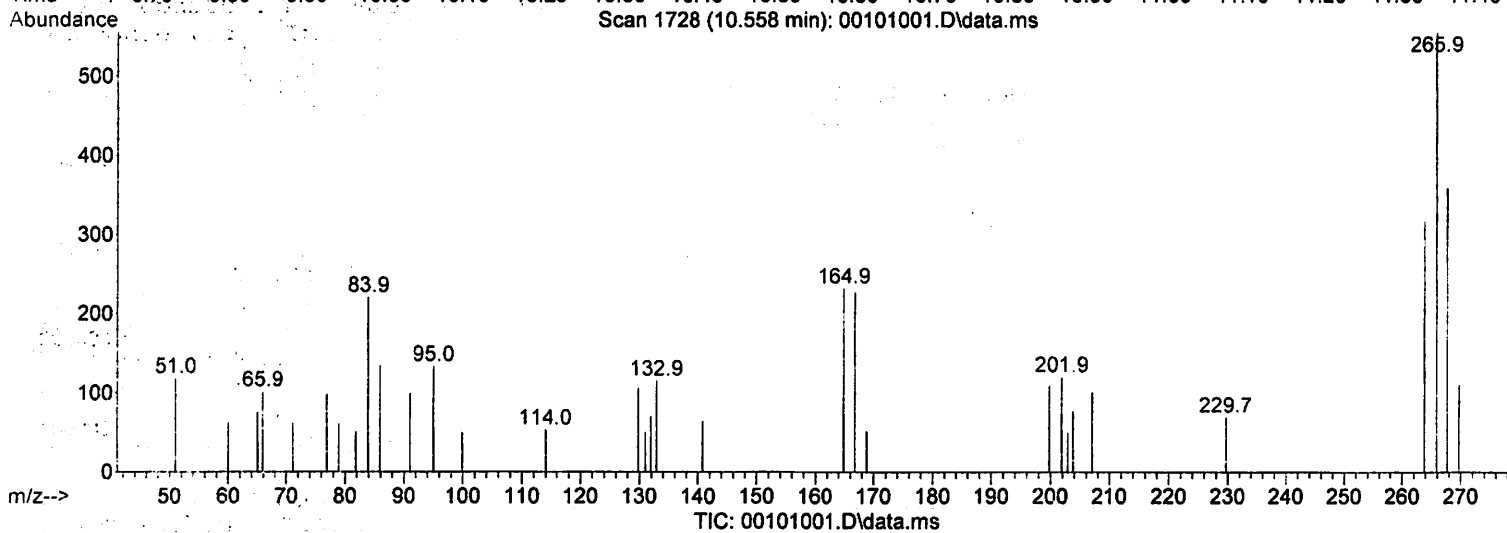
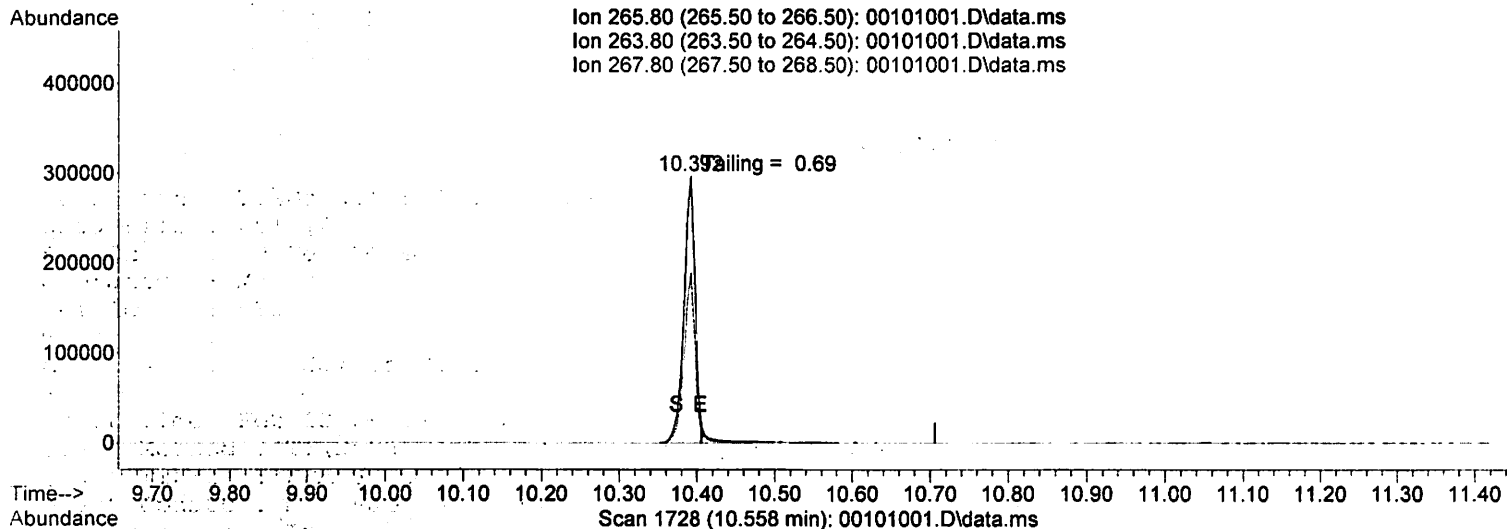
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.7	45936	PASS
68	69	0.00	2	1.4	734	PASS
70	69	0.00	2	0.6	312	PASS
127	198	10	80	53.1	74488	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	140352	PASS
199	198	5	9	7.3	10195	PASS
275	198	10	60	24.0	33640	PASS
365	198	1	100	2.3	3274	PASS
441	443	0.01	150	72.1	12998	PASS
442	198	30	200	64.8	90960	PASS
443	442	15	24	19.8	18024	PASS

BNA-0206.M Mon Feb 12 09:23:20 2024

Quantitation Report (Qedit)

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00101001.D  
 Acq On : 9 Feb 2024 4:09 pm  
 Operator : MAH  
 Sample : SYS  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 12 09:24:18 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\BNA-0206.M  
 Quant Title : EPA 8270D / EPA 625.1 - MSD4  
 QLast Update : Mon Feb 05 15:14:30 2024  
 Response via : Initial Calibration



(68) Pentachlorophenol

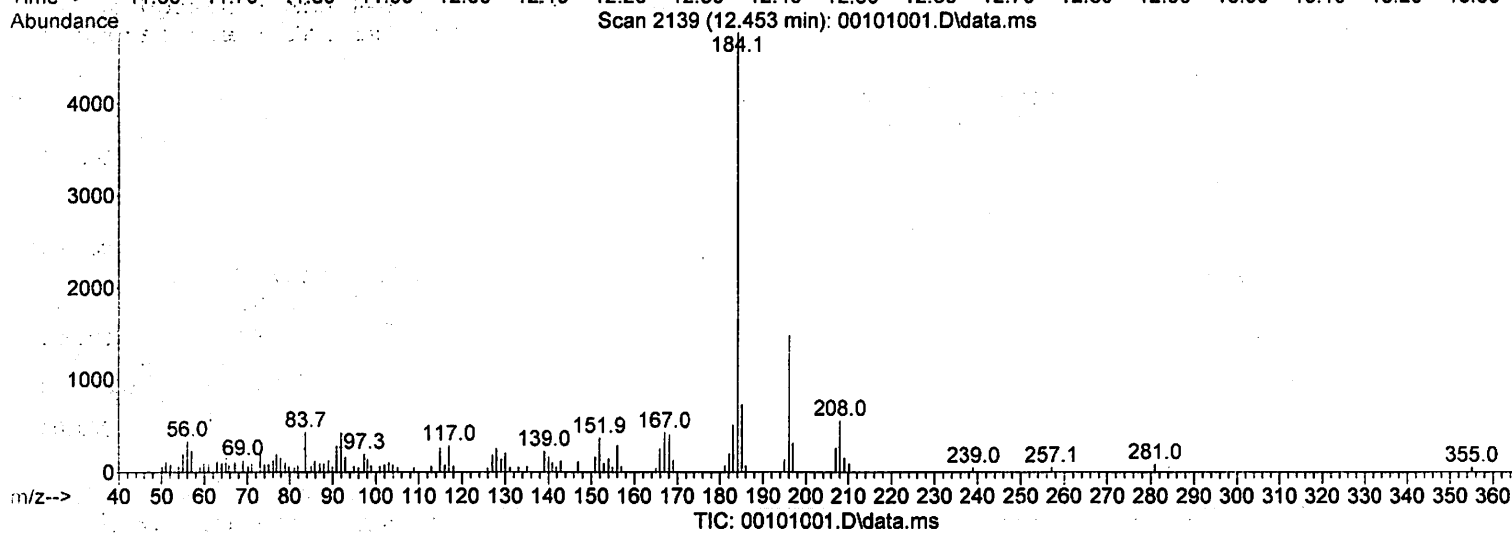
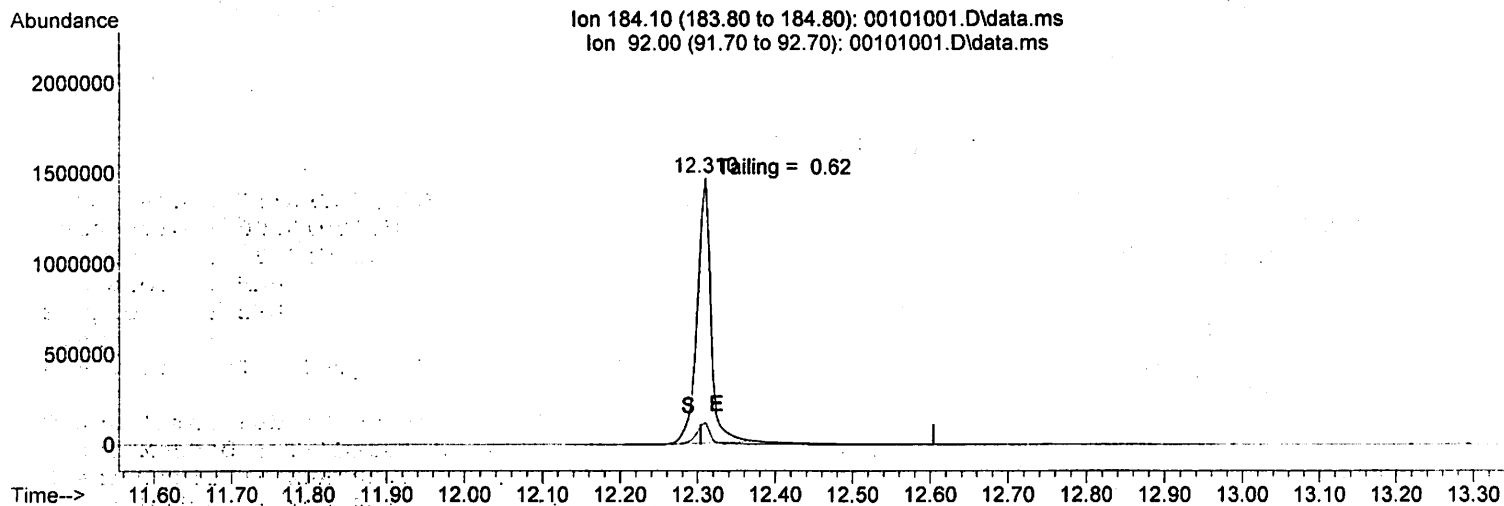
10.556min (-10.556) 0.00 ug/mL

response	0	
Ion	Exp%	Act%
265.80	100.00	0.00
263.80	63.00	0.00#
267.80	64.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00101001.D  
 Acq On : 9 Feb 2024 4:09 pm  
 Operator : MAH  
 Sample : SYS  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 12 09:24:18 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\BNA-0206.M  
 Quant Title : EPA 8270D / EPA 625.1 - MSD4  
 QLast Update : Mon Feb 05 15:14:30 2024  
 Response via : Initial Calibration



(74) Benzidine

12.454min (-12.454) 0.00 ug/mL

response 0

Ion	Exp%	Act%
184.10	100.00	0.00
92.00	9.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Area Percent Report

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
Data File : 00101001.D  
Acq On : 9 Feb 2024 4:09 pm  
Operator : MAH  
Sample : SYS  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: autoint1.e  
Integrator: ChemStation

Method : T:\Data1\MSD4\METHODS\2024\BNA-0206.M  
Title : EPA 8270D / EPA 625.1 - MSD4

Signal : TIC: 00101001.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total	
1	12.524	2151	2154	2157	M3	10362	96758	0.28%	0.267%	DDE
2	12.933	2239	2243	2246	M	197784	2091486	6.15%	5.774%	DDD
3	13.291	2310	2321	2327	M	3162324	34033091	100.00%	93.959%	%DDT Breakdown

Sum of corrected areas: 36221335

BNA-0206.M Mon Feb 12 09:27:29 2024

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00201002.D  
 Acq On : 9 Feb 2024 4:37 pm  
 Operator : MAH  
 Sample : CARDNO 10 PPM  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 10:39:16 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.235	150	19107655	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.825	164	24647223	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.813	240	21539275	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.049	172	47410635	26.43	ug/mL	0.00
8) Terphenyl-d14	12.595	244	23206771	25.07	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	100.28%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.372	200	4652064	9.88	ug/mL	96
5) Metolachlor	11.503	162	13958592	9.90	ug/mL	96
6) Chlorpyrifos	11.521	197	2789767	9.90	ug/mL	87

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00301003.D  
 Acq On : 9 Feb 2024 5:05 pm  
 Operator : MAH  
 Sample : CARDNO 5 PPM  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 10:39:55 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.234	150	16775867	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.824	164	22150166	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.811	240	18679150	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.047	172	39780894	25.26	ug/mL	0.00
8) Terphenyl-d14	12.595	244	20762854	25.86	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	103.44%	
<b>Target Compounds</b>						
						<b>Qvalue</b>
4) Atrazine	10.368	200	2098443	5.36	ug/mL	97
5) Metolachlor	11.499	162	5966166	5.31	ug/mL	93
6) Chlorpyrifos	11.520	197	1239662	5.35	ug/mL	88

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00401004.D  
 Acq On : 9 Feb 2024 5:32 pm  
 Operator : MAH  
 Sample : CARDNO 2.5 PPM  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 12 10:40:48 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.233	150	10376130	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.823	164	13782478	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.809	240	12228702	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.047	172	24809728	25.47	ug/mL	0.00
8) Terphenyl-d14	12.595	244	13460457	25.61	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	102.44%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.364	200	534642	2.32	ug/mL	96
5) Metolachlor	11.498	162	1493211	2.33	ug/mL	98
6) Chlorpyrifos	11.520	197	309819	2.30	ug/mL	89

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



Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00501005.D  
 Acq On : 9 Feb 2024 6:00 pm  
 Operator : MAH  
 Sample : CARDNO 1 PPM  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 12 10:41:20 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.235	150	18615788	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.825	164	24556033	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.814	240	23680117	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.050	172	46391096	26.55	ug/mL	0.00
8) Terphenyl-d14	12.596	244	24405393	23.98	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	95.92%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.365	200	406244	1.01	ug/mL	96
5) Metolachlor	11.499	162	1112861	1.01	ug/mL	95
6) Chlorpyrifos	11.520	197	242090	1.04	ug/mL	88

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00601006.D  
 Acq On : 9 Feb 2024 6:27 pm  
 Operator : MAH  
 Sample : CARDNO 0.5 PPM  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 12 10:41:58 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.231	150	10944573	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.823	164	14864158	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.809	240	12949911	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.046	172	26741210	26.03	ug/mL	0.00
8) Terphenyl-d14	12.595	244	14141504	25.41	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	101.64%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.364	200	105478	0.44	ug/mL	96
5) Metolachlor	11.497	162	290629	0.45	ug/mL	98
6) Chlorpyrifos	11.520	197	60276	0.43	ug/mL	91

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00701007.D  
 Acq On : 9 Feb 2024 6:54 pm  
 Operator : MAH  
 Sample : CARDNO 0.1 PPM  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 12 10:43:03 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.234	150	18362166	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.824	164	20270742	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.812	240	19040623	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.047	172	37056004	21.50	ug/mL	0.00
8) Terphenyl-d14	12.595	244	20116231	24.58	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	98.32%	
<b>Target Compounds</b>						
						<b>Qvalue</b>
4) Atrazine	10.363	200	26558	0.08	ug/mL	95
5) Metolachlor	11.497	162	76054	0.09	ug/mL	97
6) Chlorpyrifos	11.520	197	15898	0.08	ug/mL#	1

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 00801008.D  
 Acq On : 9 Feb 2024 7:22 pm  
 Operator : MAH  
 Sample : CARDNO 0.05 PPM  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 12 10:44:02 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.235	150	15354797	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.824	164	18923559	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.812	240	17138405	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.047	172	34258743	23.77	ug/mL	0.00
8) Terphenyl-d14	12.595	244	18030213	24.48	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	97.92%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.365	200	13894	0.05	ug/mL#	79
5) Metolachlor	11.499	162	38303	0.05	ug/mL	98
6) Chlorpyrifos	11.514	197	8366m	0.05	ug/mL	

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01101009.D  
 Acq On : 9 Feb 2024 7:50 pm  
 Operator : MAH  
 Sample : BEB0358-BS1  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 12 09:50:19 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.236	150	19755717	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.826	164	27447604	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.815	240	25915198	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.049	172	36861614	19.88	ug/mL	0.00
8) Terphenyl-d14	12.597	244	29341773	26.35	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	105.40%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.368	200	2239563	4.67	ug/mL	96
5) Metolachlor	11.499	162	6099448	4.48	ug/mL	95
6) Chlorpyrifos	11.520	197	1268380	4.50	ug/mL	88

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01201010.D  
 Acq On : 9 Feb 2024 8:17 pm  
 Operator : MAH  
 Sample : BEB0358-BSD1  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 12 09:51:32 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.235	150	18752964	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.825	164	26029629	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.814	240	24638480	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.046	172	27256894	15.48	ug/mL	0.00
8) Terphenyl-d14	12.596	244	26715119	25.23	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	100.92%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	10.368	200	2035676	4.49	ug/mL	97
5) Metolachlor	11.499	162	5496903	4.28	ug/mL	95
6) Chlorpyrifos	11.520	197	1098484	4.14	ug/mL	89

