



# 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  
737 Bishop Street, Suite 3050  
Honolulu HI 96813  
**ATTENTION:** Benjamin Berridge  
[Benjamin.Berridge@cardno-gs.com](mailto:Benjamin.Berridge@cardno-gs.com)

FILE No.: 1494  
REPORT DATE: 10/05/2022  
PAGE: 1 of 1

## AECOS REPORT OF RESULTS

**SAMPLE TYPE:** stormwater      **AECOS LOG No.:** 46206  
**DATE SAMPLED:** 10/03/22      **DATE/TIME RECEIVED:** 10/03/22 @1540  
**TEMP. CONTROL:** 5.2 °C (by IR)      **SAMPLER:** H. Hubanks  
**DATE/TIME ANALYZED:** 10/03/22 @1618-1624      **MATRIX:** water  
**ANALYST:** R. Knapstein

	ANALYTE (UNITS)	Enterococcus (MPN/100ml)	Dilution Factor (10 ml / 100 ml)	Number of large positive wells	Number of small positive wells
	METHOD →	ASTM D650399	---	---	---
SAMPLE ID ↓	TIME SAMPLED ↓				
E-2	0925	120	8	3	10
DW-2	1021	630	34	5	10
DW-3	0950	840	36	12	10
D-7	1042	390	21	9	10
D-3	1007	720	36	6	10
D-2	0945	2200	48	15	10
D-4	0925	1200	44	7	10
D-5	0945	230	18	1	10
WW-2	1010	2200	44	29	10
WW-3	1025	280	17	6	10
D-6	1040	63	5	1	10
U3/WW4	0925	550	28	10	10
U2/WW5	0950	440	28	3	10
D-8	1050	550	31	5	10
DW-1/WW-1	1025	120	11	0	10
E-1	1125	<10	0	0	10

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	0462061

RUSH  
 SEE REVERSE  
 SPECIAL INSTRUCTIONS

CLIENT: *Cardno*  
 ADDRESS: *737 Bishop Street Suite 250 Honolulu HI 96813*  
 CONTACT: *Ben Berridge*  
 PHONE No.: *808-476-0007*  
 Purchase Order No.:

SAMPLE ID	DATE	TIME	SAMPLE TYPE	CONTAINERS	REQUESTED ANALYSES	PRESERVATION
1	10-3-2022	9:25	Water	1	idexx enterococci	
2		10:21				
3		9:50				
4		10:42				
5		10:07				
6		9:45				
7		9:25				
8		9:45				
9		10:10				
10		10:25				

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: *Annabeth Hibanks* DATE: *10-3-2022*  
 RELINQUISHED: *[Signature]* DATE: *10/3* TIME: *3:40*  
 SIGNATURE: *[Signature]* TIME:

RECEIVED BY: DATE: *20*  
 SIGNATURE: TIME: *20*  
 RELINQUISHED: DATE: *20* TIME:

RECEIVED FOR LABORATORY: DATE: *10/3* TIME: *20*  
 SIGNATURE: *[Signature]*  
 RELINQUISHED: DATE: *1540* TIME: *20*  
 SIGNATURE: *[Signature]* INITIALS:

COMMENTS: *No temp early temp taken w/ 1K gun*  
 PRECAUTIONS:

RETURN SAMPLE TO CLIENT

USE (BLACK) INK

T = 5.2 °C

DISPOSAL:



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Kaneohe, Oahu, HI 96744  
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## CHAIN OF CUSTODY FORM

PROJECT FILE No.	
LOG NUMBER	[ 46266 ]

RUSH  
 SEE REVERSE

SPECIAL INSTRUCTIONS

CLIENT: *Cardno* CONTACT: *Ben Bernage*  
 ADDRESS: *737 Bishop Street Suite 3050 Honolulu HI 96813* PHONE No.: *808-476-0667*  
 Purchase Order No.: \_\_\_\_\_

SAMPLE ID	DATE	TIME	SAMPLE TYPE	CONTAINER(S)	REQUESTED ANALYSES	PRESERVATION
1	10-3-2022	10:40	water	1 idex	enterococ.	
2		9:25				
3		9:50				
4		10:50				
5		10:25				
6		11:25				
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: *Hannah Hubanks* DATE: *10-3-2022*

RELINQUISHED: *[Signature]* DATE: *2022*  
 SIGNATURE: \_\_\_\_\_ TIME: *3:40*

RECEIVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

RELINQUISHED: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE OR INITIALS: \_\_\_\_\_ TIME: \_\_\_\_\_

RECEIVED FOR LABORATORY: \_\_\_\_\_ DATE: *10/3*

SIGNATURE: *[Signature]* TIME: *20:22*

RELINQUISHED: \_\_\_\_\_ DATE: *1540*

SIGNATURE OR INITIALS: \_\_\_\_\_ TIME: \_\_\_\_\_

COMMENTS: *no temp chl, temp taken w/ 12 gun*

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

RETURN SAMPLE TO CLIENT

USE (BLACK) INK

T = 5.2°C

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

**Work Order:** WCJ0253  
**Project:** ADC Water Quality Monitoring  
**Reported:** 12/30/2022 09:13

## Analytical Results Report

**Sample Location:** DW-2  
**Lab/Sample Number:** WCJ0253-01      **Collect Date:** 10/03/22 10:21  
**Date Received:** 10/06/22 10:00      **Collected By:**  
**Matrix:** Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	13.5	mg/L	0.250	0.250	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00101	mg/L	0.000540	0.00100	10/14/22 16:03	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 12:57	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 6:00	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 6:00	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 6:00	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 6:00	ARC	NWTPH-HCID	
-----								
Surrogate: n-Hexacosane	96.3%		50-150		10/12/22 6:00	ARC	NWTPH-HCID	



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## Analytical Results Report

(Continued)

Sample Location: DW-3  
Lab/Sample Number: WCJ0253-02 Collect Date: 10/03/22 09:50  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	9.50	mg/L	0.250	0.250	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000740	mg/L	0.000540	0.00100	10/14/22 16:05	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 12:59	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 7:49	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 7:49	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 7:49	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 7:49	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>102%</i>		<i>50-150</i>		<i>10/12/22 7:49</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-2  
Lab/Sample Number: WCJ0253-03 Collect Date: 10/03/22 09:45  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	15.5	mg/L	0.500	0.500	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00933	mg/L	0.000540	0.00100	10/14/22 16:07	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:01	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 8:44	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 8:44	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 8:44	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 8:44	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>98.3%</i>		<i>50-150</i>		<i>10/12/22 8:44</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-3  
Lab/Sample Number: WCJ0253-04 Collect Date: 10/03/22 10:07  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	13.5	mg/L	0.250	0.250	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00101	mg/L	0.000540	0.00100	10/14/22 16:10	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:04	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 9:40	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 9:40	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 9:40	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 9:40	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>101%</i>		<i>50-150</i>		<i>10/12/22 9:40</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-4  
Lab/Sample Number: WCJ0253-05 Collect Date: 10/03/22 09:25  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	5.50	mg/L	0.250	0.250	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00153	mg/L	0.000540	0.00100	10/14/22 16:12	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:06	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 16:11	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 16:11	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 16:11	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 16:11	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>111%</i>		<i>50-150</i>		<i>10/12/22 16:11</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-5  
Lab/Sample Number: WCJ0253-06 Collect Date: 10/03/22 09:45  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	8.00	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00138	mg/L	0.000540	0.00100	10/14/22 16:14	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:08	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 17:06	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 17:06	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 17:06	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 17:06	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>99.7%</i>		<i>50-150</i>		<i>10/12/22 17:06</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-6  
Lab/Sample Number: WCJ0253-07 Collect Date: 10/03/22 10:40  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	8.00	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00164	mg/L	0.000540	0.00100	10/14/22 16:17	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:11	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 18:02	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 18:02	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 18:02	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 18:02	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>83.9%</i>		<i>50-150</i>		<i>10/12/22 18:02</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-7  
 Lab/Sample Number: WCJ0253-08 Collect Date: 10/03/22 10:42  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	19.5	mg/L	0.500	0.500	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	<0.00054	mg/L	0.000540	0.00100	10/14/22 16:19	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:13	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 18:58	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 18:58	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 18:58	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 18:58	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>70.3%</i>		<i>50-150</i>		<i>10/12/22 18:58</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: D-8  
Lab/Sample Number: WCJ0253-09 Collect Date: 10/03/22 10:50  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	6.20	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00396	mg/L	0.000540	0.00100	10/14/22 16:21	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:15	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 19:54	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 19:54	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 19:54	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 19:54	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>74.0%</i>		<i>50-150</i>		<i>10/12/22 19:54</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	



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## Analytical Results Report

(Continued)

Sample Location: DW-1/WW-1  
 Lab/Sample Number: WCJ0253-10 Collect Date: 10/03/22 10:25  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	5.40	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00211	mg/L	0.000540	0.00100	10/14/22 16:37	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:17	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 20:49	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 20:49	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 20:49	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 20:49	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>95.7%</i>		<i>50-150</i>		<i>10/12/22 20:49</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: WW-2  
Lab/Sample Number: WCJ0253-11 Collect Date: 10/03/22 10:10  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	36.0	mg/L	0.500	0.500	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00310	mg/L	0.000540	0.00100	10/14/22 16:39	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:27	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 21:45	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 21:45	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 21:45	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 21:45	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>86.6%</i>		<i>50-150</i>		<i>10/12/22 21:45</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: U-3/WW-4  
Lab/Sample Number: WCJ0253-12 Collect Date: 10/03/22 09:25  
Date Received: 10/06/22 10:00 Collected By:  
Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	62.0	mg/L	0.400	0.400	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	<0.00054	mg/L	0.000540	0.00100	10/14/22 16:41	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:29	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 22:40	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 22:40	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 22:40	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 22:40	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>92.7%</i>		<i>50-150</i>		<i>10/12/22 22:40</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: WW-3  
 Lab/Sample Number: WCJ0253-13 Collect Date: 10/03/22 10:25  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	7.60	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00179	mg/L	0.000540	0.00100	10/14/22 16:44	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:31	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
AMPA	ND	ug/L	5.00	10.0	10/11/22 19:11	MER	EPA 547	*
Glyphosate	<2.5	ug/L	2.50	5.00	10/11/22 19:11	MER	EPA 547	*
Atrazine	<0.05	ug/L	0.0500	0.100	11/9/22 21:52	MH	EPA 625.1	*
Chlorpyrifos	ND	ug/L	0.0500	0.100	11/9/22 21:52	MH	EPA 625.1	*
Metolachlor	ND	ug/L	0.0500	0.100	11/9/22 21:52	MH	EPA 625.1	*
-----								
<i>Surrogate: Terphenyl-d14</i>	<i>68.7%</i>		<i>25-135</i>		<i>11/9/22 21:52</i>	<i>MH</i>	<i>EPA 625.1</i>	
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 23:35	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 23:35	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 23:35	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 23:35	ARC	NWTPH-HCID	
-----								
<i>Surrogate: n-Hexacosane</i>	<i>91.9%</i>		<i>50-150</i>		<i>10/12/22 23:35</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: E-2  
 Lab/Sample Number: WCJ0253-14 Collect Date: 10/03/22 09:25  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	17.0	mg/L	0.500	0.500	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.00574	mg/L	0.000540	0.00100	10/14/22 16:46	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 13:33	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
AMPA	ND	ug/L	5.00	10.0	10/11/22 17:56	MER	EPA 547	*
Glyphosate	<2.5	ug/L	2.50	5.00	10/11/22 17:56	MER	EPA 547	*
Atrazine	<0.05	ug/L	0.0500	0.100	11/9/22 22:22	MH	EPA 625.1	*
Chlorpyrifos	ND	ug/L	0.0500	0.100	11/9/22 22:22	MH	EPA 625.1	*
Metolachlor	ND	ug/L	0.0500	0.100	11/9/22 22:22	MH	EPA 625.1	*
-----								
<i>Surrogate: Terphenyl-d14</i>	<i>60.3%</i>		<i>25-135</i>		<i>11/9/22 22:22</i>	<i>MH</i>	<i>EPA 625.1</i>	
Diesel	<0.052	mg/L	0.0520	0.0800	10/13/22 0:30	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/13/22 0:30	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/13/22 0:30	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/13/22 0:30	ARC	NWTPH-HCID	
-----								
<i>Surrogate: n-Hexacosane</i>	<i>98.9%</i>		<i>50-150</i>		<i>10/13/22 0:30</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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## Analytical Results Report

(Continued)

Sample Location: E-1  
 Lab/Sample Number: WCJ0253-15 Collect Date: 10/03/22 11:25  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	81.0	mg/L	0.500	0.500	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000823	mg/L	0.000540	0.00100	10/14/22 16:53	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 14:05	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
AMPA	ND	ug/L	5.00	10.0	10/11/22 19:18	MER	EPA 547	*
Glyphosate	<2.5	ug/L	2.50	5.00	10/11/22 19:18	MER	EPA 547	*
Atrazine	<0.05	ug/L	0.0500	0.100	11/9/22 22:52	MH	EPA 625.1	*
Chlorpyrifos	ND	ug/L	0.0500	0.100	11/9/22 22:52	MH	EPA 625.1	*
Metolachlor	ND	ug/L	0.0500	0.100	11/9/22 22:52	MH	EPA 625.1	*
<i>Surrogate: Terphenyl-d14</i>								
	66.9%		25-135		11/9/22 22:52	MH	EPA 625.1	
Diesel	<0.052	mg/L	0.0520	0.0800	10/12/22 3:15	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/12/22 3:15	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/12/22 3:15	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/12/22 3:15	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>								
	99.0%		50-150		10/12/22 3:15	ARC	NWTPH-HCID	

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## Analytical Results Report

(Continued)

Sample Location: E-1 DUP  
 Lab/Sample Number: WCJ0253-16 Collect Date: 10/03/22 11:25  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	22.2	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	0.000933	mg/L	0.000540	0.00100	10/14/22 17:00	JLG	EPA 200.8	J
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 14:26	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
AMPA	ND	ug/L	5.00	10.0	10/11/22 19:24	MER	EPA 547	*
Glyphosate	<2.5	ug/L	2.50	5.00	10/11/22 19:24	MER	EPA 547	*
Atrazine	<0.05	ug/L	0.0500	0.100	11/9/22 23:22	MH	EPA 625.1	*
Chlorpyrifos	ND	ug/L	0.0500	0.100	11/9/22 23:22	MH	EPA 625.1	*
Metolachlor	ND	ug/L	0.0500	0.100	11/9/22 23:22	MH	EPA 625.1	*
-----								
<i>Surrogate: Terphenyl-d14</i>	<i>68.2%</i>		<i>25-135</i>		<i>11/9/22 23:22</i>	<i>MH</i>	<i>EPA 625.1</i>	
Diesel	<0.052	mg/L	0.0520	0.0800	10/13/22 1:25	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/13/22 1:25	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/13/22 1:25	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/13/22 1:25	ARC	NWTPH-HCID	
-----								
<i>Surrogate: n-Hexacosane</i>	<i>99.6%</i>		<i>50-150</i>		<i>10/13/22 1:25</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

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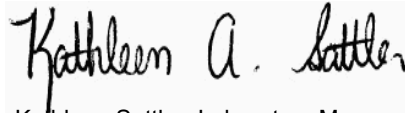
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## Analytical Results Report (Continued)

Sample Location: U-2/WW-5  
 Lab/Sample Number: WCJ0253-17 Collect Date: 10/03/22 09:50  
 Date Received: 10/06/22 10:00 Collected By:  
 Matrix: Water

Analyte	Result	Units	MDL	PQL	Analyzed	Analyst	Method	Qualifier
<b>Inorganics</b>								
TSS	7.80	mg/L	0.200	0.200	10/7/22 14:10	KAS	EPA 160.2	
<b>Metals by ICP-MS</b>								
Arsenic	<0.00054	mg/L	0.000540	0.00100	10/14/22 17:02	JLG	EPA 200.8	
<b>Mercury</b>								
Mercury	<0.0850	ug/L	0.0850	0.100	10/18/22 14:14	JLG	EPA 245.1	M1
<b>Semivolatiles</b>								
Diesel	<0.052	mg/L	0.0520	0.0800	10/13/22 2:20	ARC	NWTPH-HCID	
Gasoline	<0.16	mg/L	0.160	0.400	10/13/22 2:20	ARC	NWTPH-HCID	
Lube Oil	<0.0460	mg/L	0.0460	0.0800	10/13/22 2:20	ARC	NWTPH-HCID	
Mineral Oil	<0.16	mg/L	0.160	0.400	10/13/22 2:20	ARC	NWTPH-HCID	
<i>Surrogate: n-Hexacosane</i>	<i>98.8%</i>		<i>50-150</i>		<i>10/13/22 2:20</i>	<i>ARC</i>	<i>NWTPH-HCID</i>	

Authorized Signature,



Kathleen Sattler, Laboratory Manager

- J The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- M1 Matrix spike recovery was high; the associated blank spike recovery was acceptable. Potential matrix effect
- 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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## **Certifications**

<b>Code</b>	<b>Description</b>	<b>Facility</b>	<b>Number</b>
W WA DOE	Washington Department of Ecology	Anatek-Spokane, WA	C585
W FLDOH	Florida Department of Health (NELAC)	Anatek-Spokane, WA	E871099

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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: BCJ0253 - W Filtration</b>										
<b>Blank (BCJ0253-BLK1)</b>					Prepared & Analyzed: 10/7/2022					
TSS	ND		0.200	mg/L						
<b>Blank (BCJ0253-BLK2)</b>					Prepared & Analyzed: 10/7/2022					
TSS	ND		0.200	mg/L						
<b>Blank (BCJ0253-BLK3)</b>					Prepared & Analyzed: 10/7/2022					
TSS	ND		0.200	mg/L						
<b>Blank (BCJ0253-BLK4)</b>					Prepared & Analyzed: 10/7/2022					
TSS	ND		0.200	mg/L						
<b>Blank (BCJ0253-BLK5)</b>					Prepared & Analyzed: 10/7/2022					
TSS	ND		0.200	mg/L						
<b>Blank (BCJ0253-BLK6)</b>					Prepared & Analyzed: 10/7/2022					
TSS	ND		0.200	mg/L						
<b>LCS (BCJ0253-BS1)</b>					Prepared & Analyzed: 10/7/2022					
TSS	94.0			mg/L	100		94.0	90-110		
<b>LCS (BCJ0253-BS2)</b>					Prepared & Analyzed: 10/7/2022					
TSS	96.0			mg/L	100		96.0	90-110		
<b>LCS (BCJ0253-BS3)</b>					Prepared & Analyzed: 10/7/2022					
TSS	93.0			mg/L	100		93.0	90-110		
<b>LCS Dup (BCJ0253-BSD1)</b>					Prepared & Analyzed: 10/7/2022					
TSS	90.0			mg/L	100		90.0	90-110	4.35	10

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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: BCJ0253 - W Filtration (Continued)</b>										
<b>LCS Dup (BCJ0253-BSD2)</b>										
TSS	95.0			mg/L	100		95.0	90-110	1.05	10
Prepared & Analyzed: 10/7/2022										
<b>LCS Dup (BCJ0253-BSD3)</b>										
TSS	90.0			mg/L	100		90.0	90-110	3.28	10
Prepared & Analyzed: 10/7/2022										
<b>Duplicate (BCJ0253-DUP1)</b>										
TSS	18.0		0.333	mg/L		17.7			1.87	20
Source: WCJ0213-05 Prepared & Analyzed: 10/7/2022										
<b>Duplicate (BCJ0253-DUP2)</b>										
TSS	1.50		0.250	mg/L		1.50			0.00	20
Source: WCJ0218-02 Prepared & Analyzed: 10/7/2022										
<b>Duplicate (BCJ0253-DUP3)</b>										
TSS	6.75		0.250	mg/L		7.25			7.14	20
Source: WCJ0220-01 Prepared & Analyzed: 10/7/2022										
<b>Matrix Spike (BCJ0253-MS1)</b>										
TSS	122		2.00	mg/L	100	17.0	105	80-120		
Source: WCJ0253-14 Prepared & Analyzed: 10/7/2022										
<b>Matrix Spike (BCJ0253-MS2)</b>										
TSS	180		2.00	mg/L	100	81.0	99.0	80-120		
Source: WCJ0253-15 Prepared & Analyzed: 10/7/2022										
<b>Matrix Spike (BCJ0253-MS3)</b>										
TSS	104		2.00	mg/L	100	ND	104	80-120		
Source: WCJ0214-02 Prepared & Analyzed: 10/7/2022										
<b>Matrix Spike Dup (BCJ0253-MSD1)</b>										
TSS	122		2.00	mg/L	100	17.0	105	80-120	0.00	20
Source: WCJ0253-14 Prepared & Analyzed: 10/7/2022										
<b>Matrix Spike Dup (BCJ0253-MSD2)</b>										
TSS	182		2.00	mg/L	100	81.0	101	80-120	1.10	20
Source: WCJ0253-15 Prepared & Analyzed: 10/7/2022										

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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: BCJ0253 - W Filtration (Continued)</b>										
<b>Matrix Spike Dup (BCJ0253-MSD3)</b> Source: WCJ0214-02 Prepared & Analyzed: 10/7/2022										
TSS	100		2.00	mg/L	100	ND	100	80-120	3.92	20

## 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: BCJ0331 - W 3010 Digest</b>										
<b>Blank (BCJ0331-BLK1)</b> Prepared: 10/11/2022 Analyzed: 10/14/2022										
Arsenic	ND		0.00100	mg/L						
<b>LCS (BCJ0331-BS1)</b> Prepared: 10/11/2022 Analyzed: 10/14/2022										
Arsenic	0.0532		0.00100	mg/L	0.0500		106	85-115		
<b>Matrix Spike (BCJ0331-MS1)</b> Source: WCJ0253-14 Prepared: 10/11/2022 Analyzed: 10/14/2022										
Arsenic	0.0585		0.00100	mg/L	0.0500	0.00574	106	70-130		
<b>Matrix Spike (BCJ0331-MS2)</b> Source: WCJ0253-15 Prepared: 10/11/2022 Analyzed: 10/14/2022										
Arsenic	0.0534		0.00100	mg/L	0.0500	0.000823	105	70-130		
<b>Matrix Spike Dup (BCJ0331-MSD1)</b> Source: WCJ0253-14 Prepared: 10/11/2022 Analyzed: 10/14/2022										
Arsenic	0.0581		0.00100	mg/L	0.0500	0.00574	105	70-130	0.803	20
<b>Matrix Spike Dup (BCJ0331-MSD2)</b> Source: WCJ0253-15 Prepared: 10/11/2022 Analyzed: 10/14/2022										
Arsenic	0.0526		0.00100	mg/L	0.0500	0.000823	104	70-130	1.53	20

## Quality Control Data (Continued)

### Mercury

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BCJ0334 - W 245.1 Digest</b>										
<b>Blank (BCJ0334-BLK1)</b> Prepared: 10/11/2022 Analyzed: 10/18/2022										
Mercury	ND		0.100	ug/L						
<b>LCS (BCJ0334-BS1)</b> Prepared: 10/11/2022 Analyzed: 10/18/2022										
Mercury	1.88		0.100	ug/L	2.00		94.2	85-115		
<b>Matrix Spike (BCJ0334-MS2)</b> Source: WCJ0253-15 Prepared: 10/11/2022 Analyzed: 10/18/2022										
Mercury	2.62	M1	0.100	ug/L	2.00	<0.0850	131	70-130		
<b>Matrix Spike Dup (BCJ0334-MSD2)</b> Source: WCJ0253-15 Prepared: 10/11/2022 Analyzed: 10/18/2022										
Mercury	3.31	M1	0.100	ug/L	2.00	<0.0850	166	70-130	23.2	20

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## Quality Control Data (Continued)

### Semivolatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BCJ0271 - W TPH-Dx</b>										
<b>Blank (BCJ0271-BLK1)</b>										
					Prepared & Analyzed: 10/11/2022					
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>			48.5	mg/L	50.0		96.9	50-150		
<b>LCS (BCJ0271-BS1)</b>										
					Prepared: 10/11/2022 Analyzed: 10/12/2022					
Diesel	0.755		0.0800	mg/L	1.00		75.5	70-130		
<i>Surrogate: n-Hexacosane</i>			44.8	mg/L	50.0		89.7	50-150		
<b>Duplicate (BCJ0271-DUP1)</b>										
			<b>Source: WCJ0253-01</b>			Prepared: 10/11/2022 Analyzed: 10/12/2022				
Lube Oil	ND		0.0800	mg/L		<0.0460				200
Mineral Oil	ND		0.400	mg/L		<0.16				200
Gasoline	ND		0.400	mg/L		<0.16				200
Diesel	ND		0.0800	mg/L		<0.052				200
<i>Surrogate: n-Hexacosane</i>			48.8	mg/L	50.0		97.7	50-150		
<b>Matrix Spike (BCJ0271-MS1)</b>										
			<b>Source: WCJ0253-15</b>			Prepared: 10/11/2022 Analyzed: 10/12/2022				
Diesel	0.841		0.0800	mg/L	1.00	<0.052	84.1	70-130		
<i>Surrogate: n-Hexacosane</i>			50.0	mg/L	50.0		100	50-150		
<b>Matrix Spike Dup (BCJ0271-MSD1)</b>										
			<b>Source: WCJ0253-15</b>			Prepared: 10/11/2022 Analyzed: 10/12/2022				
Diesel	0.789		0.0800	mg/L	1.00	<0.052	78.9	70-130	6.35	20
<i>Surrogate: n-Hexacosane</i>			43.6	mg/L	50.0		87.3	50-150		
<b>Batch: BCJ0307 - Glyphosate</b>										
<b>Blank (BCJ0307-BLK1)</b>										
					Prepared: 10/10/2022 Analyzed: 10/11/2022					
Glyphosate	ND		5.00	ug/L						
AMPA	ND		10.0	ug/L						

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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: BCJ0307 - Glyphosate (Continued)</b>										
<b>LCS (BCJ0307-BS1)</b>			Prepared: 10/10/2022 Analyzed: 10/11/2022							
Glyphosate	45.8		5.00	ug/L	50.0		91.6	70-130		
AMPA	91.6		10.0	ug/L	100		91.6	70-130		
<b>Matrix Spike (BCJ0307-MS1)</b>			<b>Source: WCJ0253-14</b>		Prepared: 10/10/2022 Analyzed: 10/11/2022					
Glyphosate	53.4		5.00	ug/L	50.0	<2.5	107	70-130		
AMPA	126		10.0	ug/L	100	ND	126	70-130		
<b>Matrix Spike Dup (BCJ0307-MSD1)</b>			<b>Source: WCJ0253-14</b>		Prepared: 10/10/2022 Analyzed: 10/11/2022					
Glyphosate	43.7		5.00	ug/L	50.0	<2.5	87.4	70-130	20.0	25
AMPA	101		10.0	ug/L	100	ND	101	70-130	22.0	25
<b>Batch: BCJ0361 - SVOC Water</b>										
<b>Blank (BCJ0361-BLK1)</b>			Prepared: 10/9/2022 Analyzed: 11/9/2022							
Metolachlor	ND		0.100	ug/L						
Atrazine	ND		0.100	ug/L						
Chlorpyrifos	ND		0.100	ug/L						
<i>Surrogate: Terphenyl-d14</i>			<i>19.3</i>	<i>ug/L</i>	<i>25.0</i>		<i>77.1</i>	<i>25-135</i>		
<b>LCS (BCJ0361-BS1)</b>			Prepared: 10/9/2022 Analyzed: 11/9/2022							
Atrazine	5.45		0.100	ug/L	5.00		109	60-125		
Chlorpyrifos	5.24		0.100	ug/L	5.00		105	50-125		
Metolachlor	5.31		0.100	ug/L	5.00		106	60-125		
<i>Surrogate: Terphenyl-d14</i>			<i>18.9</i>	<i>ug/L</i>	<i>25.0</i>		<i>75.6</i>	<i>25-135</i>		
<b>LCS Dup (BCJ0361-BSD1)</b>			Prepared: 10/9/2022 Analyzed: 11/9/2022							
Atrazine	5.58		0.100	ug/L	5.00		112	60-125	2.36	20
Chlorpyrifos	5.25		0.100	ug/L	5.00		105	50-125	0.191	20
Metolachlor	5.21		0.100	ug/L	5.00		104	60-125	1.90	20
<i>Surrogate: Terphenyl-d14</i>			<i>19.0</i>	<i>ug/L</i>	<i>25.0</i>		<i>76.1</i>	<i>25-135</i>		



**Chain of Custody Record**

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Anatek Log-In #

WCJ0253



Due: 10/20/22

Company Name: <b>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:

Turn Aro

Please refer to our normal turn around times at:  
<http://www.anateklabs.com/services/guidelines/reporting.asp>

Normal  \*All rush order requests must be prior approved.  Phone

Next Day\*  Mail

2nd Day\*  Fax

Other\*  Email

Provide Sample Description				List Analyses Requested								Note Special Instructions/Comments								
Lab ID	Sample Identification	Sampling Date/Time	Matrix	Preservative:																
				# of Containers	Sample Volume	TSS EPA 160.2	TPH HCLD - SW 846 MOD 8015	**TPH GRO SW846M8015	Arsenic EPA 200.8	Mercury EPA 245.1										
5	DW-2	10-03-2022/10:21 HST	Water	5		X	X	X	X	X										
4	DW-3	10-03-2022/09:50 HST	Water	5		X	X	X	X	X										
1	D-2	10-03-2022/09:45 HST	Water	5		X	X	X	X	X										
5	D-3	10-03-2022/10:07 HST	Water	5		X	X	X	X	X										
3	D-4	10-03-2022/09:25 HST	Water	5		X	X	X	X	X										
3	D-5	10-03-2022/09:45 HST	Water	5		X	X	X	X	X										
3	D-6	10-03-2022/10:40 HST	Water	5		X	X	X	X	X										
2	D-7	10-03-2022/10:42 HST	Water	5		X	X	X	X	X										
1	D-8	10-03-2022/10:50 HST	Water	5		X	X	X	X	X										
2	DW-1/WW-1	10-03-2022/10:25 HST	Water	5		X	X	X	X	X										
3	WW-2	10-03-2022/10:10 HST	Water	5		X	X	X	X	X										
1	U-3/WW-4	10-03-2022/09:25 HST	Water	5		X	X	X	X	X										
1	U-2/WW-5	10-03-2022/09:50 HST	Water	5		X	X	X	X	X										

**Note Special Instructions/Comments**

**\*\*Please do not conduct TPH GRO analysis until Cardno confirms it should be run.**

**Inspection Checklist**

Received Intact?  Y  N

Labels & Chains Agree?  Y  N

Containers Sealed?  Y  N

VOC Head Space?  Y  N

5 Coolers / Ice / Fed Ex

Temperature (°C): See below

Preservative: HCl 2102437 pH=2  
 2103533 HCl pH<2 pH 2102879

Date & Time: 10-6-22 / 1400

Inspected By: KAS/BAG

	Printed Name	Signature	Company	Date	Time
Relinquished by	Ben Berridge	<i>[Signature]</i>	Cardno	10/28/22	14:00
Received by	Kathy Suttler	<i>[Signature]</i>	Anatek Labs	10-6-22	10:00
Relinquished by					
Received by					
Relinquished by					
Received by					

Form COC01.00 - Eff 1 Mar 2015

Page 2 of 2

Samples submitted to Anatek Labs may be subcontracted to other accredited labs if necessary. This message serves as notice of this possibility. Sub-contracted analyses will be clearly noted on the analytical report.