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01301011.D  
 Acq On : 9 Feb 2024 8:45 pm  
 Operator : MAH  
 Sample : BEB0358-BLK1  
 Misc :  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 12 09:52:30 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.236	150	16441017	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.825	164	23192786	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.813	240	19908783	20.00	ug/mL	# 0.00

<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.047	172	28056500	18.18	ug/mL	0.00
8) Terphenyl-d14	12.595	244	23607148	27.59	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	110.36%	

Target Compounds Qvalue

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01401012.D  
 Acq On : 9 Feb 2024 9:13 pm  
 Operator : MAH  
 Sample : WEA0829-01  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 12 09:53:17 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.236	150	22362900	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.826	164	30748113	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.819	240	31514822	20.00	ug/mL	# 0.00

<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.049	172	45317734	21.59	ug/mL	0.00
8) Terphenyl-d14	12.598	244	38607774	28.51	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	114.04%

Target Compounds Qvalue

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



Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01501013.D  
 Acq On : 9 Feb 2024 9:41 pm  
 Operator : MAH  
 Sample : WEA0829-03  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 12 09:57:27 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.236	150	26666591	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.826	164	37338972	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.820	240	36836942	20.00	ug/mL	# 0.00

<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.048	172	50903324	20.33	ug/mL	0.00
8) Terphenyl-d14	12.604	244	46565683m	29.41	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	117.64%	

Target Compounds Qvalue

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01601014.D  
 Acq On : 9 Feb 2024 10:08 pm  
 Operator : MAH  
 Sample : WEA0829-04  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 12 10:06:32 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.236	150	18967897	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.825	164	26695884	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.817	240	27469562	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.047	172	34845171	19.57	ug/mL	0.00
8) Terphenyl-d14	12.597	244	30634201	25.95	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	103.80%	

Target Compounds Qvalue

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

Data Path : T:\Data1\MSD4\2024\FEB\09CD\  
 Data File : 01701015.D  
 Acq On : 9 Feb 2024 10:36 pm  
 Operator : MAH  
 Sample : WEA0829-05  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 12 10:08:34 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0209.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Mon Feb 12 09:49:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	5.235	150	21248353	20.00	ug/mL	0.00
3) Acenaphthene-d10	8.825	164	29856085	20.00	ug/mL	# 0.00
7) Chrysene-d12	13.817	240	30108596	20.00	ug/mL	# 0.00

<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	8.048	172	38043872	19.07	ug/mL	0.00
8) Terphenyl-d14	12.597	244	32138745	24.84	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	99.36%	

Target Compounds Qvalue

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

Starting sequence Wed Feb 21 16:25:42 2024

Instrument Name: MSD4

Sequence File: T:\Data1\MSD4\SEQUENCES\2023\CARDNO.s

Comment: CARDNO 625

Operator: MAH

Data Path: T:\DATA1\MSD4\2024\FEB\21CD\

Method Path: C:\MSDCHEM\1\METHODS\

Line Type	Vial	DataFile	Method	Sample Name
1) Sample	1	00101001	SVOCT1	SYS
2) Sample	1	00102002	SVOCT1	SYS
3) Sample	1	00103003	SVOCT1	SYS
4) Sample	2	00201004	CARDSIM	CARDNO 10 PPM
5) Sample	3	00301005	CARDSIM	CARDNO 5 PPM
6) Sample	4	00401006	CARDSIM	CARDNO 2.5 PPM
7) Sample	5	00501007	CARDSIM	CARDNO 1 PPM
8) Sample	6	00601008	CARDSIM	CARDNO 0.5 PPM
9) Sample	7	00701009	CARDSIM	CARDNO 0.1 PPM
10) Sample	8	00801010	CARDSIM	CARDNO 0.05 PPM
11) Sample	11	01101011	CARDSIM	WEA0829-01
12) Sample	12	01201012	CARDSIM	WEA0829-03
13) Sample	13	01301013	CARDSIM	WEA0829-04
14) Sample	14	01401014	CARDSIM	WEA0829-05

Sequence completed Wed Feb 21 22:43:12 2024

T:\DATA1\MSD4\2024\FEB\21CD\2024 Feb 21 1625 Quality Log.LOG

T:\DATA1\MSD4\2024\FEB\21CD\2024 Feb 21 1625 Sequence Log .LOG

NOTE: samples never to screen for  
permethrin which was not  
done on Feb 9 analysis  
2/14/24



# Anatek Labs, Inc

1282 Alturas Drive  
Moscow, ID 83843

1,4-Dioxane Cal. Standard Prep. Form

Method: EPA 625.1/8270D

### IS/Surrogate Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
CLP B/N Surrogate	2303399	11/24	1000
CLP Internal Standard	2400200	1/25	2000

### Target Compound Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
Chlorpyrifos	2302538	5/26	1000
Metolachlor	2302539	12/27	1000
Atrazine	2302537	10/27	1000
Permethrins	2101121	7/25	1000

### Calibration Dilution Template

Desired Concentration (ppm)	Stock Concentration (ppm) **	uL Standard Added	Final Volume (uL)
10	100	100	1000
5	100	50	1000
2.5	100	25	1000
1.0	100	10	1000
0.5	100	5	1000
0.1	100	1	1000
0.05	100	0.5	1000

Calibration made from target compound standards in the table. 25 uL of surrogate and 10 uL of IS stock added to each standard point. Dilutions were made in MeCl<sub>2</sub> (2301678).

Response Factor Report MSD4

Method Path : T:\Data1\MSD4\METHODS\2024\  
 Method File : Cardo-0222.M  
 Title : EPA 8270D - GC MSD4  
 Last Update : Thu Feb 22 09:19:20 2024  
 Response Via : Initial Calibration

Calibration Files

0.05=00801010.D 10 =00201004.D 5 =00301005.D 2.5 =00401006.D 1 =00501007.D 0.5 =00

Compound	0.05	10	5	2.5	1	0.5	0.1	Avg	%RSD
1) I Acenaphthene-d10	-----ISTD-----								
2) Atrazine	0.323	0.410	0.398	0.354	0.343	0.314	0.299	0.349	12.00
3) Metolachlor	0.871	1.062	1.077	0.979	0.948	0.869	0.806	0.944	10.84
4) Chlorpyrifos	0.195	0.214	0.226	0.206	0.201	0.189	0.182	0.202	7.44
5) I Chrysene-d12	-----ISTD-----								
6) Permerthins	4.243	5.910	5.654	5.234	4.482	4.071	3.774	4.767	17.42

(#) = Out of Range

Cardo-0222.M Thu Feb 22 09:19:29 2024

Data Path : T:\Data1\MSD4\2024\FEB\21CD\  
Data File : 01101011.D  
Acq On : 21 Feb 2024 9:00 pm  
Operator : MAH  
Sample : WEA0829-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 22 09:21:28 2024  
Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0222.M  
Quant Title : EPA 8270D - GC MSD4  
QLast Update : Thu Feb 22 09:19:20 2024  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	9.761	164	27188562	20.00	ug/mL	# 0.00
5) Chrysene-d12	13.543	240	2778918	20.00	ug/mL	# 0.00

Target Compounds	Qvalue
-----	

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

Data Path : T:\Data1\MSD4\2024\FEB\21CD\  
 Data File : 01201012.D  
 Acq On : 21 Feb 2024 9:28 pm  
 Operator : MAH  
 Sample : WEA0829-03  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 22 09:22:06 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0222.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Feb 22 09:19:20 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	9.762	164	30749698	20.00	ug/mL	# 0.00
5) Chrysene-d12	13.544	240	3111720	20.00	ug/mL	# 0.00

Target Compounds Qvalue

-----

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



Data Path : T:\Data1\MSD4\2024\FEB\21CD\  
Data File : 01301013.D  
Acq On : 21 Feb 2024 9:55 pm  
Operator : MAH  
Sample : WEA0829-04  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 22 09:22:57 2024  
Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0222.M  
Quant Title : EPA 8270D - GC MSD4  
QLast Update : Thu Feb 22 09:19:20 2024  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	9.762	164	33016297	20.00	ug/mL	# 0.00
5) Chrysene-d12	13.546	240	3139739	20.00	ug/mL	# 0.00

Target Compounds	Qvalue
-----	

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

Data Path : T:\Data1\MSD4\2024\FEB\21CD\  
 Data File : 01401014.D  
 Acq On : 21 Feb 2024 10:22 pm  
 Operator : MAH  
 Sample : WEA0829-05  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 22 09:24:23 2024  
 Quant Method : T:\Data1\MSD4\METHODS\2024\Cardo-0222.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Feb 22 09:19:20 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	9.762	164	32626335	20.00	ug/mL	# 0.00
5) Chrysene-d12	13.544	240	2826878	20.00	ug/mL	# 0.00

Target Compounds Qvalue

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

# PREPARATION BENCH SHEET

## Metals

BEA0967

Prepared using: Metals - W 3010 Digest

Matrix: Water

Lab Number	Prepared - By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments
BEA0967-BLK1	01/31/24 10:06 - JLG	50	50				
BEA0967-BS1	01/31/24 10:06 - JLG	50	50	2301403		250	
BEA0967-MS1	01/31/24 10:06 - JLG	50	50	2301403	WEA0829-13	250	
BEA0967-MS2	01/31/24 10:06 - JLG	50	50	2301403	WEA0829-01	250	
BEA0967-MSD1	01/31/24 10:06 - JLG	50	50	2301403	WEA0829-13	250	
BEA0967-MSD2	01/31/24 10:06 - JLG	50	50	2301403	WEA0829-01	250	
WEA0829-01	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-02	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-03	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-04	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-05	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-06	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-07	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-08	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-09	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							
WEA0829-10	01/31/24 10:06 - JLG	50	50	Client: Stantec-GS			
Analytes: Arsenic							

Batch Prepared By \_\_\_\_\_ Date \_\_\_\_\_ Analytical Run Date \_\_\_\_\_

# PREPARATION BENCH SHEET

## Metals

BEA0967

(Continued)

Matrix: Water Prepared using: Metals - W 3010 Digest

Lab Number	Prepared - By	Initial (mL)	Final (mL)	Spike ID	Source ID	Spike	Comments
WEA0829-11	01/31/24 10:06 - JLG Analytes: Arsenic	50	50	Client: Stantec-GS		ul	
WEA0829-12	01/31/24 10:06 - JLG Analytes: Arsenic	50	50	Client: Stantec-GS			
WEA0829-13	01/31/24 10:06 - JLG Analytes: Arsenic	50	50	Client: Stantec-GS			

Support Equipment: W PT-04 W PT-33 W PT-21, W PT-27, BLK1B

Reagent ID	Description	LotNum
2003793	Metals UHP Helium	314SPO0620A
2303108	P. 1:1 HCl-metals	59072
2303320	Nitric Acid	63076
2303351	P. Metals Digestion Vials	102623
2303869	C. Internal Standard Mix	-
2400096	C. 10 ppb Tune Solution	-

# US EPA Tune Check Report

**Operator Name** Metals  
**Acq/Data Batch** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq. Date-Time** 2024-02-02 12:20:28  
**Report Comment** ---  
**Instrument Name** 7800 JP17450949

[No Gas]

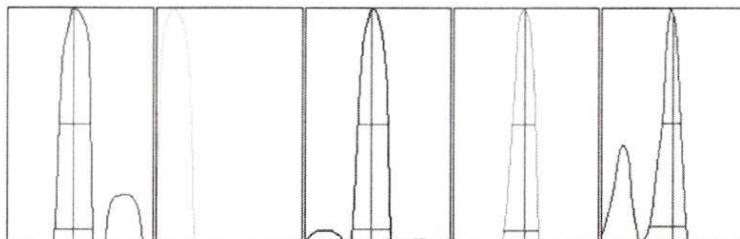
**Sensitivity**

Mass	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
9	1242	12421.48	0.615	5.000	
24	4587	45870.47	1.474	5.000	
59	4424	44239.33	1.287	5.000	
115	4001	40006.00	1.492	5.000	
208	1480	14799.85	1.518	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	1245	1252	1233	1236	1245
24	4701	4594	4550	4560	4531
59	4500	4455	4412	4348	4405
115	4105	3990	3955	3974	3979
208	1517	1474	1455	1478	1475

Integration Time [sec] 0.1

**Resolution/Axis**



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)	W-5%	W-5% (Required)	W-5% (Flag)
9	1967.32	8.90	8.90 - 9.10		0.783	0.900	
24			23.90 - 24.10			0.900	
59	7457.81	58.90	58.90 - 59.10		0.781	0.900	
115	8337.46	115.00	114.90 - 115.10		0.717	0.900	
208	3482.07	208.00	207.90 - 208.10		0.751	0.900	

Integration Time [sec] = 0.1      Acquisition Time [sec] = 168.5      Y Axis = Linear

**Tune Parameters**

**Plasma Parameters**

Plasma Mode	HMI	Nebulizer Gas	0.36 L/min	Dilution Gas	0.62 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.20 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

# US EPA Tune Check Report

## Lens Parameters

Extract 1	0.0 V	Omega Lens	8.5 V	Deflect	13.2 V
Extract 2	-165.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-80 V	Cell Exit	-50 V		

## Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

## QP Parameters

Mass Gain	168	Axis Gain	1.0042	QP Bias	-3.0 V
Mass Offset	124	Axis Offset	0.01		

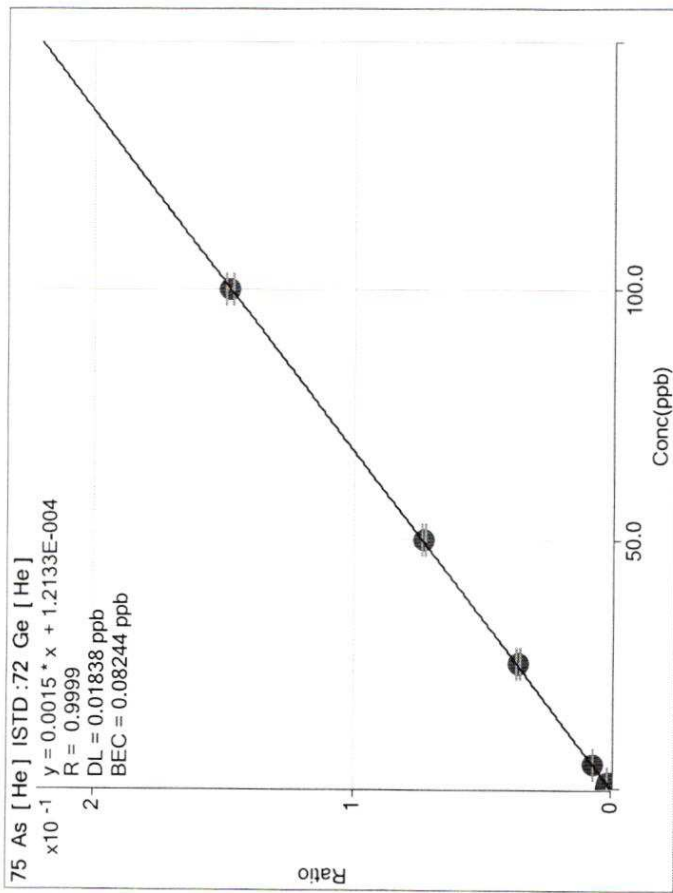
## Hardware Settings

### Torch

Torch H	0.8 mm	Torch V	-0.2 mm
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### EM

Discriminator	3.7 mV	Analog HV	2286 V	Pulse HV	1775 V
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Sample										
	Rjct	Data File	Acq. Date-Time	Type	Level	Sample Name	Comment	Total Dil.	Vial Number	
1	<input type="checkbox"/>	001CALB.	2024-02-02 12:44:52	CalBlk	1	Blank		1.0000	1101	
2	<input type="checkbox"/>	002CALB.	2024-02-02 12:47:12	CalBlk	1	Blank		1.0000	1101	
3	<input type="checkbox"/>	003CALB.	2024-02-02 12:49:30	CalBlk	1	Blank		1.0000	1101	
4	<input checked="" type="checkbox"/>	004CAL.S.	2024-02-02 12:51:48	CalStd	2	1 ppb cal	WIRED HIT FOR H	1.0000	1103	
5	<input type="checkbox"/>	005CAL.S.	2024-02-02 12:54:09	CalStd	3	5 ppb cal		1.0000	1104	
6	<input type="checkbox"/>	006CAL.S.	2024-02-02 12:56:27	CalStd	4	25 ppb cal		1.0000	1105	
7	<input type="checkbox"/>	007CAL.S.	2024-02-02 12:58:44	CalStd	5	50 ppb cal		1.0000	1106	
8	<input type="checkbox"/>	008CAL.S.	2024-02-02 13:01:05	CalStd	6	100 ppb cal		1.0000	1107	
9	<input type="checkbox"/>	009CAL.S.	2024-02-02 13:03:23	CalStd	2	1 ppb cal	RERUN	1.0000	1103	
10	<input type="checkbox"/>	010_RIN.d	2024-02-02 13:05:41	RINSE		Rinse		1.0000	4	
11	<input type="checkbox"/>	011_ICV.d	2024-02-02 13:08:01	ICV		ICV- 40ppb		1.0000	2101	
12	<input type="checkbox"/>	012_LDR.d	2024-02-02 13:10:19	LDR		Daily LDR- 500pp		1.0000	2102	
13	<input type="checkbox"/>	013_RIN.d	2024-02-02 13:12:37	RINSE		Rinse		1.0000	4	
14	<input type="checkbox"/>	014_RIN.d	2024-02-02 13:14:57	RINSE		Rinse		1.0000	4	
15	<input type="checkbox"/>	015_RIN.d	2024-02-02 13:17:14	RINSE		Rinse		1.0000	4	
16	<input type="checkbox"/>	016_RIN.d	2024-02-02 13:19:33	RINSE		Rinse		1.0000	5	
17	<input type="checkbox"/>	017_Bl.k.d	2024-02-02 13:21:53	Blank		BEA0987-BLK1		1.0000	3101	
18	<input type="checkbox"/>	018LICV.d	2024-02-02 13:24:12	LLICV		BEA0987-MRL1		1.0000	3102	
19	<input checked="" type="checkbox"/>	019_LCS.d	2024-02-02 13:26:31	LCS		BEA0987-BS1		1.0000	3103	
20	<input type="checkbox"/>	020_ARF.d	2024-02-02 13:28:51	AIRef		WEA0829-01		1.0000	3104	
21	<input type="checkbox"/>	021_LFM.d	2024-02-02 13:31:10	LFM		BEA0829-MS1		1.0000	3105	
22	<input type="checkbox"/>	022LFMD.	2024-02-02 13:33:28	LFMDup		BEA0829-MSD1		1.0000	3106	
23	<input type="checkbox"/>	023SMPL.	2024-02-02 13:35:49	Sample		WEA0829-02		1.0000	3107	
24	<input checked="" type="checkbox"/>	024SMPL.	2024-02-02 13:38:07	Sample		WEA0829-03		1.0000	3108	
25	<input checked="" type="checkbox"/>	025SMPL.	2024-02-02 13:40:26	Sample		WEA0829-04		1.0000	3109	



Sample										
	<input type="checkbox"/>	<input type="checkbox"/>	Data File	Acq. Date-Time	Type	Level	Sample Name	Comment	Total Dil.	Vial Number
26	<input checked="" type="checkbox"/>	<input type="checkbox"/>	026SMPL.	2024-02-02 13:42:46	Sample		WEA0829-05		1.0000	3110
27	<input checked="" type="checkbox"/>	<input type="checkbox"/>	027SMPL.	2024-02-02 13:45:05	Sample		WEA0829-06		1.0000	3111
28	<input checked="" type="checkbox"/>	<input type="checkbox"/>	028SMPL.	2024-02-02 13:47:23	Sample		WEA0829-07		1.0000	3112
29	<input checked="" type="checkbox"/>	<input type="checkbox"/>	029SMPL.	2024-02-02 13:49:44	Sample		WEA0829-08		1.0000	3201
30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	030SMPL.	2024-02-02 13:52:03	Sample		WEA0829-09		1.0000	3202
31	<input checked="" type="checkbox"/>	<input type="checkbox"/>	031SMPL.	2024-02-02 13:54:21	Sample		WEA0829-10		1.0000	3203
32	<input checked="" type="checkbox"/>	<input type="checkbox"/>	032_RIN.d	2024-02-02 13:56:41	RINSE		Rinse		1.0000	4
33	<input checked="" type="checkbox"/>	<input type="checkbox"/>	033_CCV.	2024-02-02 13:58:59	CCV		CCV		1.0000	1106
34	<input checked="" type="checkbox"/>	<input type="checkbox"/>	034_CCB.	2024-02-02 14:01:17	CCB		CCB		1.0000	1101
35	<input checked="" type="checkbox"/>	<input type="checkbox"/>	035_RIN.d	2024-02-02 14:03:38	RINSE		Rinse		1.0000	5
36	<input checked="" type="checkbox"/>	<input type="checkbox"/>	036SMPL.	2024-02-02 14:05:56	Sample		WEA0829-11		1.0000	3204
37	<input checked="" type="checkbox"/>	<input type="checkbox"/>	037SMPL.	2024-02-02 14:08:14	Sample		WEA0829-12		1.0000	3205
38	<input checked="" type="checkbox"/>	<input type="checkbox"/>	038_ARF.d	2024-02-02 14:10:35	AllRef		WEA0829-13		1.0000	3206
39	<input checked="" type="checkbox"/>	<input type="checkbox"/>	039_LFM.d	2024-02-02 14:12:54	LFM		BEA0829-MS2		1.0000	3207
40	<input checked="" type="checkbox"/>	<input type="checkbox"/>	040LFMD.	2024-02-02 14:15:12	LFMDup		BEA0829-MSD2		1.0000	3208
41	<input checked="" type="checkbox"/>	<input type="checkbox"/>	041_Bl.k.d	2024-02-02 14:17:33	Blank		BEA0987-BLK1		1.0000	3209
42	<input checked="" type="checkbox"/>	<input type="checkbox"/>	042_LCS.d	2024-02-02 14:19:51	LCS		BEA0987-BS1		1.0000	3210
43	<input checked="" type="checkbox"/>	<input type="checkbox"/>	043_RIN.d	2024-02-02 14:22:10	RINSE		Rinse		1.0000	4
44	<input checked="" type="checkbox"/>	<input type="checkbox"/>	044_CCV.	2024-02-02 14:24:30	CCV		CCV		1.0000	1106
45	<input checked="" type="checkbox"/>	<input type="checkbox"/>	045_CCB.	2024-02-02 14:26:48	CCB		CCB		1.0000	1101
46	<input checked="" type="checkbox"/>	<input type="checkbox"/>	046_RIN.d	2024-02-02 14:38:17	RINSE		Rinse		1.0000	5
47	<input checked="" type="checkbox"/>	<input type="checkbox"/>	047_RIN.d	2024-02-02 14:40:36	RINSE		Rinse		1.0000	4
48	<input checked="" type="checkbox"/>	<input type="checkbox"/>	048_RIN.d	2024-02-02 14:42:55	RINSE		Rinse		1.0000	5
49	<input checked="" type="checkbox"/>	<input type="checkbox"/>	049_RIN.d	2024-02-02 14:45:16	RINSE		Rinse		1.0000	5
50	<input checked="" type="checkbox"/>	<input type="checkbox"/>	050_RIN.d	2024-02-02 14:47:34	RINSE		Rinse		1.0000	5

# Sample Report

**Sample Name** ICV- 40ppb  
**File Name** 011\_ICV.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:08:01  
**Sample Type** ICV  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	36.122	No Gas	36.122	6	3.3	40	
75	As	39.755	He	39.755	72	1.6	40	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1322420.79	2.2	100.3	1318290.65
Sc	45	No Gas	2249926.50	1.0	100.3	2242215.16666667
Sc	45	He	1109358.19	6.0	97.4	1138713.6
Ge	72	No Gas	828140.10	1.2	99.1	835754.313333333
Ge	72	He	1058168.09	5.2	95.9	1103607.52666667
Ge	72	HEHe	563852.30	2.5	98.5	572704.786666667
Rh	103	No Gas	2270056.50	1.2	98.7	2298893.16666667
Rh	103	He	7734770.80	7.0	93.7	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0987-BLK1  
**File Name** 017\_Blk.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:21:53  
**Sample Type** Blank  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.361	No Gas	0.361	6	1.4	0.5	
75	As	0.062	He	0.062	72	2.3	0.06	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1241659.43	1.0	94.2	1318290.65
Sc	45	No Gas	2519416.25	4.6	112.4	2242215.16666667
Sc	45	He	1167553.53	4.2	102.5	1138713.6
Ge	72	No Gas	806008.54	1.3	96.4	835754.313333333
Ge	72	He	1067480.34	4.0	96.7	1103607.52666667
Ge	72	HEHe	564352.11	3.4	98.5	572704.786666667
Rh	103	No Gas	2108723.42	1.8	91.7	2298893.16666667
Rh	103	He	7797345.52	5.7	94.4	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0987-MRL1  
**File Name** 018LICV.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:24:12  
**Sample Type** LLICV  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.275	No Gas	1.275	6	0.7	1	
75	As	1.151	He	1.151	72	3.5	1	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1292969.32	1.8	98.1	1318290.65
Sc	45	No Gas	2210513.00	1.7	98.6	2242215.16666667
Sc	45	He	1087577.46	6.3	95.5	1138713.6
Ge	72	No Gas	825223.33	1.2	98.7	835754.313333333
Ge	72	He	1042450.66	6.9	94.5	1103607.52666667
Ge	72	HEHe	549436.00	1.1	95.9	572704.786666667
Rh	103	No Gas	2246121.33	2.2	97.7	2298893.16666667
Rh	103	He	7711014.14	6.7	93.4	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0987-BS1  
**File Name** 019\_LCS.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:26:31  
**Sample Type** LCS  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	48.620	No Gas	48.62	6	2.8	50	
75	As	52.565	He	52.565	72	0.9	50	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1228406.93	1.7	93.2	1318290.65
Sc	45	No Gas	2951867.67	7.5	131.6	2242215.16666667
Sc	45	He	1251880.02	4.4	109.9	1138713.6
Ge	72	No Gas	804631.16	0.6	96.3	835754.313333333
Ge	72	He	1033250.69	5.3	93.6	1103607.52666667
Ge	72	HEHe	555156.54	2.8	96.9	572704.786666667
Rh	103	No Gas	2111749.88	1.5	91.9	2298893.16666667
Rh	103	He	7279054.15	4.3	88.1	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-01  
**File Name** 020\_ARF.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:28:51  
**Sample Type** AllRef  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	8.003	No Gas	8.003	6	0.8	100	
75	As	0.907	He	0.907	72	4.0	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1129916.77	2.6	85.7	1318290.65
Sc	45	No Gas	2369514.92	5.9	105.7	2242215.16666667
Sc	45	He	1107577.70	6.3	97.3	1138713.6
Ge	72	No Gas	767965.42	0.7	91.9	835754.313333333
Ge	72	He	980383.22	6.4	88.8	1103607.52666667
Ge	72	HEHe	510660.81	4.2	89.2	572704.786666667
Rh	103	No Gas	1918749.96	2.3	83.5	2298893.16666667
Rh	103	He	6467942.38	6.3	78.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0829-MS1  
**File Name** 021\_LFM.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:31:10  
**Sample Type** LFM  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

**QC Analyte Table**

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	59.011	No Gas	59.011	6	2.8	100	
75	As	56.162	He	56.162	72	0.4	100	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1139545.51	1.4	86.4	1318290.65
Sc	45	No Gas	2545420.25	5.3	113.5	2242215.16666667
Sc	45	He	1156852.35	4.7	101.6	1138713.6
Ge	72	No Gas	776629.29	1.4	92.9	835754.313333333
Ge	72	He	974793.78	4.9	88.3	1103607.52666667
Ge	72	HEHe	507836.88	1.9	88.7	572704.786666667
Rh	103	No Gas	1890770.41	2.7	82.2	2298893.16666667
Rh	103	He	6482155.44	5.0	78.5	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0829-MSD1  
**File Name** 022LFMD.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:33:28  
**Sample Type** LFMDup  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	56.825	No Gas	56.825	6	1.6	20	
75	As	54.106	He	54.106	72	0.1	20	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1180915.69	2.3	89.6	1318290.65
Sc	45	No Gas	2550918.92	6.8	113.8	2242215.16666667
Sc	45	He	1153034.36	3.7	101.3	1138713.6
Ge	72	No Gas	785309.57	0.4	94.0	835754.313333333
Ge	72	He	999827.56	4.2	90.6	1103607.52666667
Ge	72	HEHe	516658.07	1.6	90.2	572704.786666667
Rh	103	No Gas	1909286.58	1.6	83.1	2298893.16666667
Rh	103	He	6509822.38	4.3	78.8	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0



# Sample Report

**Sample Name** WEA0829-02  
**File Name** 023SMPL.d  
**Data Path Name** D:\Agilent\NCPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:35:49  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.425	No Gas	0.425	6	4.0	100	
75	As	0.355	He	0.355	72	1.5	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1259773.10	5.4	95.6	1318290.65
Sc	45	No Gas	2425116.50	2.4	108.2	2242215.16666667
Sc	45	He	1237800.85	12.7	108.7	1138713.6
Ge	72	No Gas	801685.17	6.1	95.9	835754.313333333
Ge	72	He	1087593.74	10.7	98.5	1103607.52666667
Ge	72	HEHe	568237.20	4.6	99.2	572704.786666667
Rh	103	No Gas	1996385.63	6.0	86.8	2298893.16666667
Rh	103	He	7570036.09	13.7	91.7	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-03  
**File Name** 024SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:38:07  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	70.994	No Gas	70.994	6	3.6	100	
75	As	1.605	He	1.605	72	1.6	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1032082.18	2.5	78.3	1318290.65
Sc	45	No Gas	2376569.08	1.8	106.0	2242215.16666667
Sc	45	He	921069.49	5.1	80.9	1138713.6
Ge	72	No Gas	719467.67	1.4	86.1	835754.313333333
Ge	72	He	725361.13	4.2	65.7	1103607.52666667
Ge	72	HEHe	372425.23	1.7	65.0	572704.786666667
Rh	103	No Gas	1631705.29	0.8	71.0	2298893.16666667
Rh	103	He	4268888.16	3.4	51.7	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-04  
**File Name** 025SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:40:26  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	73.095	No Gas	73.095	6	1.6	100	
75	As	1.374	He	1.374	72	2.3	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1043429.70	1.8	79.2	1318290.65
Sc	45	No Gas	2548048.92	8.3	113.6	2242215.16666667
Sc	45	He	957131.32	4.8	84.1	1138713.6
Ge	72	No Gas	742514.37	1.1	88.8	835754.313333333
Ge	72	He	753942.09	3.3	68.3	1103607.52666667
Ge	72	HEHe	394662.34	2.5	68.9	572704.786666667
Rh	103	No Gas	1693485.21	2.9	73.7	2298893.16666667
Rh	103	He	4322659.97	3.5	52.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-05  
**File Name** 026SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:42:46  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	54.344	No Gas	54.344	6	2.8	100	
75	As	1.249	He	1.249	72	1.8	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1059860.03	2.7	80.4	1318290.65
Sc	45	No Gas	2686745.08	2.0	119.8	2242215.16666667
Sc	45	He	1040147.49	3.9	91.3	1138713.6
Ge	72	No Gas	781043.85	0.8	93.5	835754.313333333
Ge	72	He	814686.02	2.9	73.8	1103607.52666667
Ge	72	HEHe	481164.50	18.0	84.0	572704.786666667
Rh	103	No Gas	1790003.04	1.5	77.9	2298893.16666667
Rh	103	He	4667386.90	3.7	56.5	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-06  
**File Name** 027SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:45:05  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	29.713	No Gas	29.713	6	1.5	100	
75	As	30.127	He	30.127	72	1.2	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1111007.28	1.5	84.3	1318290.65
Sc	45	No Gas	2842244.92	6.8	126.8	2242215.16666667
Sc	45	He	1200538.36	5.1	105.4	1138713.6
Ge	72	No Gas	829546.43	0.5	99.3	835754.313333333
Ge	72	He	938045.55	4.4	85.0	1103607.52666667
Ge	72	HEHe	626799.30	9.1	109.4	572704.786666667
Rh	103	No Gas	1875236.17	0.5	81.6	2298893.16666667
Rh	103	He	5429092.70	4.5	65.7	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-07  
**File Name** 028SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:47:23  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

**QC Analyte Table**

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.553	No Gas	1.553	6	2.6	100	
75	As	1.309	He	1.309	72	1.2	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1278326.22	2.9	97.0	1318290.65
Sc	45	No Gas	3077420.42	6.3	137.2	2242215.16666667
Sc	45	He	1307100.75	6.0	114.8	1138713.6
Ge	72	No Gas	927237.71	1.6	110.9	835754.313333333
Ge	72	He	1163108.67	4.1	105.4	1103607.52666667
Ge	72	HEHe	614741.14	4.0	107.3	572704.786666667
Rh	103	No Gas	2219623.83	0.2	96.6	2298893.16666667
Rh	103	He	7256494.02	5.6	87.9	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-08  
**File Name** 029SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:49:44  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.142	No Gas	1.142	6	1.8	100	
75	As	1.644	He	1.644	72	2.3	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1290332.25	1.5	97.9	1318290.65
Sc	45	No Gas	2912154.58	4.1	129.9	2242215.16666667
Sc	45	He	1305519.36	5.5	114.6	1138713.6
Ge	72	No Gas	911648.92	0.7	109.1	835754.313333333
Ge	72	He	1150925.99	4.7	104.3	1103607.52666667
Ge	72	HEHe	603029.52	2.2	105.3	572704.786666667
Rh	103	No Gas	2226024.92	0.4	96.8	2298893.16666667
Rh	103	He	7222934.71	5.2	87.5	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-09  
**File Name** 030SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:52:03  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	5.313	No Gas	5.313	6	1.3	100	
75	As	1.522	He	1.522	72	2.1	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1208738.63	0.8	91.7	1318290.65
Sc	45	No Gas	2869779.50	7.1	128.0	2242215.16666667
Sc	45	He	1232759.54	3.6	108.3	1138713.6
Ge	72	No Gas	859598.44	1.1	102.9	835754.313333333
Ge	72	He	1060243.05	5.0	96.1	1103607.52666667
Ge	72	HEHe	555747.81	3.7	97.0	572704.786666667
Rh	103	No Gas	2070093.04	0.8	90.0	2298893.16666667
Rh	103	He	6696894.18	4.5	81.1	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0



# Sample Report

**Sample Name** WEA0829-10  
**File Name** 031SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:54:21  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.470	No Gas	0.47	6	1.9	100	
75	As	0.282	He	0.282	72	2.0	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1306231.50	0.3	99.1	1318290.65
Sc	45	No Gas	2977064.75	4.4	132.8	2242215.16666667
Sc	45	He	1269008.14	3.7	111.4	1138713.6
Ge	72	No Gas	910000.21	1.1	108.9	835754.313333333
Ge	72	He	1128761.13	6.9	102.3	1103607.52666667
Ge	72	HEHe	583958.86	3.7	102.0	572704.786666667
Rh	103	No Gas	2276297.00	1.9	99.0	2298893.16666667
Rh	103	He	7452279.29	6.0	90.2	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-11  
**File Name** 036SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:05:56  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	1.566	No Gas	1.566	6	0.7	100	
75	As	4.840	He	4.84	72	1.3	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1184273.79	0.9	89.8	1318290.65
Sc	45	No Gas	2859971.92	6.1	127.6	2242215.16666667
Sc	45	He	1201913.01	5.9	105.6	1138713.6
Ge	72	No Gas	855475.94	1.2	102.4	835754.313333333
Ge	72	He	1044340.24	4.3	94.6	1103607.52666667
Ge	72	HEHe	561788.74	1.2	98.1	572704.786666667
Rh	103	No Gas	2104455.96	2.7	91.5	2298893.16666667
Rh	103	He	6915257.92	3.5	83.7	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-12  
**File Name** 037SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:08:14  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.270	No Gas	0.27	6	1.4	100	
75	As	0.193	He	0.193	72	2.6	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1290458.11	2.3	97.9	1318290.65
Sc	45	No Gas	2899618.33	5.6	129.3	2242215.16666667
Sc	45	He	1209705.19	5.1	106.2	1138713.6
Ge	72	No Gas	904940.10	0.7	108.3	835754.313333333
Ge	72	He	1110844.57	4.4	100.7	1103607.52666667
Ge	72	HEHe	589614.77	4.4	103.0	572704.786666667
Rh	103	No Gas	2270654.75	1.6	98.8	2298893.16666667
Rh	103	He	7368385.40	6.2	89.2	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** WEA0829-13  
**File Name** 038\_ARF.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:10:35  
**Sample Type** AllRef  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