Coolers: 1-2.2°C 2-2.0°C 3-0.2°C 4-3.6°C 5-2.4°C



**Chain of Custody Record**

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Anatek Log-In # \_\_\_\_\_

WCJ0253



Due: 10/20/22

Company Name: <b>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:

**Turn Aro**

Please refer to our normal turn around times at:  
<http://www.anateklabs.com/services/guidelines/reporting.asp>

<input checked="" type="checkbox"/> Normal	*All rush order requests must be prior approved.	<input type="checkbox"/> Phone
<input type="checkbox"/> Next Day*		<input type="checkbox"/> Mail
<input type="checkbox"/> 2nd Day*		<input type="checkbox"/> Fax
<input type="checkbox"/> Other*		<input checked="" type="checkbox"/> Email

Provide Sample Description				List Analyses Requested										Note Special Instructions/Comments	
Lab ID	Sample Identification	Sampling Date/Time	Matrix	Preservative:	# of Containers	Sample Volume	TSS EPA 160.2	TPH HCLD - SW 846 MOD 8015	**TPH GRO SW846/8015	Arsenic EPA 200.8	Mercury EPA 245.1	Pesticides EPA 625 SIM	Glyphosate EPA 547		Pesticides Sed EPA 827D
4	WW-3	10-03-2022/10:25 HST	Water		7		X	X	X	X	X	X	X		
2	E-2	10-03-2022/09:25 HST	Water		7		X	X	X	X	X	X	X		
4	E-1	10-03-2022/11:25 HST	Water		7		X	X	X	X	X	X	X		
5	E-1 DUP	10-03-2022/11:25 HST	Water		7		X	X	X	X	X	X	X		
5	E-1 MS/MSD	10-03-2022/11:25 HST	Water		6		X	X	X	X	X	X			

**Note Special Instructions/Comments**

\*\*Please do not conduct TPH GRO analysis until Cardno confirms it should be run.

**Inspection Checklist**

Received Intact?	Y	N
Labels & Chains Agree?	Y	N
Containers Sealed?	Y	N
VOC Head Space?	Y	N

	Printed Name	Signature	Company	Date	Time
Relinquished by	Ben Berridge		Cardno	10/04/22	14:00
Received by	Kathy Sattler		Anatek Labs	10-6-22	10:00
Relinquished by					
Received by					
Relinquished by					
Received by					

*See Page 1*

Temperature (°C): \_\_\_\_\_

Preservative: \_\_\_\_\_

Date & Time: \_\_\_\_\_

Inspected By: \_\_\_\_\_

1413  
14 15  
15 16  
16





Sample Receipt and Preservation Form

WCJ0253



Due: 10/20/22

Client Name: Cardno Project: \_\_\_\_\_

TAT: Normal RUSH: \_\_\_\_\_ days

Samples Received From: FedEx UPS USPS Client Courier Other: \_\_\_\_\_

Custody Seal on Cooler/Box: Yes No Custody Seals Intact: Yes No N/A

Number of Coolers/Boxes: 5 Type of Ice: Ice/Ice Packs Blue Ice Dry Ice None

Packing Material: Bubble Wrap Bags Foam/Peanuts None Other: \_\_\_\_\_

Cooler Temp As Read (°C): 2.2°C Cooler Temp Corrected (°C): 2.2°C Thermometer Used: IP#2

2.0°C 3.6°C  
0.2°C 2.4°C

Samples Received Intact?	<u>Yes</u>	No	N/A
Chain of Custody Present?	<u>Yes</u>	No	N/A
Samples Received Within Hold Time?	<u>Yes</u>	No	N/A
Samples Properly Preserved?	<u>Yes</u>	No	N/A
VOC Vials Free of Headspace (<6mm)?	<u>Yes</u>	No	N/A
VOC Trip Blanks Present?	Yes	No	<u>N/A</u>
Labels and Chains Agree?	<u>Yes</u>	No	N/A
Total Number of Sample Bottles Received:	<u>34</u>		

Comments:


Chain of Custody Fully Completed?	<u>Yes</u>	No	N/A
Correct Containers Received?	<u>Yes</u>	No	N/A
Anatek Bottles Used?	<u>Yes</u>	No	Unknown


Record preservatives (and lot numbers, if known) for containers below:

HCl 2103533
HCl 2102437
pH < 2 2102879

Notes, comments, etc. (also use this space if contacting the client - record names and date/time)

--

Received/Inspected By: Kathleen A. Little Date/Time: 10-6-22 10:00

Data File : W:\HPCHEM\1\2022DATA\101022\SIG10035.D Vial: 23  
 Acq On : 11 Oct 2022 23:34 Operator: ARC  
 Sample : BCJ0271-BLK1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:08 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

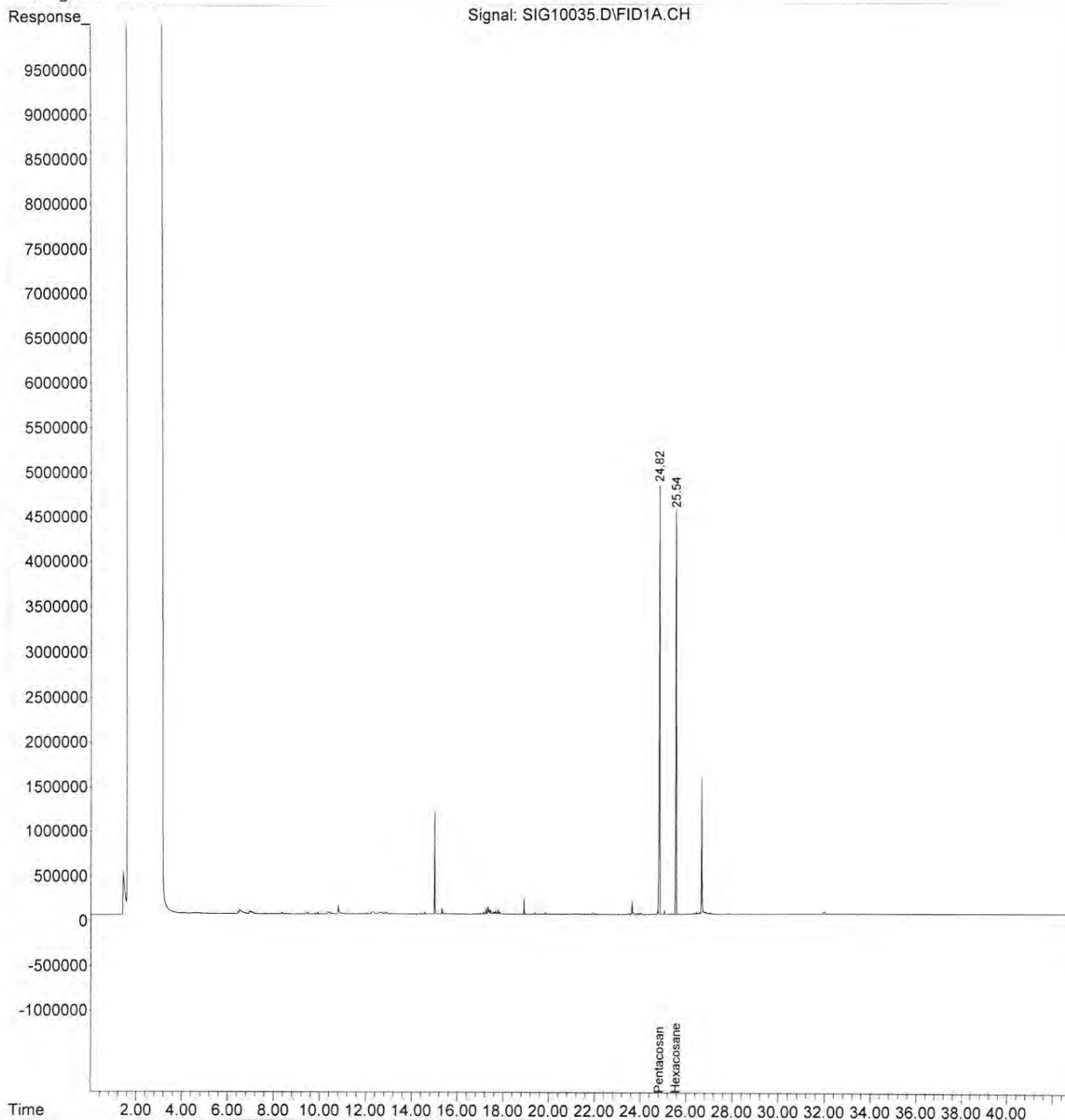
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.82	95184211	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.54	92808805	48.456	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 96.91%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10035.D Vial: 23  
Acq On : 11 Oct 2022 23:34 Operator: ARC  
Sample : BCJ0271-BLK1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:27 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10036.D Vial: 24  
 Acq On : 12 Oct 2022 00:29 Operator: ARC  
 Sample : BCJ0271-BS1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:09 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

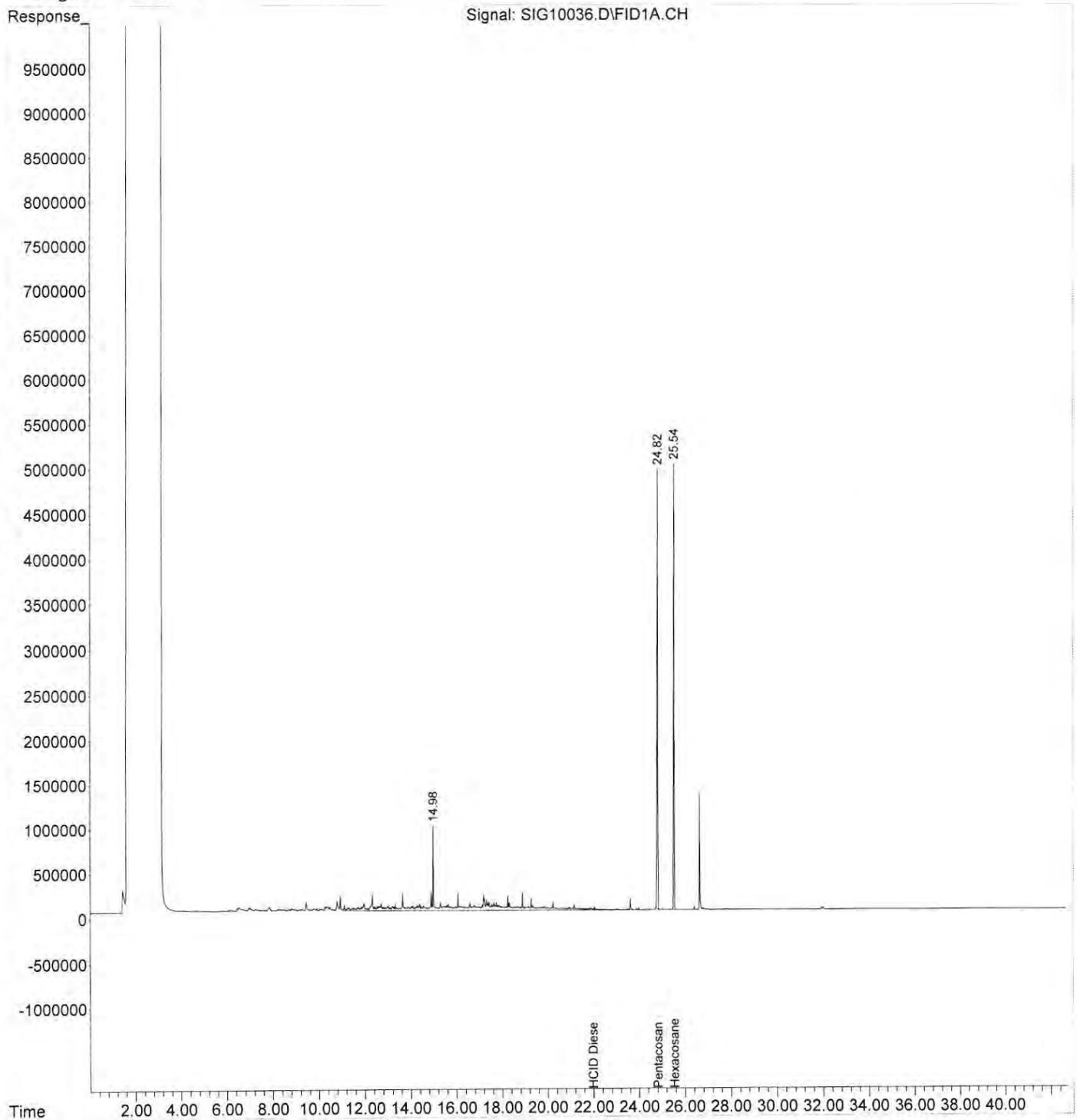
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
Internal Standards				
1) I Pentacosane	24.82	99670302	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.54	89915550	44.833	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 89.67%
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)	21.97	262682358	188.843	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2022DATA\101022\SIG10036.D Vial: 24  
Acq On : 12 Oct 2022 00:29 Operator: ARC  
Sample : BCJ0271-BS1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:13 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10039.D Vial: 25  
 Acq On : 12 Oct 2022 3:15 Operator: ARC  
 Sample : WCJ0253-15 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:13 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

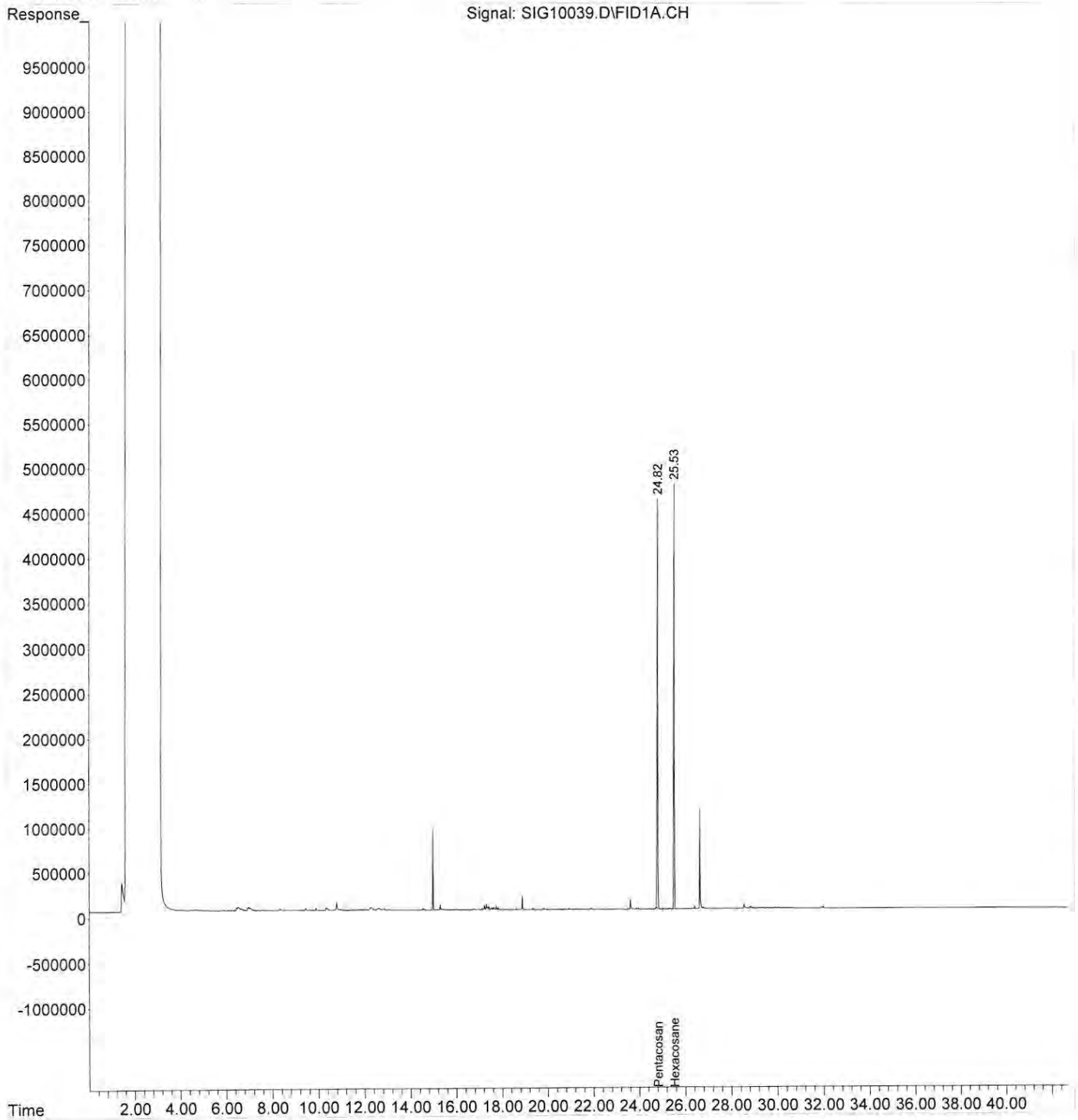
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.82	89412954	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.53	89082796	49.513	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 99.03%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10039.D Vial: 25  
Acq On : 12 Oct 2022 3:15 Operator: ARC  
Sample : WCJ0253-15 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:28 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10040.D Vial: 26  
 Acq On : 12 Oct 2022 4:10 Operator: ARC  
 Sample : BCH0271-MS1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:14 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

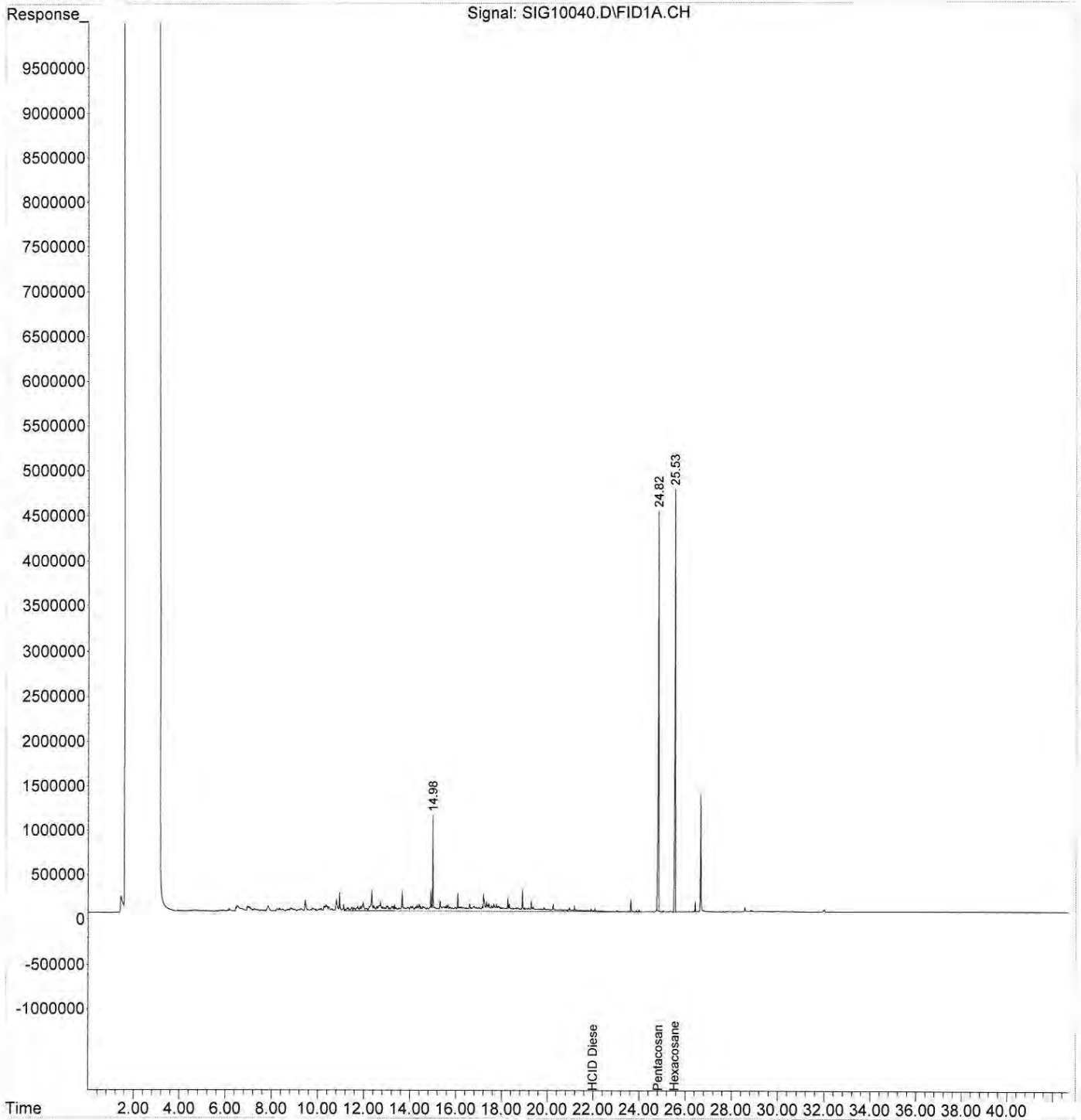
Compound	R.T.	Response	Conc	Units
-----				
Internal Standards				
1) I Pentacosane	24.82	89007799	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.53	89513067	49.979	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 99.96%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	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)	21.97	261075403	210.171	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10040.D Vial: 26  
Acq On : 12 Oct 2022 4:10 Operator: ARC  
Sample : BCH0271-MS1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:14 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10041.D Vial: 27  
 Acq On : 12 Oct 2022 5:05 Operator: ARC  
 Sample : BCJ0271-MSD1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:16 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

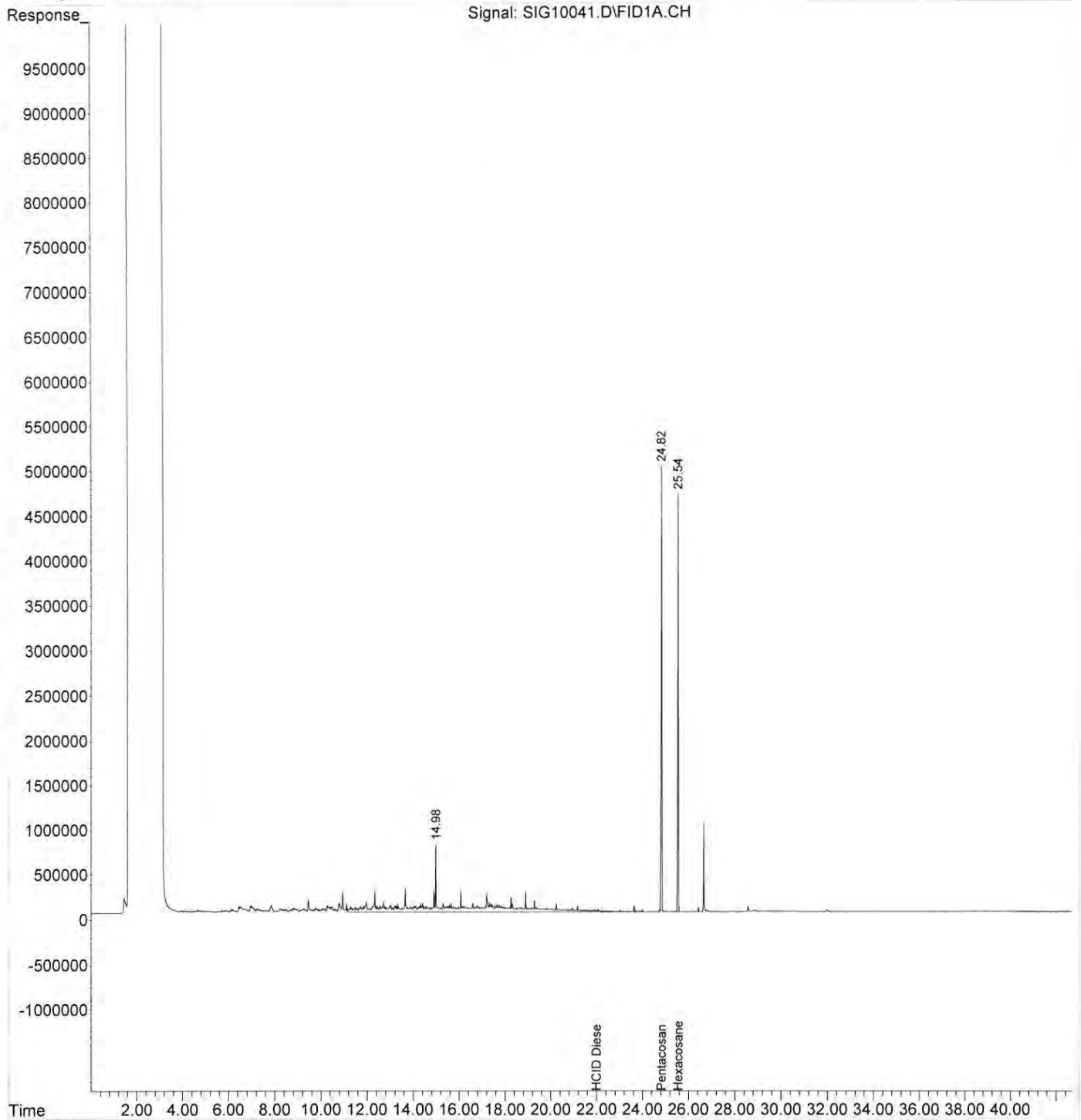
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.82	110796313	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.54	97278804	43.633	ppm m
Spiked Amount	50.000	Recovery	=	87.27%
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)	21.97	304986304	197.238	ppm
8) h HCID Oil (>C14)	0.00	0	N.D.	ppm

Data File : W:\HPCHEM\1\2022DATA\101022\SIG10041.D Vial: 27  
Acq On : 12 Oct 2022 5:05 Operator: ARC  
Sample : BCJ0271-MSD1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:14 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10042.D Vial: 28  
 Acq On : 12 Oct 2022 6:00 Operator: ARC  
 Sample : WCJ0253-01 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:17 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

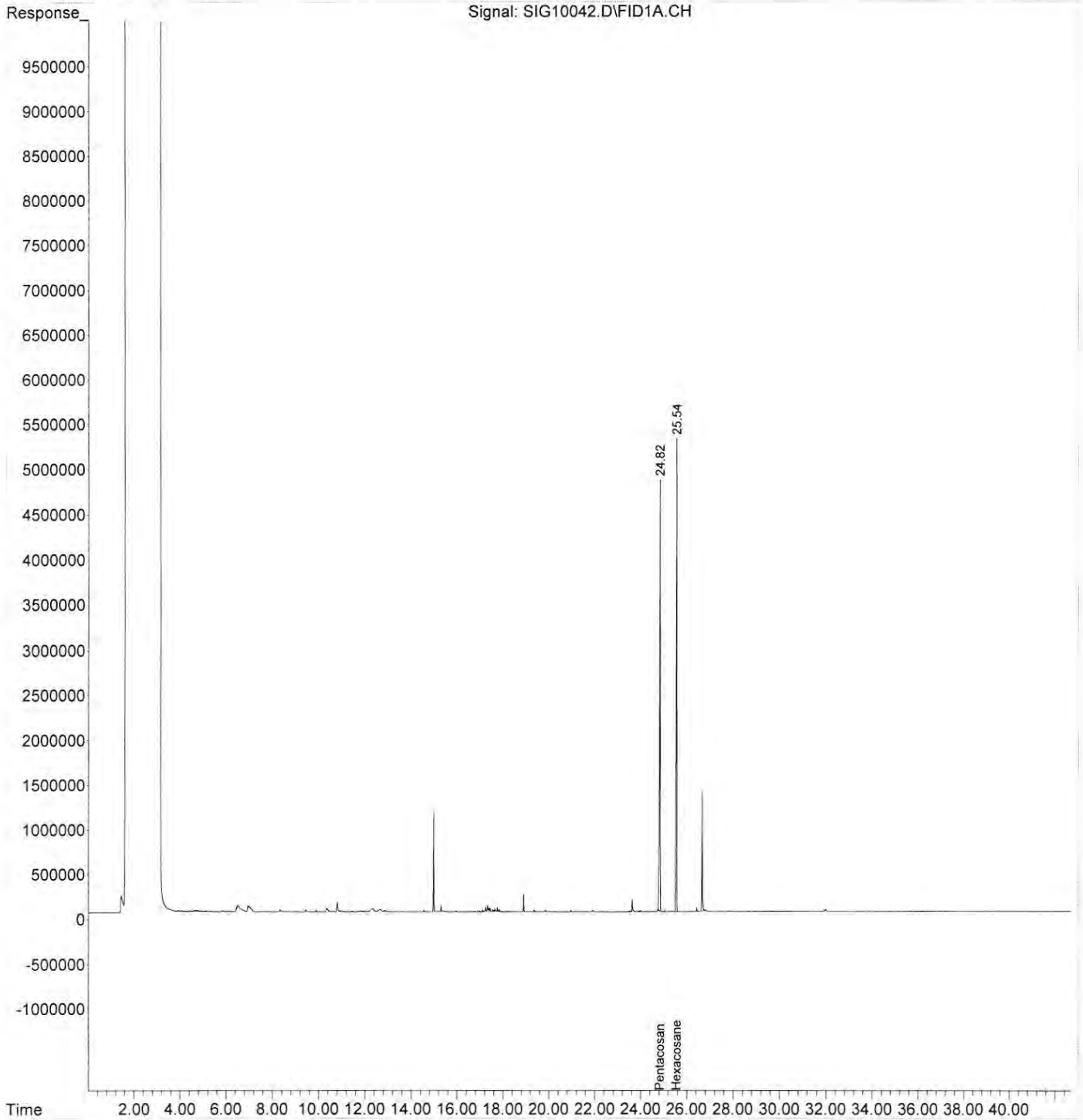
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	104784439	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.54	101489291	48.134 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 96.27%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10042.D Vial: 28  
Acq On : 12 Oct 2022 6:00 Operator: ARC  
Sample : WCJ0253-01 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:29 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10043.D Vial: 29  
 Acq On : 12 Oct 2022 6:54 Operator: ARC  
 Sample : BCJ0271-DUP1 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:12:18 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