**QC Analyte Table**

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.186	No Gas	0.186	6	1.3	100	
75	As	0.275	He	0.275	72	0.9	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1314998.41	2.4	99.8	1318290.65
Sc	45	No Gas	2828444.42	4.3	126.1	2242215.16666667
Sc	45	He	1197691.30	2.7	105.2	1138713.6
Ge	72	No Gas	923218.44	0.4	110.5	835754.313333333
Ge	72	He	1113276.49	3.2	100.9	1103607.52666667
Ge	72	HEHe	588142.89	2.7	102.7	572704.786666667
Rh	103	No Gas	2357093.17	1.3	102.5	2298893.16666667
Rh	103	He	7620424.14	2.7	92.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0829-MS2  
**File Name** 039\_LFM.d  
**Data Path Name** D:\Agilent\ICPMH1\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:12:54  
**Sample Type** LFM  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	46.123	No Gas	46.123	6	2.6	100	
75	As	47.940	He	47.94	72	1.0	100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1286770.00	3.1	97.6	1318290.65
Sc	45	No Gas	2857784.08	7.2	127.5	2242215.16666667
Sc	45	He	1193057.73	4.4	104.8	1138713.6
Ge	72	No Gas	921302.25	2.9	110.2	835754.313333333
Ge	72	He	1125184.96	5.5	102.0	1103607.52666667
Ge	72	HEHe	570184.62	2.4	99.6	572704.786666667
Rh	103	No Gas	2354611.25	1.2	102.4	2298893.16666667
Rh	103	He	7766589.13	7.0	94.0	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0



# Sample Report

**Sample Name** BEA0829-MSD2  
**File Name** 040LFMD.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:15:12  
**Sample Type** LFMDDup  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	47.693	No Gas	47.693	6	2.9	20	
75	As	50.960	He	50.96	72	0.7	20	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1300594.18	1.4	98.7	1318290.65
Sc	45	No Gas	2824143.67	4.5	126.0	2242215.16666667
Sc	45	He	1223814.26	2.3	107.5	1138713.6
Ge	72	No Gas	898738.17	0.7	107.5	835754.313333333
Ge	72	He	1109181.73	4.1	100.5	1103607.52666667
Ge	72	HEHe	574830.81	6.0	100.4	572704.786666667
Rh	103	No Gas	2296197.00	0.9	99.9	2298893.16666667
Rh	103	He	7629236.09	3.7	92.4	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0987-BLK1  
**File Name** 041\_Blk.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:17:33  
**Sample Type** Blank  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Fail  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

**QC Analyte Table**

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.001	No Gas	0.001	6	1.8	0.5	
75	As	0.134	He	0.134	72	1.7	0.06	>DL*2.2

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1351176.04	2.2	102.5	1318290.65
Sc	45	No Gas	2669592.25	0.9	119.1	2242215.16666667
Sc	45	He	1219014.67	5.9	107.1	1138713.6
Ge	72	No Gas	910384.56	0.4	108.9	835754.313333333
Ge	72	He	1144435.86	7.3	103.7	1103607.52666667
Ge	72	HEHe	586866.10	2.7	102.5	572704.786666667
Rh	103	No Gas	2385751.17	1.7	103.8	2298893.16666667
Rh	103	He	7867794.13	5.5	95.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** BEA0987-BS1  
**File Name** 042\_LCS.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:19:51  
**Sample Type** LCS  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	48.479	No Gas	48.479	6	2.4	50	
75	As	51.010	He	51.01	72	1.3	50	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1295681.10	0.9	98.3	1318290.65
Sc	45	No Gas	3225167.17	9.3	143.8	2242215.16666667
Sc	45	He	1221595.40	3.7	107.3	1138713.6
Ge	72	No Gas	901721.31	0.4	107.9	835754.313333333
Ge	72	He	1091714.75	7.1	98.9	1103607.52666667
Ge	72	HEHe	567924.18	3.7	99.2	572704.786666667
Rh	103	No Gas	2294536.50	0.8	99.8	2298893.16666667
Rh	103	He	7459332.20	6.3	90.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0



# Sample Report

**Sample Name** CCV  
**File Name** 044\_CCV.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:24:30  
**Sample Type** CCV  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	47.241	No Gas	47.241	6	3.1	50	
75	As	49.457	He	49.457	72	0.3	50	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1332575.90	2.5	101.1	1318290.65
Sc	45	No Gas	2433917.58	3.7	108.5	2242215.16666667
Sc	45	He	1100058.12	6.1	96.6	1138713.6
Ge	72	No Gas	929546.52	3.2	111.2	835754.313333333
Ge	72	He	1107172.67	5.9	100.3	1103607.52666667
Ge	72	HEHe	559198.55	3.0	97.6	572704.786666667
Rh	103	No Gas	2463288.58	2.8	107.2	2298893.16666667
Rh	103	He	7705987.75	6.9	93.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** CCB  
**File Name** 045\_CCB.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 14:26:48  
**Sample Type** CCB  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

**QC Analyte Table**

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	0.240	No Gas	0.24	6	1.8	0.5	
75	As	0.040	He	0.04	72	6.6	0.06	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1322826.39	0.4	100.3	1318290.65
Sc	45	No Gas	2380462.25	1.4	106.2	2242215.16666667
Sc	45	He	1074078.84	4.5	94.3	1138713.6
Ge	72	No Gas	903354.81	1.4	108.1	835754.313333333
Ge	72	He	1090018.36	2.9	98.8	1103607.52666667
Ge	72	HEHe	557943.19	2.2	97.4	572704.786666667
Rh	103	No Gas	2393857.58	2.4	104.1	2298893.16666667
Rh	103	He	7623236.64	5.7	92.3	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

# Sample Report

**Sample Name** CCV  
**File Name** 033\_CCV.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\02022024 HIGH MATRIX ODE.b  
**Acq Time** 2024-02-02 13:58:59  
**Sample Type** CCV  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fial** Pass  
**ISTD QC Pass/Fail** Pass  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	48.040	No Gas	48.04	6	1.7	50	
75	As	48.989	He	48.989	72	0.4	50	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1346680.88	1.4	102.2	1318290.65
Sc	45	No Gas	2498777.83	1.0	111.4	2242215.16666667
Sc	45	He	1174419.15	5.0	103.1	1138713.6
Ge	72	No Gas	925875.60	0.9	110.8	835754.313333333
Ge	72	He	1147385.96	4.1	104.0	1103607.52666667
Ge	72	HEHe	594672.27	1.7	103.8	572704.786666667
Rh	103	No Gas	2410088.25	1.6	104.8	2298893.16666667
Rh	103	He	7922548.02	2.6	95.9	8258757.72666667
Ho	165	No Gas				0
Ho	165	He				0

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10005.D Vial: 5  
 Acq On : 29 Jan 2024 20:44 Operator: EMG  
 Sample : BEA0864-BLK1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:13:05 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

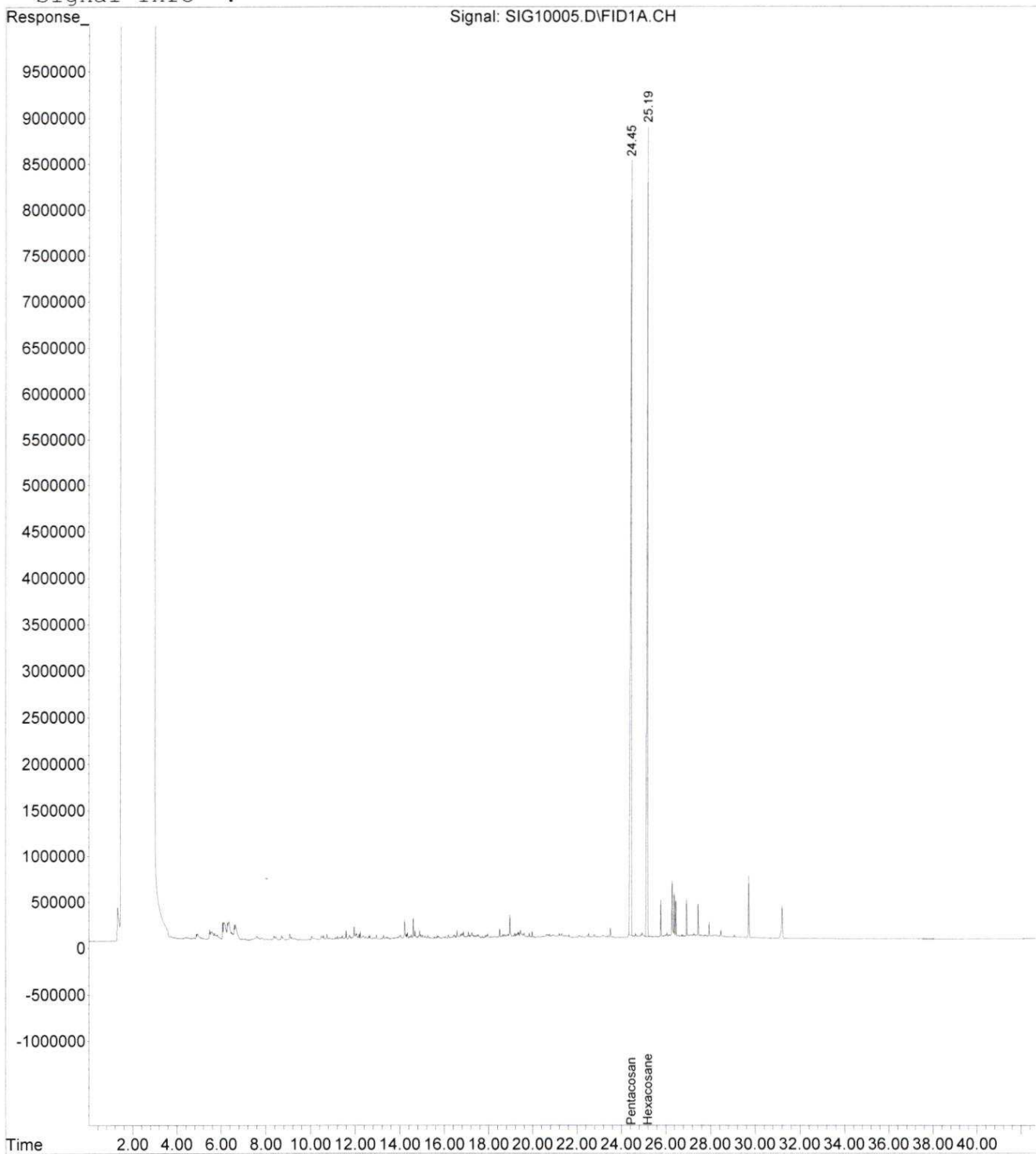
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.45	254665205	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.19	255000235	<u>51.807</u> ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 103.61%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10005.D Vial: 5  
Acq On : 29 Jan 2024 20:44 Operator: EMG  
Sample : BEA0864-BLK1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:14 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10006.D Vial: 6  
 Acq On : 29 Jan 2024 21:38 Operator: EMG  
 Sample : BEA0864-BS1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:13:50 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

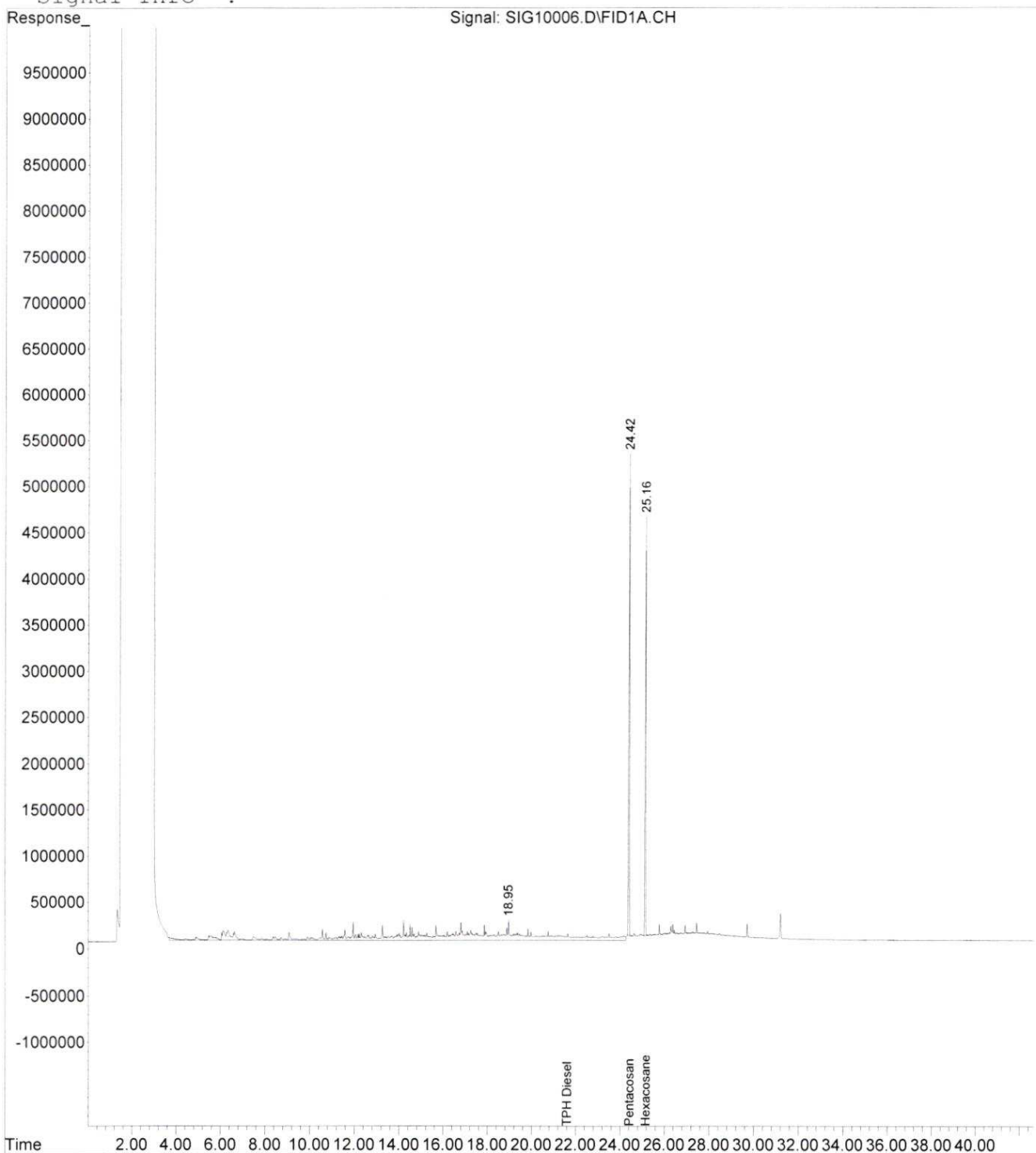
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.42	127319477	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.16	93460933	<u>37.980</u> ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 75.96%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.60	453364917	<u>218.236</u> ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10006.D Vial: 6  
Acq On : 29 Jan 2024 21:38 Operator: EMG  
Sample : BEA0864-BS1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:15 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10007.D Vial: 7  
 Acq On : 29 Jan 2024 22:33 Operator: EMG  
 Sample : BEA0864-BSD1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:15:08 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

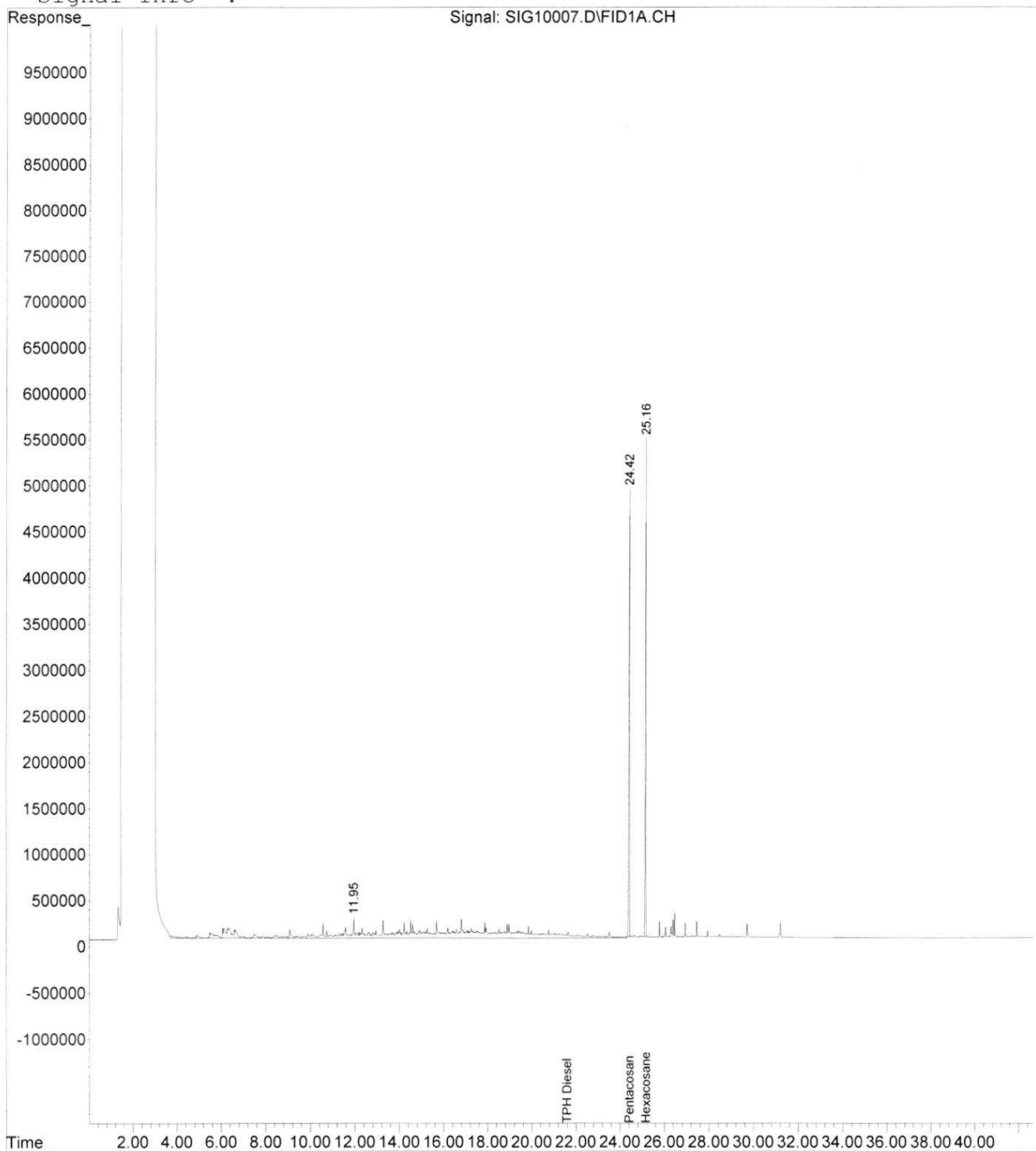
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.42	117659715	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.16	111227334	<u>48.911</u> ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 97.82%
Target Compounds			
3) H TPH Diesel (C12-C14)	21.60	463941431	<u>241.662</u> ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10007.D Vial: 7  
Acq On : 29 Jan 2024 22:33 Operator: EMG  
Sample : BEA0864-BSD1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:17 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10008.D Vial: 8  
 Acq On : 29 Jan 2024 23:28 Operator: EMG  
 Sample : WEA08291-01 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:16:22 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

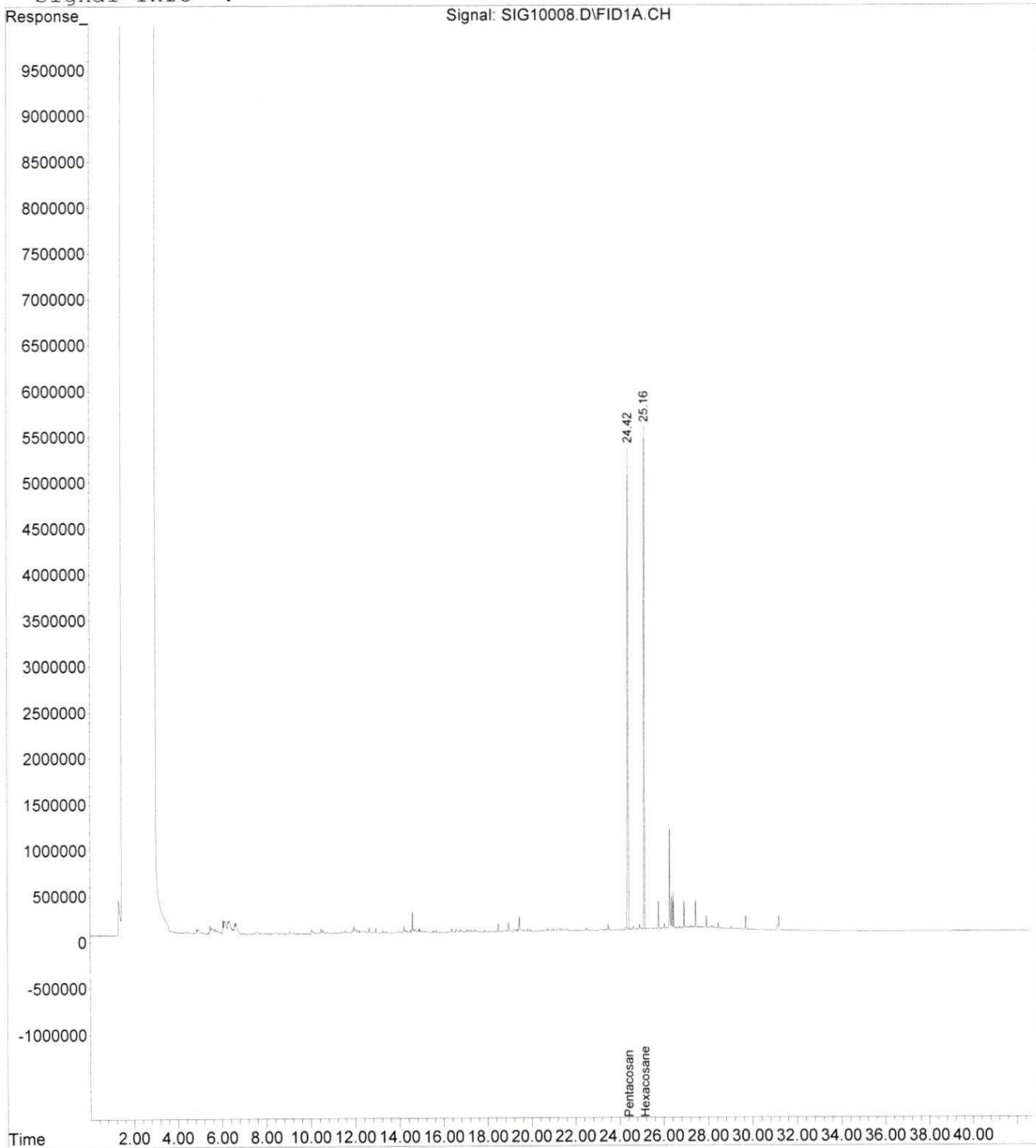
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.42	143362022	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.16	125014372	<u>45.117</u> ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 90.23%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10008.D Vial: 8  
Acq On : 29 Jan 2024 23:28 Operator: EMG  
Sample : WEA08291-01 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:20 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10009.D Vial: 9  
 Acq On : 30 Jan 2024 00:23 Operator: EMG  
 Sample : WEA0829-02 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:19:24 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

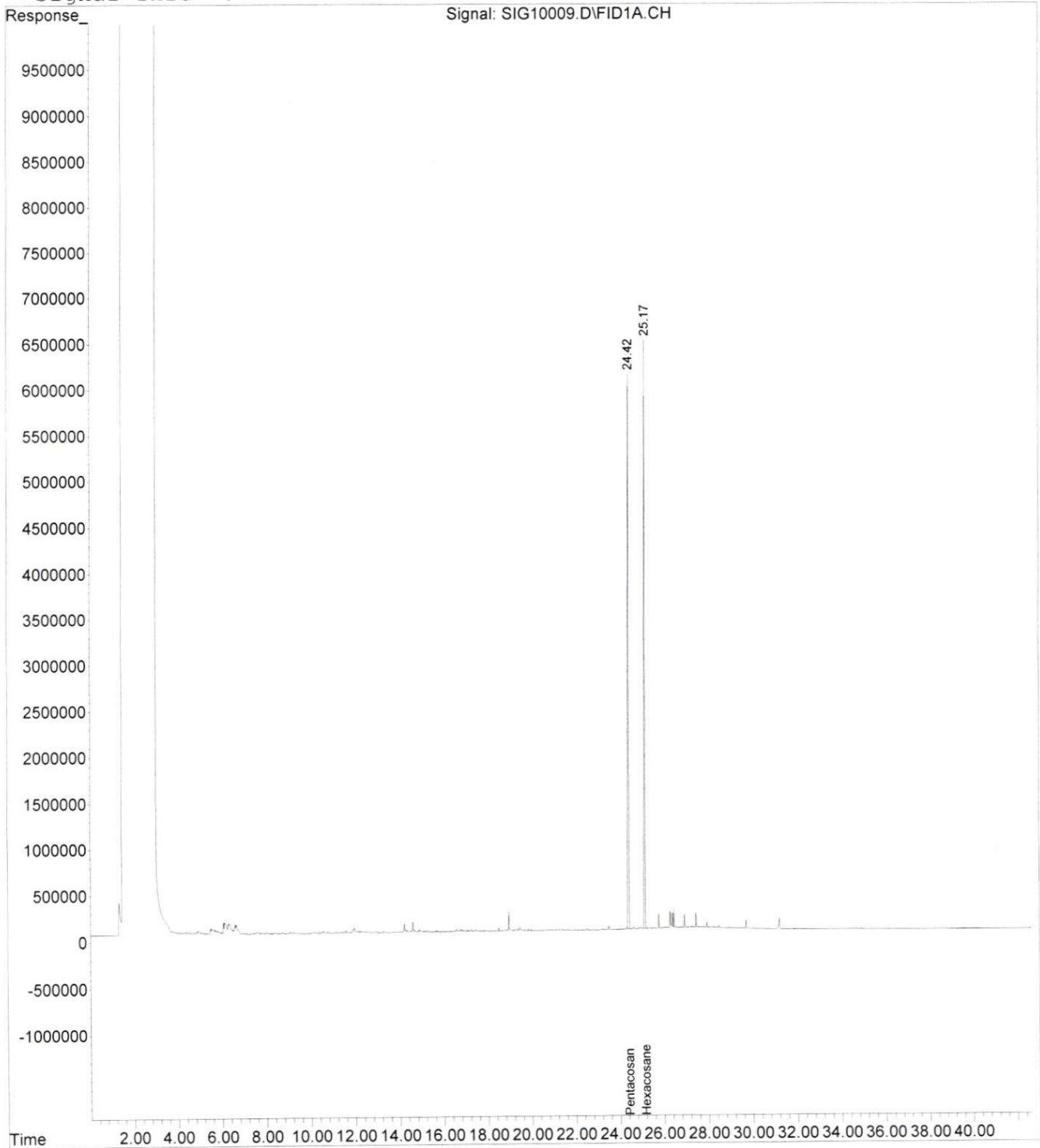
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.42	148491918	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.17	136578419	47.588 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 95.18%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10009.D Vial: 9  
Acq On : 30 Jan 2024 00:23 Operator: EMG  
Sample : WEA0829-02 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:21 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10010.D Vial: 10  
 Acq On : 30 Jan 2024 1:18 Operator: EMG  
 Sample : WEA0829-03 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:20:39 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

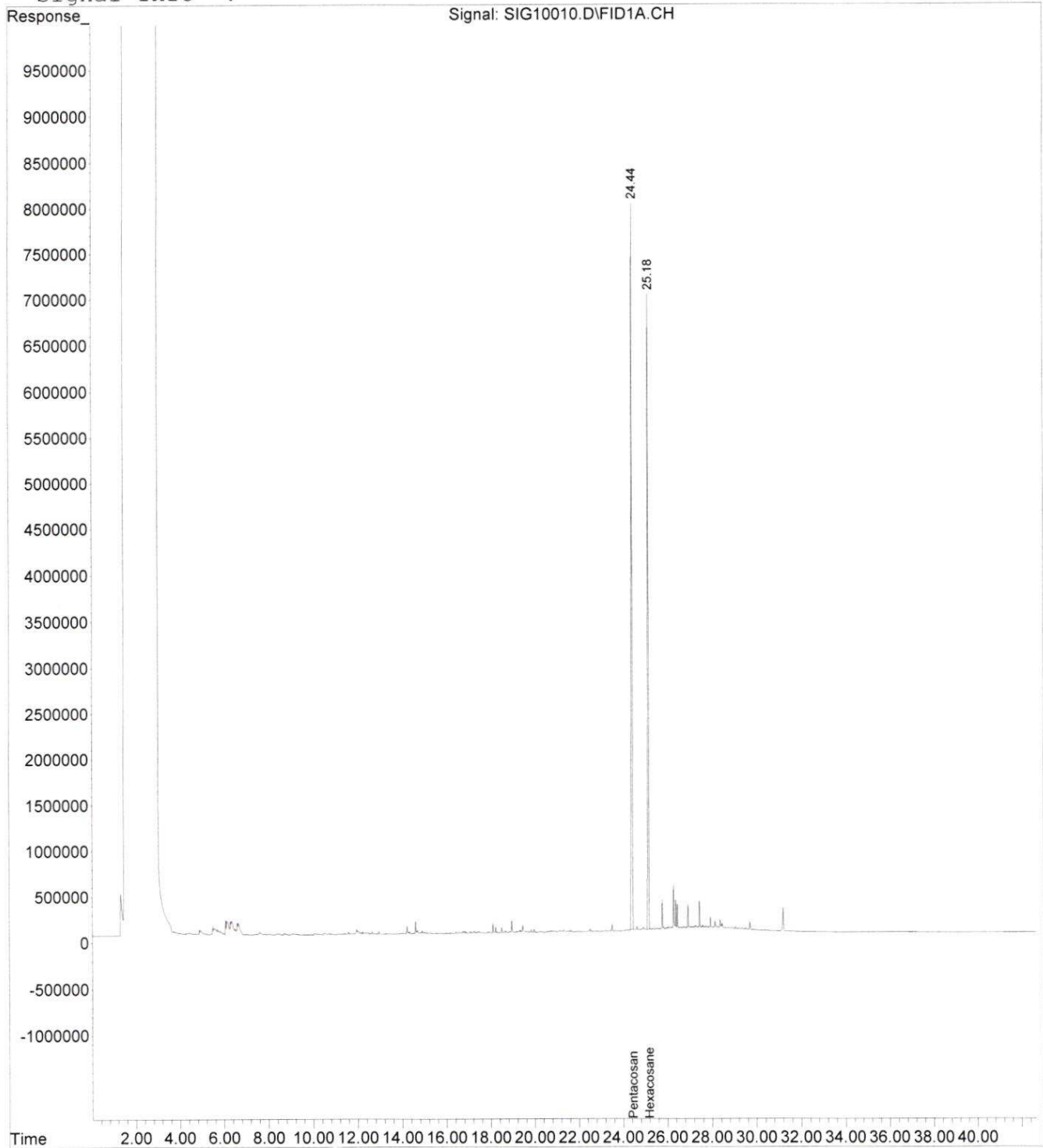
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.44	224867606	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.18	192437490	44.277	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 88.55%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10010.D Vial: 10  
Acq On : 30 Jan 2024 1:18 Operator: EMG  
Sample : WEA0829-03 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:23 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10011.D Vial: 11  
 Acq On : 30 Jan 2024 2:13 Operator: EMG  
 Sample : WEA0829-04 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:22:42 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

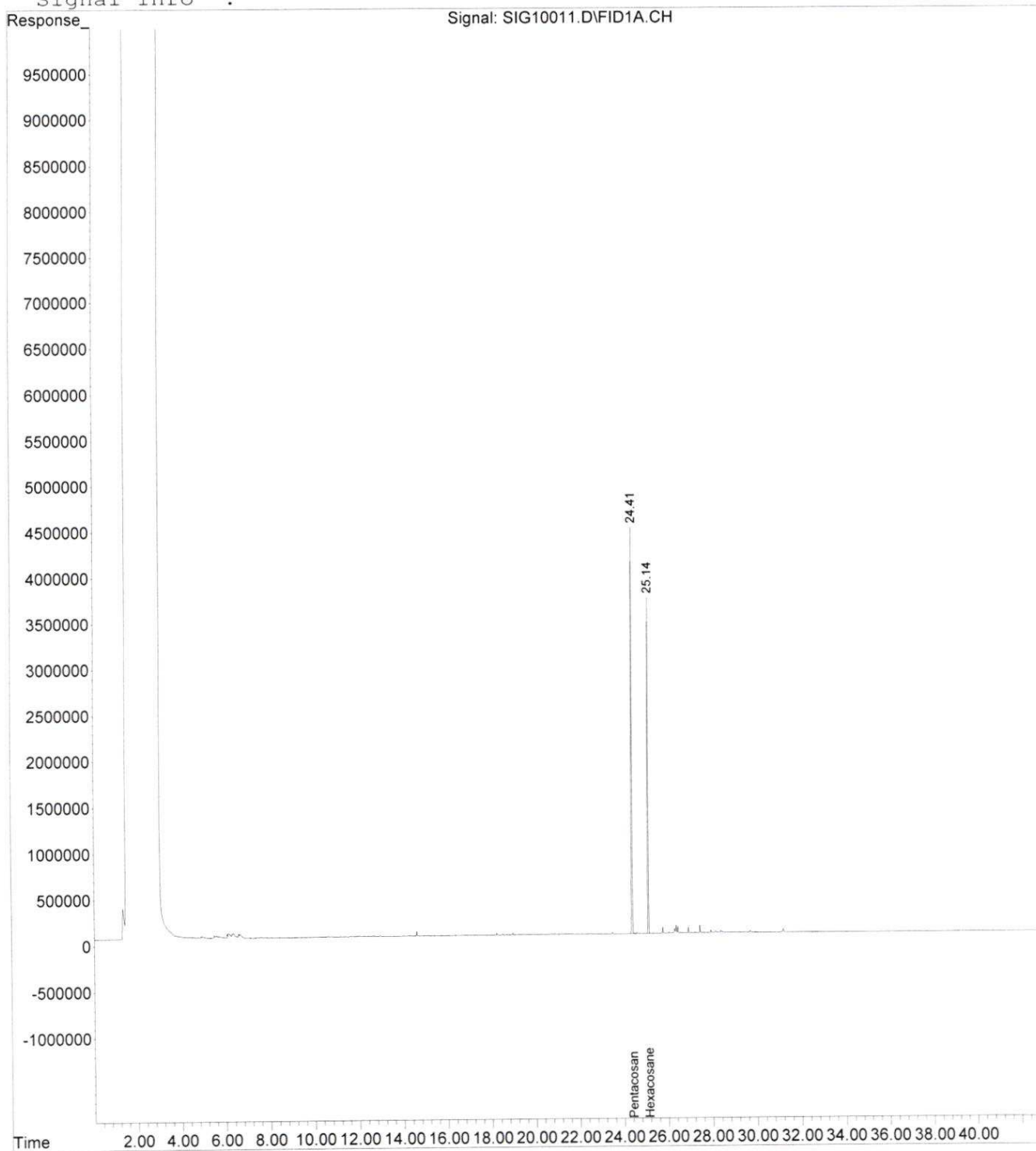
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.40	92436819	50.000 ppm
System Monitoring Compounds			
2) S Hexacosane	25.14	64906950	36.330 ppm m
Spiked Amount	50.000	Recovery =	72.66%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10011.D Vial: 11  
Acq On : 30 Jan 2024 2:13 Operator: EMG  
Sample : WEA0829-04 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:24 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10012.D Vial: 12  
 Acq On : 30 Jan 2024 3:08 Operator: EMG  
 Sample : WEA0829-05 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:24:08 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