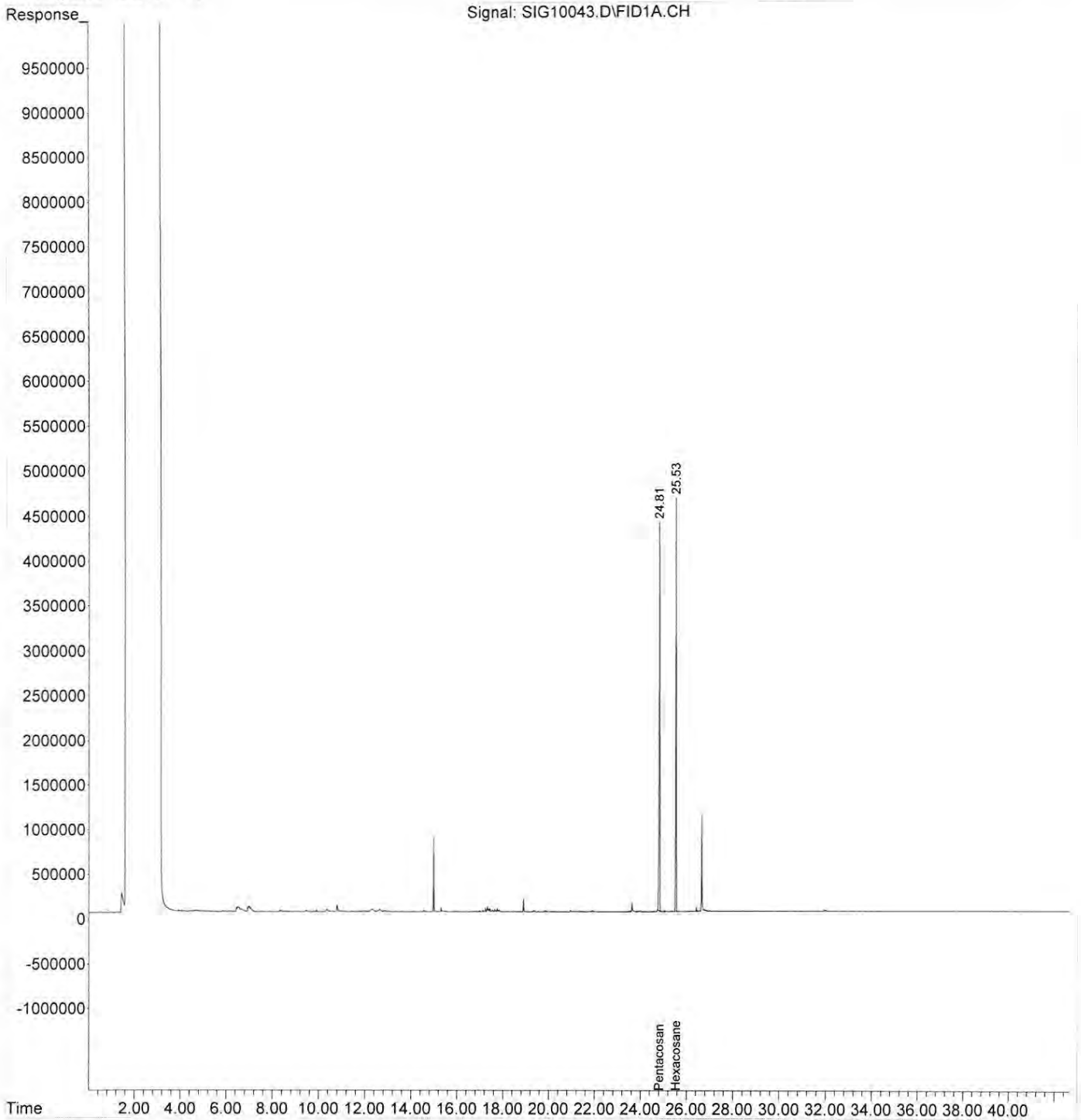
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.81	89801453	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.53	88235425	48.830	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 97.66%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10043.D Vial: 29  
Acq On : 12 Oct 2022 6:54 Operator: ARC  
Sample : BCJ0271-DUP1 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:29 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10044.D Vial: 30  
 Acq On : 12 Oct 2022 7:49 Operator: ARC  
 Sample : WCJ0253-02 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 08:32:42 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

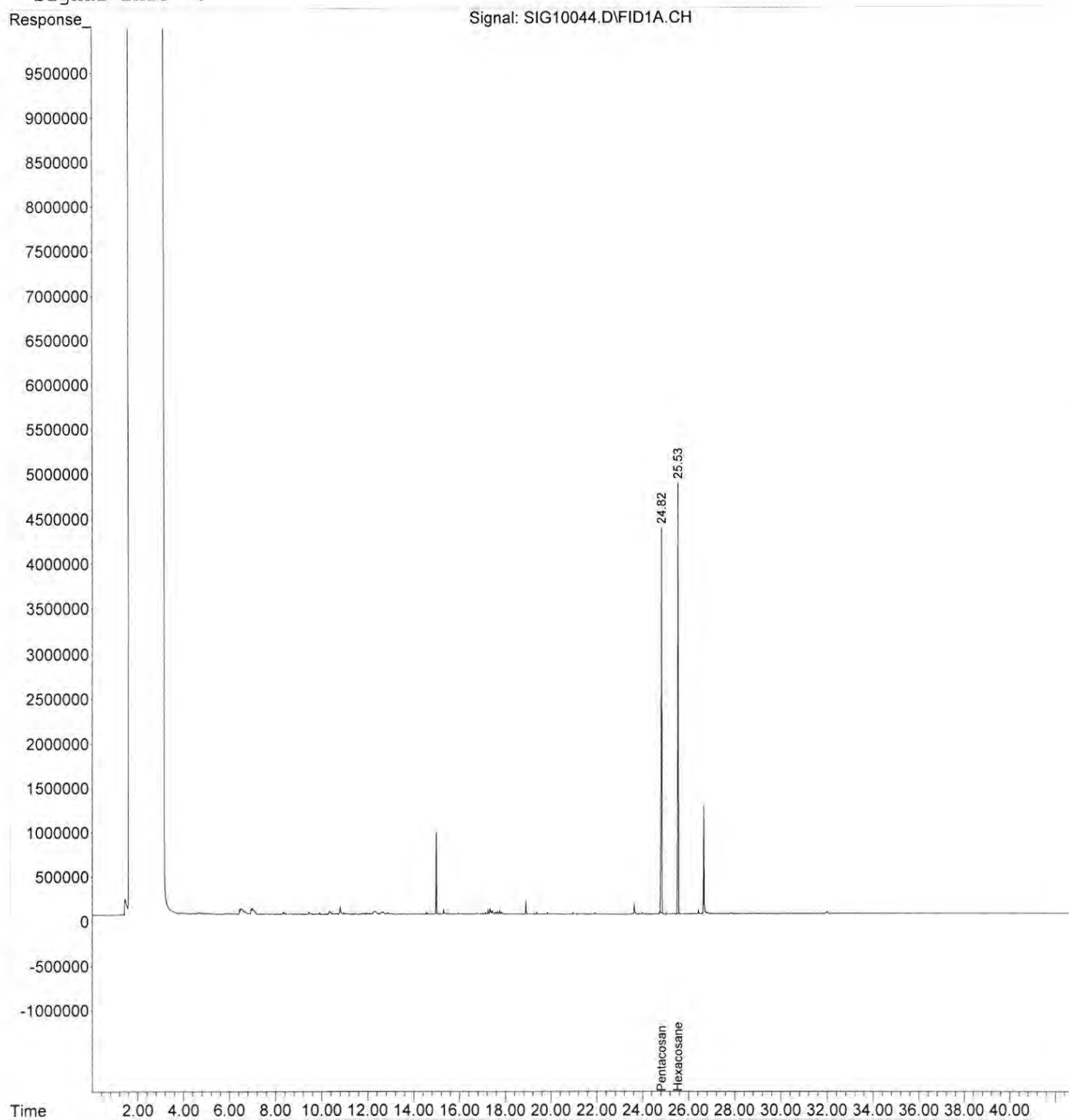
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	92610884	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	94618946	50.774 ppm m
Spiked Amount	50.000	Range	50 - 150
		Recovery	= 101.55%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube 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 : W:\HPCHEM\1\2022DATA\101022\SIG10044.D Vial: 30  
Acq On : 12 Oct 2022 7:49 Operator: ARC  
Sample : WCJ0253-02 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 8:33 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10045.D Vial: 31  
 Acq On : 12 Oct 2022 8:44 Operator: ARC  
 Sample : WCJ0253-03 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 09:26:47 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

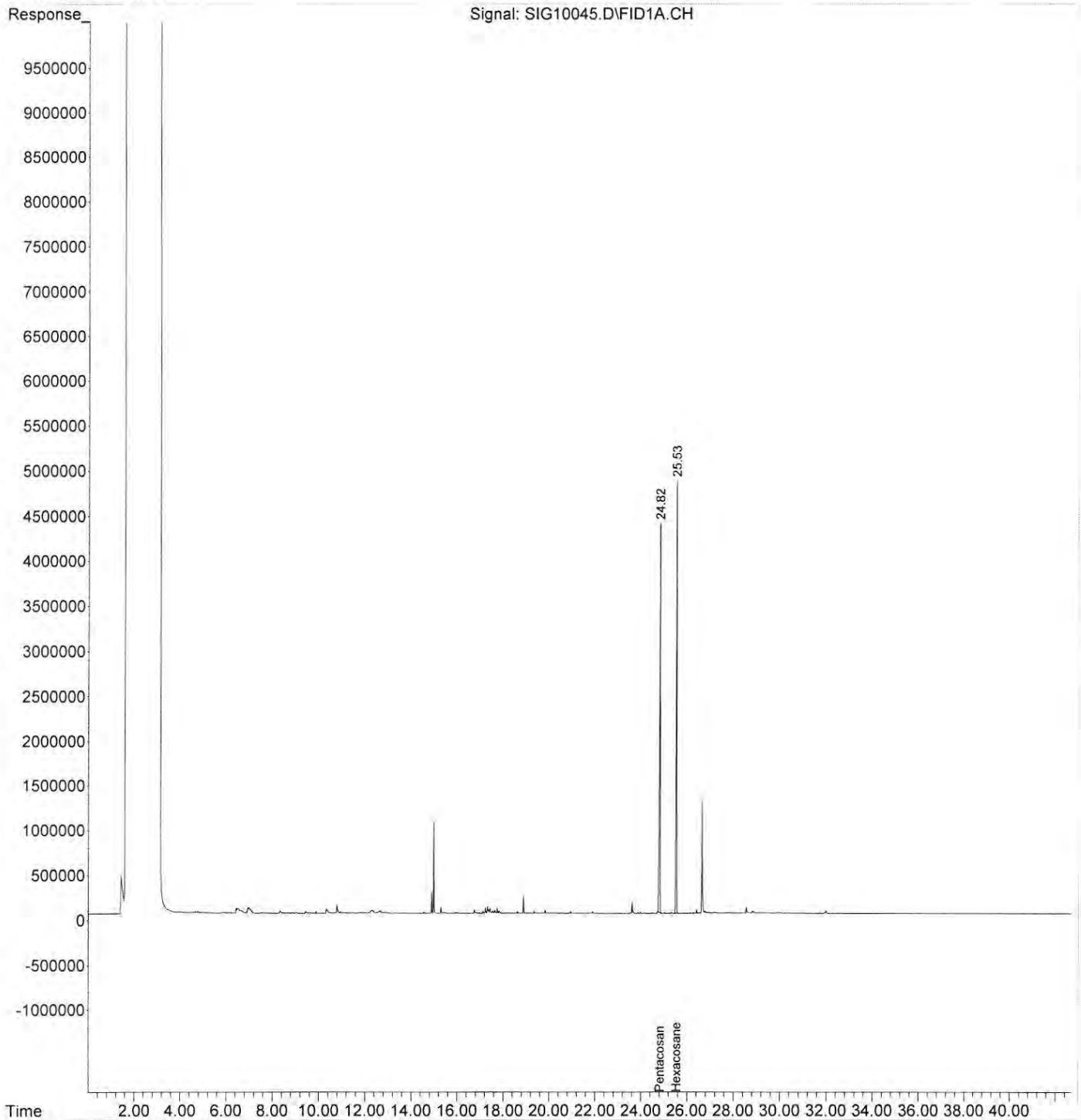
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	95177406	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	94121097	49.145 ppm m
Spiked Amount	50.000	Recovery =	98.29%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10045.D Vial: 31  
Acq On : 12 Oct 2022 8:44 Operator: ARC  
Sample : WCJ0253-03 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 9:27 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10046.D Vial: 32  
 Acq On : 12 Oct 2022 9:40 Operator: ARC  
 Sample : WCJ0253-04 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 12 10:38:24 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

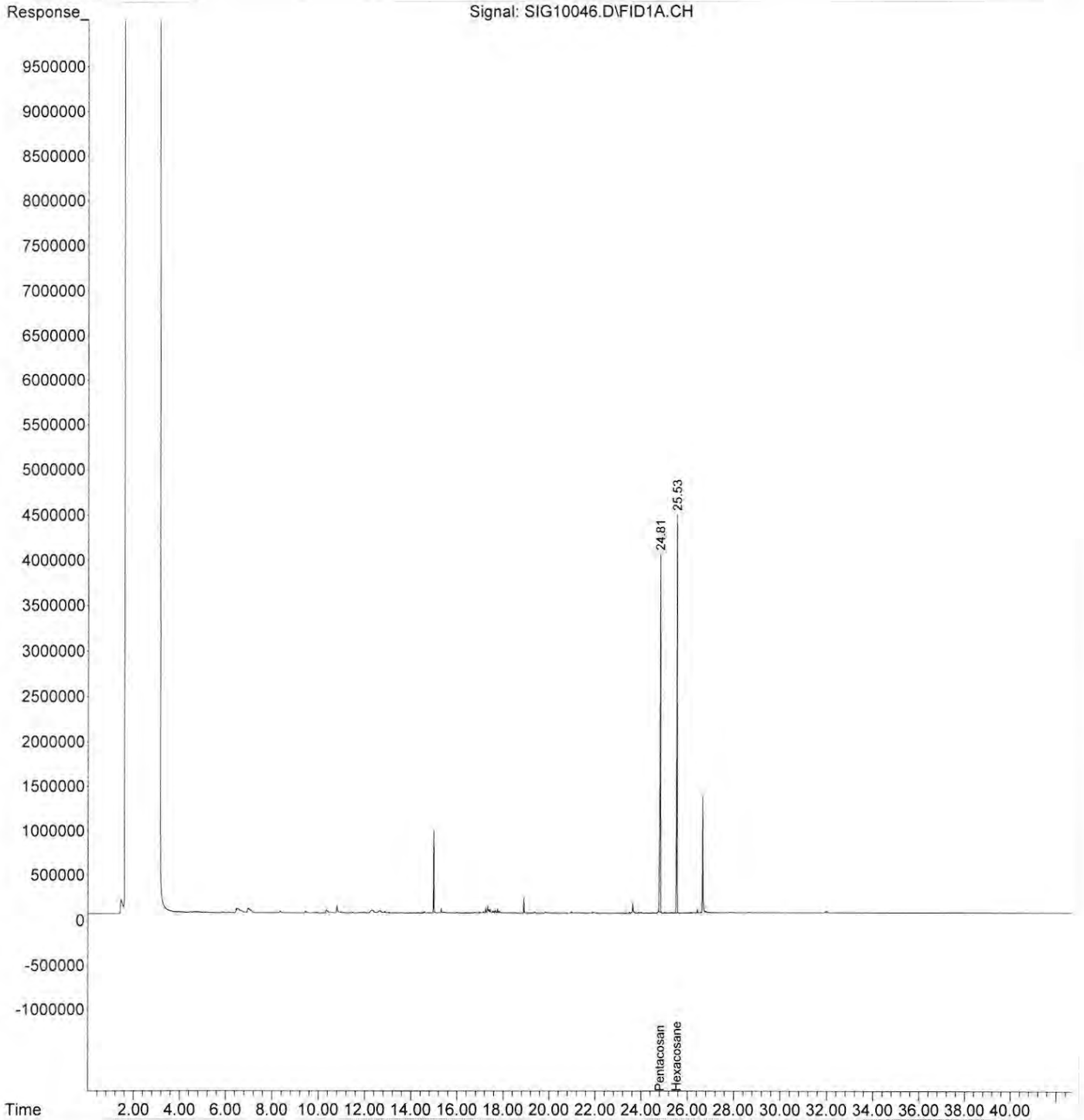
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.81	77583119	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.53	78732116	50.433	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 100.87%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10046.D Vial: 32  
Acq On : 12 Oct 2022 9:40 Operator: ARC  
Sample : WCJ0253-04 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 12 10:39 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10053.D Vial: 33  
 Acq On : 12 Oct 2022 16:11 Operator: ARC  
 Sample : WCJ0253-05 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:43 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

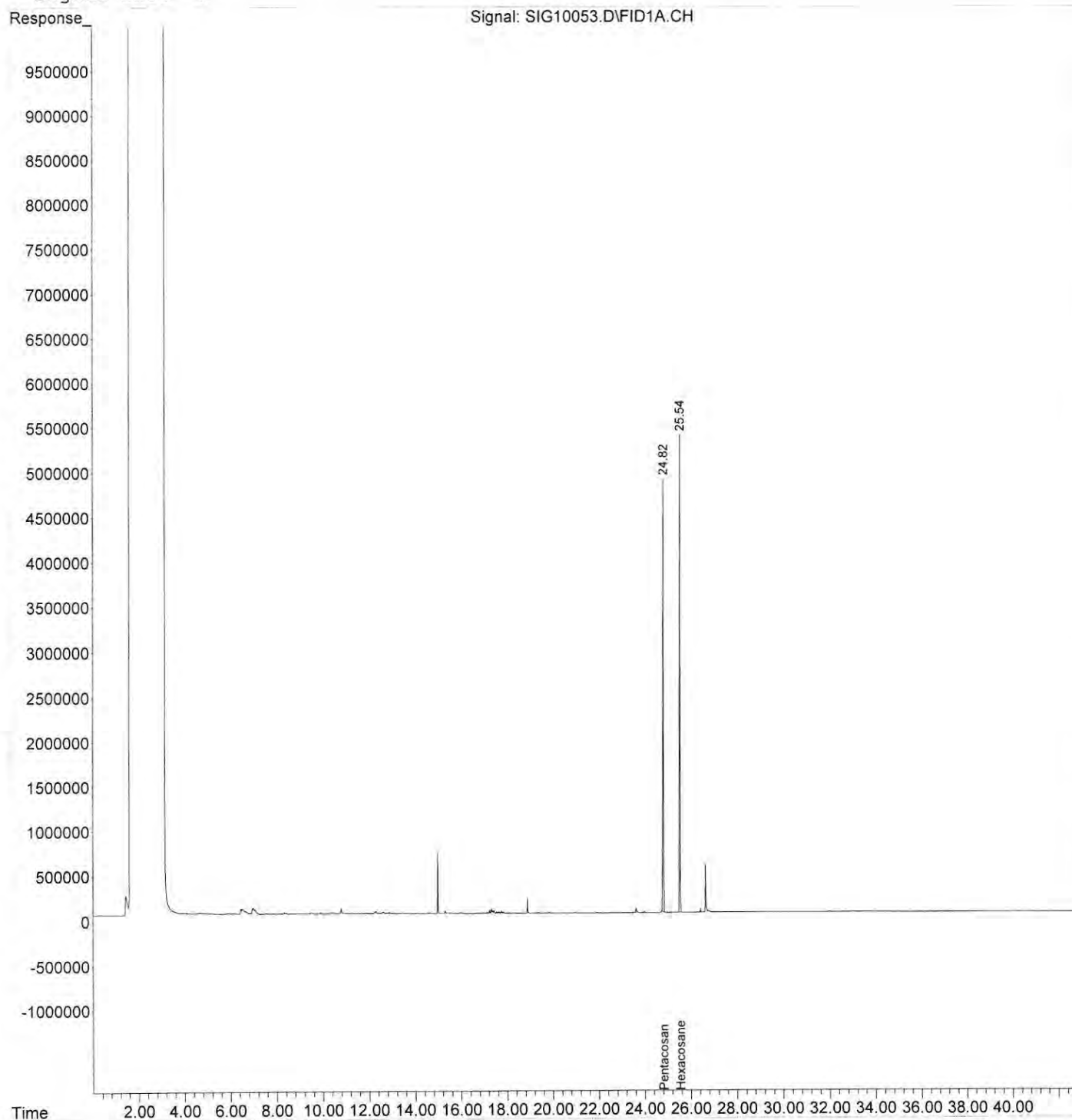
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	94824231	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.54	106126636	55.620 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 111.24%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10053.D Vial: 33  
Acq On : 12 Oct 2022 16:11 Operator: ARC  
Sample : WCJ0253-05 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:05 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10054.D Vial: 34  
 Acq On : 12 Oct 2022 17:06 Operator: ARC  
 Sample : WCJ0253-06 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:44 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

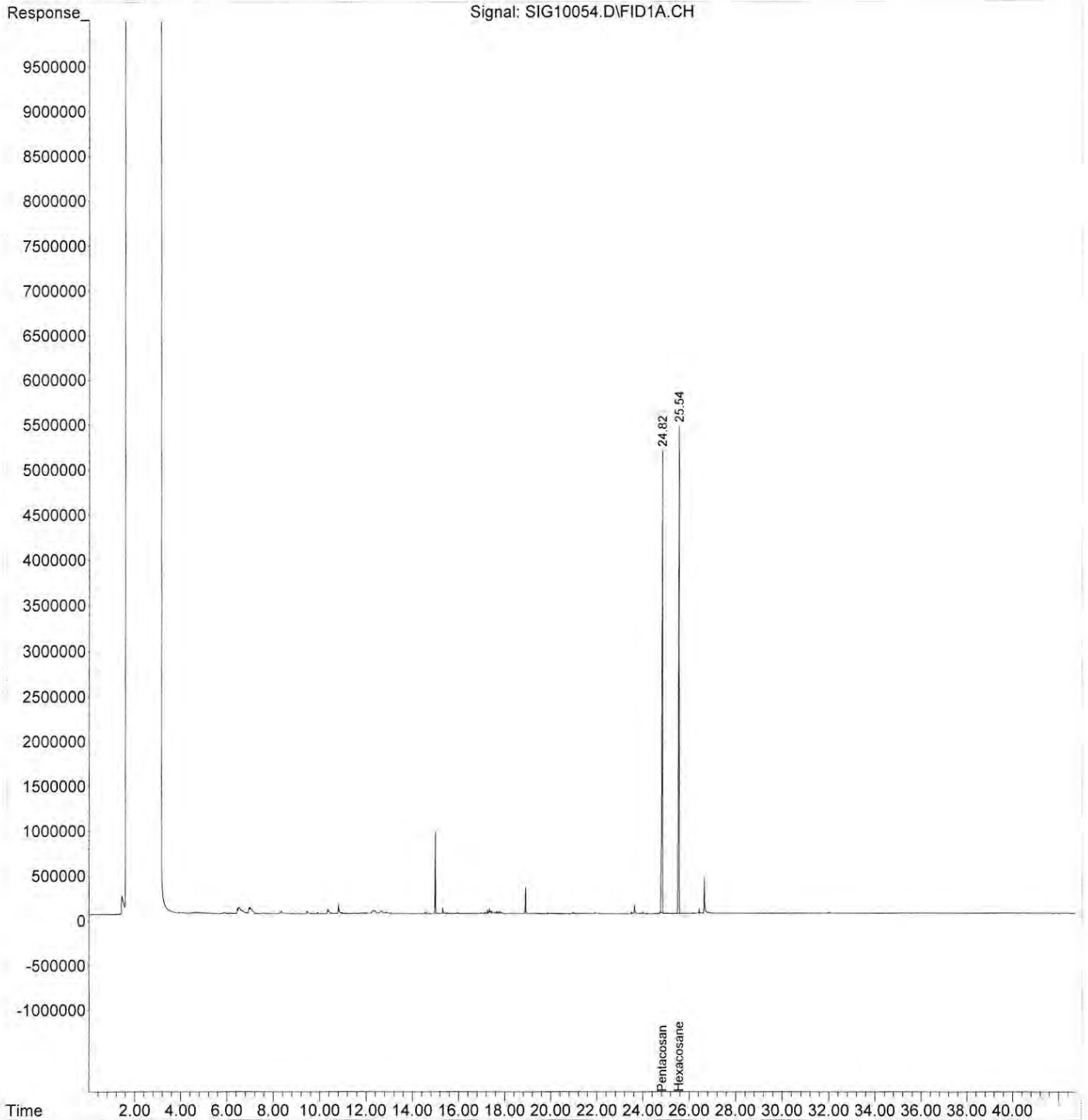
Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.82	104209654	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.54	104521091	49.845	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 99.69%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H 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 : W:\HPCHEM\1\2022DATA\101022\SIG10054.D Vial: 34  
Acq On : 12 Oct 2022 17:06 Operator: ARC  
Sample : WCJ0253-06 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:06 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10055.D Vial: 35  
 Acq On : 12 Oct 2022 18:02 Operator: ARC  
 Sample : WCJ0253-07 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:45 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

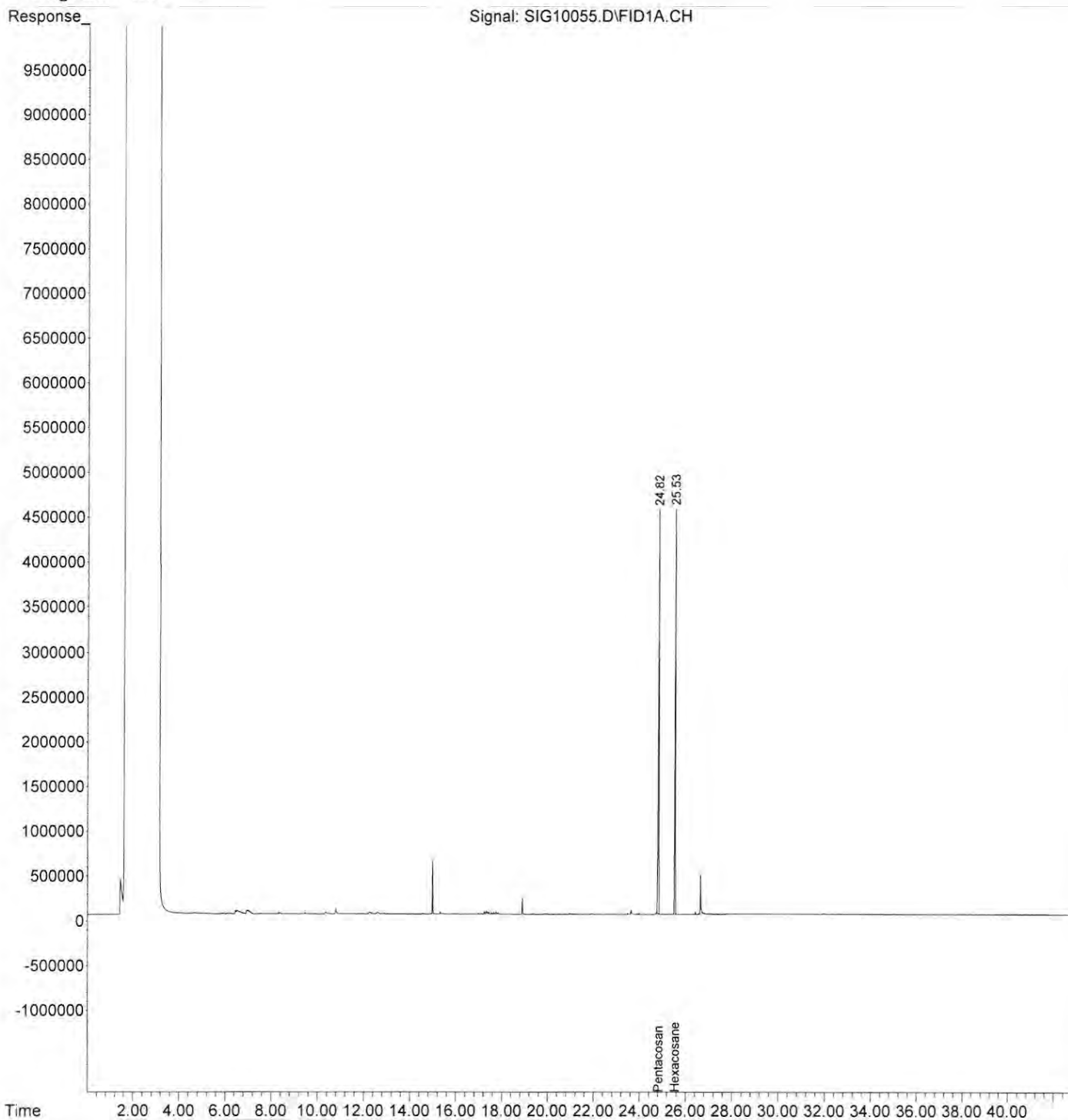
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	92856775	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	78395284	41.957 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 83.91%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10055.D Vial: 35  
Acq On : 12 Oct 2022 18:02 Operator: ARC  
Sample : WCJ0253-07 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:07 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10056.D Vial: 36  
 Acq On : 12 Oct 2022 18:58 Operator: ARC  
 Sample : WCJ0253-08 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:47 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

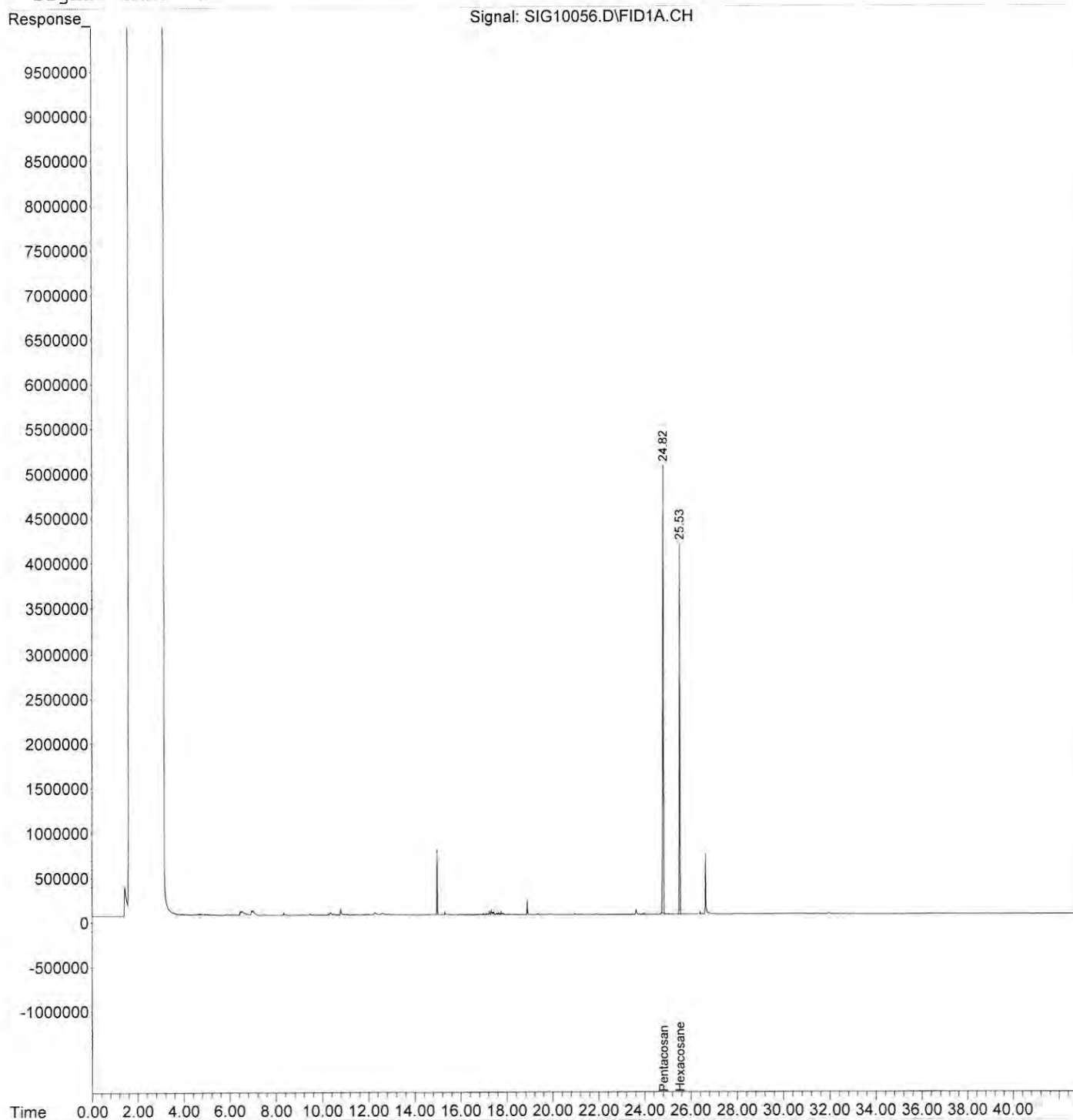
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	109344131	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	77383982	35.171 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 70.34%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10056.D Vial: 36  
Acq On : 12 Oct 2022 18:58 Operator: ARC  
Sample : WCJ0253-08 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:08 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10057.D Vial: 37  
 Acq On : 12 Oct 2022 19:54 Operator: ARC  
 Sample : WCJ0253-09 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:48 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

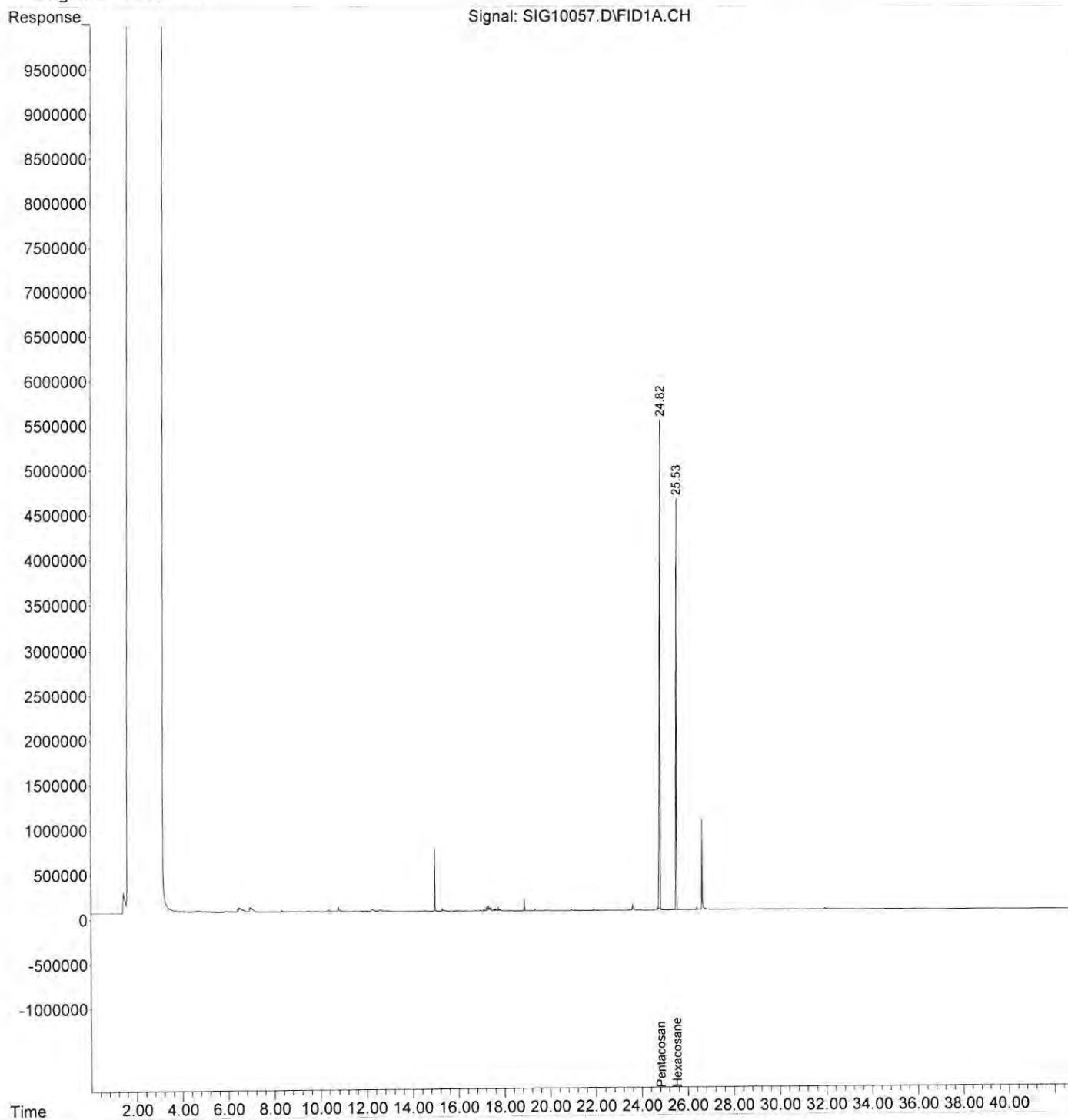
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	113443613	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	84499196	37.017 ppm m
Spiked Amount	50.000	Recovery =	74.03%
Range 50 - 150			
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 : W:\HPCHEM\1\2022DATA\101022\SIG10057.D Vial: 37  
Acq On : 12 Oct 2022 19:54 Operator: ARC  
Sample : WCJ0253-09 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:09 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10058.D Vial: 38  
 Acq On : 12 Oct 2022 20:49 Operator: ARC  
 Sample : WCJ0253-10 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:49 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

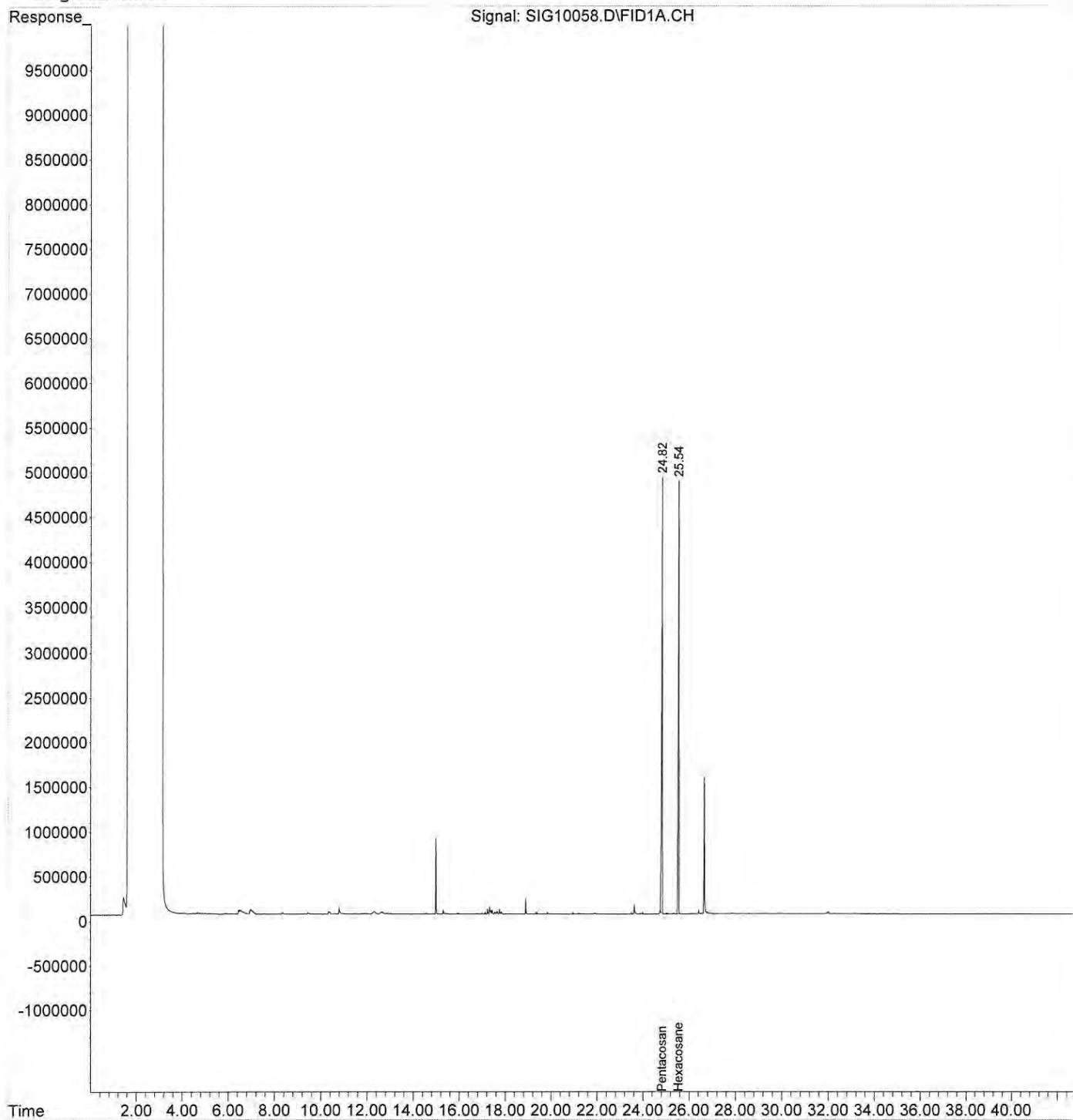
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	103051589	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.54	99232305	47.855 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 95.71%
Target Compounds			
3) H TPH Diesel (C12-C14)	0.00	0	N.D. ppm
4) H TPHDX-Lube 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 : W:\HPCHEM\1\2022DATA\101022\SIG10058.D Vial: 38  
Acq On : 12 Oct 2022 20:49 Operator: ARC  
Sample : WCJ0253-10 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:09 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10059.D Vial: 39  
 Acq On : 12 Oct 2022 21:45 Operator: ARC  
 Sample : WCJ0253-11 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:50 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

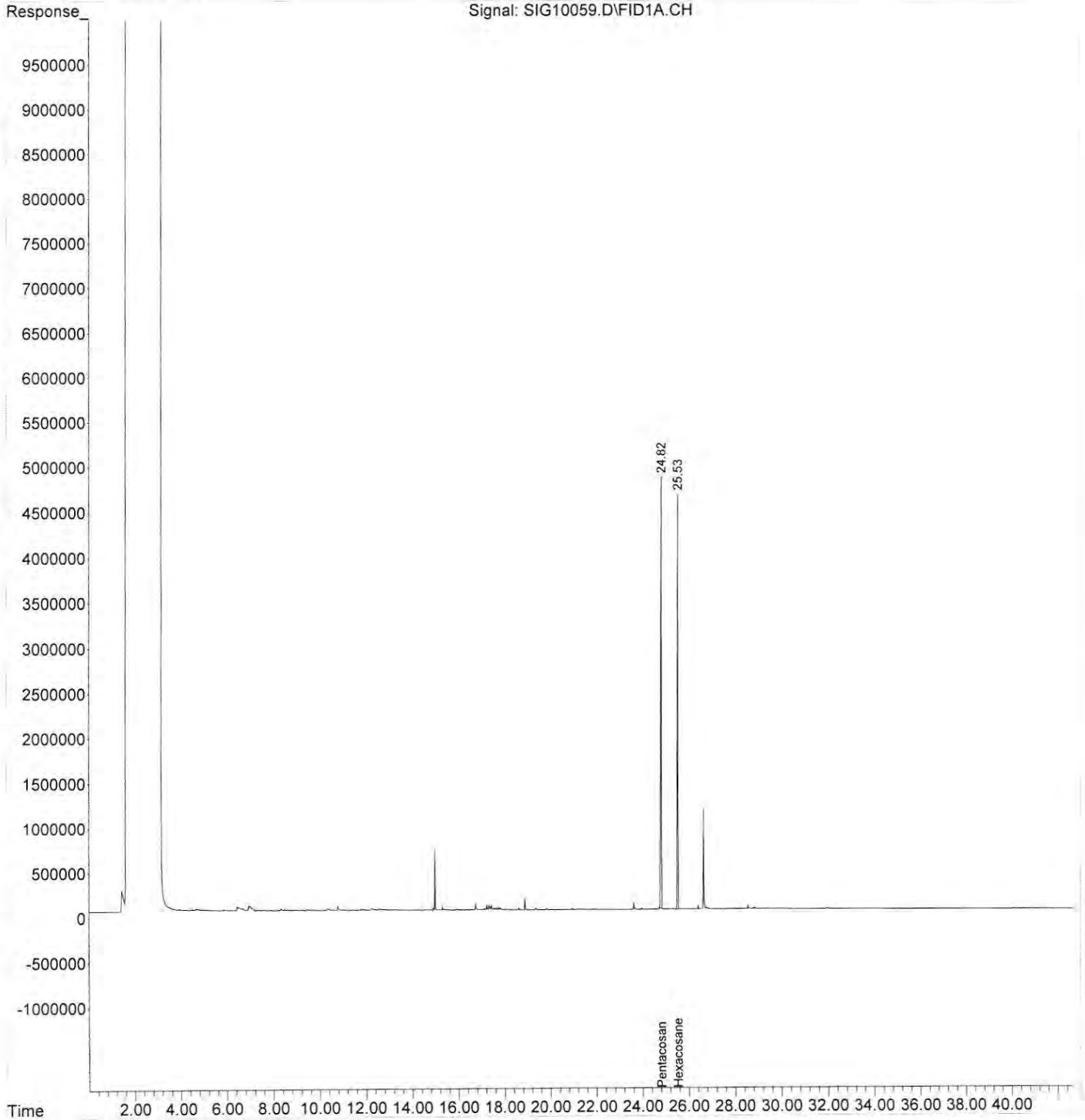
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.82	103819181	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.53	90404160	43.275	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 86.55%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10059.D Vial: 39  
Acq On : 12 Oct 2022 21:45 Operator: ARC  
Sample : WCJ0253-11 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:13 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10060.D Vial: 40  
 Acq On : 12 Oct 2022 22:40 Operator: ARC  
 Sample : WCJ0253-12 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:52 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

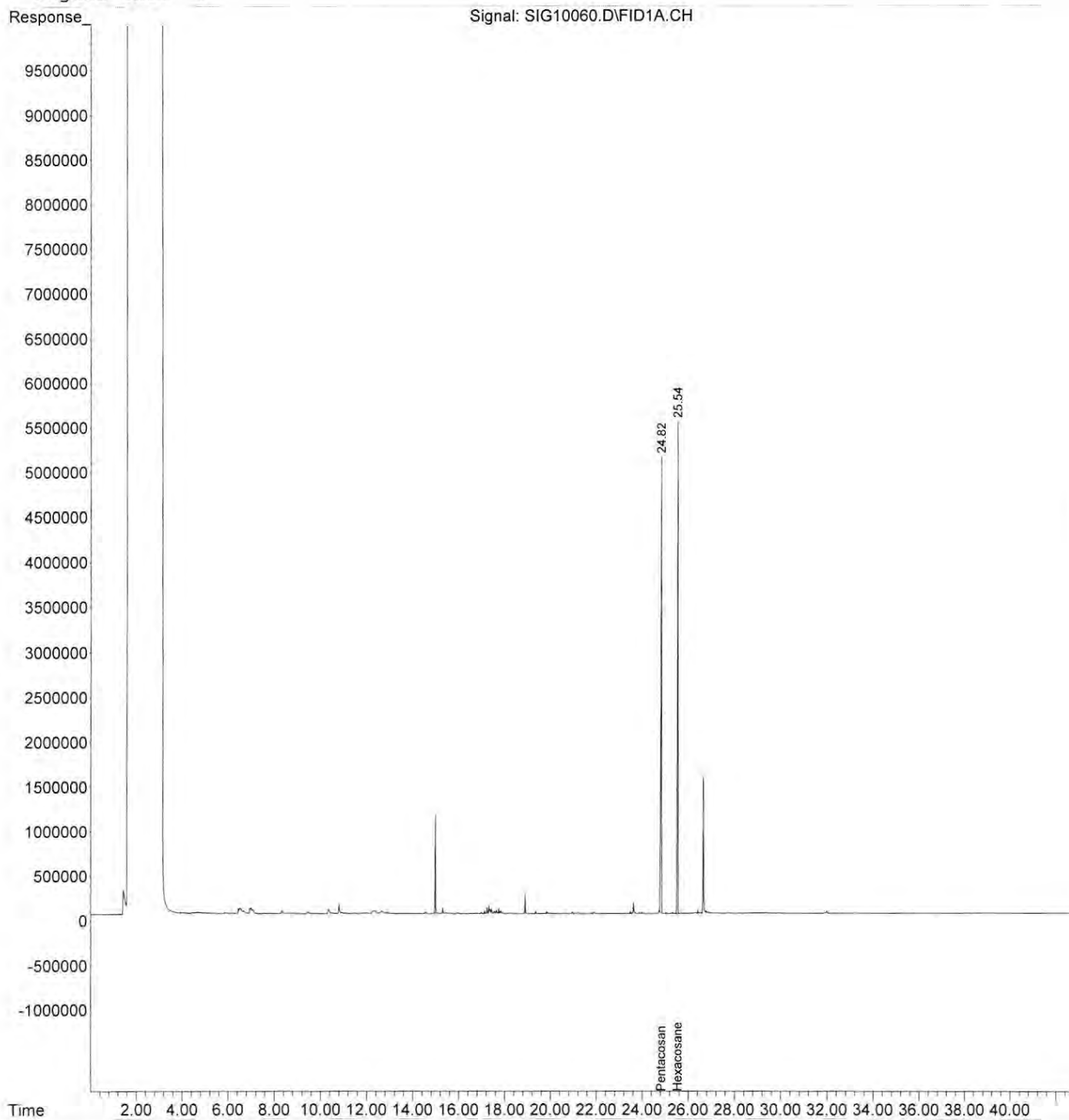
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.82	108117939	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.54	100785360	46.326	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 92.65%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10060.D Vial: 40  
Acq On : 12 Oct 2022 22:40 Operator: ARC  
Sample : WCJ0253-12 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:14 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10061.D Vial: 41  
 Acq On : 12 Oct 2022 23:35 Operator: ARC  
 Sample : WCJ0253-13 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:53 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

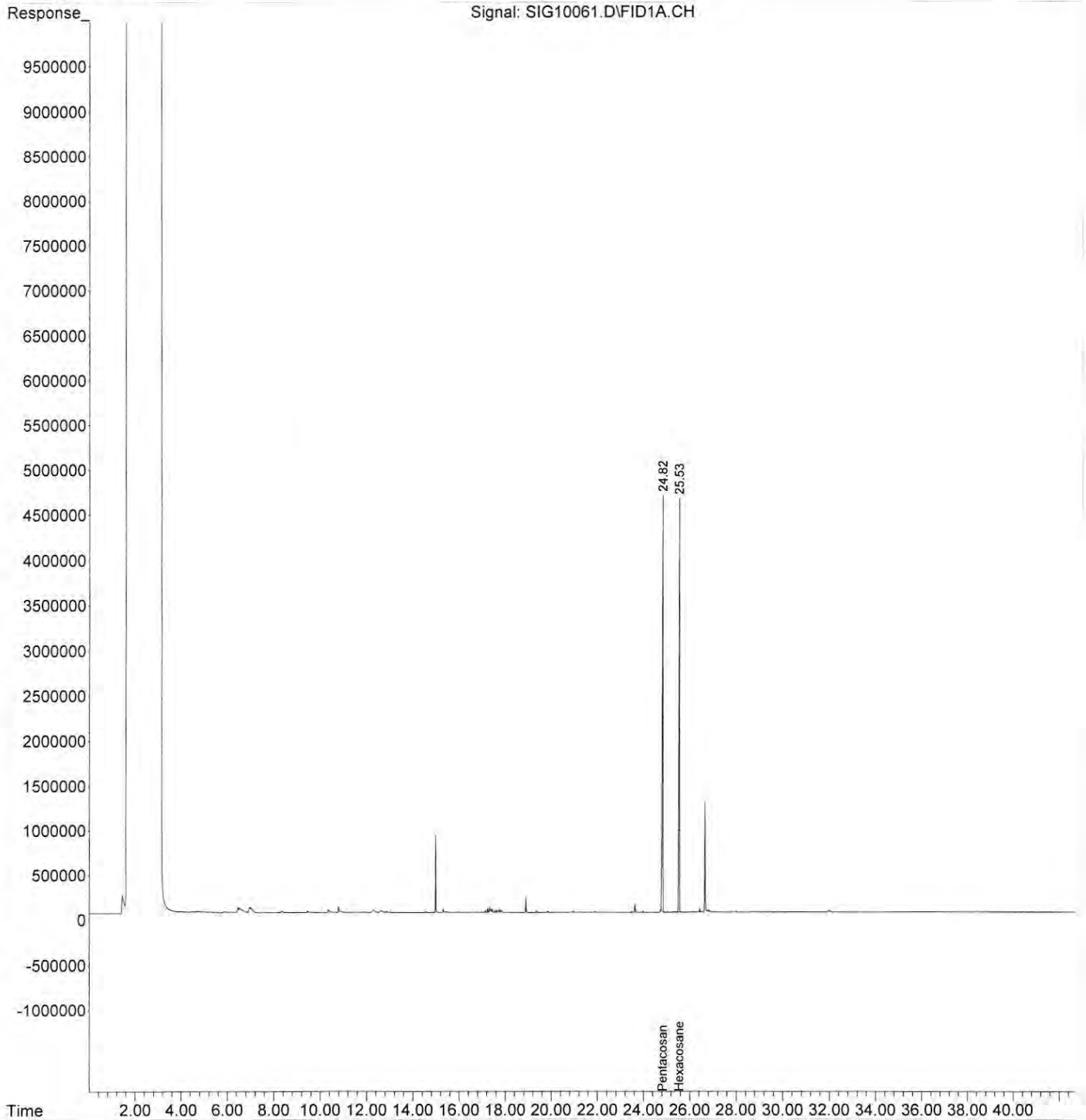
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.82	100011539	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	92501669	45.965 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 91.93%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10061.D Vial: 41  
Acq On : 12 Oct 2022 23:35 Operator: ARC  
Sample : WCJ0253-13 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:14 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10062.D Vial: 42  
 Acq On : 13 Oct 2022 00:30 Operator: ARC  
 Sample : WCJ0253-14 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:54 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

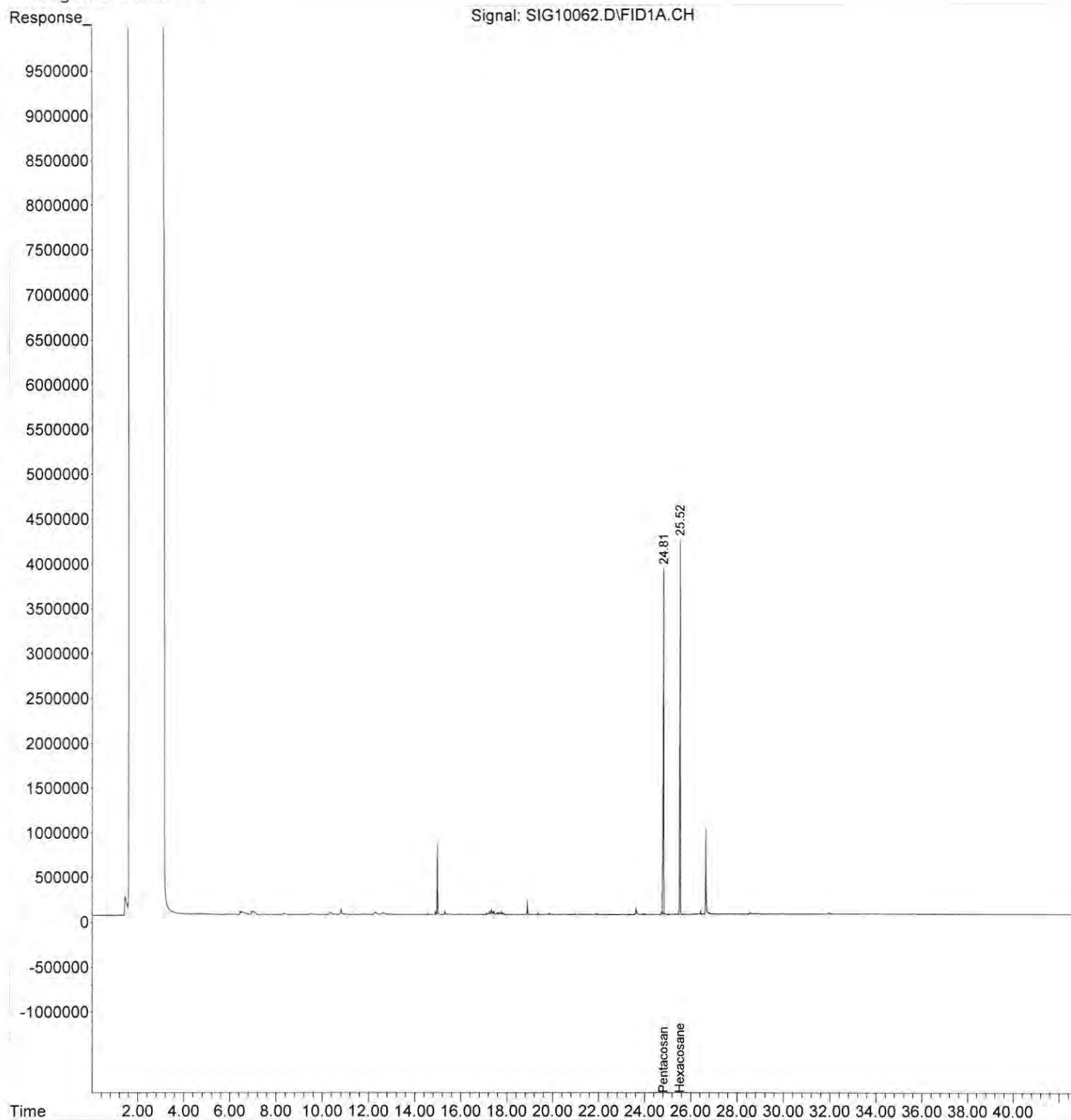
Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.81	70883096	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.52	70532718	49.451	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 98.90%
Target Compounds				
3) H TPH Diesel (C12-C14)	0.00	0	N.D.	ppm
4) H TPHDX-Lube 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 : W:\HPCHEM\1\2022DATA\101022\SIG10062.D Vial: 42  
Acq On : 13 Oct 2022 00:30 Operator: ARC  
Sample : WCJ0253-14 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:17 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10063.D Vial: 43  
 Acq On : 13 Oct 2022 1:25 Operator: ARC  
 Sample : WCJ0253-16 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:55 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

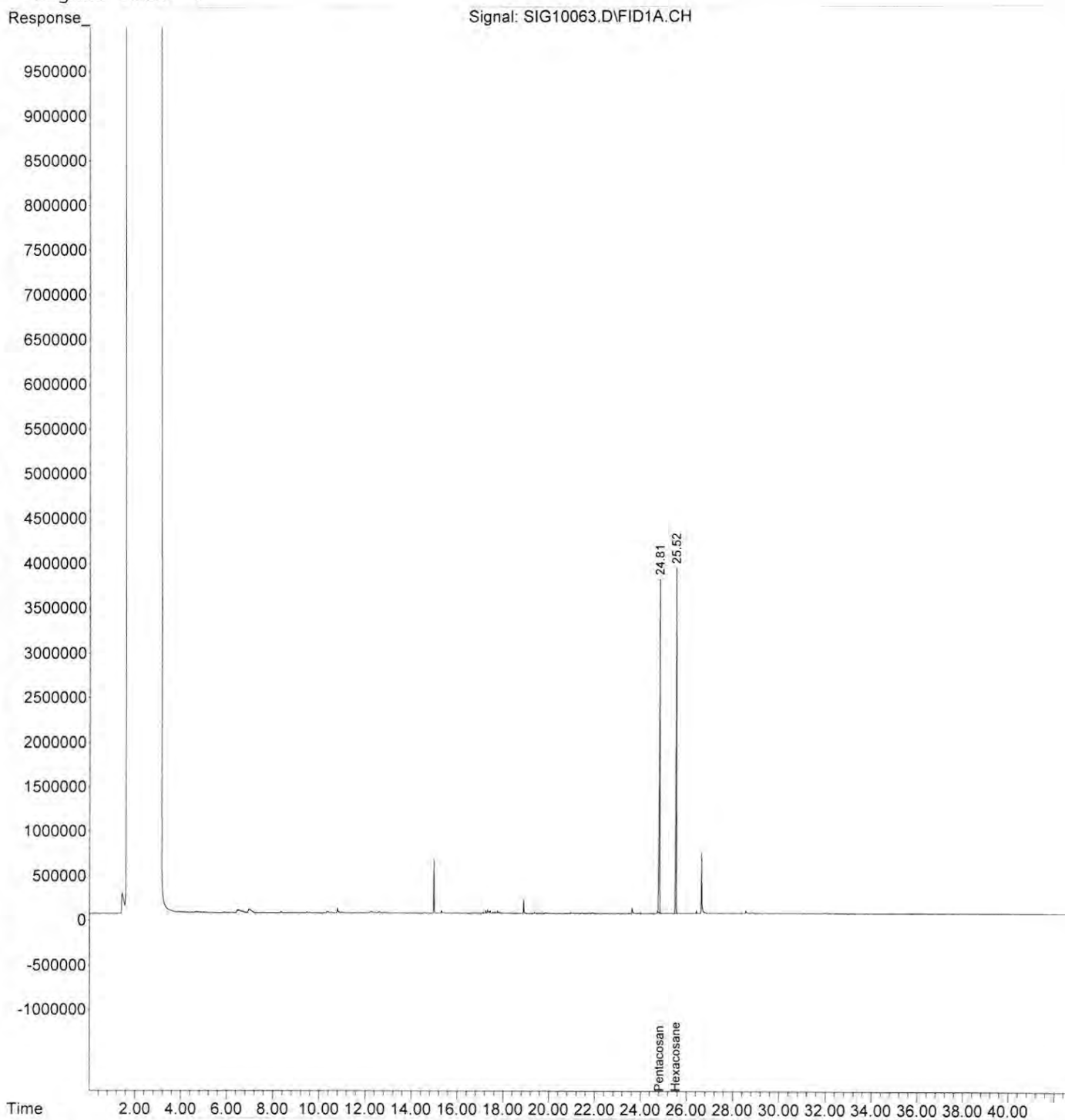
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Pentacosane	24.81	65273753	50.000	ppm m
System Monitoring Compounds				
2) S Hexacosane	25.52	65432301	49.817	ppm m
Spiked Amount	50.000	Range	50 - 150	Recovery = 99.63%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10063.D Vial: 43  
Acq On : 13 Oct 2022 1:25 Operator: ARC  
Sample : WCJ0253-16 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:18 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : W:\HPCHEM\1\2022DATA\101022\SIG10064.D Vial: 44  
 Acq On : 13 Oct 2022 2:20 Operator: ARC  
 Sample : WCJ0253-17 Inst : HP G1530A  
 Misc : Multiplr: 1.00  
 IntFile : EVENTS1.E  
 Quant Time: Oct 13 08:02:57 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Sep 08 08:10:22 2022  
 Response via : Initial Calibration  
 DataAcq Meth : DXHCID5.M