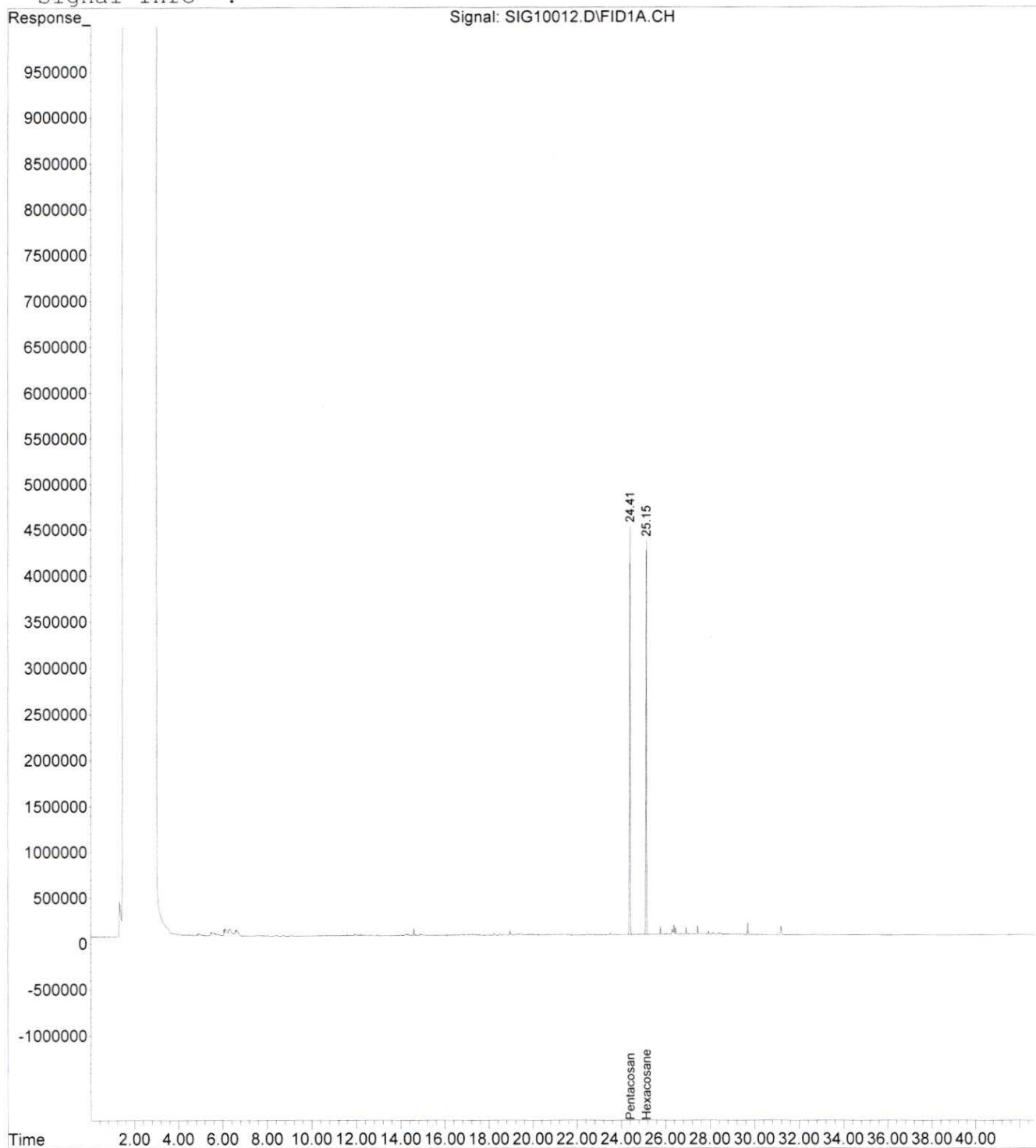
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.41	97882264	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.15	84325659	44.573	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 89.15%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10012.D Vial: 12  
Acq On : 30 Jan 2024 3:08 Operator: EMG  
Sample : WEA0829-05 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:26 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10013.D Vial: 13  
 Acq On : 30 Jan 2024 4:03 Operator: EMG  
 Sample : WEA0829-06 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:25:26 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

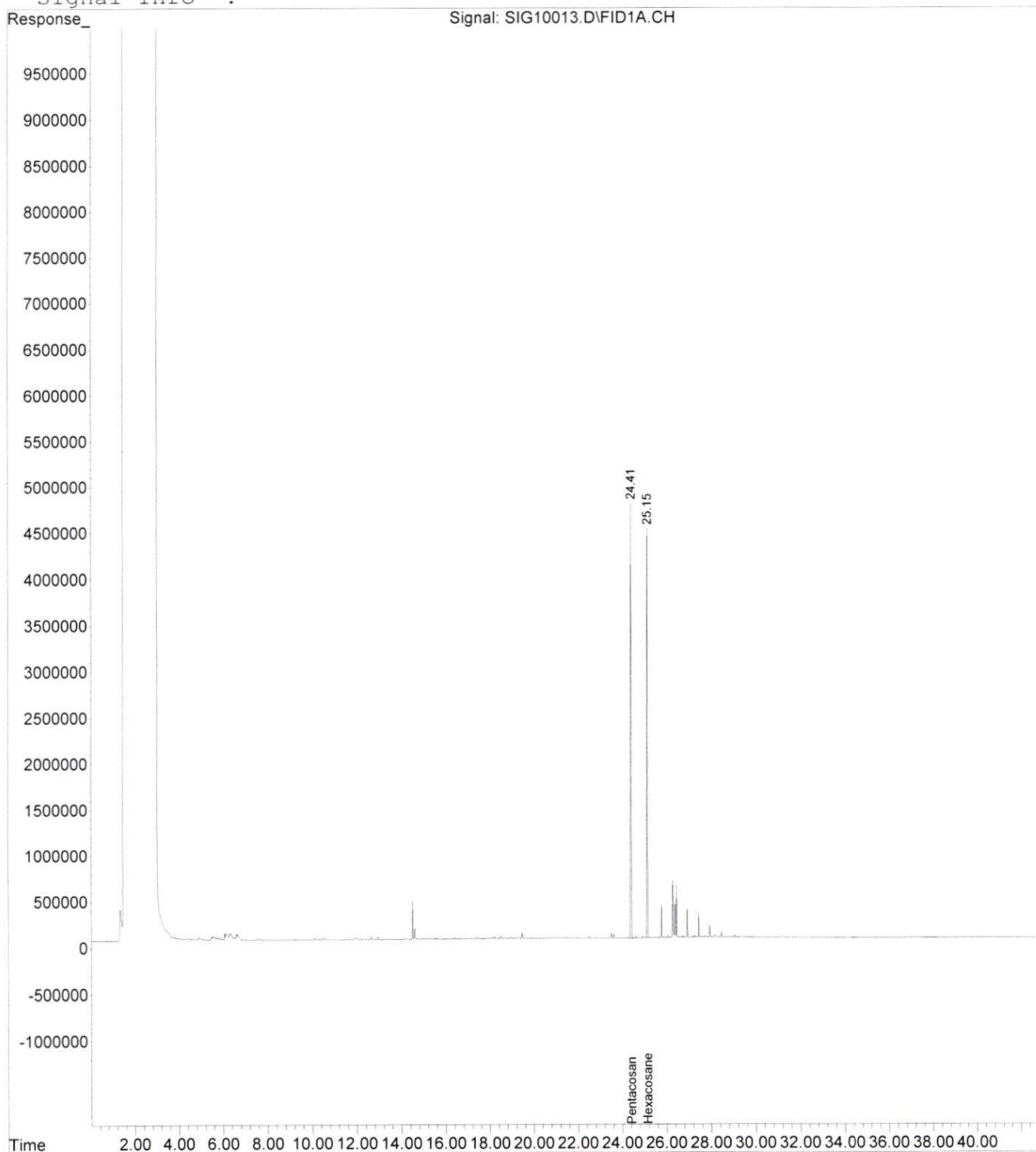
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.41	108441318	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.15	86053547	41.058 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 82.12%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10013.D Vial: 13  
Acq On : 30 Jan 2024 4:03 Operator: EMG  
Sample : WEA0829-06 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:27 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10014.D Vial: 14  
 Acq On : 30 Jan 2024 4:58 Operator: EMG  
 Sample : WEA0829-07 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:26:34 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

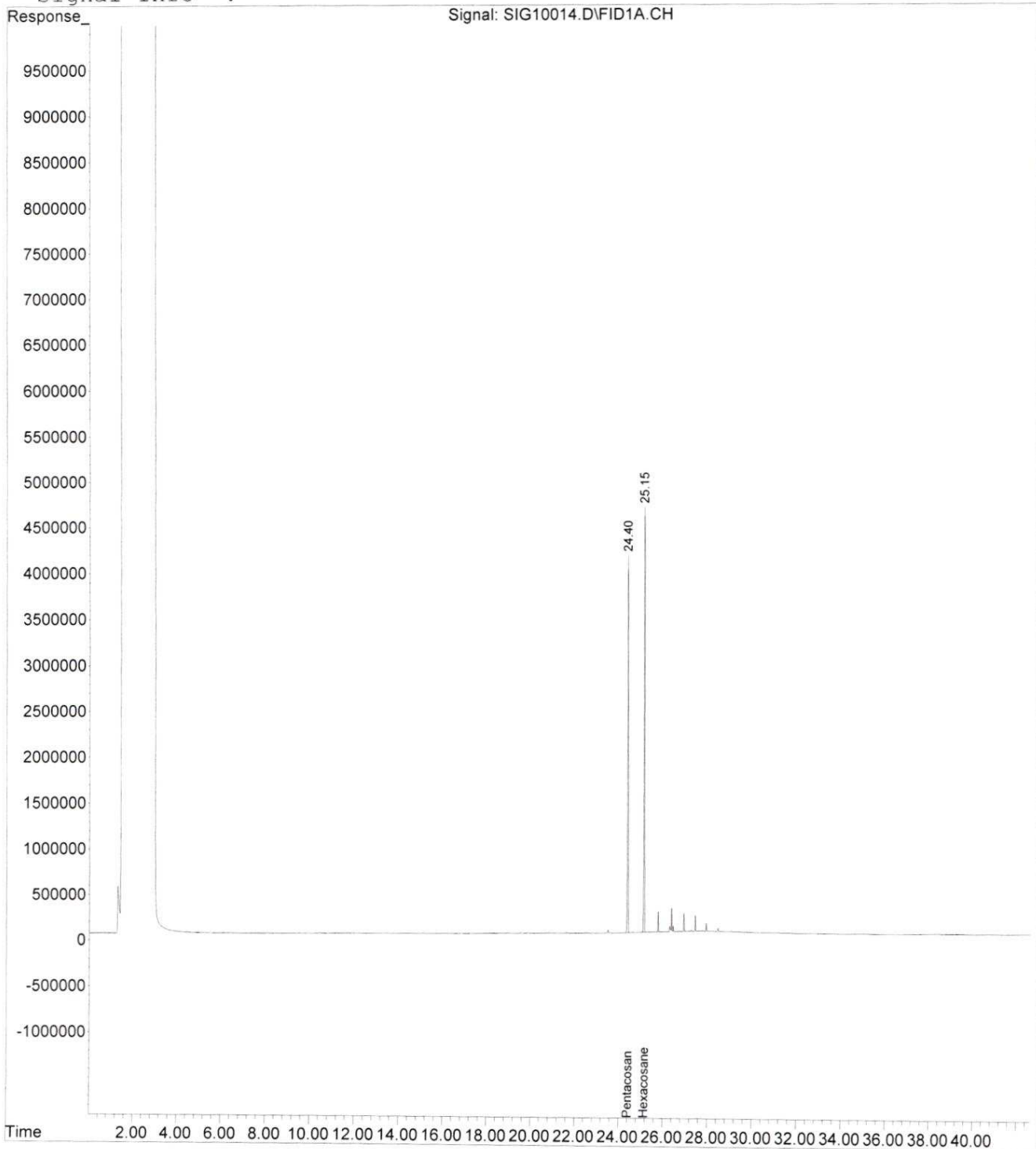
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.40	89058337	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.15	82637285	48.009 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 96.02%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10014.D Vial: 14  
Acq On : 30 Jan 2024 4:58 Operator: EMG  
Sample : WEA0829-07 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:29 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10015.D Vial: 15  
 Acq On : 30 Jan 2024 5:53 Operator: EMG  
 Sample : WEA0829-09 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:28:41 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

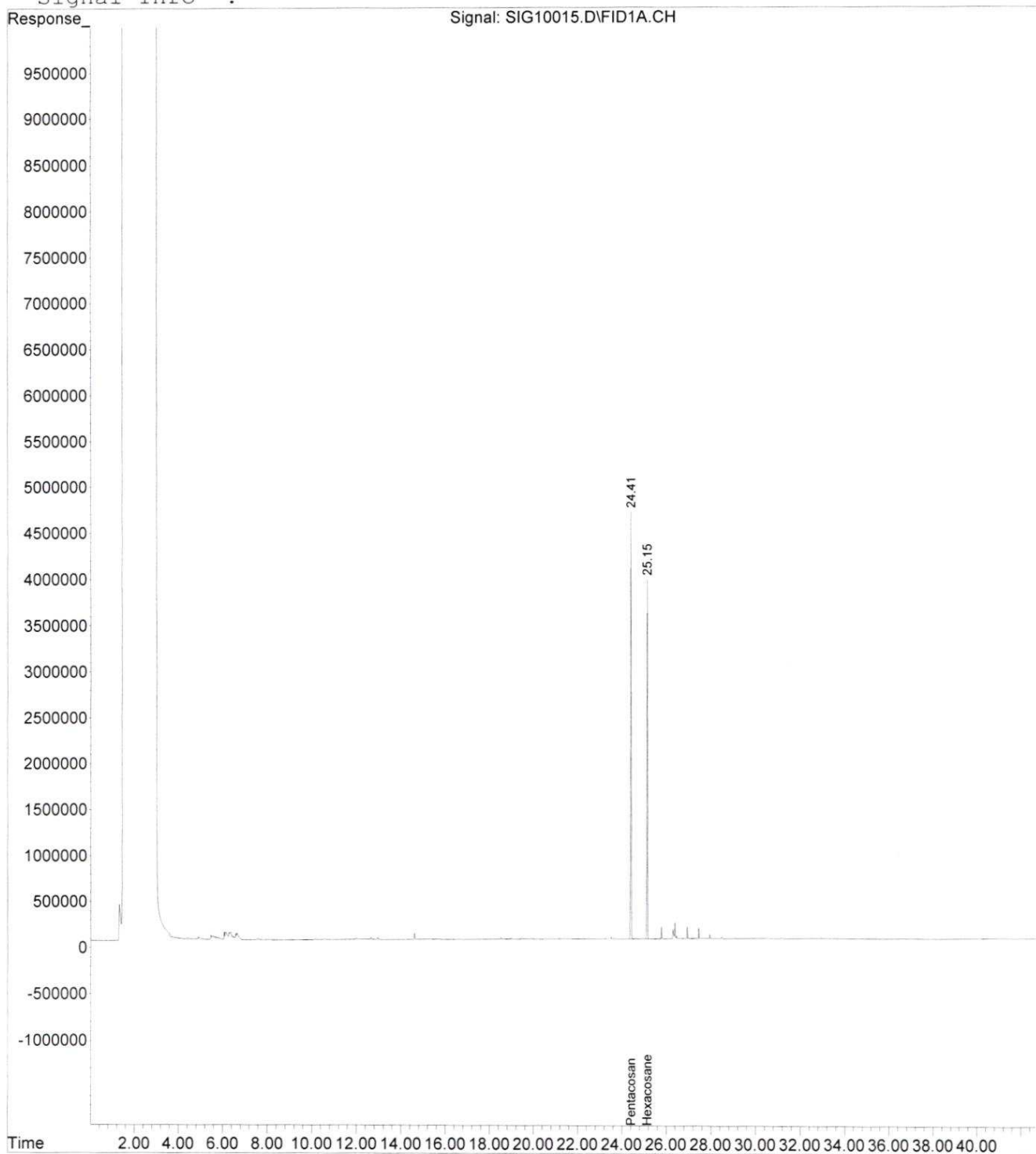
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.41	97166909	50.000 ppm
System Monitoring Compounds			
2) S Hexacosane	25.15	77502188	41.268 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 82.54%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10015.D Vial: 15  
Acq On : 30 Jan 2024 5:53 Operator: EMG  
Sample : WEA0829-09 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:30 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10016.D Vial: 16  
 Acq On : 30 Jan 2024 6:48 Operator: EMG  
 Sample : WEA0829-10 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:29:43 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