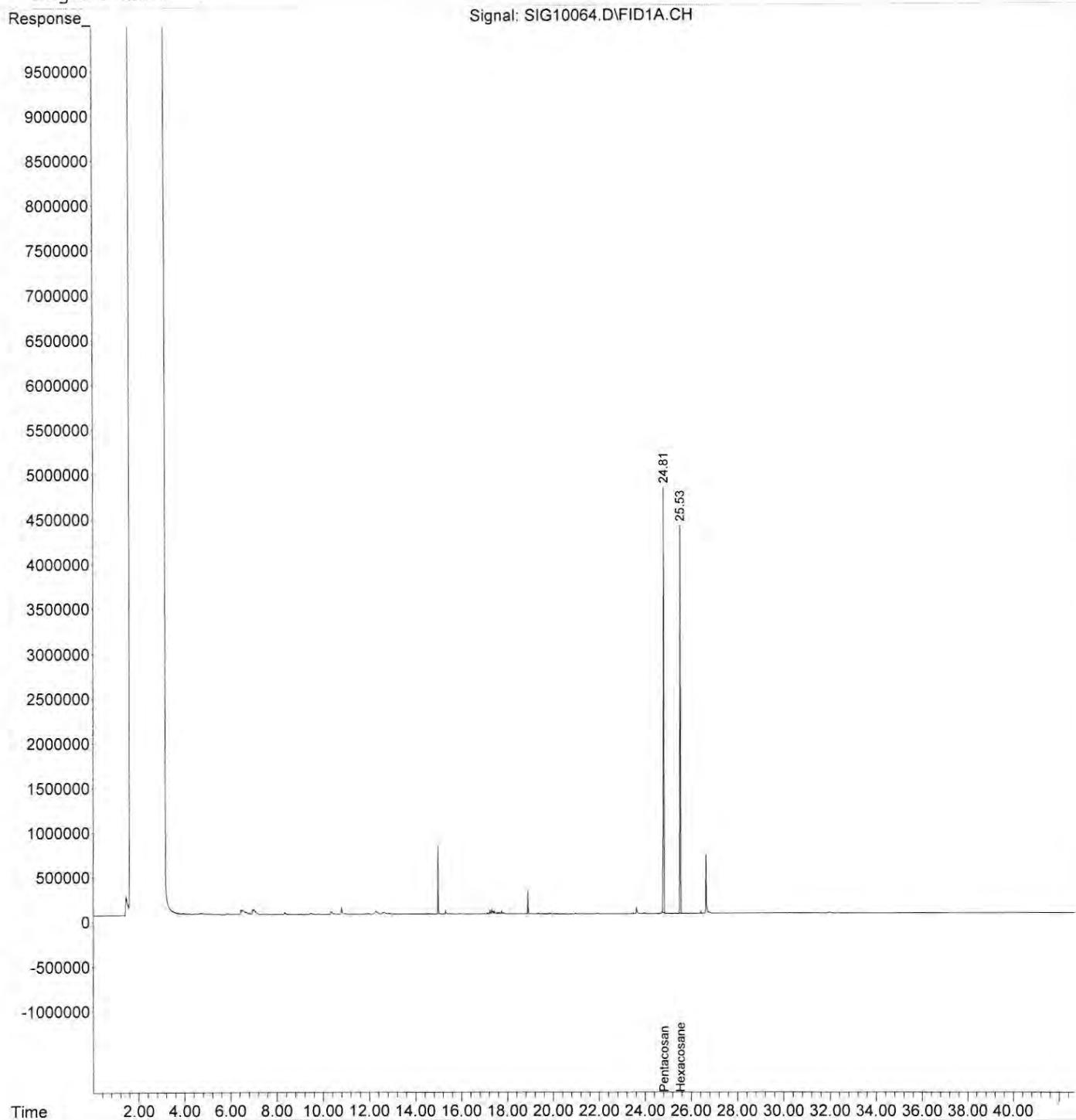
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I Pentacosane	24.81	85641741	50.000 ppm m
System Monitoring Compounds			
2) S Hexacosane	25.53	85159011	49.417 ppm m
Spiked Amount	50.000	Range 50 - 150	Recovery = 98.83%
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 : W:\HPCHEM\1\2022DATA\101022\SIG10064.D Vial: 44  
Acq On : 13 Oct 2022 2:20 Operator: ARC  
Sample : WCJ0253-17 Inst : HP G1530A  
Misc : Multiplr: 1.00  
IntFile : EVENTS1.E  
Quant Time: Oct 13 8:19 2022 Quant Results File: 220907LOWDHT.RES

Quant Method : W:\HPCHEM\1...\220907LOWDHT.M (Chemstation Integrator)  
Title :  
Last Update : Thu Sep 08 08:10:22 2022  
Response via : Multiple Level Calibration  
DataAcq Meth : DXHCID5.M

Volume Inj. :  
Signal Phase :  
Signal Info :



# PREPARATION BENCH SHEET

## Metals

BCJ0331

Prepared using: Metals - W 3010 Digest

Matrix: Water

Lab Number	Prepared - By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments
BCJ0331-BLK1	10/11/22 09:40 - JLG	50	50				
BCJ0331-BS1	10/11/22 09:40 - JLG	50	50	2203383		250	
BCJ0331-MS1	10/11/22 09:40 - JLG	50	50	2203383	WCJ0253-14	250	
BCJ0331-MS2	10/11/22 09:40 - JLG	50	50	2203383	WCJ0253-15	250	
BCJ0331-MSD1	10/11/22 09:40 - JLG	50	50	2203383	WCJ0253-14	250	
BCJ0331-MSD2	10/11/22 09:40 - JLG	50	50	2203383	WCJ0253-15	250	
WCJ0253-01	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-02	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-03	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-04	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-05	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-06	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-07	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-08	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-09	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-10	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			

# PREPARATION BENCH SHEET

## Metals

BCJ0331

(Continued)

Matrix: Water Prepared using: Metals - W 3010 Digest

Lab Number	Prepared - By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments
WCJ0253-11	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-12	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-13	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-14	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-15	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-16	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			
WCJ0253-17	10/11/22 09:40 - JLG Analytes: Arsenic	50	50	Client: Cardno - Hawaii			

Support Equipment:	W PT-04 W PT-33 W PT-20, W PT-27, BLK2A
Reagent ID	Description
2003793	Metals UHP Helium
2202257	P. Metals Digestion Vials N
2202375	Nitric Acid
2203062	P. 1:1 HCl-metals
2203256	C. Internal Standard Mix
2203341	C. 10 ppb Tune Solution
LotNum	LotNum
314SPO0620A	314SPO0620A
052722	052722
62082	62082
59072	59072
-	-
-	-

# US EPA Tune Check Report

**Operator Name** Metals  
**Acq/Data Batch** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq. Date-Time** 2022-10-14 09:56:46  
**Report Comment** ---  
**Instrument Name** 7800 JP17450949

[No Gas]

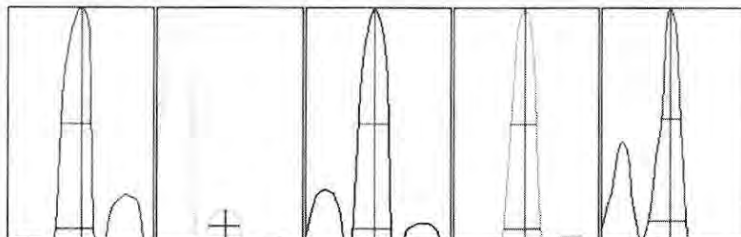
**Sensitivity**

Mass	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
9	895	8945.80	0.847	5.000	
24	5092	50920.72	0.990	5.000	
59	2801	28006.84	0.633	5.000	
115	3597	35966.62	1.491	5.000	
208	1465	14652.12	0.927	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	903	889	897	885	899
24	5052	5132	5102	5145	5029
59	2776	2823	2796	2812	2796
115	3519	3661	3573	3610	3620
208	1449	1462	1459	1485	1471

Integration Time [sec] 0.1

**Resolution/Axis**



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)	W-5%	W-5% (Required)	W-5% (Flag)
9	1474.93	9.05	8.90 - 9.10		0.779	0.900	
24	8231.43	23.95	23.90 - 24.10		0.783	0.900	
59	4753.81	58.95	58.90 - 59.10		0.782	0.900	
115	6948.41	115.00	114.90 - 115.10		0.771	0.900	
208	3256.48	207.95	207.90 - 208.10		0.775	0.900	

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

**Tune Parameters**

**Plasma Parameters**

Plasma Mode	---	Nebulizer Gas	0.33 L/min	Dilution Gas	0.56 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	8.0 mm	S/C Temp	2 °C		



# US EPA Tune Check Report

## Lens Parameters

Extract 1	0.0 V	Omega Lens	12.4 V	Deflect	15.0 V
Extract 2	-195.0 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	167	Axis Gain	1.0041	QP Bias	-3.0 V
Mass Offset	124	Axis Offset	0.02		

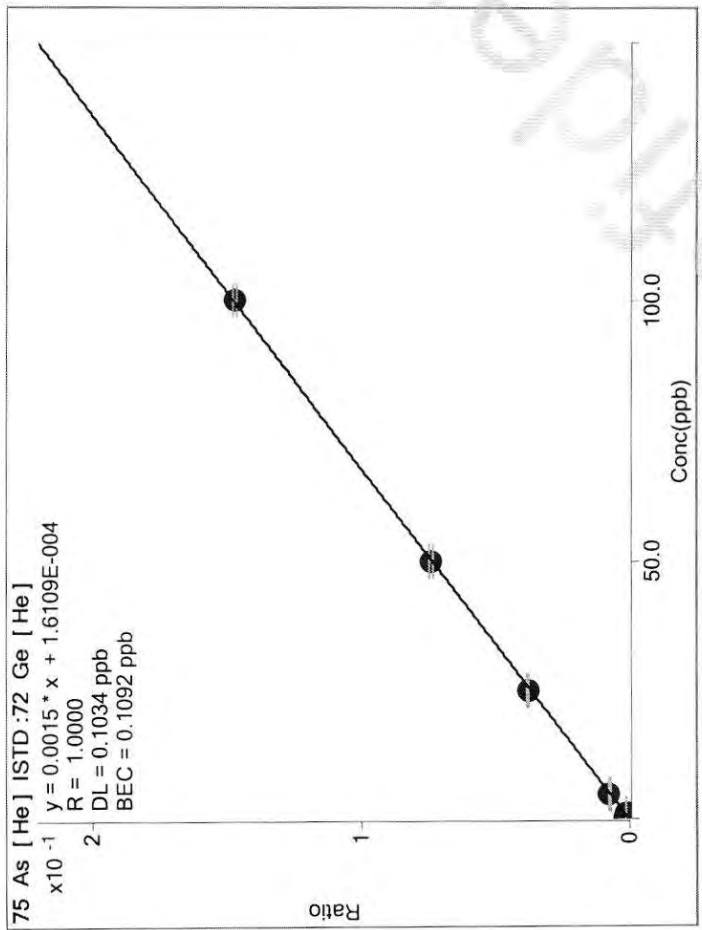
## Hardware Settings

### Torch

Torch H	0.4 mm	Torch V	-0.5 mm
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### EM

Discriminator	3.8 mV	Analog HV	2141 V	Pulse HV	1280 V
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Confidential

# Sample Report

**Sample Name** BCJ0331-BLK1  
**File Name** 038\_Blk.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 15:56:14  
**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	0.162	No Gas	0.162	6	2.4	0.5	
75	As	0.006	He	0.006	72	24.2	0.06	
208	Pb	0.011	No Gas	0.011	165	8.2	0.04	
208	Pb	0.008	He	0.008	165	25.4	0.04	
238	U	0.002	No Gas	0.002	165	15.3	0.05	
238	U	0.027	He	0.027	165	10.6	0.05	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	797929.91	3.6	94.4	844941.11
Sc	45	No Gas	1009654.56	1.3	93.4	1080750.45666667
Sc	45	He	92929.77	0.7	89.8	103428.47
Ge	72	No Gas	449157.44	0.5	94.4	475770.303333333
Ge	72	He	106117.81	3.5	89.9	117990.143333333
Ge	72	HEHe	45405.72	1.7	96.7	46970.7866666667
Rh	103	No Gas	1318518.50	1.4	95.7	1378157.04
Rh	103	He	599842.93	2.5	90.2	665380.806666667
Ho	165	No Gas	425716.21	1.1	95.2	447257.863333333
Ho	165	He	198717.67	2.4	89.8	221230.69

# Sample Report

**Sample Name** BCJ0331-MRL1  
**File Name** 039LICV.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 15:58:32  
**Sample Type** LLICV  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	1.411	No Gas	1.411	6	1.8	1	
75	As	1.082	He	1.082	72	3.3	1	
208	Pb	0.955	No Gas	0.955	165	4.6	1	
208	Pb	1.059	He	1.059	165	6.1	1	
238	U	1.013	No Gas	1.013	165	4.7	1	
238	U	1.054	He	1.054	165	0.7	1	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	791558.39	1.9	93.7	844941.11
Sc	45	No Gas	1042627.25	2.1	96.5	1080750.45666667
Sc	45	He	95457.83	0.9	92.3	103428.47
Ge	72	No Gas	462822.34	0.9	97.3	475770.303333333
Ge	72	He	108477.59	2.0	91.9	117990.143333333
Ge	72	HEHe	45616.21	1.7	97.1	46970.7866666667
Rh	103	No Gas	1337143.00	1.3	97.0	1378157.04
Rh	103	He	611684.18	1.9	91.9	665380.806666667
Ho	165	No Gas	439848.12	2.3	98.3	447257.863333333
Ho	165	He	202410.01	1.7	91.5	221230.69

Sample										
	Rjct	Data File	Acq. Date-Time	Type	Level	Sample Name	Comment	Total Dil.	Vial Number	
1		001CALB.	2022-10-14 13:45:26	CalBlk	1	Blank		1.0000	1101	
2		002CALB.	2022-10-14 13:49:06	CalBlk	1	Blank		1.0000	1101	
3		003CALB.	2022-10-14 13:52:47	CalBlk	1	Blank		1.0000	1101	
4		004CALS.	2022-10-14 13:56:26	CalStd	2	1 ppb cal		1.0000	1103	
5		005CALS.	2022-10-14 14:00:08	CalStd	3	5 ppb cal		1.0000	1104	
6		006CALS.	2022-10-14 14:03:47	CalStd	4	25 ppb cal		1.0000	1105	
7		007CALS.	2022-10-14 14:07:29	CalStd	5	50 ppb cal		1.0000	1106	
8		008CALS.	2022-10-14 14:11:08	CalStd	6	100 ppb cal		1.0000	1107	
9		009_RIN.d	2022-10-14 14:20:40	RINSE		Rinse		1.0000	4	
10		010_ICV.d	2022-10-14 14:23:57	ICV		ICV- 40ppb		1.0000	2101	
11		011_LDR.d	2022-10-14 14:27:29	LDR		Daily LDR- 500pp		1.0000	2102	
12		012_RIN.d	2022-10-14 14:30:31	RINSE		Rinse		1.0000	4	
13		013_RIN.d	2022-10-14 14:33:50	RINSE		Rinse		1.0000	4	
14		014_RIN.d	2022-10-14 14:37:07	RINSE		Rinse		1.0000	4	
15		015_RIN.d	2022-10-14 14:40:29	RINSE		Rinse		1.0000	5	
16		016_Blk.d	2022-10-14 14:43:46	Blank		BCJ0524-BLK1		1.0000	3101	
17		017LICV.d	2022-10-14 14:47:05	LLICV		BCJ0524-MRL1		1.0000	3102	
18		018_LCS.d	2022-10-14 14:50:22	LCS		BCJ08524-BS1		1.0000	3103	
19		019SMPL.	2022-10-14 14:53:41	Sample		WCJ0423-01		1.0000	3104	
20		020SMPL.	2022-10-14 14:56:57	Sample		WCJ0475-01		1.0000	3105	
21		021SMPL.	2022-10-14 15:00:13	Sample		WCJ0532-01		1.0000	3106	
22		022_ARF.d	2022-10-14 15:03:29	AllRef		WCJ0533-01		1.0000	3107	
23		023_LFM.d	2022-10-14 15:06:48	LFM		BCJ0524-MS1		1.0000	3108	
24		024LFMD.	2022-10-14 15:10:05	LFMDup		BCJ0524-MSD1		1.0000	3109	
25		025SMPL.	2022-10-14 15:13:24	Sample		WCJ0552-01		1.0000	3110	

Sample										
	Rjct	Data File	Acq. Date-Time	Type	Level	Sample Name	Comment	Total Dil.	Vial Number	
26		026SMPL.	2022-10-14 15:16:39	Sample		WCJ0560-01		1.0000	3111	
27		027_Blk.d	2022-10-14 15:19:58	Blank		BCJ0524-BLK1		1.0000	3112	
28		028_LCS.d	2022-10-14 15:23:15	LCS		BCJ08524-BS1		1.0000	3201	
29		029_RIN.d	2022-10-14 15:27:32	RINSE		Rinse		1.0000	4	
30		030_Blk.d	2022-10-14 15:30:49	Blank		BCJ0524-BLK2		1.0000	3202	
31		031_LCS.d	2022-10-14 15:34:08	LCS		BCJ08524-BS2		1.0000	3203	
32		032SMPL.	2022-10-14 15:37:25	Sample		WCJ0475-01@10		1.0000	3204	
33		033LICV.d	2022-10-14 15:40:45	LLICV		BCJ0524-MRL1		1.0000	3205	
34		034_RIN.d	2022-10-14 15:44:01	RINSE		Rinse		1.0000	4	
35		035_CCV.	2022-10-14 15:47:19	CCV		CCV		1.0000	1106	
36		036_CCB.	2022-10-14 15:50:36	CCB		CCB		1.0000	1101	
37		037_RIN.d	2022-10-14 15:53:55	RINSE		Rinse		1.0000	5	
38		038_Blk.d	2022-10-14 15:56:14	Blank		BCJ0331-BLK1		1.0000	3301	
39		039LICV.d	2022-10-14 15:58:32	LLICV		BCJ0331-MRL1		1.0000	3302	
40		040_LCS.d	2022-10-14 16:00:53	LCS		BCJ0331-BS1		1.0000	3303	
41		041SMPL.	2022-10-14 16:03:11	Sample		WCJ0253-01		1.0000	3304	
42		042SMPL.	2022-10-14 16:05:30	Sample		WCJ0253-02		1.0000	3305	
43		043SMPL.	2022-10-14 16:07:51	Sample		WCJ0253-03		1.0000	3306	
44		044SMPL.	2022-10-14 16:10:10	Sample		WCJ0253-04		1.0000	3307	
45		045SMPL.	2022-10-14 16:12:28	Sample		WCJ0253-05		1.0000	3308	
46		046SMPL.	2022-10-14 16:14:48	Sample		WCJ0253-06		1.0000	3309	
47		047SMPL.	2022-10-14 16:17:06	Sample		WCJ0253-07		1.0000	3310	
48		048SMPL.	2022-10-14 16:19:25	Sample		WCJ0253-08		1.0000	3311	
49		049SMPL.	2022-10-14 16:21:45	Sample		WCJ0253-09		1.0000	3312	
50		050_RIN.d	2022-10-14 16:24:03	RINSE		Rinse		1.0000	4	

Sample									
	Rjct	Data File	Acq. Date-Time	Type	Level	Sample Name	Comment	Total Dil.	Vial Number
51		051_CCV.	2022-10-14 16:27:22	CCV		CCV		1.0000	1106
52		052_CCB.	2022-10-14 16:30:38	CCB		CCB		1.0000	1101
53		053_RIN.d	2022-10-14 16:33:57	RINSE		Rinse		1.0000	5
54		054SMPL.	2022-10-14 16:37:15	Sample		WCJ0253-10		1.0000	3401
55		055SMPL.	2022-10-14 16:39:36	Sample		WCJ0253-11		1.0000	3402
56		056SMPL.	2022-10-14 16:41:55	Sample		WCJ0253-12		1.0000	3403
57		057SMPL.	2022-10-14 16:44:14	Sample		WCJ0253-13		1.0000	3404
58		058_ARF.d	2022-10-14 16:46:34	AllRef		WCJ0253-14		1.0000	3405
59		059_LFM.d	2022-10-14 16:48:53	LFM		BCJ0331-MS1		1.0000	3406
60		060LFMD.	2022-10-14 16:51:12	LFMDup		BCJ0331-MSD1		1.0000	3407
61		061SMPL.	2022-10-14 16:53:32	Sample		WCJ0253-15		1.0000	3408
62		062_LFM.d	2022-10-14 16:55:51	LFM		BCJ0331-MS1		1.0000	3409
63		063LFMD.	2022-10-14 16:58:09	LFMDup		BCJ0331-MSD1		1.0000	3410
64		064SMPL.	2022-10-14 17:00:30	Sample		WCJ0253-16		1.0000	3411
65		065SMPL.	2022-10-14 17:02:48	Sample		WCJ0253-17		1.0000	3412

Analyte											
Name	Mass	ISTD	Tune Mode	CPS	CPS RSD	Conc.	Units	Conc. RSD	Integ Time	Replicate	QC Measured Val...
1	Li	7	No Gas	57322.40	0.7	0.352	ppb	40.4	0.3000	3	0.4
2	Be	9	No Gas				ppb			0	
3	B	11	No Gas				ppb			0	
4	Al	27	No Gas				ppb			0	
5	Al	27	He				ppb			0	
6	Ti	47	He				ppb			0	
7	V	51	He				ppb			0	



Analyte												
Name	Mass	ISTD	Tune Mode	CPS	CPS RSD	Conc.	Units	Conc. RSD	Integ Time	Replicate	QC Measured	Val...
8	Cr	52	45	He			ppb			0		
9	Cr	53	45	He			ppb			0		
10	Mn	55	72	No Gas			ppb			0		
11	Mn	55	72	He			ppb			0		
12	Fe	56	72	He			ppb			0		
13	Fe	56	72	HEHe			ppb			0		
14	Fe	57	72	No Gas			ppb			0		
15	Fe	57	72	He			ppb			0		
16	Co	59	72	He			ppb			0		
17	Ni	60	72	He			ppb			0		
18	Ni	62	72	He			ppb			0		
19	Cu	65	72	He			ppb			0		
20	Zn	66	72	He			ppb			0		
21	As	75	72	He	73.67	12.2	0.302	15.6	1.0000	3		0.3
22	Se	78	72	He			ppb			0		
23	Se	82	72	He			ppb			0		
24	Sr	88	72	No Gas			ppb			0		
25	Sr	88	72	He			ppb			0		
26	Mo	95	103	No Gas			ppb			0		
27	Mo	95	103	He			ppb			0		
28	Mo	98	103	No Gas			ppb			0		
29	Mo	98	103	He			ppb			0		
30	Ag	107	103	No Gas			ppb			0		
31	Ag	107	103	He			ppb			0		
32	Ag	109	103	No Gas			ppb			0		



Analyte												
Name	Mass	ISTD	Tune Mode	CPS	CPS RSD	Conc.	Units	Conc. RSD	Integ Time	Replicate	QC Measured Val...	
33	Ag	109	103	He			ppb			0		
34	Cd	111	103	No Gas			ppb			0		
35	Cd	111	103	He			ppb			0		
36	Cd	114	103	No Gas			ppb			0		
37	Cd	114	103	He			ppb			0		
38	Sn	118	103	No Gas			ppb			0		
39	Sn	118	103	He			ppb			0		
40	Sb	123	165	No Gas			ppb			0		
41	Sb	123	165	He			ppb			0		
42	Ba	137	165	No Gas			ppb			0		
43	Ba	137	165	He			ppb			0		
44	Hg	201	165	No Gas			ppb			0		
45	Hg	201	165	He			ppb			0		
46	Hg	202	165	No Gas			ppb			0		
47	Hg	202	165	He			ppb			0		
48	Tl	205	165	No Gas			ppb			0		
49	Tl	205	165	He			ppb			0		
50	Pb	208	165	No Gas	266.67	3.3	0.012	9.8	0.3000	3	0.0	
51	Pb	208	165	He	254.44	3.3	0.028	18.4	0.3000	3	0.0	
52	U	238	165	No Gas	590.01	11.1	0.018	53.8	0.3000	3	0.0	
53	U	238	165	He	686.68	8.6	<0.000	N/A	0.3000	3	0.0	
54	Li	6	No Gas	1031176.	1.5		cps		0.5000	3	122.0	
55	Sc	45	No Gas	1371738.	4.0		cps		0.5000	3	126.9	
56	Sc	45	He	110090.6	1.2		cps		0.3000	3	106.4	
57	Ge	72	No Gas	570883.2	1.0		cps		0.5000	3	120.0	

Analyte											
Name	Mass	ISTD	Tune Mode	CPS	CPS RSD	Conc.	Units	Conc. RSD	Integ Time	Replicate	QC Measured Val...
58	Ge	72	He	121306.9	1.1		cps		0.3000	3	102.8
59	Ge	72	HEHe	52733.87	0.2		cps		0.3000	3	112.3
60	Rh	103	No Gas	1564386.	3.1		cps		0.5000	3	113.5
61	Rh	103	He	664324.8	1.3		cps		0.3000	3	99.8
62	Ho	165	No Gas	488213.8	0.6		cps		0.5000	3	109.2
63	Ho	165	He	214569.5	2.4		cps		0.3000	3	97.0

Sample										
Rjct	Data File	Acq. Date-Time	Type	Level	Sample Name	Comment	Total Dil.	Vial Number		
66	066_Blk.d	2022-10-14 17:05:07	Blank		BCJ0331-BLK1		1.0000	3501		
67	067_LCS.d	2022-10-14 17:07:28	LCS		BCJ0331-BS1		1.0000	3502		
68	068_RIN.d	2022-10-14 17:09:47	RINSE		Rinse		1.0000	4		
69	069_CCV.	2022-10-14 17:13:30	CCV		CCV		1.0000	1106		
70	070_CCB.	2022-10-14 17:16:46	CCB		CCB		1.0000	1101		

# Sample Report

**Sample Name** BCJ0331-BS1  
**File Name** 040\_LCS.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:00:53  
**Sample Type** LCS  
**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	51.837	No Gas	51.837	6	3.5	50	
75	As	53.160	He	53.16	72	3.4	50	
208	Pb	49.761	No Gas	49.761	165	5.4	50	
208	Pb	52.126	He	52.126	165	2.2	50	
238	U	51.594	No Gas	51.594	165	5.2	50	
238	U	54.922	He	54.922	165	2.2	50	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	792603.97	0.5	93.8	844941.11
Sc	45	No Gas	1023607.62	2.1	94.7	1080750.45666667
Sc	45	He	93835.66	2.4	90.7	103428.47
Ge	72	No Gas	461687.05	0.4	97.0	475770.303333333
Ge	72	He	107016.58	3.3	90.7	117990.143333333
Ge	72	HEHe	45036.59	0.2	95.9	46970.7866666667
Rh	103	No Gas	1306902.50	3.3	94.8	1378157.04
Rh	103	He	603171.85	2.6	90.7	665380.806666667
Ho	165	No Gas	436503.44	2.2	97.6	447257.863333333
Ho	165	He	200637.58	4.0	90.7	221230.69

# Sample Report

**Sample Name** WCJ0253-01  
**File Name** 041SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:03:11  
**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	0.972	No Gas	0.972	6	2.3	100	
75	As	1.006	He	1.006	72	4.5	1000	
208	Pb	0.022	No Gas	0.022	165	6.5	1000	
208	Pb	0.032	He	0.032	165	12.8	1000	
238	U	0.053	No Gas	0.053	165	8.7	1000	
238	U	0.050	He	0.05	165	5.7	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	762765.67	3.1	90.3	844941.11
Sc	45	No Gas	994951.10	1.0	92.1	1080750.45666667
Sc	45	He	89389.45	3.2	86.4	103428.47
Ge	72	No Gas	430237.88	1.6	90.4	475770.303333333
Ge	72	He	102195.86	2.5	86.6	117990.143333333
Ge	72	HEHe	44300.86	0.6	94.3	46970.7866666667
Rh	103	No Gas	1205543.88	1.7	87.5	1378157.04
Rh	103	He	557612.34	2.8	83.8	665380.806666667
Ho	165	No Gas	422862.15	1.7	94.5	447257.863333333
Ho	165	He	193476.46	2.7	87.5	221230.69

# Sample Report

**Sample Name** WCJ0253-02  
**File Name** 042SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:05:30  
**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	1.045	No Gas	1.045	6	0.8	100	
75	As	0.740	He	0.74	72	4.8	1000	
208	Pb	0.020	No Gas	0.02	165	7.3	1000	
208	Pb	0.014	He	0.014	165	16.9	1000	
238	U	0.035	No Gas	0.035	165	10.5	1000	
238	U	0.060	He	0.06	165	1.1	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	793754.72	0.5	93.9	844941.11
Sc	45	No Gas	1009369.56	2.2	93.4	1080750.45666667
Sc	45	He	94464.19	17.1	91.3	103428.47
Ge	72	No Gas	439104.85	0.9	92.3	475770.303333333
Ge	72	He	103843.03	13.5	88.0	117990.143333333
Ge	72	HEHe	42996.79	1.0	91.5	46970.7866666667
Rh	103	No Gas	1220520.25	1.1	88.6	1378157.04
Rh	103	He	567959.51	16.7	85.4	665380.806666667
Ho	165	No Gas	421423.39	2.0	94.2	447257.863333333
Ho	165	He	197186.66	16.4	89.1	221230.69

# Sample Report

**Sample Name** WCJ0253-03  
**File Name** 043SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:07:51  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** Fail  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

**QC Analyte Table**

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	103.250	No Gas	103.25	6	2.2	100	>LDR
75	As	9.330	He	9.33	72	4.6	1000	
208	Pb	0.515	No Gas	0.515	165	27.2	1000	
208	Pb	0.589	He	0.589	165	19.3	1000	
238	U	1.365	No Gas	1.365	165	2.7	1000	
238	U	1.545	He	1.545	165	1.6	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	610831.33	1.0	72.3	844941.11
Sc	45	No Gas	918347.50	0.5	85.0	1080750.45666667
Sc	45	He	86618.74	1.6	83.7	103428.47
Ge	72	No Gas	381841.15	1.6	80.3	475770.303333333
Ge	72	He	86613.45	1.6	73.4	117990.143333333
Ge	72	HEHe	38588.22	1.4	82.2	46970.786666667
Rh	103	No Gas	995685.40	1.9	72.2	1378157.04
Rh	103	He	437742.90	0.7	65.8	665380.806666667
Ho	165	No Gas	365369.88	0.5	81.7	447257.863333333
Ho	165	He	160828.34	1.0	72.7	221230.69

# Sample Report

**Sample Name** WCJ0253-04  
**File Name** 044SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:10:10  
**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	1.323	No Gas	1.323	6	0.3	100	
75	As	1.013	He	1.013	72	1.6	1000	
208	Pb	0.052	No Gas	0.052	165	18.8	1000	
208	Pb	0.041	He	0.041	165	9.4	1000	
238	U	0.044	No Gas	0.044	165	12.9	1000	
238	U	0.051	He	0.051	165	4.6	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	876757.33	1.7	103.8	844941.11
Sc	45	No Gas	1096243.46	2.5	101.4	1080750.45666667
Sc	45	He	101390.20	2.2	98.0	103428.47
Ge	72	No Gas	471762.63	0.5	99.2	475770.303333333
Ge	72	He	111381.71	2.1	94.4	117990.143333333
Ge	72	HEHe	46428.96	2.4	98.8	46970.7866666667
Rh	103	No Gas	1283748.58	1.3	93.1	1378157.04
Rh	103	He	581125.74	1.8	87.3	665380.806666667
Ho	165	No Gas	418724.14	1.8	93.6	447257.863333333
Ho	165	He	195589.88	2.2	88.4	221230.69

# Sample Report

**Sample Name** WCJ0253-05  
**File Name** 045SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:12:28  
**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	1.164	No Gas	1.164	6	2.0	100	
75	As	1.529	He	1.529	72	4.9	1000	
208	Pb	0.013	No Gas	0.013	165	11.8	1000	
208	Pb	0.021	He	0.021	165	4.9	1000	
238	U	0.040	No Gas	0.04	165	3.3	1000	
238	U	0.048	He	0.048	165	8.5	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	838595.81	1.1	99.2	844941.11
Sc	45	No Gas	1057861.29	2.3	97.9	1080750.45666667
Sc	45	He	99656.12	2.8	96.4	103428.47
Ge	72	No Gas	448209.60	1.3	94.2	475770.303333333
Ge	72	He	108573.13	3.1	92.0	117990.143333333
Ge	72	HEHe	45308.50	2.0	96.5	46970.7866666667
Rh	103	No Gas	1226278.21	1.3	89.0	1378157.04
Rh	103	He	566633.12	2.7	85.2	665380.806666667
Ho	165	No Gas	405680.25	1.9	90.7	447257.863333333
Ho	165	He	191622.05	3.0	86.6	221230.69



# Sample Report

**Sample Name** WCJ0253-06  
**File Name** 046SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX b  
**Acq Time** 2022-10-14 16:14:48  
**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	1.069	No Gas	1.069	6	1.3	100	
75	As	1.382	He	1.382	72	7.3	1000	
208	Pb	0.015	No Gas	0.015	165	15.4	1000	
208	Pb	0.025	He	0.025	165	24.2	1000	
238	U	0.047	No Gas	0.047	165	3.8	1000	
238	U	0.062	He	0.062	165	7.4	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	849657.88	1.2	100.6	844941.11
Sc	45	No Gas	1025977.38	2.4	94.9	1080750.45666667
Sc	45	He	99131.05	2.6	95.8	103428.47
Ge	72	No Gas	447235.11	0.1	94.0	475770.303333333
Ge	72	He	109017.88	3.0	92.4	117990.143333333
Ge	72	HEHe	45708.72	1.5	97.3	46970.7866666667
Rh	103	No Gas	1234133.84	0.6	89.5	1378157.04
Rh	103	He	566147.46	2.4	85.1	665380.806666667
Ho	165	No Gas	408741.69	2.0	91.4	447257.863333333
Ho	165	He	191614.98	2.5	86.6	221230.69

# Sample Report

**Sample Name** WCJ0253-07  
**File Name** 047SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:17:06  
**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	3.024	No Gas	3.024	6	1.8	100	
75	As	1.641	He	1.641	72	5.0	1000	
208	Pb	0.015	No Gas	0.015	165	21.0	1000	
208	Pb	0.031	He	0.031	165	8.5	1000	
238	U	0.166	No Gas	0.166	165	2.8	1000	
238	U	0.190	He	0.19	165	13.5	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	781314.55	1.2	92.5	844941.11
Sc	45	No Gas	1006199.69	1.8	93.1	1080750.45666667
Sc	45	He	100886.10	18.6	97.5	103428.47
Ge	72	No Gas	430215.49	1.0	90.4	475770.303333333
Ge	72	He	105776.44	16.1	89.6	117990.143333333
Ge	72	HEHe	42804.07	2.7	91.1	46970.7866666667
Rh	103	No Gas	1145394.96	4.1	83.1	1378157.04
Rh	103	He	556669.60	19.9	83.7	665380.806666667
Ho	165	No Gas	393245.59	2.2	87.9	447257.863333333
Ho	165	He	192904.03	19.7	87.2	221230.69

# Sample Report

**Sample Name** WCJ0253-08  
**File Name** 048SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:19:25  
**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	1.483	No Gas	1.483	6	1.7	100	
75	As	0.451	He	0.451	72	11.3	1000	
208	Pb	0.032	No Gas	0.032	165	26.0	1000	
208	Pb	0.040	He	0.04	165	8.1	1000	
238	U	0.037	No Gas	0.037	165	7.4	1000	
238	U	0.056	He	0.056	165	19.6	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	802111.52	0.6	94.9	844941.11
Sc	45	No Gas	1001649.37	1.5	92.7	1080750.45666667
Sc	45	He	96651.45	1.6	93.4	103428.47
Ge	72	No Gas	443516.45	1.0	93.2	475770.303333333
Ge	72	He	106826.09	0.8	90.5	117990.143333333
Ge	72	HEHe	44281.94	2.7	94.3	46970.7866666667
Rh	103	No Gas	1223509.12	4.3	88.8	1378157.04
Rh	103	He	553727.34	2.1	83.2	665380.806666667
Ho	165	No Gas	398735.33	1.7	89.2	447257.863333333
Ho	165	He	187002.51	2.1	84.5	221230.69

# Sample Report

**Sample Name** WCJ0253-09  
**File Name** 049SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:21:45  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	1.459	No Gas	1.459	6	0.5	100	
75	As	3.956	He	3.956	72	4.3	1000	
208	Pb	0.011	No Gas	0.011	165	13.5	1000	
208	Pb	0.016	He	0.016	165	8.0	1000	
238	U	0.292	No Gas	0.292	165	5.9	1000	
238	U	0.324	He	0.324	165	3.0	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	789798.52	2.5	93.5	844941.11
Sc	45	No Gas	984961.56	2.1	91.1	1080750.45666667
Sc	45	He	92880.94	2.2	89.8	103428.47
Ge	72	No Gas	426330.15	0.1	89.6	475770.303333333
Ge	72	He	101675.57	1.5	86.2	117990.143333333
Ge	72	HEHe	43155.19	2.3	91.9	46970.7866666667
Rh	103	No Gas	1162715.88	0.4	84.4	1378157.04
Rh	103	He	541801.64	2.2	81.4	665380.806666667
Ho	165	No Gas	385766.39	1.3	86.3	447257.863333333
Ho	165	He	184873.90	1.7	83.6	221230.69

# Sample Report

**Sample Name** Rinse  
**File Name** 050\_RIN.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX b  
**Acq Time** 2022-10-14 16:24:03  
**Sample Type** RINSE  
**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
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**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	835448.80	2.6	98.9	844941.11
Sc	45	No Gas	975885.40	1.6	90.3	1080750.456666667
Sc	45	He	101234.74	2.5	97.9	103428.47
Ge	72	No Gas	441835.55	0.2	92.9	475770.303333333
Ge	72	He	112892.90	2.6	95.7	117990.143333333
Ge	72	HEHe	43869.52	0.6	93.4	46970.7866666667
Rh	103	No Gas	1246078.29	1.9	90.4	1378157.04
Rh	103	He	603900.06	3.4	90.8	665380.806666667
Ho	165	No Gas	401638.83	2.2	89.8	447257.863333333
Ho	165	He	196410.17	2.0	88.8	221230.69

# Sample Report

**Sample Name** CCV  
**File Name** 051\_CC.V.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:27:22  
**Sample Type** CCV  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	51.485	No Gas	51.485	6	1.7	50	
9	Be	50.405	No Gas	50.405	6	2.6	50	
11	B	54.703	No Gas	54.703	45	5.5	50	
27	Al	101.071	No Gas	101.071	45	2.2	100	
27	Al	104.988	He	104.988	45	3.3	100	
47	Ti	49.390	He	49.39	45	2.7	50	
51	V	49.395	He	49.395	45	2.0	50	
52	Cr	48.455	He	48.455	45	2.1	50	
53	Cr	49.437	He	49.437	45	6.2	50	
55	Mn	48.095	No Gas	48.095	72	2.7	50	
55	Mn	49.517	He	49.517	72	2.7	50	
56	Fe	100.065	He	100.065	72	2.3	100	
56	Fe	99.170	HEHe	99.17	72	1.0	100	
57	Fe	101.541	No Gas	101.541	72	2.6	100	
57	Fe	100.851	He	100.851	72	3.2	100	
59	Co	48.655	He	48.655	72	3.0	50	
60	Ni	48.740	He	48.74	72	1.8	50	
62	Ni	48.489	He	48.489	72	3.2	50	
65	Cu	48.558	He	48.558	72	1.9	50	
66	Zn	47.674	He	47.674	72	2.4	50	
75	As	49.509	He	49.509	72	0.8	50	
78	Se	52.064	He	52.064	72	5.1	50	
88	Sr	49.062	No Gas	49.062	72	3.0	50	
88	Sr	50.225	He	50.225	72	2.2	50	
95	Mo	49.435	No Gas	49.435	103	3.7	50	
95	Mo	50.614	He	50.614	103	1.8	50	
98	Mo	48.970	No Gas	48.97	103	2.2	50	
98	Mo	50.093	He	50.093	103	1.6	50	
107	Ag	48.978	No Gas	48.978	103	2.7	50	
107	Ag	48.626	He	48.626	103	1.6	50	
109	Ag	49.011	No Gas	49.011	103	2.8	50	
109	Ag	49.516	He	49.516	103	2.6	50	
111	Cd	48.246	No Gas	48.246	103	2.8	50	

# Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
111	Cd	49.309	He	49.309	103	1.9	50	
114	Cd	47.943	No Gas	47.943	103	3.4	50	
114	Cd	50.331	He	50.331	103	2.4	50	
118	Sn	49.110	No Gas	49.11	103	4.1	50	
118	Sn	51.719	He	51.719	103	0.9	50	
123	Sb	47.880	No Gas	47.88	165	3.8	50	
123	Sb	50.944	He	50.944	165	1.3	50	
137	Ba	49.957	No Gas	49.957	165	2.6	50	
137	Ba	53.474	He	53.474	165	3.2	50	
201	Hg	2.475	No Gas	2.475	165	2.3	2.5	
202	Hg	2.471	No Gas	2.471	165	2.7	2.5	
202	Hg	2.468	He	2.468	165	4.5	2.5	
205	Tl	48.920	No Gas	48.92	165	3.6	50	
205	Tl	49.817	He	49.817	165	1.5	50	
208	Pb	49.169	No Gas	49.169	165	3.8	50	
208	Pb	50.324	He	50.324	165	0.8	50	
238	U	49.724	No Gas	49.724	165	4.7	50	
238	U	50.444	He	50.444	165	1.6	50	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	812532.57	2.3	96.2	844941.11
Sc	45	No Gas	971630.62	1.5	89.9	1080750.45666667
Sc	45	He	100099.08	2.3	96.8	103428.47
Ge	72	No Gas	431998.07	0.8	90.8	475770.303333333
Ge	72	He	111737.70	1.1	94.7	117990.143333333
Ge	72	HEHe	42469.64	0.3	90.4	46970.7866666667
Rh	103	No Gas	1236968.96	1.0	89.8	1378157.04
Rh	103	He	601433.88	1.5	90.4	665380.806666667
Ho	165	No Gas	394328.66	2.0	88.2	447257.863333333
Ho	165	He	194451.20	3.4	87.9	221230.69

# Sample Report

**Sample Name** CCB  
**File Name** 052\_CCB.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:30:38  
**Sample Type** CCB  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	0.468	No Gas	0.468	6	0.6	0.5	
9	Be	0.025	No Gas	0.025	6	45.5	0.05	
11	B	10.873	No Gas	10.873	45	4.0	1.69	>DL*2.2
27	Al	0.080	No Gas	0.08	45	15.9	1.57	
27	Al	<0.000	He	-0.248	45	18.9	1.57	
47	Ti	0.028	He	0.028	45	173.2	0.23	
51	V	0.084	He	0.084	45	11.5	0.28	
52	Cr	<0.000	He	-0.005	45	33.7	0.04	
53	Cr	0.441	He	0.441	45	12.6	0.04	>DL*2.2
55	Mn	0.018	No Gas	0.018	72	6.0	0.05	
55	Mn	<0.000	He	-0.024	72	15.2	0.05	
56	Fe	<0.000	He	-0.101	72	4.0	1.59	
56	Fe	0.249	HEHe	0.249	72	10.7	1.59	
57	Fe	2.837	No Gas	2.837	72	1.3	1.59	
57	Fe	<0.000	He	-0.639	72	28.6	1.59	
59	Co	0.006	He	0.006	72	72.1	0.02	
60	Ni	0.044	He	0.044	72	48.2	0.08	
62	Ni	0.126	He	0.126	72	68.7	0.08	
65	Cu	0.004	He	0.004	72	42.3	0.03	
66	Zn	<0.000	He	-0.216	72	7.2	0.3	
75	As	0.010	He	0.01	72	49.4	0.06	
78	Se	0.454	He	0.454	72	2.7	0.17	>DL*2.2
88	Sr	0.073	No Gas	0.073	72	8.6	0.02	>DL*2.2
88	Sr	0.065	He	0.065	72	6.8	0.02	>DL*2.2
95	Mo	0.123	No Gas	0.123	103	15.9	0.05	>DL*2.2
95	Mo	0.303	He	0.303	103	21.7	0.05	>DL*2.2
98	Mo	0.149	No Gas	0.149	103	19.0	0.05	>DL*2.2
98	Mo	0.288	He	0.288	103	9.3	0.05	>DL*2.2
107	Ag	0.021	No Gas	0.021	103	6.2	0.03	
107	Ag	0.058	He	0.058	103	37.2	0.03	
109	Ag	0.051	No Gas	0.051	103	37.7	0.03	
109	Ag	0.101	He	0.101	103	60.5	0.03	>DL*2.2
111	Cd	0.034	No Gas	0.034	103	226.9	0.01	>DL*2.2



# Sample Report

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
111	Cd	0.002	He	0.002	103	50.0	0.01	
114	Cd	0.022	No Gas	0.022	103	103.1	0.01	>DL*2.2
114	Cd	0.015	He	0.015	103	24.1	0.01	
118	Sn	0.145	No Gas	0.145	103	10.1	0.04	>DL*2.2
118	Sn	0.221	He	0.221	103	16.1	0.04	>DL*2.2
123	Sb	0.551	No Gas	0.551	165	8.1	0.05	>DL*2.2
123	Sb	1.090	He	1.09	165	13.2	0.05	>DL*2.2
137	Ba	<0.000	No Gas	-0.019	165	16.5	0.05	
137	Ba	0.029	He	0.029	165	20.7	0.05	
201	Hg	0.004	No Gas	0.004	165	11.5	0.01	
202	Hg	0.010	No Gas	0.01	165	13.1	0.01	
202	Hg	0.017	He	0.017	165	3.2	0.01	
205	Tl	0.008	No Gas	0.008	165	26.5	0.05	
205	Tl	0.015	He	0.015	165	13.7	0.05	
208	Pb	0.013	No Gas	0.013	165	5.5	0.04	
208	Pb	0.015	He	0.015	165	10.4	0.04	
238	U	0.013	No Gas	0.013	165	6.5	0.05	
238	U	0.028	He	0.028	165	14.6	0.05	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	824037.12	4.3	97.5	844941.11
Sc	45	No Gas	967009.31	2.8	89.5	1080750.45666667
Sc	45	He	102397.34	2.4	99.0	103428.47
Ge	72	No Gas	434347.16	1.3	91.3	475770.303333333
Ge	72	He	112540.50	2.9	95.4	117990.143333333
Ge	72	HEHe	43569.70	2.1	92.8	46970.7866666667
Rh	103	No Gas	1234727.00	1.2	89.6	1378157.04
Rh	103	He	607580.57	2.4	91.3	665380.806666667
Ho	165	No Gas	397058.06	2.5	88.8	447257.863333333
Ho	165	He	197463.82	0.9	89.3	221230.69

# Sample Report

**Sample Name** Rinse  
**File Name** 053\_RIN.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:33:57  
**Sample Type** RINSE  
**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
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## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	815667.17	3.9	96.5	844941.11
Sc	45	No Gas	958070.06	1.1	88.6	1080750.45666667
Sc	45	He	100380.99	2.4	97.1	103428.47
Ge	72	No Gas	430077.28	1.7	90.4	475770.303333333
Ge	72	He	112608.10	3.1	95.4	117990.143333333
Ge	72	HEHe	44241.78	1.8	94.2	46970.7866666667
Rh	103	No Gas	1246522.29	0.4	90.4	1378157.04
Rh	103	He	605164.99	3.5	91.0	665380.806666667
Ho	165	No Gas	391589.17	2.2	87.6	447257.863333333
Ho	165	He	196059.64	3.1	88.6	221230.69

# Sample Report

**Sample Name** WCJ0253-10  
**File Name** 054SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:37:15  
**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	5.555	No Gas	5.555	6	2.2	100	
75	As	2.112	He	2.112	72	4.1	1000	
208	Pb	0.065	No Gas	0.065	165	4.8	1000	
208	Pb	0.067	He	0.067	165	13.8	1000	
238	U	0.212	No Gas	0.212	165	6.7	1000	
238	U	0.274	He	0.274	165	4.7	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	746396.75	0.2	88.3	844941.11
Sc	45	No Gas	944970.44	1.7	87.4	1080750.45666667
Sc	45	He	91857.26	1.4	88.8	103428.47
Ge	72	No Gas	396482.98	1.0	83.3	475770.303333333
Ge	72	He	99743.82	1.4	84.5	117990.143333333
Ge	72	HEHe	42004.87	0.8	89.4	46970.7866666667
Rh	103	No Gas	1071249.00	2.0	77.7	1378157.04
Rh	103	He	513991.09	2.7	77.2	665380.806666667
Ho	165	No Gas	362995.26	2.8	81.2	447257.863333333
Ho	165	He	179458.81	2.9	81.1	221230.69

# Sample Report

**Sample Name** WCJ0253-11  
**File Name** 055SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:39:36  
**Sample Type** Sample  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** Fail  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

## QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	134.835	No Gas	134.835	6	2.1	100	>LDR
75	As	3.096	He	3.096	72	6.7	1000	
208	Pb	0.270	No Gas	0.27	165	21.2	1000	
208	Pb	0.223	He	0.223	165	15.4	1000	
238	U	3.276	No Gas	3.276	165	3.5	1000	
238	U	3.643	He	3.643	165	2.3	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	601392.86	1.9	71.2	844941.11
Sc	45	No Gas	909864.04	1.1	84.2	1080750.45666667
Sc	45	He	87155.46	1.7	84.3	103428.47
Ge	72	No Gas	363615.42	1.1	76.4	475770.303333333
Ge	72	He	85098.40	2.3	72.1	117990.143333333
Ge	72	HEHe	39030.58	1.1	83.1	46970.7866666667
Rh	103	No Gas	964683.02	3.5	70.0	1378157.04
Rh	103	He	426880.02	1.0	64.2	665380.806666667
Ho	165	No Gas	337146.55	1.9	75.4	447257.863333333
Ho	165	He	155356.04	1.3	70.2	221230.69

# Sample Report

**Sample Name** WCJ0253-12  
**File Name** 056SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:41:55  
**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	0.465	No Gas	0.465	6	1.2	100	
75	As	0.295	He	0.295	72	8.1	1000	
208	Pb	0.020	No Gas	0.02	165	23.2	1000	
208	Pb	0.013	He	0.013	165	14.3	1000	
238	U	0.005	No Gas	0.005	165	3.4	1000	
238	U	<0.000	He	-0.008	165	9.1	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	914978.94	1.2	108.3	844941.11
Sc	45	No Gas	1128415.08	2.4	104.4	1080750.45666667
Sc	45	He	108923.08	1.8	105.3	103428.47
Ge	72	No Gas	497618.27	1.7	104.6	475770.303333333
Ge	72	He	117879.47	0.7	99.9	117990.143333333
Ge	72	HEHe	48635.42	0.6	103.5	46970.7866666667
Rh	103	No Gas	1378887.71	2.8	100.1	1378157.04
Rh	103	He	625328.88	2.2	94.0	665380.806666667
Ho	165	No Gas	427836.47	2.8	95.7	447257.863333333
Ho	165	He	203194.47	1.8	91.8	221230.69

# Sample Report

**Sample Name** WCJ0253-13  
**File Name** 057SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:44:14  
**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	4.846	No Gas	4.846	6	1.6	100	
75	As	1.786	He	1.786	72	2.8	1000	
208	Pb	0.001	No Gas	0.001	165	20.9	1000	
208	Pb	0.005	He	0.005	165	25.6	1000	
238	U	0.185	No Gas	0.185	165	1.4	1000	
238	U	0.222	He	0.222	165	1.1	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	836331.98	0.4	99.0	844941.11
Sc	45	No Gas	1113355.88	1.8	103.0	1080750.45666667
Sc	45	He	101698.22	1.2	98.3	103428.47
Ge	72	No Gas	456012.62	0.5	95.8	475770.303333333
Ge	72	He	109142.84	3.0	92.5	117990.143333333
Ge	72	HEHe	44808.04	1.1	95.4	46970.7866666667
Rh	103	No Gas	1246371.08	1.9	90.4	1378157.04
Rh	103	He	563115.67	2.2	84.6	665380.806666667
Ho	165	No Gas	417506.78	0.9	93.3	447257.863333333
Ho	165	He	193477.03	2.7	87.5	221230.69

# Sample Report

**Sample Name** WCJ0253-14  
**File Name** 058\_ARF.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:46:34  
**Sample Type** AllRef  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** Fail  
**ISTD QC Pass/Fail** Fail  
**Operator** JLG

QC Analyte Table

Mass	Name	Conc.	Tune	Raw Conc.	ISTD	CPS RSD	LDR	QC Flag
7	Li	105.422	No Gas	105.422	6	2.8	100	>LDR
75	As	5.738	He	5.738	72	6.0	1000	
208	Pb	0.041	No Gas	0.041	165	10.2	1000	
208	Pb	0.056	He	0.056	165	8.0	1000	
238	U	1.247	No Gas	1.247	165	6.6	1000	
238	U	1.551	He	1.551	165	1.4	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	711814.43	8.8	84.2	844941.11
Sc	45	No Gas	1010488.50	8.5	93.5	1080750.45666667
Sc	45	He	87197.34	4.4	84.3	103428.47
Ge	72	No Gas	392398.06	8.7	82.5	475770.303333333
Ge	72	He	85421.67	2.5	72.4	117990.143333333
Ge	72	HEHe	38905.80	1.0	82.8	46970.7866666667
Rh	103	No Gas	1056804.71	12.2	76.7	1378157.04
Rh	103	He	433597.08	4.2	65.2	665380.806666667
Ho	165	No Gas	371669.43	11.0	83.1	447257.863333333
Ho	165	He	158108.42	4.6	71.5	221230.69

# Sample Report

**Sample Name** BCJ0331-MS1  
**File Name** 059\_LFM.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:48:53  
**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	159.451	No Gas	159.451	6	3.4	100	
75	As	58.529	He	58.529	72	2.2	100	
208	Pb	41.755	No Gas	41.755	165	2.8	100	
208	Pb	43.091	He	43.091	165	1.6	100	
238	U	47.333	No Gas	47.333	165	2.9	100	
238	U	51.141	He	51.141	165	1.7	100	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	696123.95	3.1	82.4	844941.11
Sc	45	No Gas	944952.54	1.9	87.4	1080750.45666667
Sc	45	He	96333.12	1.7	93.1	103428.47
Ge	72	No Gas	379632.67	2.6	79.8	475770.303333333
Ge	72	He	91908.63	2.3	77.9	117990.143333333
Ge	72	HEHe	41157.85	2.8	87.6	46970.7866666667
Rh	103	No Gas	1007246.89	2.2	73.1	1378157.04
Rh	103	He	468320.88	3.0	70.4	665380.806666667
Ho	165	No Gas	348784.98	2.3	78.0	447257.863333333
Ho	165	He	169752.57	2.4	76.7	221230.69



# Sample Report

**Sample Name** BCJ0331-MSD1  
**File Name** 060LFMD.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:51:12  
**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	150.610	No Gas	150.61	6	2.2	20	
75	As	58.061	He	58.061	72	1.1	20	
208	Pb	39.872	No Gas	39.872	165	2.5	20	
208	Pb	43.780	He	43.78	165	2.6	20	
238	U	45.068	No Gas	45.068	165	4.0	20	
238	U	50.982	He	50.982	165	2.3	20	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	801433.67	3.6	94.9	844941.11
Sc	45	No Gas	1091364.96	4.7	101.0	1080750.45666667
Sc	45	He	98185.59	1.4	94.9	103428.47
Ge	72	No Gas	414277.38	0.2	87.1	475770.303333333
Ge	72	He	93488.84	1.1	79.2	117990.143333333
Ge	72	HEHe	42630.08	0.7	90.8	46970.7866666667
Rh	103	No Gas	1080660.16	1.5	78.4	1378157.04
Rh	103	He	474775.86	1.9	71.4	665380.806666667
Ho	165	No Gas	379936.67	1.0	84.9	447257.863333333
Ho	165	He	171540.93	3.1	77.5	221230.69

# Sample Report

**Sample Name** WCJ0253-15  
**File Name** 061SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:53:32  
**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	86.293	No Gas	86.293	6	1.8	100	
75	As	0.823	He	0.823	72	1.9	1000	
208	Pb	0.019	No Gas	0.019	165	9.7	1000	
208	Pb	0.019	He	0.019	165	11.3	1000	
238	U	0.229	No Gas	0.229	165	6.2	1000	
238	U	0.279	He	0.279	165	9.3	1000	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	760703.79	2.1	90.0	844941.11
Sc	45	No Gas	963935.67	3.0	89.2	1080750.45666667
Sc	45	He	96562.22	2.7	93.4	103428.47
Ge	72	No Gas	424116.44	1.9	89.1	475770.303333333
Ge	72	He	95548.76	2.4	81.0	117990.143333333
Ge	72	HEHe	45921.77	1.0	97.8	46970.7866666667
Rh	103	No Gas	1099882.33	3.3	79.8	1378157.04
Rh	103	He	464411.80	2.7	69.8	665380.806666667
Ho	165	No Gas	378126.48	1.6	84.5	447257.863333333
Ho	165	He	168297.93	2.0	76.1	221230.69

# Sample Report

**Sample Name** BCJ0331-MS1  
**File Name** 062\_LFM.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:55:51  
**Sample Type** LFM  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	136.194	No Gas	136.194	6	4.0	100	> +/- 25%
75	As	53.424	He	53.424	72	1.9	100	
208	Pb	40.661	No Gas	40.661	165	3.9	100	
208	Pb	44.805	He	44.805	165	2.9	100	
238	U	44.708	No Gas	44.708	165	3.9	100	
238	U	50.079	He	50.079	165	1.0	100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	764872.01	1.9	90.5	844941.11
Sc	45	No Gas	1003578.56	3.3	92.9	1080750.45666667
Sc	45	He	102311.35	2.3	98.9	103428.47
Ge	72	No Gas	428233.07	0.9	90.0	475770.303333333
Ge	72	He	99823.96	1.6	84.6	117990.143333333
Ge	72	HEHe	45496.94	1.0	96.9	46970.7866666667
Rh	103	No Gas	1101090.08	1.1	79.9	1378157.04
Rh	103	He	486000.40	1.4	73.0	665380.806666667
Ho	165	No Gas	387725.33	0.8	86.7	447257.863333333
Ho	165	He	178467.02	2.3	80.7	221230.69

# Sample Report

**Sample Name** BCJ0331-MSD1  
**File Name** 063LFMD.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 16:58:09  
**Sample Type** LFMDup  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	130.376	No Gas	130.376	6	1.5	20	
75	As	52.612	He	52.612	72	2.0	20	
208	Pb	40.752	No Gas	40.752	165	2.3	20	
208	Pb	45.181	He	45.181	165	0.9	20	
238	U	44.958	No Gas	44.958	165	4.3	20	
238	U	50.901	He	50.901	165	1.6	20	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	764270.77	0.9	90.5	844941.11
Sc	45	No Gas	962251.42	1.8	89.0	1080750.45666667
Sc	45	He	99497.73	7.1	96.2	103428.47
Ge	72	No Gas	418527.75	0.3	88.0	475770.303333333
Ge	72	He	96857.18	7.1	82.1	117990.143333333
Ge	72	HEHe	49447.50	7.7	105.3	46970.7866666667
Rh	103	No Gas	1078067.08	1.3	78.2	1378157.04
Rh	103	He	478672.29	7.6	71.9	665380.806666667
Ho	165	No Gas	394696.65	0.5	88.2	447257.863333333
Ho	165	He	174916.42	7.9	79.1	221230.69

# Sample Report

**Sample Name** WCJ0253-16  
**File Name** 064SMPL.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 17:00:30  
**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	77.798	No Gas	77.798	6	1.8	100	
75	As	0.933	He	0.933	72	14.7	1000	
208	Pb	0.039	No Gas	0.039	165	21.5	1000	
208	Pb	0.058	He	0.058	165	5.4	1000	
238	U	0.247	No Gas	0.247	165	2.7	1000	
238	U	0.277	He	0.277	165	10.0	1000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	757345.17	0.6	89.6	844941.11
Sc	45	No Gas	1083308.42	2.3	100.2	1080750.45666667
Sc	45	He	102275.70	3.3	98.9	103428.47
Ge	72	No Gas	431567.66	0.5	90.7	475770.303333333
Ge	72	He	98891.93	3.1	83.8	117990.143333333
Ge	72	HEHe	47503.64	0.4	101.1	46970.7866666667
Rh	103	No Gas	1165968.17	1.6	84.6	1378157.04
Rh	103	He	499901.77	2.4	75.1	665380.806666667
Ho	165	No Gas	417331.69	1.3	93.3	447257.863333333
Ho	165	He	179481.29	2.3	81.1	221230.69

# Sample Report

**Sample Name** WCJ0253-17  
**File Name** 065SMPL.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 17:02:48  
**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	0.352	No Gas	0.352	6	0.7	100	
75	As	0.302	He	0.302	72	12.2	1000	
208	Pb	0.012	No Gas	0.012	165	3.3	1000	
208	Pb	0.028	He	0.028	165	3.3	1000	
238	U	0.018	No Gas	0.018	165	11.1	1000	
238	U	<0.000	He	-0.004	165	8.6	1000	

**QC ISTD Table**

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1031176.94	1.5	122.0	844941.11
Sc	45	No Gas	1371738.63	4.0	126.9	1080750.45666667
Sc	45	He	110090.66	1.2	106.4	103428.47
Ge	72	No Gas	570883.27	1.0	120.0	475770.303333333
Ge	72	He	121306.97	1.1	102.8	117990.143333333
Ge	72	HEHe	52733.87	0.2	112.3	46970.7866666667
Rh	103	No Gas	1564386.58	3.1	113.5	1378157.04
Rh	103	He	664324.80	1.3	99.8	665380.806666667
Ho	165	No Gas	488213.88	0.6	109.2	447257.863333333
Ho	165	He	214569.58	2.4	97.0	221230.69

# Sample Report

**Sample Name** BCJ0331-BLK1  
**File Name** 066\_Blk.d  
**Data Path Name** D:\Agilent\ICPMH\1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 17:05:07  
**Sample Type** Blank  
**Total Dilution** 1.0000  
**Comment** ---  
**ISTD Ref FileName** 003CALB.d  
**Sample QC Pass/Fail** 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	0.016	No Gas	0.016	6	1.2	0.5	
75	As	<0.000	He	-0.032	72	41.6	0.06	
208	Pb	<0.000	No Gas	0	165	11.3	0.04	
208	Pb	<0.000	He	-0.008	165	37.1	0.04	
238	U	0.000	No Gas	0	165	14.7	0.05	
238	U	0.009	He	0.009	165	14.9	0.05	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	1005696.08	1.7	119.0	844941.11
Sc	45	No Gas	1247039.00	2.0	115.4	1080750.45666667
Sc	45	He	106698.19	3.4	103.2	103428.47
Ge	72	No Gas	557608.23	0.6	117.2	475770.303333333
Ge	72	He	119650.36	2.9	101.4	117990.143333333
Ge	72	HEHe	55343.80	2.3	117.8	46970.7866666667
Rh	103	No Gas	1527294.29	2.6	110.8	1378157.04
Rh	103	He	664696.69	3.2	99.9	665380.806666667
Ho	165	No Gas	494477.87	1.3	110.6	447257.863333333
Ho	165	He	212510.06	4.0	96.1	221230.69