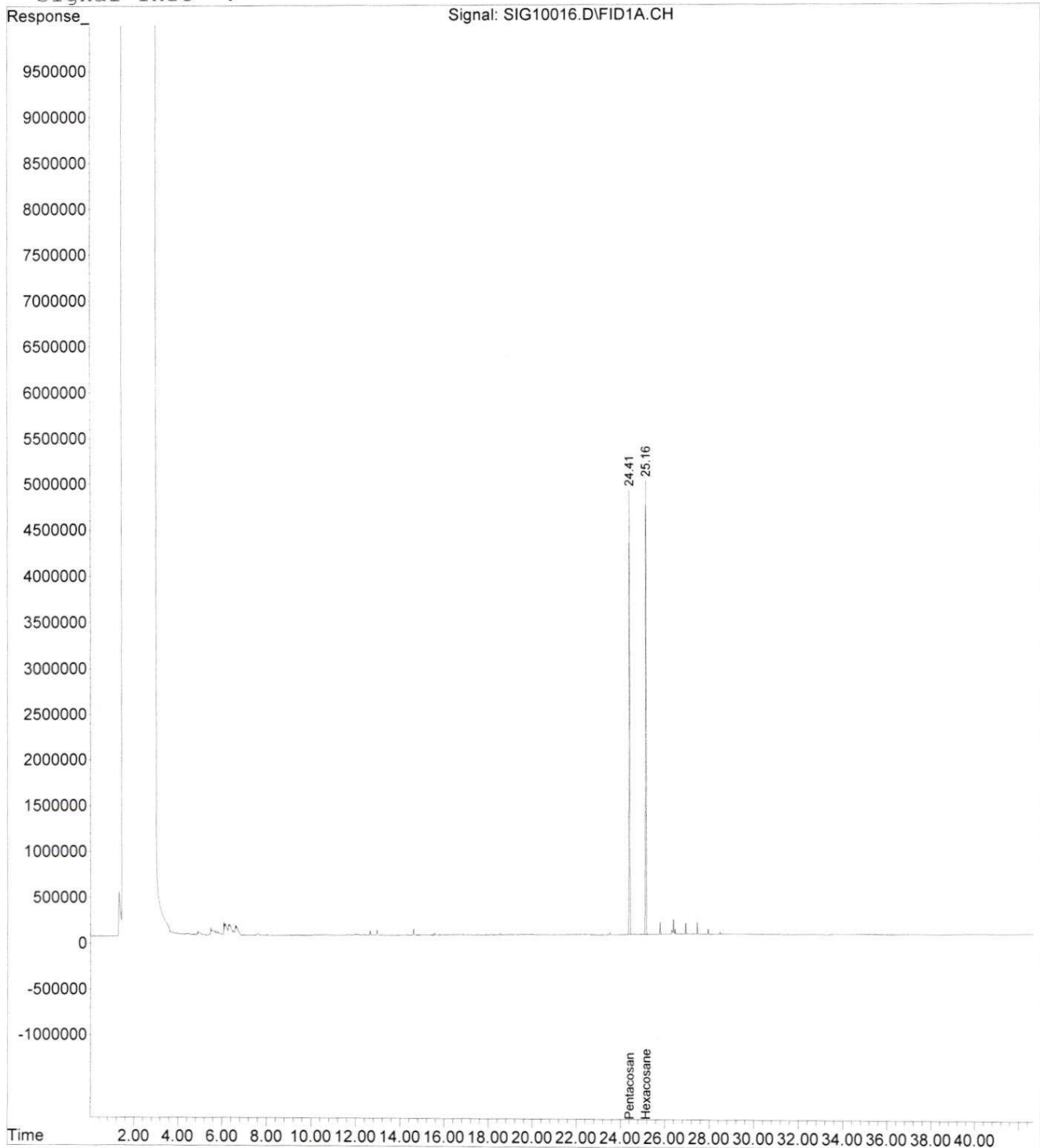
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.41	106184288	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.16	99263054	48.367	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 96.73%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D.	ppm
5) H Mineral Oil	0.00	0	N.D.	ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D.	ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D.	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10016.D Vial: 16  
Acq On : 30 Jan 2024 6:48 Operator: EMG  
Sample : WEA0829-10 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:31 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10017.D Vial: 17  
 Acq On : 30 Jan 2024 7:43 Operator: EMG  
 Sample : WEA0829-11 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:31:25 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

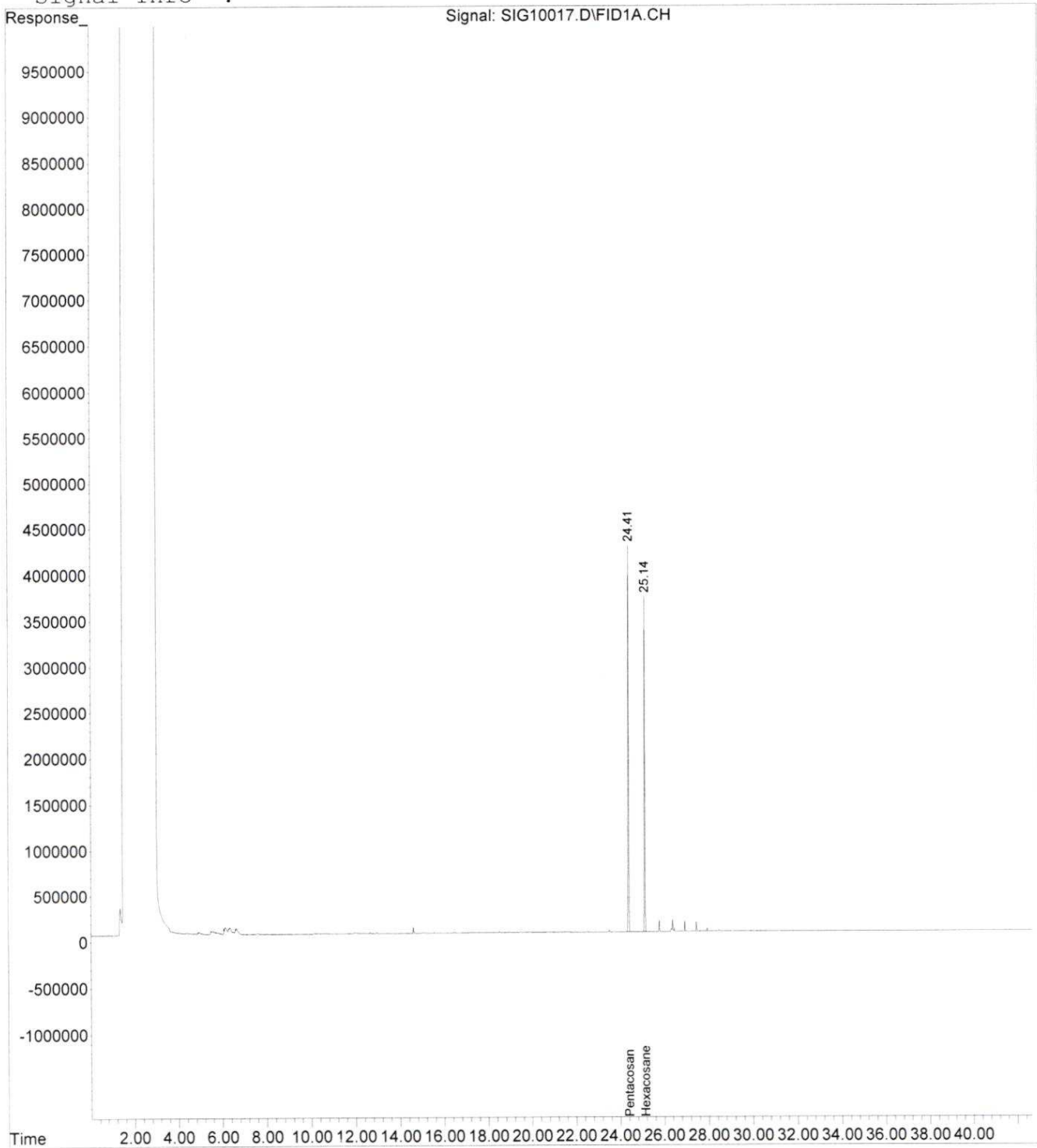
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.41	87578935	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.14	68019954	40.184 ppm
Spiked Amount	50.000	Range	50 - 150
		Recovery	= 80.37%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10017.D Vial: 17  
Acq On : 30 Jan 2024 7:43 Operator: EMG  
Sample : WEA0829-11 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:33 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10018.D Vial: 18  
 Acq On : 30 Jan 2024 8:38 Operator: EMG  
 Sample : WEA0829-12 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 09:32:26 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

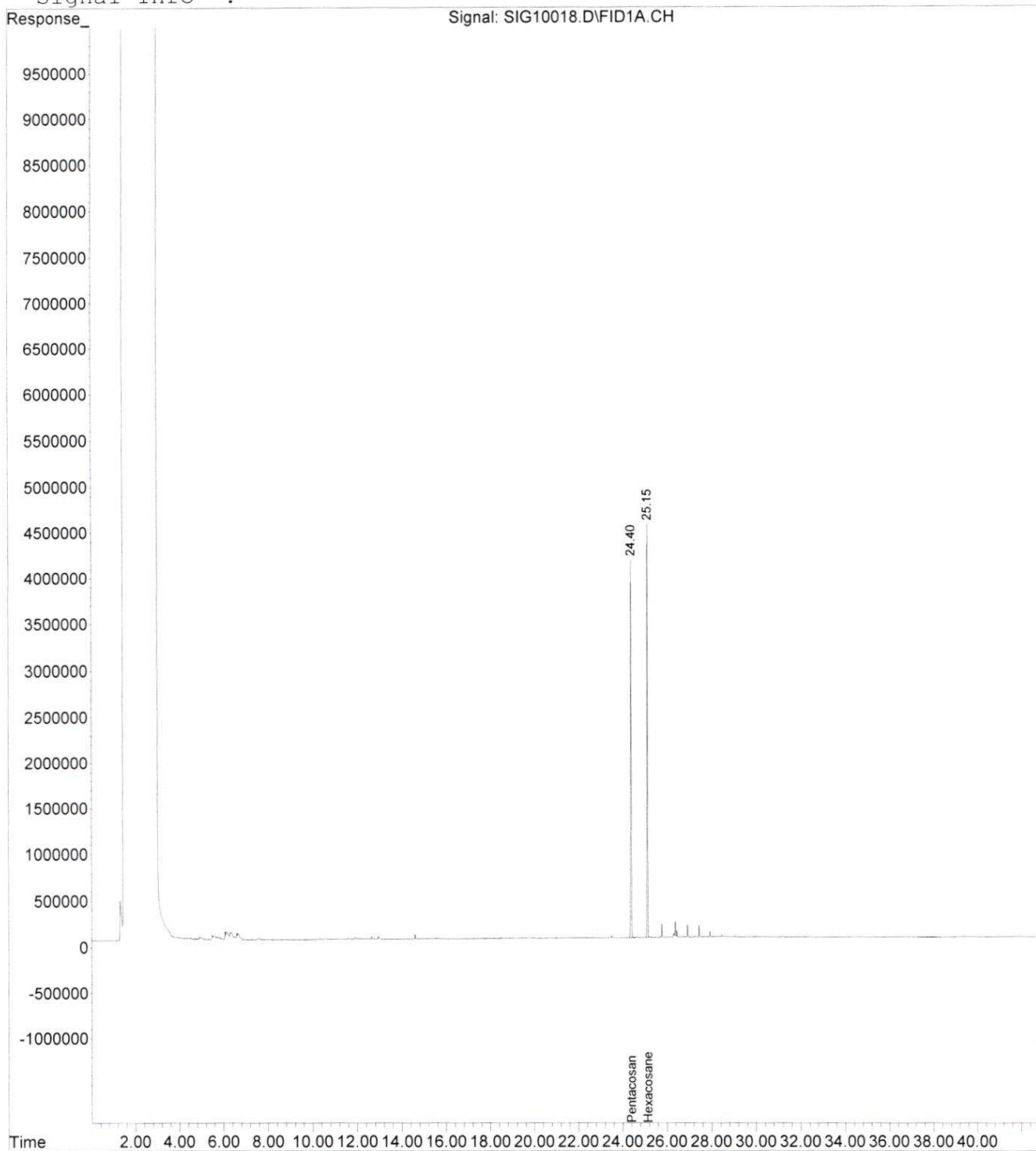
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.40	85062633	50.000 ppm
System Monitoring Compounds			
2) S Hexacosane	25.15	81723612	49.708 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 99.42%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm

Data File : M:\HPCHEM\1\2023DATA\012924\SIG10018.D Vial: 18  
Acq On : 30 Jan 2024 8:38 Operator: EMG  
Sample : WEA0829-12 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 9:34 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10019.D Vial: 19  
 Acq On : 30 Jan 2024 9:33 Operator: EMG  
 Sample : WEA0829-13 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Jan 30 13:39:18 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Fri Dec 29 09:40:42 2023  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

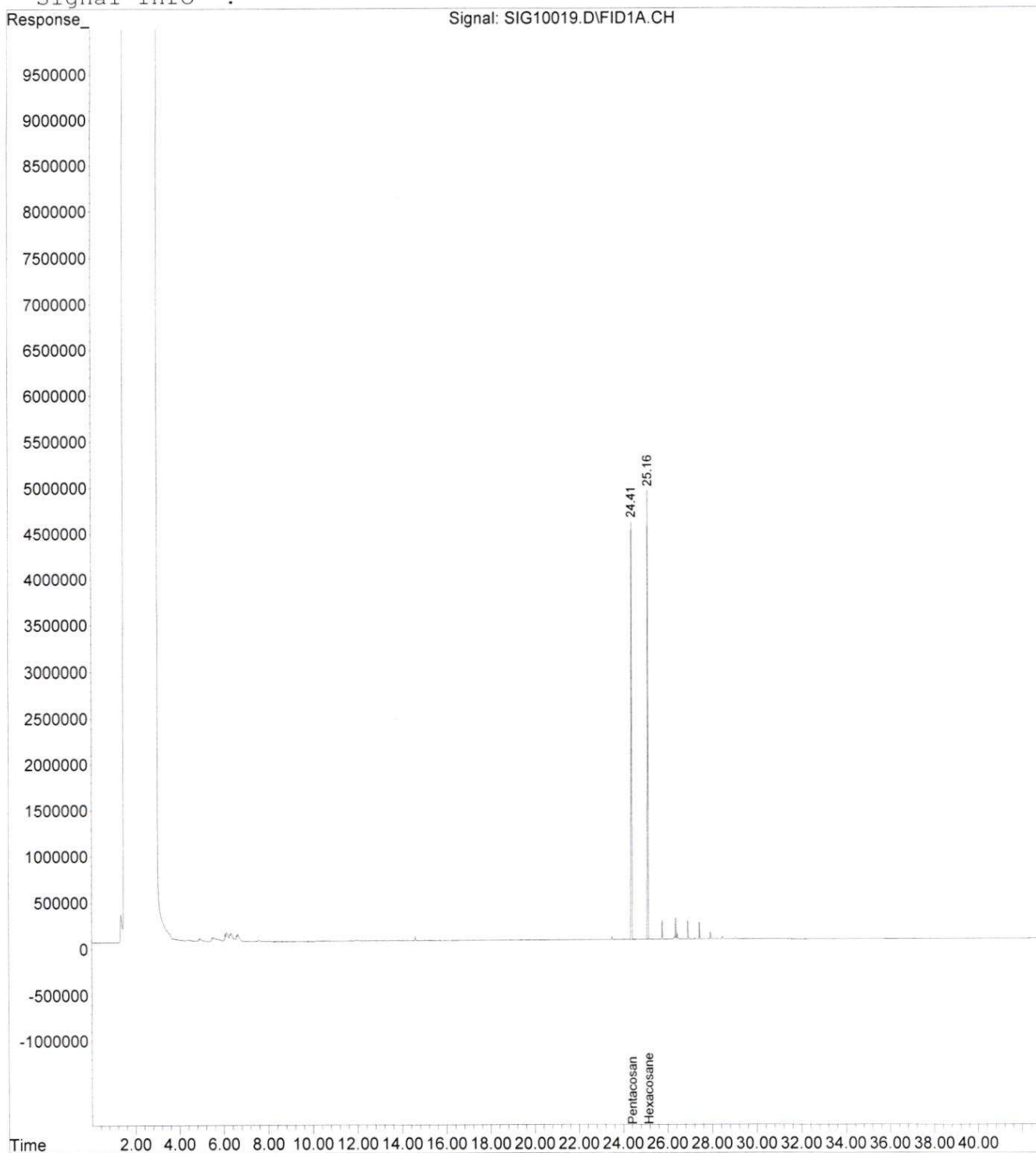
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.41	109610907	50.000 ppm
System Monitoring Compounds			
2) S Hexacosane	25.16	97773569	46.152 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 92.30%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube Oil (>C14)	0.00	0	N.D. ppm
5) H Mineral Oil	0.00	0	N.D. ppm
6) h HCID Gas (C7-C12)	0.00	0	N.D. ppm
7) h HCID Diesel (C12-C14)	0.00	0	N.D. ppm
8) h HCID Oil (>C14)	0.00	0	N.D. ppm



Data File : M:\HPCHEM\1\2023DATA\012924\SIG10019.D Vial: 19  
Acq On : 30 Jan 2024 9:33 Operator: EMG  
Sample : WEA0829-13 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Jan 30 13:41 2024 Quant Results File: 231228DHT.RES

Quant Method : M:\HPCHEM\1\METHODS\231228DHT.M (Chemstation Integrator)  
Title :  
Last Update : Fri Dec 29 09:40:42 2023  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :

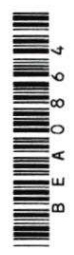


# TPHDx/HCID Extractions by EPA8015mod

Anatek Labs, Inc Spokane

Sample Number	Sample ID	Sample Matrix	Sample Amount	$\mu$ L diesel spike amt	Surrogate spike amt	Internal spike amt	clean up used	Extract 3x with MeCl <sub>2</sub>	Final volume (mL)
BEA0864-BLK1	Blank	water	250.00	0	10	10	no	yes	1
BEA0864-BS1	LCS	water	250.00	12.5	10	10	no	yes	1
BEA0864-BS1	LCS Dup	water	250.00	12.5	10	10	no	yes	1
WEA0829-01	WW-3	water	250.00	0	10	10	no	yes	1
WEA0829-02	WW-6	water	250.00	0	10	10	no	yes	1
WEA0829-03	E-1	water	250.00	0	10	10	no	yes	1
WEA0829-04	E-1 Dup	water	250.00	0	10	10	no	yes	1
WEA0829-05	E-1 MS/MSD	water	250.00	0	10	10	no	yes	1
WEA0829-06	D-2	water	250.00	0	10	10	no	yes	1
WEA0829-07	D-3	water	250.00	0	10	10	no	yes	1
WEA0829-09	D-6	water	250.00	0	10	10	no	yes	1
WEA0829-10	D-7	water	250.00	0	10	10	no	yes	1
WEA0829-11	D-8	water	250.00	0	10	10	no	yes	1
WEA0829-12	U-2/WW-5	water	250.00	0	10	10	no	yes	1
WEA0829-13	U-3/WW-4	water	250.00	0	10	10	no	yes	1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1
					10	10	no		1

MeCl <sub>2</sub>	2302121	Balance	_____
Na <sub>2</sub> SO <sub>4</sub>	2203638	Pipette	PT-11
Gas 20,000 ppm	2203385		
Diesel 20,000 ppm	2303994		
Motor Oil 20,000 ppm	2301785		
Internal Standard	2303289		
Surrogate Standard	2303288		
Diesel ICV			_____



# PREPARATION BENCH SHEET

## Metals

BEA0987

Matrix: Water      Prepared using: Metals - W 245.1 Digest

Lab Number	Prepared - By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments
BEA0987-BLK1	01/31/24 14:55 - JLG	50	50				
BEA0987-BS1	01/31/24 14:55 - JLG	50	50	2204254		280	
BEA0987-MS1	01/31/24 14:55 - JLG	50	50	2204254	WEA0829-02	280	
BEA0987-MS2	01/31/24 14:55 - JLG	50	50	2204254	WEA0829-12	280	
BEA0987-MSD1	01/31/24 14:55 - JLG	50	50	2204254	WEA0829-02	280	
BEA0987-MSD2	01/31/24 14:55 - JLG	50	50	2204254	WEA0829-12	280	
WEA0829-01	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-02	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-03	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-04	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-05	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-06	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-07	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-08	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-09	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							
WEA0829-10	01/31/24 14:55 - JLG	50	50	Client: Stantec-GS			
Analytes: Mercury							

# PREPARATION BENCH SHEET

## Metals

BEA0987

(Continued)

Matrix: Water      Prepared using: Metals - W 245.1 Digest

Lab Number	Prepared - By	Initial (mL)	Final (mL)	Spike ID	Source ID	Spike ul	Comments
<b>WEA0829-11</b>	01/31/24 14:55 - JLG Analytes: Mercury	50	50	Client: Stantec-GS			
<b>WEA0829-12</b>	01/31/24 14:55 - JLG Analytes: Mercury	50	50	Client: Stantec-GS			
<b>WEA0829-13</b>	01/31/24 14:55 - JLG Analytes: Mercury	50	50	Client: Stantec-GS			

Support Equipment:	W PT-04 W PT-33 W PT-21, W PT-27 BLK1B	
Reagent ID	Description	LotNum
2200419	Hg. Tin(II) chloride	-
2300400	Sulfuric Acid, OmniTrace	62252
2303108	P. 1:1 HCl-metals	59072
2303320	Nitric Acid	63076
2303351	P. Metals Digestion Vials	102623
2400174	Hg. 5% Potassium Permanganate	-
2400405	Hg. Hydroxylamine Hydrochloride	-

Report Generated By Teledyne CETAC QuickTrace

Analyst: Mercury

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\02052024 Hg H2SO4 TRY.wszf

Creation Date: 2/5/2024 10:26:08 AM

Comment:

## Results

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	% Recovery
Calibration Blank	STD	02/05/24 11:26:41 am	0.000	877	3.19	-67.53		N/A
Replicates		900.7 898.9 865.9 842.6						
Standard #1 (0.5 ug/L)	STD	02/05/24 11:29:12 am	0.500	11252	1.01	-89.47		N/A
Replicates		11336.5 11313.8 11271.3 11086.0						
Standard #2 (1 ug/L)	STD	02/05/24 11:31:44 am	1.000	24577	1.75	24.52		N/A
Replicates		25035.0 24792.3 24432.8 24047.5						
Standard #3 (2.0 ug/L)	STD	02/05/24 11:34:16 am	2.000	46744	2.61	45.93		N/A
Replicates		48108.8 47311.6 46235.0 45320.3						
Standard #4 (5.0 ug/L)	STD	02/05/24 11:36:48 am	5.000	114922	1.00	187.44		N/A
Replicates		113571.9 114464.0 115432.8 116219.0						
Standard #5 (10.0 ug/L)	STD	02/05/24 11:39:21 am	10.000	217176	0.40	-100.88		N/A
Replicates		216863.6 218234.2 217439.9 216167.2						
Calibration								
Equation:	A = 2342.535 + 21702.310C							
R2:	0.99917							
SEE:	2670.9450							
Flags:								
ICV	ICV	02/05/24 11:44:03 am	4.780	105985	2.09			119.39
Replicates		108096.4 107190.0 105476.6 103175.5						
CCV (95-105%)	OPR	02/05/24 11:46:35 am	5.160	114348	0.47			103.22
Replicates		113874.9 114672.9 114924.0 113919.2						
CCB	CCB	02/05/24 11:49:06 am	-0.071	795	0.23			N/A
Replicates		799.4 795.4 791.0 793.2						
BLANK	MB	02/05/24 11:51:37 am	-0.105	73	0.30			N/A
Replicates		81.4 73.9 65.2 71.2						
LCS	LCS	02/05/24 11:54:09 am	5.370	118836	1.55		L	134.19
Replicates		119767.0 120208.6 119157.6 116211.4						
WEA0829-01	UNK	02/05/24 11:56:40 am	-0.109	-13	0.57			N/A
Replicates		-10.0 3.7 -28.3 -18.1						
WEA0829-02	UNK	02/05/24 11:59:11 am	-0.103	103	0.70			N/A
Replicates		122.2 109.7 88.7 92.5						

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	% Recovery
MS1	UNK	02/05/24 12:01:43 pm	5.260	116398	0.99			N/A
Replicates		115078.5 115967.6 116845.1 117699.1						
MSD1	UNK	02/05/24 12:04:15 pm	4.920	109015	0.73			N/A
Replicates		108069.8 108759.7 109360.2 109869.9						
WEA0829-03	UNK	02/05/24 12:06:46 pm	-0.128	-442	1.70			N/A
Replicates		-387.8 -432.0 -444.9 -502.7						
WEA0829-04	UNK	02/05/24 12:09:18 pm	-0.108	5	0.35			N/A
Replicates		15.6 -3.5 2.0 7.7						
WEA0829-05	UNK	02/05/24 12:11:50 pm	-0.103	116	1.56			N/A
Replicates		151.1 129.2 115.6 69.1						
WEA0829-05 RE	UNK	02/05/24 12:14:23 pm	-0.104	95	0.88			N/A
Replicates		102.0 80.7 76.7 119.4						
WEA0829-06	UNK	02/05/24 12:16:55 pm	-0.101	153	0.92			N/A
Replicates		154.5 131.6 180.0 146.6						
WEA0829-07	UNK	02/05/24 12:19:27 pm	-0.110	-34	0.70			N/A
Replicates		-41.7 -9.4 -45.4 -40.2						
WEA0829-08	UNK	02/05/24 12:21:58 pm	-0.107	15	0.77			N/A
Replicates		18.8 37.7 10.7 -5.3						
WEA0829-09	UNK	02/05/24 12:24:29 pm	-0.099	204	4.59			N/A
Replicates		123.5 126.3 237.8 327.7						
WEA0829-10	UNK	02/05/24 12:27:00 pm	-0.099	185	2.86			N/A
Replicates		148.6 134.9 182.6 272.1						
WEA0829-11	UNK	02/05/24 12:29:32 pm	-0.100	166	0.63			N/A
Replicates		180.2 176.2 153.9 155.7						
WEA0829-12	UNK	02/05/24 12:32:03 pm	-0.100	182	0.56			N/A
Replicates		183.3 176.7 170.9 199.0						
MS2	UNK	02/05/24 12:34:34 pm	5.190	114923	1.00			N/A
Replicates		113599.2 114494.7 115385.4 116211.0						
MSD2	UNK	02/05/24 12:37:06 pm	4.570	101450	2.14			N/A
Replicates		103367.7 102713.9 101114.3 98605.3						
WEA0829-13	UNK	02/05/24 12:39:38 pm	-0.121	-288	2.61			N/A
Replicates		-352.0 -339.4 -249.0 -211.4						
WEA0829-08 RE	UNK	02/05/24 12:42:09 pm	-0.087	458	0.96			N/A
Replicates		458.0 473.6 433.3 468.9						
WEA0829-09 RE	UNK	02/05/24 12:44:40 pm	-0.090	387	0.33			N/A
Replicates		381.3 383.5 396.0 388.2						
WEA0829-10 RE	UNK	02/05/24 12:47:11 pm	-0.102	119	0.85			N/A
Replicates		140.9 125.5 96.8 111.5						
WEA0829-11 RE	UNK	02/05/24 12:49:42 pm	-0.097	237	0.39			N/A
Replicates		233.5 227.4 244.4 243.2						

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	% Recovery
WEA0829-13	UNK	02/05/24 12:52:14 pm	-0.101	145	0.46			N/A
Replicates		155.0 134.7 152.4 138.5						
BLANK	UNK	02/05/24 12:54:46 pm	-0.101	153	0.68			N/A
Replicates		173.6 139.6 153.7 145.7						
LCS	UNK	02/05/24 12:57:18 pm	6.040	133475	0.32			N/A
Replicates		132894.9 133497.8 133876.5 133629.8						
BLK	UNK	02/05/24 12:59:50 pm	-0.081	585	0.52			N/A
Replicates		583.8 587.5 572.5 594.3						
CK	UNK	02/05/24 01:02:22 pm	5.270	116697	1.05			N/A
Replicates		115259.6 116254.2 117229.7 118044.4						
MDL1 0.5	UNK	02/05/24 01:04:53 pm	0.456	12249	1.19			N/A
Replicates		12107.6 12217.4 12280.6 12388.6						
MDL2 0.5	UNK	02/05/24 01:07:25 pm	0.456	12229	0.99			N/A
Replicates		12217.3 12332.7 12264.2 12099.7						
MDL3 0.5	UNK	02/05/24 01:09:56 pm	0.460	12321	0.79			N/A
Replicates		12278.5 12386.3 12388.3 12232.0						
BLANK	UNK	02/05/24 01:12:28 pm	-0.103	98	0.83			N/A
Replicates		89.1 102.1 79.1 122.3						
LCS	UNK	02/05/24 01:15:01 pm	7.710	169769	1.01			N/A
Replicates		167840.0 169103.0 170356.2 171775.5						
WEA0668-01	UNK	02/05/24 01:17:32 pm	-0.101	160	0.39			N/A
Replicates		171.3 153.1 154.0 160.6						
WEA0668-02	UNK	02/05/24 01:20:03 pm	-0.096	269	0.30			N/A
Replicates		270.6 277.7 263.5 265.5						
WEA0668-03	UNK	02/05/24 01:22:34 pm	-0.097	230	0.75			N/A
Replicates		246.9 214.8 241.1 218.9						
WEA0669-01	UNK	02/05/24 01:25:05 pm	-0.096	255	0.39			N/A
Replicates		252.8 244.1 257.8 263.5						
WEA0669-02	UNK	02/05/24 01:27:37 pm	-0.097	248	0.81			N/A
Replicates		250.1 241.5 231.0 271.2						
WEA0719-01	UNK	02/05/24 01:30:09 pm	-0.098	226	0.33			N/A
Replicates		226.2 230.8 230.0 215.8						
WEA0719-02	UNK	02/05/24 01:32:40 pm	-0.092	352	0.44			N/A
Replicates		352.0 350.9 340.9 362.3						
WEA0912-01	UNK	02/05/24 01:35:12 pm	-0.090	384	0.40			N/A
Replicates		373.4 392.2 386.7 384.6						
MS3	UNK	02/05/24 01:37:44 pm	-0.099	201	0.32			N/A
Replicates		205.5 192.1 200.3 207.1						
MSD3	UNK	02/05/24 01:40:16 pm	5.440	120350	1.32			N/A
Replicates		118445.3 119845.8 121059.4 122047.6						



Anatek Labs Inc  
504 E Sprague Ave, Suite D  
Spokane, WA 99202

Report Number: P240124  
Report Date: February 21, 2024  
Client Project ID: [none]

### Analytical Report

Client Sample ID: WEA0829-01  
Matrix: water

PAL Sample ID: P240124-01  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 98 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Client Sample ID: WEA0829-03  
Matrix: water

PAL Sample ID: P240124-02  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 102 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Client Sample ID: WEA0829-04  
Matrix: water

PAL Sample ID: P240124-03  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 101 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Kara Greer, Project Manager

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.





Anatek Labs Inc  
504 E Sprague Ave, Suite D  
Spokane, WA 99202

Report Number: P240124  
Report Date: February 21, 2024  
Client Project ID: [none]

## Analytical Report

Client Sample ID: WEA0829-05  
Matrix: water

PAL Sample ID: P240124-04  
Sample Date: 1/22/24  
Received Date: 2/8/24

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
<b>Method:</b> Modified EPA 549.2 (LC-MS/MS)					H1
2/12/24	2/14/24	Paraquat	ND	10 ug/L	
<b>Surrogate Recovery:</b> 94 %					
<b>Surrogate Recovery Range:</b> 60-140					
(Ethyl Viologen used as Surrogate)					

Kara Greer, Project Manager

*This analytical report complies with the ISO/IEC 17025:2017  
Quality Standard.*



Anatek Labs Inc  
504 E Sprague Ave, Suite D  
Spokane, WA 99202

Report Number: P240124  
Report Date: February 21, 2024  
Client Project ID: [none]

### Quality Assurance

**Method Blank Data**      Matrix: water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
2/12/24	2/13/24	24B1208-BLK1	Paraquat	Not Detected	< 10 ug/L	

**Blank Spike Data**      Matrix: water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
2/12/24	2/13/24	24B1208-BS1	Paraquat	96	60-140	
2/12/24	2/13/24	24B1208-BSD1	Paraquat	99	60-140	

### Project Notes

Notes	Definition
H1	The sample was received and extracted outside of recommended hold time.

Kara Greer, Project Manager

*This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.*

# TSS (SM2540D/EPA 160.2)-TS(SM 2540B)

Batch ID: BEA0840 Date: 1/27/2024 Time: 1345 Initials: ARS

Blank <1ppm, LFB %Rec= 90-110%, MS/MSD %Rec= 80-120%. Run a blank and lcs before and after every 20 samples, plus dup and ms/msd after 20 samples.

QC REQUIREMENTS:	Std. #	Amount Spiked	Balance ID	Oven	Temp	Filters	Thermometer
TSS Reagents	2400172	100 ppm	BAL-06	OVEN 5	105	2302098	T-Oven 3
100ppm Cellulose TSS Soln.							

Comments:

Date/Time of Weight:

Sample Number	Sample ID	Dish ID	Filter Wt (g)	mls used	Dry Weight #1	Dry Weight #2**	Dilution Factor	IResult (mg/L)	FResult (mg/L)	QC Date & Initials
BEA0840-BLK1	Blank	74	0.1007	100	0.1006	0.1005	1	-2.00	-2.00	
BEA0840-BLK2	Blank	680	0.1009	100	0.101	0.1008	1	-1.00	-1.00	
BEA0840-BLK3	Blank	810	0.1006	100	0.1004	0.1006	1	-2.00	-2.00	
BEA0840-BLK4	Blank	678	0.1009	100	0.1003	0.1005	1	-6.00	-6.00	
BEA0840-BS1	LCS	948	0.1007	100	0.1109	0.1109	1	102.00	102.00	
BEA0840-BS2	LCS	502	0.1002	100	0.1106	0.1106	1	104.00	104.00	
BEA0840-DUP2	Duplicate WEA0829-04	981	0.1011	100	0.1043	0.1043	1	32.00	32.00	
WEA0829-04	E-1 Dup	993	0.1006	100	0.1036	0.1037	1	30.00	30.00	
WEA0829-05	E-1 MS/MSD	998	0.1078	100	0.1024	0.102	1	-58.00	-58.00	
WEA0380-03	005 Process to POTW	676	0.1045	100	0.102	0.1017	1	-28.00	-28.00	
WEA0829-01	WW-3	980	0.1024	100	0.1014	0.1014	1	-10.00	-10.00	
WEA0829-02	WW-6	510	0.1001	100	0.1006	0.1008	1	5.00	5.00	
WEA0829-03	E-1	499	0.1	100	0.1019	0.1015	1	15.00	15.00	
BEA0840-MSD2	Matrix Spike WEA0829-03	972	0.1018	50	0.1054	0.1057	2	36.00	36.00	
BEA0840-MSD2	Matrix Spike Dup WEA0829-03	976	0.0997	50	0.1043	0.1044	2	46.00	46.00	
WEA0829-06	D-2	951	0.101	100	0.1018	0.102	1	8.00	8.00	
WEA0829-07	D-3	415	0.1005	100	0.1014	0.1012	1	7.00	7.00	
WEA0829-08	D-4	986	0.1002	100	0.102	0.1017	1	15.00	15.00	
WEA0829-09	D-6	991	0.1014	100	0.1022	0.1022	1	8.00	8.00	
WEA0829-10	D-7	404	0.1004	100	0.1027	0.103	1	23.00	23.00	
WEA0829-11	D-8	551	0.1002	100	0.1006	0.1008	1	4.00	4.00	
WEA0829-12	U-2:WW-5	75	0.1005	100	0.1009	0.1012	1	4.00	4.00	
WEA0829-13	U-3:WW-4	975	0.0998	100	0.1014	0.1016	1	16.00	16.00	