# Sample Report

**Sample Name** BCJ0331-BS1  
**File Name** 067\_LCS.d  
**Data Path Name** D:\Agilent\ICPMH1\DATA\Method Batches\RXN\Sequences\10142022 HIGH MATRIX.b  
**Acq Time** 2022-10-14 17:07:28  
**Sample Type** LCS  
**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	47.763	No Gas	47.763	6	3.4	50	
75	As	47.518	He	47.518	72	3.3	50	
208	Pb	46.678	No Gas	46.678	165	3.7	50	
208	Pb	48.939	He	48.939	165	3.1	50	
238	U	46.853	No Gas	46.853	165	4.1	50	
238	U	50.110	He	50.11	165	3.2	50	

## QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	ISTD Recovery %	ISTD Ref CPS
Li	6	No Gas	975318.42	1.0	115.4	844941.11
Sc	45	No Gas	1230768.25	2.8	113.9	1080750.45666667
Sc	45	He	107176.07	1.6	103.6	103428.47
Ge	72	No Gas	556055.77	0.8	116.9	475770.303333333
Ge	72	He	119861.91	2.5	101.6	117990.143333333
Ge	72	HEHe	55005.84	0.6	117.1	46970.7866666667
Rh	103	No Gas	1530999.79	1.8	111.1	1378157.04
Rh	103	He	670562.77	2.6	100.8	665380.806666667
Ho	165	No Gas	494352.02	0.3	110.5	447257.863333333
Ho	165	He	217262.03	2.8	98.2	221230.69



Methods: 8270C / EPA 6850 / EPA 8321B

Instrument: LC-MS-MS

Ext. Method: EPA 3535 SPE/ Liq-Solid microextraction and derivatization

Internal Standard (IS)	Solution #	Concentration (ppm)
Glyphosate- <sup>13</sup> C <sub>2</sub>	2103573	10
Matrix Spiking Info (MS/MSD)	Solution #	Concentration (ppm)
Glyphosate / AMPA	2201545	25/50

Standard or Sample # (Glyphosate / AMPA)	Reaction volume	Sample	FMOc (mL)	Buffer (mL)	IS (μL)	Cal Std or Spike (μl)	Final Mult
250 ppb / 500 ppb	2 ml	1.0	0.5	0.5	10	20	2x
125 ppb / 250 ppb	2 ml	1.0	0.5	0.5	10	10	
50 ppb / 100 ppb	2 ml	1.0	0.5	0.5	10	4	
25 ppb / 50 ppb	2 ml	1.0	0.5	0.5	10	2	
12.5 ppb / 25 ppb	2 ml	1.0	0.5	0.5	10	1	
6.25 ppb/12.5 ppb	2 ml	1.0	0.5	0.5	10	0.5	
BCJ0307-BLK1	2 ml	1.0	0.5	0.5	10	0	
BCJ0307-BS1	2 ml	1.0	0.5	0.5	10	4	
BCJ0307-MS1	2 ml	1.0	0.5	0.5	10	4	
BCJ0307-MSD1	2 ml	1.0	0.5	0.5	10	4	
WCJ0253-14	2 ml	1.0	0.5	0.5	10	0	
MCI0947-01	2 ml	1.0	0.5	0.5	10	0	
MCI0947-02	2 ml	1.0	0.5	0.5	10	0	
MCI0947-05	2 ml	1.0	0.5	0.5	10	0	
MCI0947-06	2 ml	1.0	0.5	0.5	10	0	
MCI0947-09	2 ml	1.0	0.5	0.5	10	0	
MCI0947-10	2 ml	1.0	0.5	0.5	10	0	
MCI0947-11	2 ml	1.0	0.5	0.5	10	0	
MCI0947-12	2 ml	1.0	0.5	0.5	10	0	
MCJ0052-01	2 ml	1.0	0.5	0.5	10	0	
WCJ0253-13	2 ml	1.0	0.5	0.5	10	0	
WCJ0253-15	2 ml	1.0	0.5	0.5	10	0	
WCJ0253-16	2 ml	1.0	0.5	0.5	10	0	↓

Prepped samples were heated overnight at 40°C in a water bath.  
 Derivatized samples were diluted into well plate for analysis as follows  
 (100 μL 2% phosphoric acid / 700 μL water / 200 μL derivatized extract)

**Reagents**

FMOc – 5 mg/mL in Acet MCG0360-78 (tank)onitrile  
 Sodium Tetraborate

2% Phosphoric Acid

Buffer – 5%

*WPK* 10/12/22  
 BCJ0307  
 BCJ0309

Methods: 8270C / EPA 6850 / EPA 8321B

Instrument: LC-MS-MS

Ext. Method: EPA 3535 SPE/ Liq-Solid microextraction and derivatization

Internal Standard (IS)	Solution #	Concentration (ppm)
Glyphosate- <sup>13</sup> C <sub>2</sub>	2103573	10
Matrix Spiking Info (MS/MSD)	Solution #	Concentration (ppm)
Glyphosate / AMPA	2201545	25/50

Standard or Sample # (Glyphosate / AMPA)	Reaction volume	Water	FMOc (mL)	Extract/Buffer (mL)	IS (µL)	Cal Std or Spike (µL)	Final Mult
250 ppb / 500 ppb	2 ml	0.75	0.5	0.75	10	20	2x
125 ppb / 250 ppb	2 ml	0.75	0.5	0.75	10	10	↓
50 ppb / 100 ppb	2 ml	0.75	0.5	0.75	10	4	
25 ppb / 50 ppb	2 ml	0.75	0.5	0.75	10	2	
12.5 ppb / 25 ppb	2 ml	0.75	0.5	0.75	10	1	
6.25 ppb/12.5 ppb	2 ml	0.75	0.5	0.75	10	0.5	
BCJ0309-BLK1	2 ml	0.75	0.5	0.75	10	0	
BCJ0309-BS1	2 ml	0.75	0.5	0.75	10	4	↓
BCJ0309-MS1	2 ml	0.75	0.5	0.25/0.50	10	4	45.2
BCJ0309-MSD1	2 ml	0.75	0.5	0.25/0.50	10	4	↓
MCJ0164-01	2 ml	0.75	0.5	0.25/0.50	10	0	↓

\*Sample

Sample extracts were transferred to 5 ml test tubes (stds and samples plus reagents)

Prepped samples were heated overnight at 40°C in a water bath.

Derivatized samples were diluted into well plate for analysis as follows

(100 µL 2% phosphoric acid / 700 µL water / 200 µL derivatized extract)

**Reagents**

FMOc – 5 mg/mL in ACN; 2% Phosphoric Acid; Buffer – 5 % Sodium Tetraborate

Sample Extraction/Homogenizer information

Sample #	Weight (g)	Buffer amount	MULT
MCJ0164-01	5.21	25	5.65

7.5  
85.0

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
1	250/500 ppb gly a	Standard	10/11/2022 4:42	101122_gly	1.00	Glyphosate	6.76e+005	250.	1.37e+005	250.	100.
2	250/500 ppb gly a	Standard	10/11/2022 4:42	101122_gly	1.00	Glyphosate1	2.50e+005	250.	1.37e+005	251.	100.
3	250/500 ppb gly a	Standard	10/11/2022 4:42	101122_gly	1.00	AMPA	4.32e+005	500.	1.37e+005	503.	101.
4	250/500 ppb gly a	Standard	10/11/2022 4:42	101122_gly	1.00	AMPA1	1.64e+005	500.	1.37e+005	503.	101.
5	125/250 ppb gly a	Standard	10/11/2022 4:49	101122_gly	1.00	Glyphosate	4.28e+005	125.	1.58e+005	125.	100.
6	125/250 ppb gly a	Standard	10/11/2022 4:49	101122_gly	1.00	Glyphosate1	1.54e+005	125.	1.58e+005	124.	99.5
7	125/250 ppb gly a	Standard	10/11/2022 4:49	101122_gly	1.00	AMPA	3.08e+005	250.	1.58e+005	247.	98.7
8	125/250 ppb gly a	Standard	10/11/2022 4:49	101122_gly	1.00	AMPA1	1.10e+005	250.	1.58e+005	247.	98.8
9	50/100 ppb gly a	Standard	10/11/2022 4:56	101122_gly	1.00	Glyphosate	2.09e+005	50.0	1.91e+005	47.8	95.7
10	50/100 ppb gly a	Standard	10/11/2022 4:56	101122_gly	1.00	Glyphosate1	7.58e+004	50.0	1.91e+005	48.3	96.5
11	50/100 ppb gly a	Standard	10/11/2022 4:56	101122_gly	1.00	AMPA	1.68e+005	100.	1.91e+005	98.1	98.1
12	50/100 ppb gly a	Standard	10/11/2022 4:56	101122_gly	1.00	AMPA1	5.78e+004	100.	1.91e+005	95.7	95.7
13	25/50 ppb gly am	Standard	10/11/2022 5:02	101122_gly	1.00	Glyphosate	1.30e+005	25.0	2.05e+005	27.0	108.
14	25/50 ppb gly am	Standard	10/11/2022 5:02	101122_gly	1.00	Glyphosate1	4.69e+004	25.0	2.05e+005	27.2	109.
15	25/50 ppb gly am	Standard	10/11/2022 5:02	101122_gly	1.00	AMPA	1.03e+005	50.0	2.05e+005	53.6	107.
16	25/50 ppb gly am	Standard	10/11/2022 5:02	101122_gly	1.00	AMPA1	3.73e+004	50.0	2.05e+005	54.7	109.
17	12.5/25 ppb gly a	Standard	10/11/2022 5:09	101122_gly	1.00	Glyphosate	6.81e+004	12.5	2.25e+005	12.3	98.5
18	12.5/25 ppb gly a	Standard	10/11/2022 5:09	101122_gly	1.00	Glyphosate1	2.44e+004	12.5	2.25e+005	12.4	99.6
19	12.5/25 ppb gly a	Standard	10/11/2022 5:09	101122_gly	1.00	AMPA	5.62e+004	25.0	2.25e+005	24.8	99.0
20	12.5/25 ppb gly a	Standard	10/11/2022 5:09	101122_gly	1.00	AMPA1	2.18e+004	25.0	2.25e+005	26.7	107.
21	6.25/12.5 ppb gly/	Standard	10/11/2022 5:16	101122_gly	1.00	Glyphosate	3.68e+004	6.25	2.30e+005	6.08	97.3
22	6.25/12.5 ppb gly/	Standard	10/11/2022 5:16	101122_gly	1.00	Glyphosate1	1.26e+004	6.25	2.30e+005	5.96	95.3
23	6.25/12.5 ppb gly/	Standard	10/11/2022 5:16	101122_gly	1.00	AMPA	3.09e+004	12.5	2.30e+005	12.0	96.4
24	6.25/12.5 ppb gly/	Standard	10/11/2022 5:16	101122_gly	1.00	AMPA1	1.10e+004	12.5	2.30e+005	11.1	88.8
25	RINSE	Quality Cont	10/11/2022 5:23	101122_gly	1.00	Glyphosate	0.00e+000	0.00	2.34e+005	No Peak	N/A
26	RINSE	Quality Cont	10/11/2022 5:23	101122_gly	1.00	Glyphosate1	0.00e+000	0.00	2.34e+005	No Peak	N/A
27	RINSE	Quality Cont	10/11/2022 5:23	101122_gly	1.00	AMPA	0.00e+000	0.00	2.34e+005	No Peak	N/A
28	RINSE	Quality Cont	10/11/2022 5:23	101122_gly	1.00	AMPA1	0.00e+000	0.00	2.34e+005	No Peak	N/A
	BCJ0307-BLK1	Quality Cont	10/11/2022 5:29	101122_gly	1.00	Glyphosate	0.00e+000	0.00	2.53e+005	No Peak	N/A
	BCJ0307-BLK1	Quality Cont	10/11/2022 5:29	101122_gly	1.00	Glyphosate1	0.00e+000	0.00	2.53e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
31	BCJ0307-BLK1	Quality Cont	10/11/2022 5:29	101122_gly	1.00	AMPA	0.00e+000	0.00	2.53e+005	No Peak	N/A
32	BCJ0307-BLK1	Quality Cont	10/11/2022 5:29	101122_gly	1.00	AMPA1	0.00e+000	0.00	2.53e+005	No Peak	N/A
33	BCJ0307-BS1	Quality Cont	10/11/2022 5:36	101122_gly	1.00	Glyphosate	2.58e+005	50.0	2.45e+005	45.8	91.7
34	BCJ0307-BS1	Quality Cont	10/11/2022 5:36	101122_gly	1.00	Glyphosate1	9.44e+004	50.0	2.45e+005	46.8	93.7
35	BCJ0307-BS1	Quality Cont	10/11/2022 5:36	101122_gly	1.00	AMPA	2.02e+005	100.	2.45e+005	91.6	91.6
36	BCJ0307-BS1	Quality Cont	10/11/2022 5:36	101122_gly	1.00	AMPA1	7.38e+004	100.	2.45e+005	95.3	95.3
37	BCJ0307-MS1	Quality Cont	10/11/2022 5:43	101122_gly	1.00	Glyphosate	5.37e+004	50.0	4.40e+004	53.4	107.
38	BCJ0307-MS1	Quality Cont	10/11/2022 5:43	101122_gly	1.00	Glyphosate1	1.83e+004	50.0	4.40e+004	50.6	101.
39	BCJ0307-MS1	Quality Cont	10/11/2022 5:43	101122_gly	1.00	AMPA	4.85e+004	100.	4.40e+004	126.	126.
40	BCJ0307-MS1	Quality Cont	10/11/2022 5:43	101122_gly	1.00	AMPA1	1.48e+004	100.	4.40e+004	107.	107.
41	BCJ0307-MSD1	Quality Cont	10/11/2022 5:50	101122_gly	1.00	Glyphosate	4.78e+004	50.0	4.75e+004	43.7	87.4
42	BCJ0307-MSD1	Quality Cont	10/11/2022 5:50	101122_gly	1.00	Glyphosate1	1.73e+004	50.0	4.75e+004	44.2	88.4
43	BCJ0307-MSD1	Quality Cont	10/11/2022 5:50	101122_gly	1.00	AMPA	4.30e+004	100.	4.75e+004	101.	101.
44	BCJ0307-MSD1	Quality Cont	10/11/2022 5:50	101122_gly	1.00	AMPA1	1.61e+004	100.	4.75e+004	109.	109.
45	WCJ0253-14	Unknown	10/11/2022 5:56	101122_gly	1.00	Glyphosate	2.23e+003	N/A	4.53e+004	1.31	N/A
46	WCJ0253-14	Unknown	10/11/2022 5:56	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	4.53e+004	No Peak	N/A
47	WCJ0253-14	Unknown	10/11/2022 5:56	101122_gly	1.00	AMPA	0.00e+000	N/A	4.53e+004	No Peak	N/A
48	WCJ0253-14	Unknown	10/11/2022 5:56	101122_gly	1.00	AMPA1	0.00e+000	N/A	4.53e+004	No Peak	N/A
49	MCI0947-01	Unknown	10/11/2022 6:03	101122_gly	1.00	Glyphosate	0.00e+000	N/A	1.84e+005	No Peak	N/A
50	MCI0947-01	Unknown	10/11/2022 6:03	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	1.84e+005	No Peak	N/A
51	MCI0947-01	Unknown	10/11/2022 6:03	101122_gly	1.00	AMPA	0.00e+000	N/A	1.84e+005	No Peak	N/A
52	MCI0947-01	Unknown	10/11/2022 6:03	101122_gly	1.00	AMPA1	0.00e+000	N/A	1.84e+005	No Peak	N/A
53	MCI0947-02	Unknown	10/11/2022 6:10	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.21e+005	No Peak	N/A
54	MCI0947-02	Unknown	10/11/2022 6:10	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.21e+005	No Peak	N/A
55	MCI0947-02	Unknown	10/11/2022 6:10	101122_gly	1.00	AMPA	0.00e+000	N/A	2.21e+005	No Peak	N/A
56	MCI0947-02	Unknown	10/11/2022 6:10	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.21e+005	No Peak	N/A
57	MCI0947-05	Unknown	10/11/2022 6:17	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.46e+005	No Peak	N/A
58	MCI0947-05	Unknown	10/11/2022 6:17	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.46e+005	No Peak	N/A
	MCI0947-05	Unknown	10/11/2022 6:17	101122_gly	1.00	AMPA	0.00e+000	N/A	2.46e+005	No Peak	N/A
	MCI0947-05	Unknown	10/11/2022 6:17	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.46e+005	No Peak	N/A



	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
61	MCI0947-06	Unknown	10/11/2022 6:23	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.64e+005	No Peak	N/A
62	MCI0947-06	Unknown	10/11/2022 6:23	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.64e+005	No Peak	N/A
63	MCI0947-06	Unknown	10/11/2022 6:23	101122_gly	1.00	AMPA	0.00e+000	N/A	2.64e+005	No Peak	N/A
64	MCI0947-06	Unknown	10/11/2022 6:23	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.64e+005	No Peak	N/A
65	MCI0947-09	Unknown	10/11/2022 6:30	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.81e+005	No Peak	N/A
66	MCI0947-09	Unknown	10/11/2022 6:30	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.81e+005	No Peak	N/A
67	MCI0947-09	Unknown	10/11/2022 6:30	101122_gly	1.00	AMPA	0.00e+000	N/A	2.81e+005	No Peak	N/A
68	MCI0947-09	Unknown	10/11/2022 6:30	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.81e+005	No Peak	N/A
69	MCI0947-10	Unknown	10/11/2022 6:37	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.71e+005	No Peak	N/A
70	MCI0947-10	Unknown	10/11/2022 6:37	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.71e+005	No Peak	N/A
71	MCI0947-10	Unknown	10/11/2022 6:37	101122_gly	1.00	AMPA	0.00e+000	N/A	2.71e+005	No Peak	N/A
72	MCI0947-10	Unknown	10/11/2022 6:37	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.71e+005	No Peak	N/A
73	MCI0947-11	Unknown	10/11/2022 6:44	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.93e+005	No Peak	N/A
74	MCI0947-11	Unknown	10/11/2022 6:44	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.93e+005	No Peak	N/A
75	MCI0947-11	Unknown	10/11/2022 6:44	101122_gly	1.00	AMPA	0.00e+000	N/A	2.93e+005	No Peak	N/A
76	MCI0947-11	Unknown	10/11/2022 6:44	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.93e+005	No Peak	N/A
77	MCI0947-12	Unknown	10/11/2022 6:51	101122_gly	1.00	Glyphosate	2.89e+003	N/A	2.79e+005	< 0	N/A
78	MCI0947-12	Unknown	10/11/2022 6:51	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.79e+005	No Peak	N/A
79	MCI0947-12	Unknown	10/11/2022 6:51	101122_gly	1.00	AMPA	0.00e+000	N/A	2.79e+005	No Peak	N/A
80	MCI0947-12	Unknown	10/11/2022 6:51	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.79e+005	No Peak	N/A
81	CCV 25/50 ppb	Quality Cont	10/11/2022 6:57	101122_gly	1.00	Glyphosate	1.83e+005	25.0	2.92e+005	26.6	106.
82	CCV 25/50 ppb	Quality Cont	10/11/2022 6:57	101122_gly	1.00	Glyphosate1	6.75e+004	25.0	2.92e+005	27.5	110.
83	CCV 25/50 ppb	Quality Cont	10/11/2022 6:57	101122_gly	1.00	AMPA	1.44e+005	50.0	2.92e+005	52.2	104.
84	CCV 25/50 ppb	Quality Cont	10/11/2022 6:57	101122_gly	1.00	AMPA1	4.93e+004	50.0	2.92e+005	50.3	101.
85	MCH0052-01	Unknown	10/11/2022 7:04	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.66e+005	No Peak	N/A
86	MCH0052-01	Unknown	10/11/2022 7:04	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.66e+005	No Peak	N/A
87	MCH0052-01	Unknown	10/11/2022 7:04	101122_gly	1.00	AMPA	4.09e+003	N/A	2.66e+005	< 0	N/A
88	MCH0052-01	Unknown	10/11/2022 7:04	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.66e+005	No Peak	N/A
	WCJ0253-13	Unknown	10/11/2022 7:11	101122_gly	1.00	Glyphosate	0.00e+000	N/A	1.10e+005	No Peak	N/A
	WCJ0253-13	Unknown	10/11/2022 7:11	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	1.10e+005	No Peak	N/A

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (na/mL)	IS Peak Area (counts)	Calculated Concentration (na/mL)	Accuracy (%)
91	WCJ0253-13	Unknown	10/11/2022 7:11	101122_gly	1.00	AMPA	0.00e+000	N/A	1.10e+005	No Peak	N/A
92	WCJ0253-13	Unknown	10/11/2022 7:11	101122_gly	1.00	AMPA1	0.00e+000	N/A	1.10e+005	No Peak	N/A
93	WCJ0253-15	Unknown	10/11/2022 7:18	101122_gly	1.00	Glyphosate	0.00e+000	N/A	4.43e+004	No Peak	N/A
94	WCJ0253-15	Unknown	10/11/2022 7:18	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	4.43e+004	No Peak	N/A
95	WCJ0253-15	Unknown	10/11/2022 7:18	101122_gly	1.00	AMPA	0.00e+000	N/A	4.43e+004	No Peak	N/A
96	WCJ0253-15	Unknown	10/11/2022 7:18	101122_gly	1.00	AMPA1	0.00e+000	N/A	4.43e+004	No Peak	N/A
97	WCJ0253-16	Unknown	10/11/2022 7:24	101122_gly	1.00	Glyphosate	0.00e+000	N/A	4.76e+004	No Peak	N/A
98	WCJ0253-16	Unknown	10/11/2022 7:24	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	4.76e+004	No Peak	N/A
99	WCJ0253-16	Unknown	10/11/2022 7:24	101122_gly	1.00	AMPA	0.00e+000	N/A	4.76e+004	No Peak	N/A
100	WCJ0253-16	Unknown	10/11/2022 7:24	101122_gly	1.00	AMPA1	0.00e+000	N/A	4.76e+004	No Peak	N/A
101	CCV 25/50 ppb	Quality Cont	10/11/2022 7:31	101122_gly	1.00	Glyphosate	1.38e+005	25.0	2.11e+005	27.8	111.
102	CCV 25/50 ppb	Quality Cont	10/11/2022 7:31	101122_gly	1.00	Glyphosate1	4.80e+004	25.0	2.11e+005	27.1	108.
103	CCV 25/50 ppb	Quality Cont	10/11/2022 7:31	101122_gly	1.00	AMPA	1.14e+005	50.0	2.11e+005	58.0	116.
104	CCV 25/50 ppb	Quality Cont	10/11/2022 7:31	101122_gly	1.00	AMPA1	4.24e+004	50.0	2.11e+005	61.1	122.
105	BCJ0309-BLK1	Unknown	10/11/2022 7:38	101122_gly	1.00	Glyphosate	0.00e+000	N/A	2.69e+005	No Peak	N/A
106	BCJ0309-BLK1	Unknown	10/11/2022 7:38	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	2.69e+005	No Peak	N/A
107	BCJ0309-BLK1	Unknown	10/11/2022 7:38	101122_gly	1.00	AMPA	2.94e+003	N/A	2.69e+005	< 0	N/A
108	BCJ0309-BLK1	Unknown	10/11/2022 7:38	101122_gly	1.00	AMPA1	0.00e+000	N/A	2.69e+005	No Peak	N/A
109	BCJ0309-BS1	Quality Cont	10/11/2022 7:45	101122_gly	1.00	Glyphosate	2.92e+005	50.0	2.80e+005	45.4	90.7
110	BCJ0309-BS1	Quality Cont	10/11/2022 7:45	101122_gly	1.00	Glyphosate1	1.07e+005	50.0	2.80e+005	46.3	92.7
111	BCJ0309-BS1	Quality Cont	10/11/2022 7:45	101122_gly	1.00	AMPA	2.37e+005	100.	2.80e+005	94.0	94.0
112	BCJ0309-BS1	Quality Cont	10/11/2022 7:45	101122_gly	1.00	AMPA1	8.23e+004	100.	2.80e+005	92.4	92.4
113	BCJ0309-MS1	Quality Cont	10/11/2022 7:51	101122_gly	1.00	Glyphosate	2.04e+005	50.0	1.93e+005	46.0	92.0
114	BCJ0309-MS1	Quality Cont	10/11/2022 7:51	101122_gly	1.00	Glyphosate1	7.49e+004	50.0	1.93e+005	47.0	94.1
115	BCJ0309-MS1	Quality Cont	10/11/2022 7:51	101122_gly	1.00	AMPA	1.85e+005	100.	1.93e+005	108.	108.
116	BCJ0309-MS1	Quality Cont	10/11/2022 7:51	101122_gly	1.00	AMPA1	6.56e+004	100.	1.93e+005	109.	109.
117	BCJ0309-MSD1	Quality Cont	10/11/2022 7:58	101122_gly	1.00	Glyphosate	1.83e+005	50.0	1.72e+005	46.2	92.4
118	BCJ0309-MSD1	Quality Cont	10/11/2022 7:58	101122_gly	1.00	Glyphosate1	7.00e+004	50.0	1.72e+005	49.4	98.9
	BCJ0309-MSD1	Quality Cont	10/11/2022 7:58	101122_gly	1.00	AMPA	1.79e+005	100.	1.72e+005	118.	118.
	BCJ0309-MSD1	Quality Cont	10/11/2022 7:58	101122_gly	1.00	AMPA1	6.37e+004	100.	1.72e+005	120.	120.

	Sample Name	Sample Type	Acquisition Date	File Name	Dilution Factor	Analyte Peak Name	Analyte Peak Area (counts)	Analyte Concentration (ng/mL)	IS Peak Area (counts)	Calculated Concentration (ng/mL)	Accuracy (%)
121	MCJ0164-01	Unknown	10/11/2022 8:05	101122_gly	1.00	Glyphosate	0.00e+000	N/A	1.68e+005	No Peak	N/A
122	MCJ0164-01	Unknown	10/11/2022 8:05	101122_gly	1.00	Glyphosate1	0.00e+000	N/A	1.68e+005	No Peak	N/A
123	MCJ0164-01	Unknown	10/11/2022 8:05	101122_gly	1.00	AMPA	7.00e+003	N/A	1.68e+005	2.04	N/A
124	MCJ0164-01	Unknown	10/11/2022 8:05	101122_gly	1.00	AMPA1	0.00e+000	N/A	1.68e+005	No Peak	N/A
125	CCV 25/50 ppb	Quality Cont	10/11/2022 8:12	101122_gly	1.00	Glyphosate	1.71e+005	25.0	2.64e+005	27.4	110.
126	CCV 25/50 ppb	Quality Cont	10/11/2022 8:12	101122_gly	1.00	Glyphosate1	6.14e+004	25.0	2.64e+005	27.6	111.
127	CCV 25/50 ppb	Quality Cont	10/11/2022 8:12	101122_gly	1.00	AMPA	1.42e+005	50.0	2.64e+005	57.1	114.
128	CCV 25/50 ppb	Quality Cont	10/11/2022 8:12	101122_gly	1.00	AMPA1	5.26e+004	50.0	2.64e+005	60.3	121.

Sequence Name: T:\Data1\MSD4\SEQUENCES\2022\110822.s

Comment:

Operator: MH

Data Path: T:\DATA1\MSD4\2022\NOV\09CD\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

(X) Full Method

( ) Reprocessing Only

Sequence Barcode Options

(X) On Mismatch, Inject Anyway

( ) On Mismatch, Don't Inject

( ) Barcode Disabled

Line	Sample Name/Misc Info
1) Sample	101 ----- SVOCT1 SYS
2) Sample	102 ----- CARDSIM CD 10 PPM
3) Sample	103 ----- CARDSIM CD 5 PPM
4) Sample	104 ----- CARDSIM CD 2.5 PPM
5) Sample	105 ----- CARDSIM CD 1 PPM
6) Sample	106 ----- CARDSIM CD 0.5 PPM
7) Sample	107 ----- CARDSIM CD 0.1 PPM
8) Sample	108 ----- CARDSIM CD 0.05 PPM
9) Sample	111 ----- CARDSIM <del>BCK0352</del> -BS1
10) Sample	112 ----- CARDSIM <del>BCK0352</del> -BSD1
11) Sample	113 ----- CARDSIM <del>BCK0352</del> -BLK1
12) Sample	114 ----- CARDSIM WCJ0253-13
13) Sample	115 ----- CARDSIM WCJ0253-14
14) Sample	116 ----- CARDSIM WCJ0253-15
15) Sample	117 ----- CARDSIM WCJ0253-16

*inject error (Unit error)*  
*ll*  
*11/16-22*  
*BCJ0361-BS1*  
*BCJ0361-BSD1*  
*BCJ036-BLK1*





QC Checklist for EPA 8270/625.1 - SOCs

Analysis Date: 11.9.22

<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%		Qual OK > 0.99
<input checked="" type="checkbox"/>	RF	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	Cardio
<input checked="" type="checkbox"/>	CCV - 625	80-120% - all reported analytes must pass	Each analysis batch w/o an ICAL	Qual → 2015 > 0.99
<input type="checkbox"/>	MS/MSD or 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: 11/9/22

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	2101009	3/23	1000
CLP Internal Standard	2201012	3/23	2000

### Target Compound Standards

Standard	Reagent ID	Expiration	Concentration (ppm)
Chlorpyrifos	2003215	6/25/23	1000
Metolachlor	2003216	3/5/23	1000
Atrazine	2003218	11/21/24	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> (2200721).

Analyst Initials: \_\_\_\_\_

Date of Preparation: 3/05/22 by MAH

Form CS06.00 – Eff 9 Mar 2015

Page 1 of 1

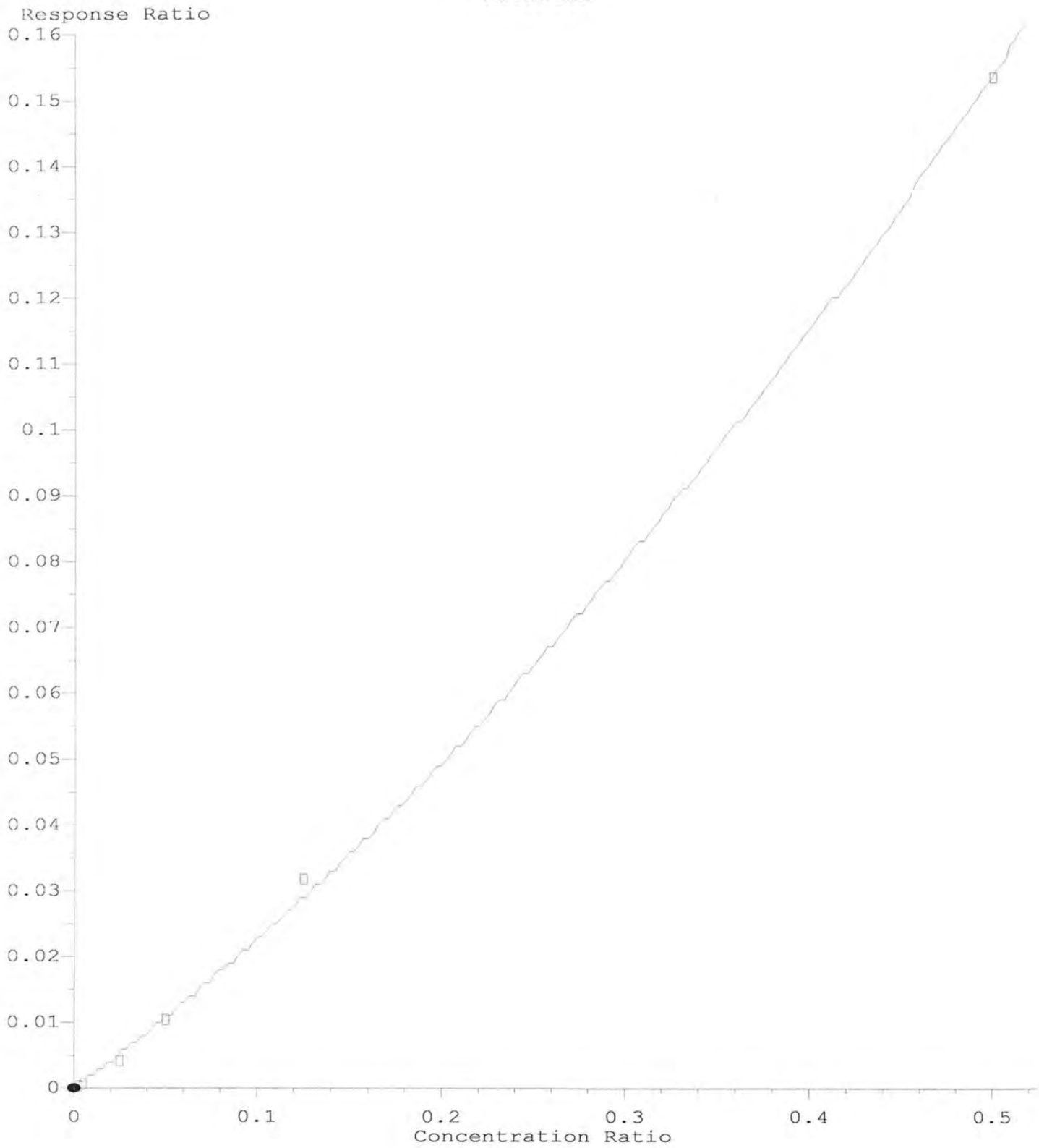
Method Path : E:\Data1\MSD4\METHODS\2022\  
 Method File : Cardno-1109B.M  
 Title : EPA 8270D - GC MSD4  
 Last Update : Mon Nov 14 09:10:49 2022  
 Response Via : Initial Calibration

Calibration Files  
 0.05=10801008.D 10 =10201002.D 2.5 =10301003.D 1 =10501005.D 0.5 =10601006.D 0.1 =10701007.D

Compound	0.05	10	2.5	1	0.5	0.1	Avg	%RSD
1) I Dichlorobenzene-d5								
2) S 2-Fluorobiphenyl	1.464	1.411	1.409	1.381	1.512	1.478	1.442	3.47
3) I Acenaphthene-d10								
4) Atrazine	0.127	0.306	0.255	0.209	0.168	0.129	0.199	36.03
5) I Phenanthrene-d10								
6) Metolachlor	0.246	0.637	0.546	0.422	0.341	0.267	0.410	38.10
7) Chlorpyrifos	0.059	0.127	0.114	0.100	0.088	0.067	0.092	28.63
8) I Chrysene-d12								
9) S Terphenyl-d14	1.122	1.148	1.073	0.993	1.238	1.202	1.129	7.84

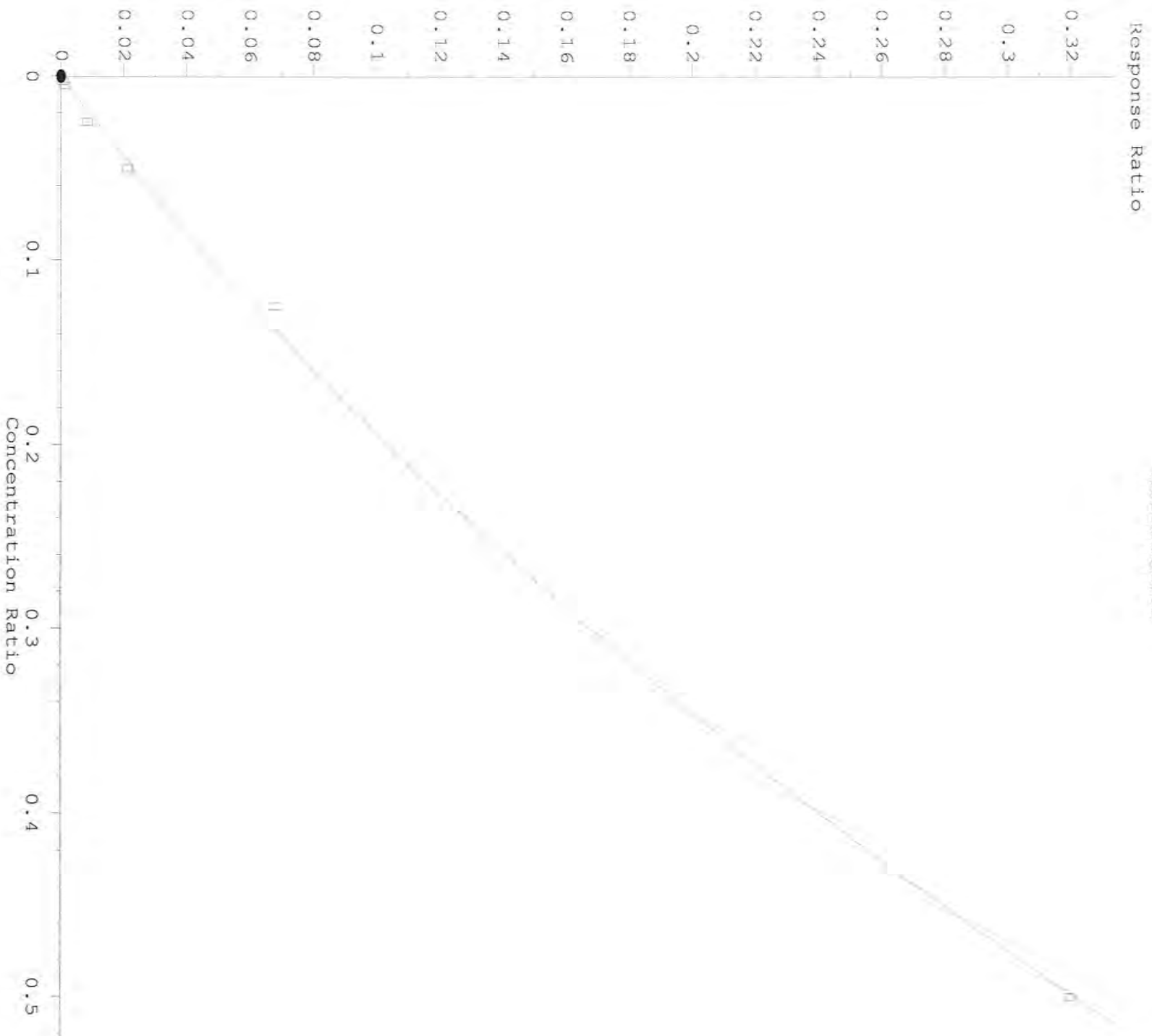
(#) = Out of Range

Atrazine



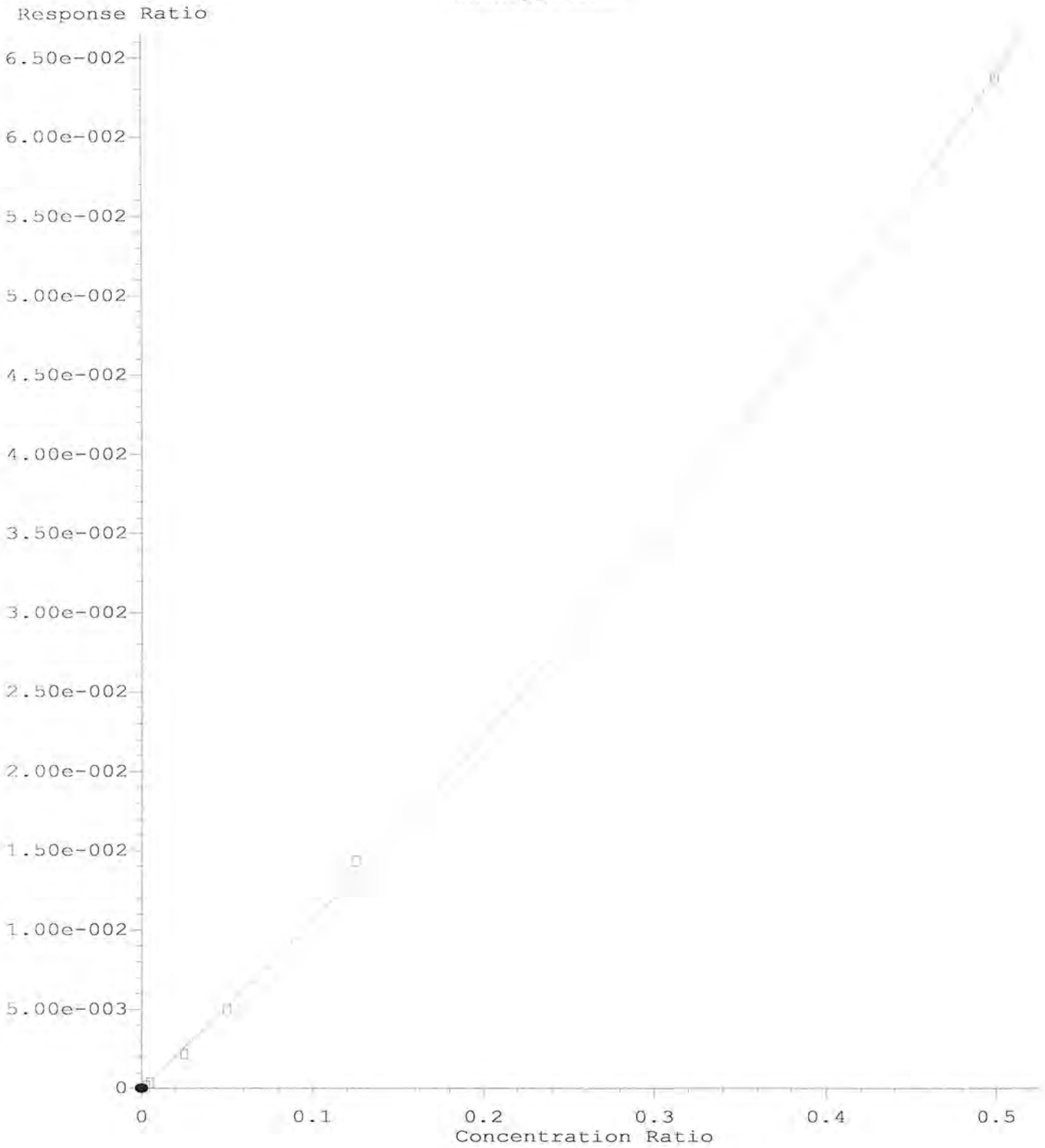
R = 2.00e-001 A\*A + 2.08e-001 A + 0.00e+000  
Coef of Det (r^2) = 0.998 Curve Fit: Quad w(1/a)/(0,0)  
Method Name: T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
Calibration Table Last Updated: Mon Nov 14 09:10:49 2022

Metolachlor



R = 4.05e-001 A\*A + 4.37e-001 A + 0.00e+000  
Coef of Det (r^2) = 0.997 Curve Fit: Quad w(1/a)/(0,0)  
Method Name: T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
Calibration Table Last Updated: Mon Nov 14 09:10:49 2022

Chlorpyrifos



R = 5.44e-002 A\*A + 1.00e-001 A + 0.00e+000  
Coef of Det (r^2) = 0.999 Curve Fit: Quad w(1/a)/(0,0)  
Method Name: T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
Calibration Table Last Updated: Mon Nov 14 09:10:49 2022



# PREPARATION BENCH SHEET

## Organics

BCJ0361

Matrix: Water

Prepared using: SVOC - SVOC Water

**Analyses**

SVOC 625 MISC

**Spiking Solution(s)**

2201385 Cardno Spk 100

**Surrogate Solution(s)**

2201008 CLP Acid Surr 2000  
2202928 CLP B/N 1000

Lab Number	Sample and Source ID	Date Due	Extract by	Prepared - By	Initial (mL)	Final (mL)	ul Spike	ul Surrogate	Extraction Comments
BCJ0361-BLK1	Blank			10/9/22 14:13 MAH	1000	1		25	
BCJ0361-BS1	LCS			10/9/22 14:13 MAH	1000	1	50	25	
BCJ0361-BSD1	LCS Dup			10/9/22 14:13 MAH	1000	1	50	25	
WCJ0253-13	WW-3	10/18/2022	10/10/2022	10/9/22 14:13 MAH	1000	1		25	
WCJ0253-14	E-2	10/18/2022	10/10/2022	10/9/22 14:13 MAH	1000	1		25	
WCJ0253-15	E-1	10/18/2022	10/10/2022	10/9/22 14:13 MAH	1000	1		25	
WCJ0253-16	E-1 DUP	10/18/2022	10/10/2022	10/9/22 14:13 MAH	1000	1		25	

**Reagents**

Standard	Description	LotNum
2000154	Acetone - GC grade	59074
2000155	H2SO4	58115
2200634	Dichloromethane	SHBP1472
2201798	CLP I.S. Spike 2000	042121

Batch Comments:

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

Analyst: 

Date

Run Date: 11-9-22

Date



Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10101001.D  
 Acq On : 9 Nov 2022 4:38 pm  
 Operator : MH  
 Sample : SYS  
 Misc :  
 ALS Vial : 101 Sample Multiplier: 1

Integration File: autoint1.e

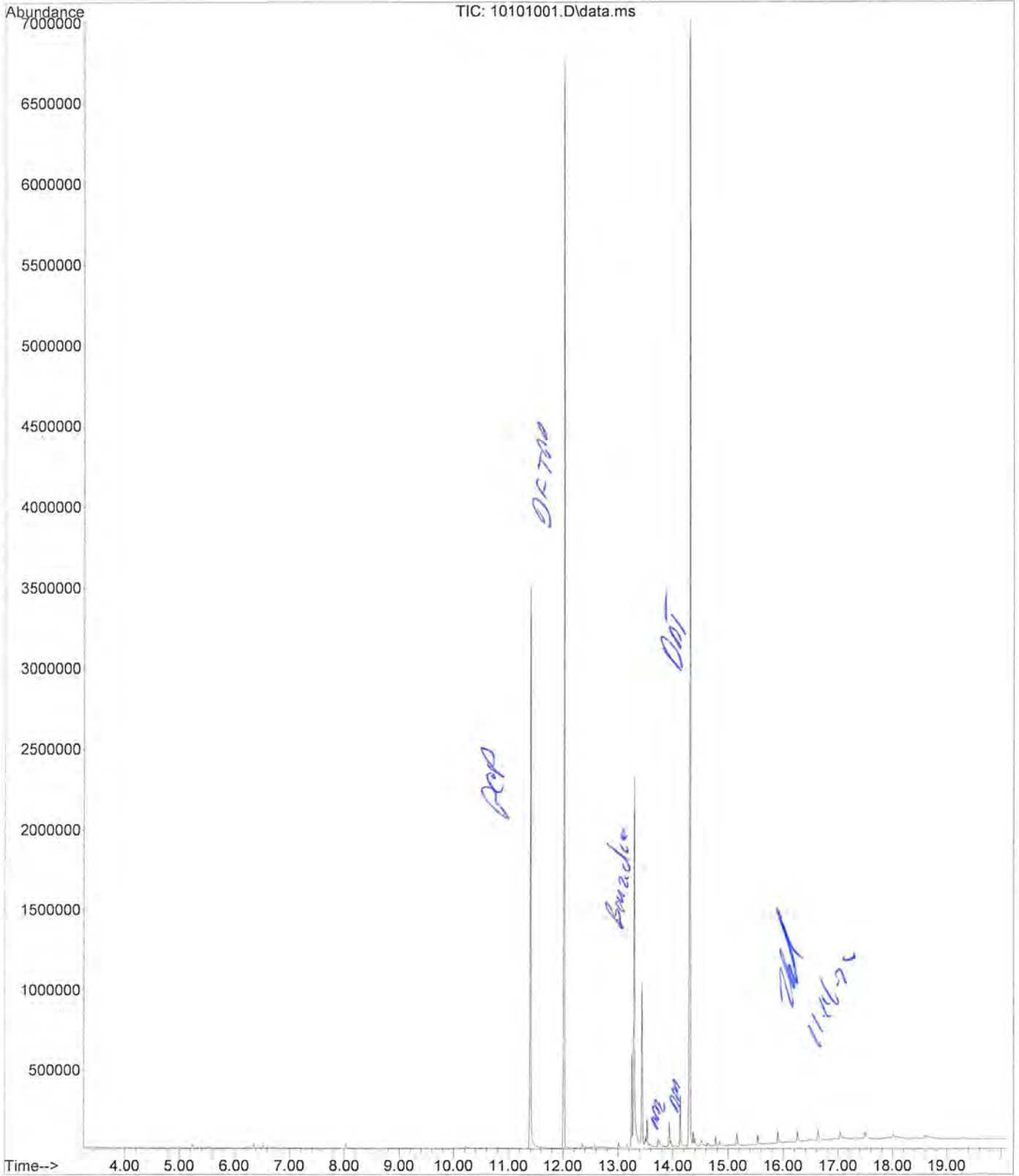
Method : T:\Data1\MSD4\METHODS\2022\BNA-1105.M  
 Title : EPA 8270D / EPA 625.1 - MSD4  
 Last Update : Mon Nov 07 13:38:27 2022

AutoFind: Scans 1903, 1904, 1905; Background Corrected with Scan 1894

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.7	182059	PASS
68	69	0.00	2	1.7	3137	PASS
70	69	0.00	2	0.5	961	PASS
127	198	10	80	48.7	262869	PASS
197	198	0.00	2	0.5	2841	PASS
198	198	100	100	100.0	539861	PASS
199	198	5	9	6.7	36237	PASS
275	198	10	60	31.6	170392	PASS
365	198	1	100	5.3	28651	PASS
441	443	0.01	150	74.7	134528	PASS
442	198	30	200	169.2	913387	PASS
443	442	15	24	19.7	180117	PASS

BNA-1105.M Thu Nov 10 09:14:12 2022

File :T:\Data1\MSD4\2022\NOV\09CD\10101001.D  
Operator : MH  
Acquired : 9 Nov 2022 4:38 pm using AcqMethod SVOCT1.M  
Instrument : MSD4  
Sample Name: SYS  
Misc Info :  
Vial Number: 101



Area Percent Report

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10101001.D  
 Acq On : 9 Nov 2022 4:38 pm  
 Operator : MH  
 Sample : SYS  
 Misc :  
 ALS Vial : 101 Sample Multiplier: 1

Integration Parameters: autoint1.e  
 Integrator: ChemStation

Method : T:\Data1\MSD4\METHODS\2022\BNA-1105.M  
 Title : EPA 8270D / EPA 625.1 - MSD4

Signal : TIC: 10101001.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total	
1	13.588	2239	2244	2250	M2	9577	123571	0.16%	0.159%	DDE
2	13.936	2315	2319	2324	M2	153310	1639546	2.16%	2.107%	DDD
3	14.301	2387	2399	2409	M2	7230185	76058320	100.00%	97.734%	DDT %BREAKDOWN

Sum of corrected areas: 77821436

BNA-1105.M Thu Nov 10 09:19:45 2022

<b>Internal Standard ICal Average Responses</b>	110922_cardno (method)
---	---------------------------

	1,4 Dichlorobenzene-d4	Naphthalene-d8	Acenaphthene-d10	Phenanthrene-d10	Chrysene-d12	Perylene-d12
0.05	37926671.5		49511382.26	67418645.74	35702144.77	
10	38290872.62		48916403	66757007.06	35873187.53	
2.5	39682567.97		49562186.05	67396598.68	39468684.87	
1	41013773.45		52418349.75	74657136.03	47054048.09	
0.5	34950413.88		45869129.24	61468970.35	29385035.02	
0.1	37441300.88		47745630.92	62403311.97	31107689.08	
<b>Average</b>	38217600	#DIV/0!	49003847	66683612	36431798	#DIV/0!

50%	19108800	#DIV/0!	24501923	33341806	18215899	#DIV/0!
150%	57326400	#DIV/0!	73505770	100025417	54647697	#DIV/0!

Analyst: MAH

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10201002.D  
 Acq On : 9 Nov 2022 5:05 pm  
 Operator : MH  
 Sample : CD 10 PPM  
 Misc :  
 ALS Vial : 102 Sample Multiplier: 1

Quant Time: Nov 10 09:51:52 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	6.212	150	38293574	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.814	164	48918502	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.625	188	66794837	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.852	240	35928117	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	9.007	172	67533216	24.45	ug/mL	0.00
9) Terphenyl-d14	13.597	244	51464673	25.37	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	101.48%
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	11.311	200	7527312	10.00	ug/mL	97
6) Metolachlor	12.494	162	21247542	9.96	ug/mL	99
7) Chlorpyrifos	12.503	197	4232087	9.97	ug/mL	99

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10301003.D  
 Acq On : 9 Nov 2022 5:32 pm  
 Operator : MH  
 Sample : CD 2.5 PPM  
 Misc :  
 ALS Vial : 103 Sample Multiplier: 1

Quant Time: Nov 10 09:52:45 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	6.212	150	39682568	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.814	164	49562186	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.625	188	67396599	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.852	240	39468685	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	9.008	172	69873781	24.41	ug/mL	0.00
9) Terphenyl-d14	13.597	244	52923677	23.75	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	95.00%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	11.309	200	1576802	2.71	ug/mL	97
6) Metolachlor	12.493	162	4597496	2.77	ug/mL	97
7) Chlorpyrifos	12.503	197	964579	2.67	ug/mL	94

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10501005.D  
 Acq On : 9 Nov 2022 6:28 pm  
 Operator : MH  
 Sample : CD 1 PPM  
 Misc :  
 ALS Vial : 105 Sample Multiplier: 1

Quant Time: Nov 10 09:53:32 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	6.214	150	41013773	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.814	164	52418350	20.00	ug/mL #	0.00
5) Phenanthrene-d10	11.626	188	74657136	20.00	ug/mL #	0.00
8) Chrysene-d12	14.853	240	47054048	20.00	ug/mL #	0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	9.008	172	70787013	23.93	ug/mL	0.00
9) Terphenyl-d14	13.597	244	58419598	21.99	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	87.96%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	11.311	200	546566	0.96	ug/mL	97
6) Metolachlor	12.494	162	1576529	0.93	ug/mL	98
7) Chlorpyrifos	12.503	197	372333	0.97	ug/mL	95

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10601006.D  
 Acq On : 9 Nov 2022 6:56 pm  
 Operator : MH  
 Sample : CD 0.5 PPM  
 Misc :  
 ALS Vial : 106 Sample Multiplier: 1

Quant Time: Nov 10 09:54:59 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.213	150	34950414	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.814	164	45869129	20.00	ug/mL #	0.00
5) Phenanthrene-d10	11.625	188	61468970	20.00	ug/mL #	0.00
8) Chrysene-d12	14.852	240	29385035	20.00	ug/mL #	0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	66060710	26.21	ug/mL	0.00
9) Terphenyl-d14	13.597	244	45490034	27.42	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	109.68%	
Target Compounds						
4) Atrazine	11.307	200	201718m	0.42	ug/mL	Qvalue
6) Metolachlor	12.488	162	552000m	0.40	ug/mL	
7) Chlorpyrifos	12.503	197	135027	0.43	ug/mL	98

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



Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10701007.D  
 Acq On : 9 Nov 2022 7:25 pm  
 Operator : MH  
 Sample : CD 0.1 PPM  
 Misc :  
 ALS Vial : 107 Sample Multiplier: 1

Quant Time: Nov 10 09:56:01 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
-----						
Internal Standards						
1) Dichlorobenzene-d5	6.213	150	37441301	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.814	164	47745631	20.00	ug/mL #	0.00
5) Phenanthrene-d10	11.626	188	62403312	20.00	ug/mL #	0.00
8) Chrysene-d12	14.852	240	31107689	20.00	ug/mL #	0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	69166346	25.61	ug/mL	0.00
9) Terphenyl-d14	13.597	244	46719908	26.60	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	106.40%
Target Compounds						
4) Atrazine	11.316	200	34104m	0.07	ug/mL	Qvalue
6) Metolachlor	12.488	162	89788m	0.07	ug/mL	
7) Chlorpyrifos	12.498	197	21567m	0.07	ug/mL	
-----						

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 10801008.D  
 Acq On : 9 Nov 2022 7:54 pm  
 Operator : MH  
 Sample : CD 0.05 PPM  
 Misc :  
 ALS Vial : 108 Sample Multiplier: 1

Quant Time: Nov 10 09:57:15 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.213	150	37926671	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.815	164	49511382	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.626	188	68105358	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.852	240	35702145	20.00	ug/mL	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	69428624	25.38	ug/mL	0.00
9) Terphenyl-d14	13.597	244	50082591	24.84	ug/mL	0.00
Spiked Amount	25.000		Recovery	=	99.36%	
Target Compounds						
4) Atrazine	11.316	200	16287m	0.03	ug/mL	Qvalue
6) Metolachlor	12.497	162	42917m	0.03	ug/mL	
7) Chlorpyrifos	12.497	197	10202m	0.03	ug/mL	

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11101009.D  
 Acq On : 9 Nov 2022 8:24 pm  
 Operator : MH *Jozel*  
 Sample : BCK0352-BSI  
 Misc :  
 ALS Vial : 111 Sample Multiplier: 1

Quant Time: Nov 10 09:57:56 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	6.215	150	33211307	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.815	164	42712767	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.625	188	60857712	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.852	240	30945875	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	9.008	172	58226203	24.31	ug/mL	0.00
9) Terphenyl-d14	13.596	244	32999654	18.89	ug/mL	0.00
Spiked Amount	25.000			Recovery =	75.56%	
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	11.310	200	3047075	5.45	ug/mL	97
6) Metolachlor	12.494	162	8800743	5.31	ug/mL	100
7) Chlorpyrifos	12.503	197	1821974	5.24	ug/mL	98

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11201010.D  
 Acq On : 9 Nov 2022 8:53 pm  
 Operator : MHJ0361  
 Sample : BCK0352-BSD1  
 Misc :  
 ALS Vial : 112 Sample Multiplier: 1

Quant Time: Nov 10 09:58:50 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Dichlorobenzene-d5	6.214	150	27172984	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.815	164	33942857	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.625	188	50894541	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.852	240	27945954	20.00	ug/mL	# 0.00
<b>System Monitoring Compounds</b>						
2) 2-Fluorobiphenyl	9.008	172	51740370	26.40	ug/mL	0.00
9) Terphenyl-d14	13.597	244	30026990	19.03	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	76.12%
<b>Target Compounds</b>						
						Qvalue
4) Atrazine	11.310	200	2491765	5.58	ug/mL	96
6) Metolachlor	12.494	162	7190572	5.21	ug/mL	99
7) Chlorpyrifos	12.502	197	1526761	5.25	ug/mL	99

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11301011.D  
 Acq On : 9 Nov 2022 9:22 pm  
 Operator : MH~~30361~~  
 Sample : BCK~~0352~~-BLK1  
 Misc :  
 ALS Vial : 113 Sample Multiplier: 1

Quant Time: Nov 10 09:59:37 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.214	150	30974473	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.814	164	38280279	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.626	188	54511462	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.852	240	28661629	20.00	ug/mL	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	53518152	23.96	ug/mL	0.00
9) Terphenyl-d14	13.596	244	31208457	19.28	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	77.12%

Target Compounds Qvalue

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11401012.D  
 Acq On : 9 Nov 2022 9:52 pm  
 Operator : MH  
 Sample : WCJ0253-13  
 Misc :  
 ALS Vial : 114 Sample Multiplier: 1

Quant Time: Nov 10 10:00:28 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.215	150	37367913	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.816	164	51559408	20.00	ug/mL #	0.00
5) Phenanthrene-d10	11.628	188	76797944	20.00	ug/mL #	0.00
8) Chrysene-d12	14.853	240	47987987	20.00	ug/mL #	0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.009	172	67477611	25.04	ug/mL	0.00
9) Terphenyl-d14	13.597	244	46565459	17.18	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	68.72%

Target Compounds Qvalue

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11501013.D  
 Acq On : 9 Nov 2022 10:22 pm  
 Operator : MH  
 Sample : WCJ0253-14  
 Misc :  
 ALS Vial : 115 Sample Multiplier: 1

Quant Time: Nov 10 10:02:49 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.215	150	43831739	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.815	164	63276813	20.00	ug/mL	# 0.00
5) Phenanthrene-d10	11.628	188	97727445	20.00	ug/mL	# 0.00
8) Chrysene-d12	14.856	240	60494118	20.00	ug/mL	# 0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	70036940	22.15	ug/mL	0.00
9) Terphenyl-d14	13.597	244	51486076	15.07	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	60.28%

Target Compounds Qvalue

---

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

Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11601014.D  
 Acq On : 9 Nov 2022 10:52 pm  
 Operator : MH  
 Sample : WCJ0253-15  
 Misc :  
 ALS Vial : 116 Sample Multiplier: 1

Quant Time: Nov 10 10:04:32 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.215	150	36573517	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.815	164	50253169	20.00	ug/mL #	0.00
5) Phenanthrene-d10	11.627	188	74218361	20.00	ug/mL #	0.00
8) Chrysene-d12	14.853	240	46313799	20.00	ug/mL #	0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	64517273	24.46	ug/mL	0.00
9) Terphenyl-d14	13.597	244	43721633	16.72	ug/mL	0.00
Spiked Amount	25.000			Recovery =	66.88%	

Target Compounds Qvalue

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



Data Path : T:\Data1\MSD4\2022\NOV\09CD\  
 Data File : 11701015.D  
 Acq On : 9 Nov 2022 11:22 pm  
 Operator : MH  
 Sample : WCJ0253-16  
 Misc :  
 ALS Vial : 117 Sample Multiplier: 1

Quant Time: Nov 10 10:05:52 2022  
 Quant Method : T:\Data1\MSD4\METHODS\2022\Cardno-1109B.M  
 Quant Title : EPA 8270D - GC MSD4  
 QLast Update : Thu Nov 10 09:46:00 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Dichlorobenzene-d5	6.215	150	37542389	20.00	ug/mL	0.00
3) Acenaphthene-d10	9.816	164	52476677	20.00	ug/mL #	0.00
5) Phenanthrene-d10	11.627	188	77115061	20.00	ug/mL #	0.00
8) Chrysene-d12	14.853	240	46641486	20.00	ug/mL #	0.00
System Monitoring Compounds						
2) 2-Fluorobiphenyl	9.008	172	62339373	23.02	ug/mL	0.00
9) Terphenyl-d14	13.596	244	44867454	17.04	ug/mL	0.00
Spiked Amount	25.000			Recovery	=	68.16%

Target Compounds Qvalue

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